

ROMAN KNOSSOS: THE POTTERY IN CONTEXT

A presentation of ceramic evidence provided by the *Knossos 2000 Project* (1993-95)

By

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ABSTRACT

Although remains at Knossos have been reported to some extent throughout its history, archaeological research into the Roman city has traditionally been overshadowed by the exploration of the well-known 'Minoan' Bronze Age palace and its immediate surroundings.

The *Knossos 2000 Project*, jointly established by the University of Birmingham and the British School at Athens, has provided the opportunity for the systematic investigation of an area in close proximity to the Roman forum, incorporating the partial excavation of a number of substantial buildings, both public and private.

The large quantities of pottery recovered from a range of stratified deposits have enabled this specific study, designed to complement existing works which are, on the whole, dedicated to earlier periods.

The objectives from the outset were to provide the chronological framework for the *Knossos 2000* excavations, to concentrate on an investigation of the latest Roman pottery (to-date poorly represented by excavations carried out in areas away from the main foci of Roman activity) and, where possible, to present an extension to the existing ceramic sequence in order to help facilitate a better understanding of Knossos and its economic history during the Roman and Early Byzantine periods.

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GLOSSARY

- ‘Assemblage’*** Usually taken to refer to larger pottery groupings, as with contexts sharing close stratigraphic associations, pottery from discrete phases of a site or even the entire stratified pottery from a site.
- ‘Appliqués’*** Clay decorations applied to a vessel, consisting of figures, leaves or similar motifs, made in small moulds and stuck onto the vessel prior to firing.
- ‘Barbotine’*** A decoration produced by piping, trailing or pressing on by hand, soft clay on to the surface of unfired pots in exactly the same manner as used today for decorating iced cakes. Simple lines, blobs or scrolls were easily executed in this way, but more skilled potters were also able to depict animals, plants and more complex figures with this technique.
- ‘Colour-coat/Paint’*** *Decorations, commonly red-brown, provided by partially coating, or painting, coloured slips onto the contrasting surfaces of the pot.*

'Double-dipping streak'

A visible band formed on a vessels surface where the applications of slip to either side of it overlap, producing a thicker coating, often appearing darker, in a stripe across the diameter.

'Fabric'

A term used to describe the clay of a finished vessel, including texture, colour and nature of both paste and surface.

'Glaze/Lead Glaze'

A decoration consisting of a vitrified, glassy surface, produced by a fusion of silica with a modifier (used to lower the melting point of the silica). Lead glazes are those formed primarily from a mixture of lead silicate glass and additional colouring agents in the form of metal oxides (commonly green from copper as 'cupric oxide' and brown from iron as 'ferric oxide'). Applied to the vessel prior to firing either by dusting onto the vessel or by suspending the lead salt powder in water and painting directly onto the surface. In some early publications, the term 'glaze' is used to describe 'glossy' surfaces provided by good quality slips (see below).

<i>‘Gloss’</i>	A description of the decorative surface provided by a good quality slip, fired to give a hard, lustrous, ‘glossy’ finish (as found on <i>terra sigillata</i> vessels). The term has been used to replace the term ‘glaze’ used misleadingly in some early publications for this particular surface finish (see above for specific use of the term ‘glaze’).
<i>‘Gouging’</i>	A decoration formed by impressing with a blunt implement on the exterior of a vessel whilst the clay is still damp, sometimes heavy enough to create slight ridges visible on the interior surface.
<i>‘Group’</i>	A vague term used simply to describe the pottery from a particular excavated context.
<i>‘Paste’</i>	The prepared clay from which vessels are made. In the finished product the term is often used to describe the body of the vessel, as distinct from the outer surface.
<i>‘Planta pedis’</i>	Term used to describe ‘foot-shaped’ potters stamps, commonly found on various classes of <i>terra sigillata</i> (see below).
<i>‘Rough-cast’</i>	Term used to describe surface treatments, produced by the scattering or brushing of fine grits on to the pottery vessel, providing an alternative decorative finish.

‘Rouletting’

A term used for the process, and decoration produced, when a cylinder-shaped roller with an incised pattern, (or a ‘toothed-wheel’) is rolled over the surface of a vessel while it is ‘leather hard’. Alternatively, the term can refer to the process where a vibrating blade is held up against the surface of a pot while it is turned on the wheel.

‘Samian’

A word used by ‘modern’ scholars to describe some *terra sigillata* (see below) but not to be confused with a description of any known wares produced at Samos. *Samia* simply meaning, ‘fine pottery’, and originally used in that sense by writers during the 3rd-2nd centuries BC. This misleading term, initially used in early pottery publications, has now been made familiar through long usage in reference to various fine-wares of the Roman period (in particular, those produced in Gaul and parts of Asia Minor); a situation now clarified by the usage of more satisfactory terminology.

‘Slip’

A coating of thinned clay applied in liquid or near liquid state to the surface of a vessel by dipping in the suspension prior to firing (often producing a relatively dull surface finish).

‘Terra Sigillata’

A modern term (used since the end of the eighteenth century), referring to both plain and relief decorated red-gloss table-wares.

'Type'

Vessels are said to be of the same type if they are identical in all significant features, and not merely similar in general appearance. Modern usage concentrates on the detail of the vessel form, which facilitates comparison of different production centres.

'Ware'

A term used in two senses: vessels from the same production centre (e.g. Çandarlı Ware) or vessels having the same basic characteristics in technique (e.g. Lead-Glazed Ware).

LIST OF ABBREVIATIONS

General

E/M/L	Early/Mid/Late
ER	'Early Roman' (c. Mid 1 st Century BC – 1 st Century AD)
MR	'Mid Roman' (c. 2 nd – 3 rd centuries AD)
LR	'Late Roman' (c. 4 th -6 th centuries AD)

Wares

ARSW	African Red Slip Ware
Cypriot Sig.	Cypriot Sigillata
ESA/EsigA	Eastern Sigillata A
ESB/EsigB	Eastern Sigillata B
Italian Sig.	Italian Sigillata
Pontic Sig.	Pontic Sigillata

Pottery Type Series (Chapter 4) and Bibliographical References

Agora V	Robinson H.S. 1959 <i>Pottery of the Roman Period: Chronology</i> , Athenian Agora Vol. V. Princeton.
Antioch	Waagé F.O. 1948 Hellenistic and Roman tableware of north Syria, in <i>Antioch on the Orontes</i> , IV, Part 1: <i>Ceramics and Islamic coins</i> , 1-60. Princeton
BAR	British Archaeological Reports
BSA	Annual of the British School at Athens

BSA Suppl. Vol.	British School at Athens Supplementary Volume
CIL	<i>Corpus inscriptionum latinarum</i> I-XVI. Berlin 1863-1975.
Benghazi	Riley J.A. 1979 'The coarse pottery from Benghazi', in Lloyd J. (ed.) <i>Excavations at Sidi Krebish, Benghazi (Berenice)</i> , Vol II. (Supplements to Libya Antiqua), Tripoli, 91-467.
Callender	Callender M.H. 1965 <i>Roman Amphorae</i> . London.
Carthage	Fulford M.G. & Peacock D. P. S. (eds) 1984 <i>The Avenue du President Habib Bourgiba, Salamambo: the pottery and other ceramic objects from the site. Excavations at Carthage: The British Mission I, 2</i> . Sheffield.
Conspectus	Ettliger E. (et al). 1990 <i>Conspectus formarum terrae sigillatae italico modo confectae (materialen zur römisch-germanischen Keramik 10)</i> . Frankfurt and Bonn.
Corinth XVIII	Slane K.W. 1990 <i>The Sanctuary of Demeter and Kore: The Roman Pottery and Lamps, Corinth Vol. XVIII.2</i> . Princeton, New Jersey.
Cosa	Marabini Moeus M.T. 1973 <i>The Roman Thin-walled Pottery from Cosa</i> (Memoirs of the American Academy in Rome XXXII). Rome.
EAA	Hayes J.W. 1986 'Typologies of eastern sigillata wares' in <i>Atlante della Forme Ceramiche II. Ceramica Fine Romana Nel Bacino Mediterraneo</i> , supplementary volume of the <i>Enciclopedia dell' Arte Antica, Classica e Orientale</i> , 1-96. Rome
Hayes	Hayes J.W. 1972 <i>Late Roman Pottery</i> . London.
ICret.	Gaurdicci M. <i>Inscriptiones creticae</i> I-IV. Rome 1939-50
JRA	Journal of Roman Archaeology

JRS	Journal of Roman Studies
Kenrick	Kenrick P.M. 1985 'The Fine Pottery' in <i>Excavations at Sidi Khrebish Benghazi (Berenice)</i> . Vol III. I. Tripoli.
K2K	Knossos 2000
KMF	Hayes J.W. 2001 'Early Christian pottery from Knossos: the 1978-1981 finds from the Knossos Medical Faculty site' in BSA 96, 431-454.
Marangou-Lerat	Marangou-Lerat A. 1995 <i>Le Vin et le Amphores de Crète: de L'époque Classique à L'époque Impériale</i> . Études Crétoises 30. École Francaise D'Athènes.
Ostia	Carandini A. & Panella C. (eds) 1973 <i>Le Terme del Nuotatore, Scavo degli ambiente III, VI, VII, Scavo dell'ambiente V e di un saggio nell'area SO</i> . Ostia III, Studi Miscellanei 21. Rome.
Peacock	Peacock D.P.S. & Williams D.F. 1986 <i>Amphorae and the Roman Economy</i> . London & New York.
Samaria	Crawfoot J.W. (et al.) 1957 The Objects from Samaria. <i>Samaria-Sebaste iii</i> . London
UMII	Sackett L.H. 1992 <i>Knossos: from Greek City to Roman Colony, Excavations at the Unexplored Mansion II</i> . BSA Sup. Vol. 21
VillaD	Hayes J.W. 1983 'The Villa Dionysos Excavations, Knossos: the Pottery' in BSA 78, 97-169.
Zeest	Zeest I.B. 1960 <i>Keramicheskaya Tara Bospora (Materiali I Issled. Po Arkheol. SSSR, LXXXIII)</i> .

CHAPTER 1: INTRODUCTION

1.1 Roman Knossos: Historical background

The island of Crete's geographical location placed it well within what formed the central 'core' of the Roman Empire at the time of its inclusion. Located some distance away from any volatile frontier and with nothing in the way of internal strife recorded, this particular area of the eastern Mediterranean experienced an almost unique period of peace which endured from the end of the civil wars in the first century BC up to the end of the seventh century, when the island (by then a single province in its own right) became more and more exposed and increasingly threatened as part of a fragile 'frontier' with the Arab world. One consequence of this relative 'quiet' on the political stage is that the island has attracted little interest from historians for much of the period we are concerned with.

However, Roman interest in Cretan affairs does have a long history, traceable to well before the actual invasion and the subsequent incorporation of the island as part of the Empire (Table 1.1). As early as 195BC peace terms offered to Nabis of Sparta included the divestment of his Cretan interests (Sanders 1982, 3) and numerous other interventions, culminating in Lucullus' visit of 85BC, were carried out in order to 'mediate' to Rome's satisfaction in a number of conflicts between the island's major city state rivals.

Ultimately however, Roman intervention was to escalate to the point of military invasion, the pretext being that during what we now term the *Third Mithridatic War*, Crete was perceived as responsible for providing aid to Mithridates and guilty of piracy (Livy, XCVII). The first attempt by Rome to address this, led by the *praetor* M. Antonius in 71BC, ended in a humiliating defeat of the Roman fleet by the Cretan forces under the command of Lasthenes (himself a Knossian). In the shadow of this engagement, an embassy was sent to Rome in an attempt to persuade the Senate of

Cretan 'good faith' in the future but the pro-Cretan motion was blocked. The Senate subsequently agreed to put terms to the Cretans which included the handing over of Lasthenes himself, the Cretan fleet (actually all ships of more than four oars) and all Roman prisoners captured during the invasion attempt. Additionally, the paying of a massive indemnity of 4,000 talents was ordered. The enormity of this, approximating to almost half the annual income yielded by all the eastern provinces combined (Plutarch, *Pompey* 45), all but ensured that the terms would be rejected and that future war was inevitable.

Soon after, in 69BC, a substantial Roman force including some three legions, landed and hostilities resumed. By 67BC, following a long and brutal campaign further exacerbated by political rivalry among the Roman commanders, the conquest of Crete was finally accomplished and a grateful Senate was able to bestow the title of *Creticus* on Metellus, the triumphant consul. Lasthenes' house and property was singled out for burning when Knossos was successfully taken (Appian, *Sicelica* (frag.) 6.5) and Crete was incorporated within the joint province of Crete and Cyrene with Gortyn as capital (Fig. 1.1). The city of Gortyn chosen, in part as reward to the city for its active assistance or benevolent neutrality whilst its major rivals were being crushed, and also, perhaps fortuitously, due to its beneficial location on the central route across the island and close proximity to the natural harbour at Matala (well suited to the maintenance of good communications with the Cyrene half of the province, a trip, according to Strabo, of two days and nights to the port of Apollonia (Strabo, X. 4.5)).

Since little is known from the province as a whole until the period of Rome's civil wars it is assumed that the city of Knossos reverted fairly quickly back to relative peace and prosperity, albeit with some reduction to the amount of territory under its control (Strabo, X. 4.7). Nothing in the archaeological record to date suggests widespread violent disruption and the fact that historian Appian highlighted the destruction of the property of Lasthenes may suggest that this was, to some extent at least, exceptional (Appian, *Sicelica* (frag.) 6.5).

What little historical information we do get from the time of the civil wars relates to the long-standing tradition of Crete's supply of mercenaries to various contemporary

powers, including Rome. Caesar successfully utilised Cretan archers during his Gallic campaigns (most likely mercenaries and not *auxilia*) and is known to have summoned forces of this type to aid him whilst in Egypt. Similarly, Pompey is said to have raised archers from the island along with part of a legion (in the case of the legionaries, drawn from the large number of veterans already settled on the island and not the 'Cretan' populace) and to obtain supplies of corn (Caesar, *Gallic War* 11.7; *Civil War* III.4.1; *Alexandrian War* 1.1). During this time, nothing in the way of disturbance in Crete itself is known, with the only possible sign being a coin-hoard from Hieraptyna from c.46 BC (Sanders 1982, 5; Raven 1938, 133).

Following Caesar's death the status of Crete appears an anomaly until the settlement made after Octavian's victory at Actium in 31BC. Despite being declared 'free' by Antony in 43BC the island remained within his eastern sphere of influence and thus 'Roman' control of a sort continued, albeit in an unorthodox form. Antony himself is said to have gifted territory in Crete to Cleopatra (the location of the land is not clear but Itanos on the eastern coast is a possibility and is known to have held a Ptolemaic garrison (Cassius Dio XLIX.32.5; Sanders 1982, 5)).

Likewise, Octavian also promised territory in Crete as compensation to Capua after purchasing land from the city in order to placate potentially mutinous soldiers in Sicily whose support he needed for the campaign against Antony (the land promised only available to Octavian on winning the war). The settlement, presumably made some time after the victory at Actium, gave Knossian territory from an area south of the city to Capua, land that provided a substantial income of some 1,200,000 *sestertii* each year (Cassius Dio, XLIX. 14.5).

Thus, although the island of Crete was, on the whole, little affected by the period of the civil wars, the implications for Knossos were massive. The city suffered a major upheaval with its territory being severely diminished. It lost a valuable part of its land to Capua and in addition, soon after the war, it had gained the only colony in the province at that time. Although there is some confusion regarding the actual date of the foundation of this colony (*Colonia Julia Nobilis Cnossus*) it must have happened after Actium as Octavian could not have founded it in territory held by Antony. It is most likely to have occurred following the settlement of the provinces early in 27BC,

a suggestion that is supported by numismatic evidence. Coins, thought to be the earliest foundation issues of the *colonia*, include one that names Augustus and depicts a plough with a labyrinth on the reverse. The use of the image of a plough used here to symbolise the act of ‘marking out’ new territorial boundaries and that of the labyrinth a symbolic association with Knossian mythology (Price 1992; Sanders 1982, 14).

From the Augustan period on through the first century, the life of the colony appears to have followed orthodox lines. Those of the magistrates and holders of the various priesthoods who are known to us almost all have Latin names, and several of them seem to have Italian connections. Where names can be tied down the colonists seem to include many south Italians, specifically Campanians. Further evidence for strong links between Campania and Crete during this time is attested through first century inscriptions and links with the *colonia* can be seen in the honorary dedication at Herculaneum to *M. Nonius Balbus*, proconsul and patron of Crete (CIL.X.1433; ICret. IV 295, 314; Paton 1994, 143; Sanders 1982, 14-15). Whether these links can be interpreted as evidence that the original colonists settled at Knossos were from Campania or whether they simply reflect a more general regional pattern is not yet clear.

Administration under the Augustan scheme, with Crete and Cyrene as one of the Senatorial provinces governed by a *proconsul* of praetorian rank continued up until the Diocletian reforms of AD295-7 when Crete was separated from Cyrene and made into a single province under an equestrian *praeses*. Further reforms under Constantine upgraded the province to that of senatorial under a *consularis* within the Diocese of Macedonia.

This system of government, highlighted above, appears to have lasted essentially up into the seventh century. By the middle of that century Crete’s position in the Empire had changed from being securely central to a position on the frontier with an increasingly influential Arab world. Up until that point Crete had suffered only very slightly in the upheavals of the third century onwards. Several raids are known to have taken place (Gothic - AD268, Vandal - AD457 and Slavic attacks - AD612/623) but it was not until the Arabs had established themselves in Africa that the island was

under serious threat. Little detail is recorded of actual raids with the exception of one major one in AD674 when the main Arab fleet wintered on the island. This period of insecurity continued and was followed by subsequent raids during the eighth century and culminated in the fall of the island in AD827-8 (Miles 1964, Sanders 1982, 9).

With the limited information we have from historical sources, highlighted above, it becomes immediately apparent that the bulk of what we know about Roman Crete and specifically, for the purpose of this study, Roman Knossos, comes to us from what limited accounts remain of a small number of travellers' descriptions, ranging in date from the 15th to 19th centuries (such as Buondelmonte (c.1415), Belli (1582-96), Pococke (1745), Pashley (1837) and Falkener (1854) discussed below (Chapter 1.2)) and from the existing archaeological record that has developed since. However, we are fortunate in that Knossos has drawn travellers throughout its history and in the last century there can be few sites in the region that have attracted such a level of continued interest from archaeologists.

1.2 Knossos: Archaeological background

Today, Knossos is well known to both archaeologists and visitors alike, principally due to its status as a major Bronze Age site, and as a focus for what we now term 'Minoan' studies. However, interest in the site has been maintained throughout its long history (albeit to widely ranging degrees), partially due to its well-known mythical heritage and, in part, due to the substantial visible remains (of various periods) which were known to some extent in antiquity as in the modern era.

For instance, in the first century, the Elder Pliny vividly described a Cretan 'labyrinth', which he believed to be 'by no means fictitious, as might be supposed' at a time when ruins of what we term the Minoan Palace may well have been visible, in part at least, on the southern edge of the town of Knossos (Pliny, *Natural History* XXXVI.19.85). Numerous other pieces of evidence suggest a strong Roman interest in Knossian mythology. An interest attested in a diverse range of forms, from the extreme enthusiasm of the emperor Galba (who displayed in his hall a family tree demonstrating his descent from Pasiphae, the wife of King Minos (Suetonius, *Caesar*

XXXIX.2), to the artistic writings of Catullus and Ovid (who include works on the Minotaur, Theseus and Ariadne), through to more mundane items, manufactured in the Knossos area, such as ceramic roof tiles or loom-weights which proudly depict labyrinth imagery (Sackett 1992, Plates 222, 330, 335). The use of such images, as symbolic of the city, is clearly represented further in coinage of the Hellenistic period through to what are thought to be the earliest Roman ‘foundation’ issues during the reign of Augustus (Sackett 1992, 323-328; Plates 275-6). All clearly demonstrating a continuation of long-standing associations with the city’s mythological past (Plate 1).

Similarly, numerous interested travellers in the time since have produced a series of accounts which provide us with the earliest descriptions of Roman remains in the area of the Knossos valley. Though not technically what we would nowadays term archaeologists, their reports remain a particularly useful starting point since much of what they describe is no longer visible or has subsequently been completely destroyed.

In the 16th century major buildings of Roman date were recorded by Belli (1582-96) who produced many drawings of standing remains at the time, the surviving examples of which, published by Falkener during the 19th century, supplying us with the best existing records of some of the town’s largest civic amenities such as the theatre and basilica (Falkener 1854). Unfortunately, the brief description of ‘the foundations of a theatre, or other building of great size’ is further confused by a footnote that adds, ‘it is impossible to say what the building is, but it resembles a circus more than a theatre’. Other more recent descriptions did choose to refer to the building as a theatre (Mariani 1895, Wolters 1900) though the definitive function of this structure, now cut by the modern Knossos – Heraklion road, remains unclear. Observations made in recent years, when the most durable white concrete foundations were still visible when partially exposed ‘in-section’ due to road side works, do little more than confirm the location of the site referred to in the earlier accounts and thus fail to illustrate its size or orientation with any kind of clarity (personal observations - Paton 1993, Malamithou & Forster 1996).

Today, little remains of the town’s civic basilica, as much of its stone was robbed during the 1880’s for the building of a large Turkish barracks in Heraklion (noted by

Halbherr 1893). All that is now visible are a few fragments of its barrel-vaults and so, as with the theatre, the main source for this building is Belli's plan (reproduced by Sanders 1982, 68) together with the results of some limited trial excavations carried out in 1937 (Radford, unpublished). The basilica itself was a vast structure consisting of a large hall, over one hundred metres long, ending in an apse with an elaborate fore-building flanked by peristyle courtyards, perhaps surrounding fountains. The date of its construction remains unclear, with the only existing cursory report of the trial excavations suggesting, without any clarification, a 2nd/3rd century date. Alternatively, Sanders argues for a late 1st century date on stylistic grounds and that of epigraphic evidence for an imperial dedication to the *colonia*, possibly for the 'new basilica' (Sanders 1982, 69).

Further early records (ranging in date from the Middle-Ages when the Florentine priest, Buondelmonte, was first shown the site through to the 19th century) describe the so-called *Tomb of Caiaphas* (Buondelmonte c.1415, Pococke 1745 and Pashley 1837). This great concrete built mausoleum, thought to be of 4th/5th century date, was destroyed during road building works completed in about 1880 (Hood & Smyth 1981, 38, no.57; Paton 1994, 149; Sanders 1982, 152).

However, although these brief accounts identify some major sites and supply us with exceptionally useful insights with regard to evidence for buildings now all but lost to the archaeological record, thankfully they do not provide our only source of background information for the understanding of Knossos' past. Towards the end of the 19th century a number of archaeological surveys were carried out in Crete and more specifically, within the Knossos valley itself (Halbherr, Evans). Although these were not 'surveys' in the modern systematic sense of the word, they did manage to successfully pave the way for the major excavations of the 20th century, the sites which are now familiar and continue to provide a focus for much of today's research.

Fortunately, for our purposes, a comprehensive catalogue of finds made in the Knossos area has been compiled (Hood & Smyth 1981). Incorporated are the comments of early travellers, remains still visible above the surface, soundings or trials of archaeologists as well as the principal excavation sites of the 20th century. These records are supplemented by the many 'chance discoveries' made in more

recent years. The bulk of which, reported since the development of mechanised agriculture, (in particular, deep ploughing) and following rescue works, mostly carried out by the Greek archaeological authorities due to intensive building that has transformed the northern part of the survey area into a suburb of the encroaching city of Heraklion (Hood & Smyth 1981, 1). The *Knossos survey*, now in its second edition, includes some 370 find-spots or sites, discovered in the years up to 1978 (although most remain virtually unexplored, over 120 incorporate evidence from the Roman period).

As we have seen, this ‘survey’ as it stands is an amalgamation of data from a wide range of sources and is not a single systematic study of any kind. However, there can be few other areas, particularly in the region, that have attracted so much archaeological attention over such a long period of time and it therefore provides us with an invaluable resource for our interpretation of Knossos’ past history. The survey area itself incorporates some 10 square kilometres and covers the central area of Knossos as well as much of the outlying periphery, including the cemeteries of all periods (Fig. 1.2; Hood & Smyth 1981, 22).

Although there are no convincing traces of any defensive wall defining the city’s limits, the existing archaeological record suggests that it occupied an area of approximately a square kilometre, located between the Bronze Age palace site and the original bed of the stream in the gully just south of the *Venizeleion*. The city extended over the flatter areas of the valley bottom and the lower slopes of the Acropolis to the west and was limited to the east by the steeply sloping hills and the *Kairatos* stream (Fig. 1.5). A brief analysis of the distribution of known finds clearly shows the relative density of settlement or general occupation traces clustered within this central area, whilst known tombs, graves and burials occupy the surrounding areas beyond the city limits, concentrated within three main cemeteries to the north, south and south-west (Fig. 1.3-1.4; Hood & Smyth 1981, 24-6). The large numbers of graves and tombs assignable to the Roman period range from poor tile-graves to monumental built tombs, some built above ground like the now vanished *Tomb of Caiaphas* (discussed earlier) and others including vaults below (e.g. Hood & Smyth 1981, 24 no’s 62, 72, 78). However, the most obvious tombs from the period are the numerous rock-cut tombs comprising a square chamber with side niches for multiple burials. An

extensive cemetery of this type remains visible in the rocky outcrops of the hillsides to the south and south-west (Hood & Smyth 1981, 24, no's 154-8, 361).

In addition to having some indication of the general extent of the city due to the compilation of finds provided by the survey, we are also fortunate in that a number of published reports of major excavations have provided substantial accounts of Roman remains. Although traditionally the emphasis for archaeological investigations carried out at Knossos has been to increase our understanding of the Bronze Age, the vast amount of work that this inspired has provided a wealth of information for other periods. The Roman period is no exception and excavations on a relatively large scale have been completed in areas where predominantly Roman archaeological remains have provided much of the focus of attention. Unfortunately, since the urban centre of the Roman city was sited slightly to the north of that of the Bronze Age, the bulk of the work to-date has been carried out away from where we would expect to find the city's public monuments and information about its formal planning and civic life. However, the major excavations summarised below have succeeded in providing us with a much-improved picture of Roman Knossos. The evidence, albeit random in nature and often from the outskirts of the town, includes a vast amount of well-stratified material, ideal for providing the starting point for a study of the type presented here.

1.3 Summary of principal excavations, visible remains and find-spots (Fig. 1.5)

This brief review does not attempt to replicate the large amount of information provided by the survey in its entirety. The selected sites or find-spots have been chosen in order to provide suitable points of reference for later comments. In doing so it is hoped that the excavation reports most relevant to this study (which cannot here be discussed in full) have been sufficiently highlighted so as to give some idea of the wide range of contexts from which we have been able to draw our information relating to Knossos during the Roman period.

Theatre & Civil Basilica (Fig. 1.5, D6). Large-scale constructions built at the heart of Roman Knossos, discussed above (Hood & Smyth 1981, 23, 42, no.110 & 112)

Stoa (Fig. 1.5, E5). This feature comprises a long stretch of a Roman concrete wall located to the northeast of the town centre. Occasionally, in the past it has been misinterpreted as part of a defensive circuit but is now thought more likely to make up part of the retaining wall of a large *stoa*. Crop marks indicating a row of what are interpreted as square pillar bases with a probable wall beyond them have been noted on the north side of the surviving wall which would perhaps reinforce this idea, though to-date no archaeological investigations have been carried out in this area (Hood & Smyth 1981, 23, no.86).

Roman aqueduct. This impressive monument, supplying the city with water from the south, has not been subject to any single study but many stretches of it are still visible or have been recorded, some of which, considerable in size. Although the date for this construction has not been closely pinpointed, a date sometime during the middle of the 2nd century AD is suggested by the fact that traces of the aqueducts course overlies tombs that were out of use by this time (Hood & Smyth 1981, no. 168). The relatively late date for this construction implies that the people of Knossos waited some time for this desirable amenity, and possibly therefore, for those such as large-scale public baths, that are likely to have depended upon it. The number of earlier wells and cisterns found in all the residential parts of the city, including the Villa Dionysos situated close to the monumental centre (which had two wells of its own) may reflect this situation (Hood & Smyth 1981, 23-4, no.318, 346-53; Paton 1994, 152).

Early Roman Wells (Fig. 1.5, E6/D7/D5). This collection of three wells (excavated between 1951-61), has provided finds ranging in date from the 1st century BC to the middle of the 1st century AD. *Well 1* is located in the southern part of the town (E6) and was dug to a depth of over 14m. Finds, dated as a homogeneous group to the end of the first century BC, made up most of the deposit. *Well 2*, known as ‘*Manoli’s Well*’, was excavated in the southwest of the town (D7) to a depth of almost 24m. Two distinct periods were distinguished among the finds, one of mid 1st century date, the other of the late first century BC. The third well, *Well 3* was sited in the far northern part of the city (D5) and was uncovered during rescue operations connected with the building of the present sanatorium. Only partial records of this shallow and irregular feature survive (even its exact location is not clear) but it is thought that it

was excavated to a maximum depth of something over 5m. The accumulation of finds appear to belong to a group of mid 1st century date (Hayes 1971, 249-275; Hood & Smyth 1981, 51, no.214-5; 47, no.181; 41, no.88 respectively).

Apollinaris mosaic (Fig. 1.5, D5). This find was made in the northern half of the city during work carried out when making diversions to the stream (1951). Unfortunately the context, other than to suggest it provided a floor for a Roman house, was not recorded. The border is composed of an inhabited scroll, with neatly triangular leaves, and a wave scroll, forming the square for an octagonal design with eight panels containing Tritons which radiate out from a central octagon framing Poseidon in his chariot drawn by Hippocamps. The latter design is in blue and brown *tesserae* while the rest of the mosaic is in black and white. The lozenges and triangles left by the octagon within the overall square are filled with geometric patterns. Below the figure of Poseidon is the Greek signature ‘Απολλίναρις’ that gives the mosaic its name. Variousy dated late 1st to early 2nd century AD (Hood & Smyth 1981, 41 no.91; Sanders 1982, 53; Sweetman 2003, 527-8).

Villa Dionysos (Fig. 1.5, D6). Located just over half a kilometre north-west of the Palace site and very near to what is thought to have been the western limit of the Roman forum, the excavated area consists of a series of large rooms with exceptionally fine mosaics arranged around three sides of a peristyle courtyard. First excavated in 1935 it appears to have formed part of a luxuriously decorated urban villa, the full extent of which is not known, and is thought to have been destroyed towards the end of the second century (most likely due to an earthquake). Although what is described as ‘squatter’ occupation in the years following the destruction is thought to have continued in part of the site for up to fifty years or so, later activity does not seem to have occurred until the latter part of the fourth and early fifth century AD. This latest period of limited occupation is represented by building phases comprising of relatively minor walls and associated drains together with episodes of stone robbing (Hayes 1982; Hood & Smyth 1981, no.114; Paton 1998, 123-8).

Unexplored Mansion (Fig. 1.5, D6). Located in the southern part of the town, where the quality of the houses seems to drop in comparison to the better-decorated

examples north and west of what is thought to be the central forum area. The excavations above the so-called *Unexplored Mansion* (carried out in order to ‘clear the ground for the excavation of a major Minoan building’) revealed rather crowded houses bordering streets that were first established in the Geometric period. The first period of Roman construction is Augustan though little has survived later rebuilding, especially north of the street that divided the site roughly in two. In this area the rooms were quite small and did not represent a house of any great standing, built as they were of mud-brick or ‘rubble’ construction. These buildings were finally destroyed in the mid or third quarter of the 1st Century AD. In the 2nd Century AD more substantial houses were erected north of the street and in the southeast part of the site. Much of the latter had long since been removed under the directorship of Sir Arthur Evans during attempts to uncover the Minoan building that initiated work in this area, but one room survived beyond the limit of his excavations complete with frescoes depicting a panel design of large diamonds set above a band imitating marble slabs. This room was damaged in the 2nd Century AD but was rebuilt, finally going out of use in the 3rd Century (‘House of the Diamond Frescoes’ - Sackett 1992, 37-46). North of the street a more complex house was erected, consisting of a series of rooms grouped around a courtyard. This too was damaged in the 2nd Century AD and rebuilt in its final form (with a central column in the main yard) dating to the early 3rd Century AD. The whole area was abandoned soon after this however and no 4th Century AD or later structures were found (Hood & Smyth 1981, no.186, Sackett 1992; Sanders 1982, 152).

Stratigraphical Museum excavations (Fig. 1.5, D6). Located just to the west of the ‘Unexplored Mansion’, work in this area uncovered evidence, to varying degrees, for occupation throughout the Roman period from the early colonial period of the first century through to Late Roman times (including some limited traces of activity during the 4th and 5th century). Much of what was discovered included domestic architecture, contemporary to and of a similar quality, to that found during the major excavations located nearby, discussed above (Warren 1988, 86-104).

Sanctuary of Demeter (Fig. 1.5, E7). Excavated between 1957-60 this sanctuary proved to have been a cult centre as early as the 8th century BC. Religious practice, incorporating the deposition of votive offerings, appears to have ended sometime

around the middle of the second century AD. During the Roman period activity was concentrated around a series of well-defined ovens in close proximity to the sanctuary, apparently sited in the open air and providing a busy focus for festivities (Coldstream 1973; Hood & Smyth 1981, 56, no.286).

Chamber Tomb (Fig. 1.5, D7). This tomb, of the most typical type of rock-cut tomb known from Knossos, was excavated in 1978 in the cemetery area to the southwest of the city, where numerous similar examples are known. The tomb itself, of later first century date, consisted of a central chamber leading to three separate *loculi* with stone couches and niches for grave goods. Although the roof was much collapsed, the remains of four individuals (including a child) and numerous artefacts were preserved in-situ (Carrington Smith 1982, 255-293; Hood & Smyth 1981, 46, no.168).

Basilica Church A (Fig. 1.5, C5). This Early Christian basilica church was excavated on the medical faculty site (1978-81) and appears to have been established early in the 5th century. Associated pottery finds suggest general abandonment sometime after c. AD 525-550. Several early Christian tombs and over twenty ossuaries (or *osteothekai*) were also found in the area around the church, and there was a large cistern below the courtyard on the west side of it. The whole building complex was surrounded by an enclosure wall and may have been a mortuary church (Hayes 2001, 431-454; Hood & Smyth 1981, 26, no.64).

Basilica Church B (Fig. 1.5, D5). An Early Christian basilica church built over Roman graves. Constructed in the early 6th century (dated by mosaic styles, architectural parallels and pottery remains from tombs filled prior to building) and likely destroyed or collapsed about a century later (based on numismatic evidence dating to AD 612-3 found under fallen masonry (Frend & Johnston 1962, 186-238; Hood & Smyth 1981, 26, no.74; Sanders 1982, 105-7)).

Basilica Church C (Fig. 1.5, E6). A further Early Christian basilica church is thought to have been located on the site of *Ayia Sophia* church in Makritikhos village. In 1957 the foundations of a large apse were visible adjoining the existing one, but subsequent enlargement of the modern building has now concealed any sign of its predecessor (Hood & Smyth 1981, 26, no.235; Sanders 1982, 105).

What is immediately confirmed when reviewing the available archaeological record, is that although we have a wealth of information from a range of contexts, much of it comes to us almost as a random product of research focussed in areas of the valley that are not necessarily the most relevant to understanding the changes in the town during the Roman period. The bulk of the large-scale excavation works (with the notable exception of the *Villa Dionysos*), hugely valuable though they are, have been carried out away from the city's centre or beyond its limits in the various areas containing the cemeteries and, from the later period, the basilica churches. Closer to the centre, where we would expect to find the main public monuments of the Roman period, the numerous remains have attracted very little real attention, many of which still partially visible above the surface. Some of these have been investigated to some extent with minor trials, though until recently, little in the way of systematic archaeological investigation has taken place.

From the outset, the establishment of the research programme known at the time as the *Knossos 2000 Project* was intended to help redress this imbalance, by initiating an investigation centred in an area of Knossos, close in proximity to what formed the city's centre during the Roman period. Carried out jointly by the University of Birmingham and the British School at Athens (directed by Dr. K.A. & D. Wardle) the project's study area lay in the fields between the *Villa Ariadne* and the *Villa Dionysos*, which lie immediately to the west of the limits of what is thought to be the central *forum* (Fig. 1.5, D6). The principal aims of the excavation were to include an examination of the Roman city plan and the initial exploration of a mix of public and private buildings, whilst further developing an understanding of the stratigraphic sequence for this part of the site.

As a result of two seasons of geophysical work directed by C. A. Shell and R. E. Jones (University of Cambridge and Fitch Laboratory at the British School at Athens respectively), in cooperation with S. Papamarinopolos (Patras University), a number of distinct 'features' were located within the *Knossos 2000* study area (Fig. 1.5-1.6; French 1992, 59-60; 1993, 68). In order to assess these anomalies, archaeological excavations were begun during 1993, with further works carried out in 1995.

The thesis presented here is concerned with the presentation and analysis of the pottery that makes up much of the material evidence for the interpretation of the site. The relatively large quantities recovered from a range of stratified deposits (ranging in date from the 'Middle Minoan' period contemporary with the first palace at Knossos, c.2000 BC, to the Roman and early Byzantine period) have enabled this specific study of the pottery from the Roman period, designed to complement existing works which, on the whole, are more dedicated to earlier periods.

The intention is to concentrate on an investigation of the latest Roman pottery which, to-date, remains poorly represented by excavations carried out in areas away from the main foci of Roman activity. The objective, in addition to providing a chronological framework for the *Knossos 2000* excavations, is to supplement, and where possible extend, the existing ceramic sequence provided by the principal reports highlighted above (notably that provided by the *Early Roman Wells*, the *Villa Dionysos* and the *Unexplored Mansion* (Hayes 1971 & 1983; Sackett 1992). In doing so, it is hoped that the study can help facilitate a better understanding of Knossos and its economic history during the Roman and Early Byzantine periods.

CHAPTER 2: METHODOLOGY

2.1 Background and Attitudes

General Pitt-Rivers once said that the most important archaeological finds were the common ones, a precept which has since been accepted and taught by many archaeologists (Peacock 1982, 1). Despite this general acceptance, pottery still has a tendency to inspire a lack of interest amongst many who see it as serving the functions of slowing down the ‘real’ business of digging, filling up stores and providing an archaeological ‘black-hole’ for post-excavation resources, or merely an unavoidable chore to be dealt with in a minimal fashion once it has provided the immediate dating evidence thought to be most significant at the time. This, together with the fact that the study of pottery has been developed historically within the framework of ‘art history’, and more importantly due to the overwhelming quantities involved in all but the most selective studies, there has developed a preoccupation with the more unusual or decorative wares that make up only a small part of most assemblages. This emphasis has further influenced the study of Roman pottery in particular since within this traditional framework, the views of classical scholars in relation to the relative merits of Greek and Roman culture, which has permeated most branches of classical archaeology, including pottery studies greatly devalues the study of the most common Roman artefacts. This attitude, presented in the following quote, may at first glance appear dated yet similar sentiments are still largely prevalent today.

Roman vases are far inferior in nearly all respect to Greek; the shapes are less artistic, and the decoration, though not without merits of its own, bears the same relation to that of Greek vases that all Roman art does to Greek art (Walters 1905, 430).

Though this passage was written over a century ago, the view still regularly resurfaces in modern popular publications (e.g. see McNiel 1990, ‘Encyclopaedia of the History of Technology’). The commonly held attitude, in almost all aspects

of technology, is that the Romans were the inferior 'practical' users of Greek superior 'invention', which does little to encourage the study of even the finer decorative Roman table wares, not to mention the most abundant pottery used for a whole range of 'mundane' functions by the bulk of the population at the time.

Pottery, whether we like it or not, is the commonest class of artefact found on sites of Roman date. Precisely because it was so common, it received little or no significant comment from contemporary writers; so virtually everything known about it is therefore derived from on-going archaeological research.

Because it is made of fired clay, pottery has a very high survival rate, surviving indefinitely even in soil conditions which can, for example, badly corrode metal. Fortunately for archaeologists, ceramic artefacts combine this exceptional durability with high fragility. They were easily broken and the resulting fragments were simply thrown away since, in most cases, they could not be usefully recycled, unlike pieces of metal or glass. This advantage has a negative side however. The very abundance of pottery from most excavations of Roman date, though providing a particularly useful means of understanding some aspects of the society that created it, proves extraordinarily difficult to study and publish adequately.

These problems are exacerbated even more by the sheer quantity of material from excavations around the Mediterranean relative to those, say, in the northern provinces. It therefore comes as no surprise that there are great variations in the degree of attention that Roman pottery has received from archaeologists working in different areas. In Britain and Germany, for example, the study of well-dated contexts from military installations has provided a long history of detailed research devoted to the whole range of wares, from 'luxury' table-vessels to humble cooking pots. In contrast, many excavators working at sites on the Mediterranean littoral have only in relatively recent years begun to keep the more common pot-sherds, let alone study or publish them (though in fairness the balance has been increasingly redressed).

As has been mentioned the quantities involved provide innumerable problems for the satisfactory study of Roman pottery. A comparison of excavations carried out in different parts of the Empire, where levels of ceramic use differed widely, highlights the additional problems faced by workers in the Mediterranean 'core-zone' of the Roman Empire.

The detailed study from an excavation of over 3,700 square metres of the shore fort at Portchester in southern England produced some 350kg of late Roman wares (Fulford 1975). If we compare this with a similarly sized excavation in an urban centre within the Mediterranean coastal fringe, for example that carried out at Carthage, we find something like 10,000kg (some 10 tonnes) of pottery being produced. Similarly, excavations at Benghazi in modern-day Libya, provided the same amount of pottery as at Portchester from the excavation of a single cistern (Riley 1981). These figures suggest that although cost effective processing is problematic for archaeologists in areas that made up the outermost provinces of the Roman Empire, these problems pale into insignificance when compared to those of their counterparts working around the Mediterranean.

Thus, whereas meticulous studies of pottery supported by excavations of sites which could be dated historically (such as the military installations on the German and British frontiers mentioned above) were begun a century ago by pioneers such as Dragendorff (1895-96) and Knorr (1919), studies in the Mediterranean with regard to wares from the Roman period began somewhat later (with the exception of perhaps the most distinctive and decorative vessels).

2.2 Early Work and Developments in the Mediterranean Area

Perhaps the most influential of the early studies in the Mediterranean were those of Waagé in the east (at Athens (1933) and Antioch (1948)) and Lamboglia in the west (Italian *terra sigillata* studies 1941, 1950, 1958 and 1963). However these studies were carried out from a regional viewpoint only and resulted in a confusion which remained unresolved until the survey carried out by Hayes (1972) which attempted to resolve the dichotomy produced by these earlier studies

and provided a foundation which was comparable to those first laid down in the northern provinces some fifty years earlier.

Coarse pottery however, has generally fared less well. With the exception of some amphora studies, little work was carried out until the presentation of the results from excavations at Tarsus (Jones 1950) and the Athenian Agora (Robinson 1959).

A further problem faced by those studying pottery from Mediterranean sites is, that until recently, any systematic examination of the coarse pottery that has taken place has followed an almost exclusively typological and chronological method. Little attention has been paid to the question of origin, for this question proved difficult to discuss intelligently with the state of knowledge at the time.

Thus generally in Roman archaeology there has been a significant bias towards chronological study based on these typological analyses. However in recent decades a number of new aspects have emerged and the emphasis has shifted towards technological and economic studies. Methods of spatial analysis have enabled distributions to be discussed in terms of marketing while scientific methods of fabric analysis have added new dimensions in the discrimination and diagnosis of origins (Peacock 1982, 2). Additionally, these advances have coincided with an increase in the attention paid towards the technology of pottery production through a variety of means including experimental and ethnographic studies. This shift in emphasis in recent years, towards the understanding of social and economic aspects of the Roman Empire, has stimulated a more comprehensive approach to pottery publication. Fortunately nowadays, in the Mediterranean as elsewhere, coarse kitchen-wares are often published alongside amphora, lamps, *terra sigillata* and other fine table-wares. The impact of scientific analysis and statistical study has also been particularly beneficial since no modern excavation report is now fully complete without catalogues of the number of finds in each excavated deposit and fabric descriptions of the wares represented.

Recent examples of such full reports from Mediterranean sites include those provided from Carthage and Benghazi (Fulford & Peacock 1984, Kenrick 1985, Riley 1981) which are of particular benefit, because in contrast to the situation in the northern provinces of the Roman empire, little or no groundwork had been carried out until the 1980's (Greene 1992, 39). These reports are of particular relevance for this study since they deal with material from high quality urban contexts with a broad chronological range and contain much material similar in nature to that from Knossos.

2.3 Recent Approaches to Study

A huge increase in the number of controlled 'rescue' excavations since the 1970's, carried out prior to building developments, has uncovered masses of pottery. This boom has meant that specialists have had to radically review their working methods in order to meet the standards demanded by modern archaeology.

Guidelines followed at Carthage present a method that, in essence, can be described as a necessary modification of what can be called the 'Pitt-Rivers principle' (that being the complete recording and publication of everything), concentrating instead on two specific aspects, namely chronology and trade, both localised and long-distance. That is, owing to significant logistical constraints, the full realisation has been made that the research strategy is specifically 'query based' and thus helps to answer the most pressing problems of the day whilst some questions will not be posed at all (Fulford and Peacock 1984). With this compromise in mind it is clear that, ideally, archaeologists need to be working towards a database of basically similar, comparable information from the whole Roman Empire, with its vast number of known sites, towns or market centres. In order to avoid the situation where each excavation starts at square one it remains important to try and integrate what has gone before into the wider statistical study, whilst still incorporating the adaptations and on-going improvements in presentation and method.

In order to adequately address these questions, a multi-faceted approach is necessary: pots for their own sake, certainly, but also as evidence for a wider

understanding of the people and places in which they were found. The important point with any query based strategy is to ‘ask the right questions’ (in this case, those pertaining to the chronological interpretation of the site and, where possible, the economic history therein).

2.4 Pottery and Chronology

As with any excavation the primary purpose of any pottery study is to help establish the chronology of the site itself and the structures within it. In most cases the provision of this information is dependant on the chronology of established classes of pottery, principally the fine table-ware, with occasional additional information from the few, better known coarse wares. The outcome for anyone concerned with the study of pottery *per se* is that unless a deposit has some other reliable independent dating evidence, little can be gained in terms of improving or refining the chronology of established classes of pottery, upon which the dating of the deposit itself is dependant. However, even in deposits such as this, a valuable contribution can be made with regard to less familiar wares which may here be dated by association in stratified contexts with better-known material. One advantage of the study at Knossos is that due to its geographical location the city provided a market for the import of a wide range of wares from both east and west, perhaps more so than is characteristic of many other sites of the same period, and therefore gives us an opportunity to associate the lesser known material common on the site with material found throughout much of the Mediterranean.

The approach generally accepted for the chronological interpretation of a deposit and its contents is as follows: in most cases the date assigned for any deposit is a ‘terminal’ date, that is, the date of the latest material contained in it and therefore approximating the date at which it ceased to be exposed, or, in the case of superficial levels, to be in the vicinity of occupation or any activity giving rise to archaeological debris. One problem faced, particularly on urban sites with a long period of occupation, such as Knossos, is that it is rarely possible to indicate a span of time during which a single deposit such as a fill or tip accumulated since

after a while the soil contains so much earlier material that it continues to be strongly represented even in deposits with considerably later terminal dates (Kenrick 1985, 4).

Policies with regard to dealing with this ‘residual’ material are varied. The policy adopted here, where Minoan to Hellenistic material is ubiquitously represented in most deposits of Roman or later date, will be discussed below (see *Knossos 2000 processing methodology*).

A second problem to be faced is the case where occasional objects within a relatively closely dated assemblage are found to be markedly later than the rest of the material. In situations like this a choice has to be made between several possibilities. The object(s) may be legitimate and thus compel the adoption of the later date for the deposit as a whole or the object(s) may be rejected as ‘intrusive’. If the second option is made then it must be assumed that there has been some error in the process of excavation, either imprecision in recognising the stratigraphy or some erroneous introduction of objects into bags or boxes in the store during one of the stages of transport, storage and processing.

It is suggested that since ‘intrusive’ sherds are not unknown, the adoption of a method which bases all chronological interpretations on the latest sherd in the assemblage alone, which therefore ignores the general nature of the assemblage as a whole, should be resisted (Orton, Tyers & Vince 1994, 187). However, for this study, as at Sidi Khrebish (Benghazi) the agreed policy was that presumed intrusions should not be suppressed in any report or publication, in order that the reader may be able to judge their significance for themselves (Kenrick 1985, 4). Thus, if any conclusions are to be made by the reader which rely on the presence of particular objects being ‘intrusive’ then a highly cautionary approach is taken, with suitable explanations given as to why the possibility that ‘late’ sherd(s) are legitimate has been dismissed; based on, for example, known problems of stratigraphical interpretation noted at the time of the excavation (for example, where levels proved difficult to distinguish clearly) or due to reasonable probability (in the rare cases when a single sherd of significantly later date is present in an otherwise well-preserved group of closely contemporary vessels).

2.5 Pottery as Evidence for Trade: the Need for Quantification

If questions relating to trade links (localised or long-distance) are to be addressed adequately then some method of quantification is necessary. The end result of many pottery studies, particularly of coarse ware, has been seen in the past as the creation of the type-series and as far as possible, the chronology and provenance of the types within that series. The outcome of which, the provision of distribution maps of type against location (often based on selected pieces only), with little attention paid to the relative quantities involved.

However, the necessary quantification of the pottery from an excavation cannot be attempted until the pottery typology has been fairly well established. Once this has been done, the results can effectively enable pottery, where its source is known, to be related to trade patterns, can help to refine the chronology of a pottery type, and can also provide a surer indication of the frequency of pottery survivals from earlier periods. The quantification process itself involves a determination of the proportion of each type in a given body of pottery (Riley 1981, 99). This formidable, time consuming process, is necessary if the quality of information provided by the study of the pottery uncovered by archaeological excavation is to be fully realised.

A realisation best summed up as: the more quantified information which is on a map or which pertains to spatial patterning the better that map can be discussed and interpreted (Hodder & Orton 1976). The addition of this quantified data allowing for not only the geographical extent of any particular distribution to be discussed, but also the relative quantities represented within that distribution, thus providing an important extra dimension to any interpretations based on it.

2.6 Knossos 2000 Processing Methodology

The current excavations at the city of Knossos, like every Roman site in the Mediterranean, have uncovered large quantities of pottery (approximately 3 tonnes in this case). This volume of material needs an efficient as well as meaningful treatment if the full potential of the information it can provide is to be realised within the practical limitations of post-excavation resource management. The method adopted, in order to make this possible, incorporates a series of recording stages in which material of high information value is identified and dealt with in detail whilst material of low information content is 'put aside' once the limited information it can provide has been recorded.

Archaeological deposits on any urban site of this kind range widely from destruction levels or well fills (of potentially high information content) where most of the pottery and other material is nearly contemporary with the event which caused their deposition, to the more extensive levels of mixed debris (of relatively low information content in most cases) brought about by a series of wide ranging disturbances caused by human activity and through long term natural processes such as 'soil creep' or erosion. Classifying these deposits and thus identifying the ones which will provide us with the most reliable and useful information is the first stage in what is best described as a process of filtration, whereby material of low information content is 'filtered out' once that limited information has been recorded and material of high information content is identified and passed on to the stages of more detailed recording. This process is essential if efficient use is to be made of the available post-excavation resources.

Thus, if we are to avoid what is in practical terms the near impossible task of the complete recording of everything, much of which provides little or no new information of value with regard to the excavation or for pottery studies in general, then some level of 'compromise' is necessary (anything less than the absolute recording of everything is a compromise of sorts). The methodology highlighted below is intended to provide a means by which a record of the pottery uncovered can

be made efficiently, whilst maintaining levels of detail suitable for addressing the relevant questions which will be asked as part of the study as well as those anticipated as most likely to arise at a later date.

Pottery Processing stages (Fig. 2.1)

As discussed above, the processing method carried out with regard to the pottery from the *Knossos 2000* project comprised of a series of stages. The initial stage, carried out whilst the excavation was being carried out involved all the immediate practical necessities of washing/drying, bagging and labelling needed prior to the storage of finds for future study (currently housed in the Knossos Stratigraphical Museum). During this process, under the supervision of S. Paton, D & K.A Wardle, all material was presented for viewing and the presence of any identifiable wares noted and, where possible, preliminary ‘spot-dates’ were passed on to the excavation director, together with any other information that was thought immediately relevant to the excavators at the time. As part of this process, simple printed ‘pro-forma’ sheets were used to record information relating to the general nature of the deposit and the presence of particular wares (Fig. 2.2). Alongside these forms, additional points of note, occasional sketches and thoughts at the time were compiled in hand written notes and arranged according to individual *zembile* or bag numbers.

During this processing stage, a decision was made to ‘throw away’ certain material. This was confined exclusively to material from surface clearances and the upper levels of topsoil in those areas where it proved to be of least archaeological interest. This decision was implemented following the process highlighted above and was not carried out in all areas of the site. Where it was applied, it was decided in some cases that a ‘sample’ and in others that a ‘few features’ of representative material should be kept. It should be noted that this practice was not widespread and did not include any material from what could be termed good archaeological contexts, though obviously no further assessment can be made of the material which was thrown prior to the study presented here, which is itself partially dependant on decisions made during the excavation seasons. On a more positive note, the preliminary stages of processing did provide a number of accurate and important ‘spot-dates’, a wide range of wares were

noted and suitable pointers as to the most significant or best preserved deposits were made, thus providing the starting point for this study.

Since it was necessary to re-view all of the material during the subsequent stages of sorting and recording needed for this study, it was decided that the preliminary recording highlighted above be re-done in a slightly more systematic form with some additional information recorded, and where necessary, corrections or re-appraisals made (with the advantage of a level of hindsight following the completion of the excavation work and subsequent study of the various wares identified in the original work). Thus the stages of processing included:

- a) Preliminary sorting and recording, developing that carried out during the original fieldwork.
- b) Detailed recording of deposits identified as the most stratigraphically significant or best preserved/most complete.

Preliminary Sorting/Recording (Fig. 2.2)

The purpose of this initial stage was to answer the most immediately pressing question, that being to provide the chronological framework for understanding the site. At the same time, it was possible to organise the pottery in a way that would facilitate more detailed stages of recording at a later date and to get some insight into the general scale/nature of the assemblages uncovered during the excavation, and therefore, to assess their suitability for additional study.

The nature of the information recorded was as follows:

Zembile number (No.): Comprised of a five-digit number, one identifying the year of excavation, one the trench/area and three figures denoting a specific location from which the contents of the bag derived and thus the stratigraphical context to which it belonged (with larger contexts often represented by a series of individual ‘zembile numbers’).

Amount: The records produced during the time of the excavation did little more than provide a crude but useful indication as to how much material each zembile/bag contained, in the form of how much ‘table space’ it took up when ‘strewn’ during the first viewing carried out in the Knossos Stratigraphical Museum. Subsequently, as a minimal requirement, it was decided that quantities should be recorded by weight (and later in more detail by fabric types in the later recording stages, see below).

Latest: A spot-date given simply as a terminal-date based on the latest pottery found in the deposit as an approximate guide, often given by period alone but where possible more closely by association with a particular ware or form (see ‘Pottery and Chronology’ above for the significance of this information with regard to dating deposits on the site).

Fate: Highlighting whether the material was either, all kept, or occasionally, whether only part of the material was kept (either as a few ‘features’ or as a ‘sample’ as discussed above) or if in fact the material was thrown with nothing retained for future study (noted as *Kept/FF/Sample/Thrown* respectively). It should be noted that these decisions were made between those directing the excavations and those responsible for the initial processing of the finds at the time (with only material of especially low information content discarded). The study of the material available to the researcher in this report is therefore dependant, in part, on the decisions made during the excavation seasons of 1993 and 1995 and the site records made at that time.

Other: This general information was accompanied by notes relating to the nature of the deposit, such as to what extent the deposit was made up of ‘mixed’ material from various periods and to what extent the pottery showed evidence of being ‘worn’.

Fine wares: Identifiable fine wares and, where possible, individual forms were noted, with the better known imports being represented on the pro-forma alongside a single ‘local’ category marked as present where applicable to speed up the recording process (predicted wares of Roman date on the pro-forma included;

Eastern Sig. A, Eastern Sig. B, Cypriot Sig, Çandarli Ware and African Red Slip wares). At the same time, recognised forms of the individual wares were highlighted together with any identifiable examples of post-Roman date.

Coarse wares: This category, including cooking wares as well as other plain wares and amphorae, was recorded in a similar way as for the fine wares. The presence of these broad functional categories was recorded with known forms where applicable.

Other wares: The presence of any recognisable non-Roman material, highlighting any particular features of note, was recorded by broad categories relating to particular ‘periods’, in most cases pre-Roman simply as either *Minoan*, *Geometric*, *Classical/Hellenistic* and, in the case of post-Roman, as *Med/Modern*. The few notable examples of contexts clearly dated as non-Roman were set aside and dealt with separately and are not included in this study.

Comments: A brief summary description of the context/deposit along with any other sketches or information thought relevant at the time were also added to aid in providing an overall impression of the material contained.

Detailed Sorting/Recording

The second stage of recording included the detailed recording of the material of highest information content. The process itself was broken down into two stages, termed ‘primary’ and ‘secondary’. The first stage was designed in order to ascertain the relative quantities of wares making up each of the major functional categories, the second, in order to record in full each of the ‘featured’ sherds of an assemblage singled out for study (see below).

Primary (Detailed) Recording of Material (Fig. 2.3)

Firstly, all material was sorted into broad, functional categories, basically those common throughout Mediterranean sites of the period, namely fine wares, coarse cooking wares, coarse plain wares and amphorae. In the case of Roman Knossos the

fine wares on the whole consisted of the numerous, standardised red-gloss or red-slipped table wares, known to have been imported from major production centres throughout the Mediterranean which were themselves supplemented by locally produced imitations together with a small number of other distinctive, decorated wares. The coarse ware categories included a wide range of plain wares, cooking wares and amphorae making up the bulk of most deposits due to their very abundance and their relatively large size (of amphorae in particular).

At this stage it was also decided to separate out what was to be termed ‘featured material’ within each of the broad categories highlighted above, with all such material meeting at least one of the criteria listed below:

- They are fine-ware (i.e. all fine-wares to be featured).
- They are a rim, base or handle (RBH).
- They are a body sherd that can be joined with a RBH.
- They possess some distinctive feature which enables their attribution to a type, or which may enable the definition of a type in the future.

The rationale behind this decision being that the amount of ‘featured’ material selected from each assemblage for the detailed later stages of recording should be the minimum that, in the researcher’s judgement, was necessary to represent all the types present in that assemblage, whilst at the same time maximised the representation of each type.

The result being that the pottery was divided up into the following categories:

- Fine-wares (All Featured)
- Coarse cooking wares (Featured)
- Coarse cooking wares (Not-featured)
- Coarse plain wares and amphorae (Featured)
- Coarse plain wares and amphorae (Not-featured)
- Residual other (see below)

This special category ('residual') included all pre-Roman material (fine and coarse), ranging widely in date from Bronze Age/Minoan to Hellenistic, which was found to be almost ubiquitous on the site, including deposits of Roman or later date. As has been noted, in the few examples where actual deposits of exclusively pre Roman date were identified, the finds were 'set-aside' for independent study and are not included in this account.

The quantities represented by each of these distinctive groups were recorded both as a sherd-count and by their overall weight.

Secondary (Detailed) Recording of Featured Material (Fig. 2.4)

Following the process of preliminary sorting the material from each *zembile*/bag was already separated into featured and non-featured categories. Whilst all non-featured sherds were disregarded from this stage on, all featured pottery underwent detailed recording during the secondary processing stage. The purpose of this to provide a complete record of all the featured material in terms of pottery fabric and vessel form in a way which not only provided the necessary information for producing the type-series but in a way which allowed quantitative comparison with other deposits from the site as well as elsewhere.

Again standardised recording sheets, or *pro-formas*, were used in order that the information could be easily transferred for use with suitable data-base software for ease of access and analysis. The information was recorded under the following headings for each featured vessel or sherd within a particular assemblage.

Fabric: Alongside an arbitrary, loosely descriptive name, a code made up of a prefix and a number relating to a detailed, fabric description sheet was recorded (the sheet itself record a wide range of characteristics including *Colour*, *Hardness*, and *Feel*, as well as descriptions of the *Fracture*, *Inclusions*, and *Surface treatments/Decoration* in a standardised way following guidelines derived from earlier work in Britain and abroad and devised for the Department of Urban

Archaeology of the Museum of London (Greene 1979, Orton 1979, Peacock 1977; see Fig. 2.5).

RBH: Recording whether the sherd was either a rim, base or handle fragment. In cases where there was a combination, of say joining rim and handle, then the rim was used for quantification purposes (see later).

Form: The vessel/sherd forms were recorded with a *Name* and *Description* together with a numerical *Form Code*, with a new code assigned to each distinctive vessel type.

Quantification: Including the *number* of sherds (so that in cases where there were a number of similar sherds, they could be grouped together in a single record to speed up the recording process), the *weight* (used for the fine-wares where sherds belonging to each individual fabric group were weighed accordingly), *Diameter* and *%* (used to record the size and the estimated proportion of the vessel represented for rim and base fragments).

Decoration: A record of any characteristic decorative features or surface treatments.

Cross-fits (X-Fit): Used to record the number of any *zembile*/bag which provided joining fragments with the particular pottery vessel or sherd with which this record was associated.

Drawing Number (DWG): A numerical reference to any sketches or detailed drawings made during the recording process.

Comments and Notes: Any other information deemed useful which was not easily attributed to any of the other categories were included as additional notes, though attempts were made to keep these to a minimum as they were judged to provide little in the way of information suitable for data analysis in the future.

Other records

In addition to the recording procedure detailed above a catalogue and archive of drawings was compiled, depicting a comprehensive type series for each of the individual wares represented (Chapter 4). This archive was made up from a combination of the featured examples from the best stratified deposits (presented in Chapter 5) with supplementary examples from the numerous, less well-defined contexts, which often yielded more complete individual examples of particular types. All original illustrations were drawn at scale 1:1 and following regional conventions (common, but not by any means exclusive) it was decided to present pottery with profiles shown on the right for easy comparison with the bulk of other published material from the area (principally, Sackett 1992, which at the time provided the fullest range of pottery assemblages for Roman Knossos).

2.7 Objectives

Chronology

As mentioned, one of the principal purposes of any pottery study is to assist in establishing the chronology of the site and the structures (if any) within it.

Dating evidence supplied by other artefacts, independent of that provided by the pottery does come to light in many excavations and can provide much more accurate dates (most commonly that provided by numismatic evidence). However, in the majority of cases due to the relative scarcity of such finds in comparison to pottery, it is only in rare cases that they provides an alternative terminal date for the deposit. With this in mind, the burden of establishing the chronology of most sites tends traditionally to fall most-fully (if not wholly) on the generally abundant pottery. More specifically, the most studied classes of fine pottery provide the bulk of the chronological framework, with supporting contributions made by lamps and some of the better-known classes of coarse ware (commonly amphorae).

In the case of *Knossos 2000* the preliminary processing (detailed above) provided the chronological guidelines necessary to provide this framework. This information was presented for each excavation area in the form of a standard, colour coded *Harris-matrix* with the aid of *ArchEd* software (compiled through a study of the summary of levels and individual ‘zembile’ recording sheets provided by the site records for each of the trenches, made available at The *University of Birmingham* and the *Knossos Stratigraphical Museum*). More detailed chronology tables, highlighting principal dates, were also added to help clarify the reasoning behind the attribution of particular dates (detailed in Chapter 3).

Quantification and analysis: Published groups of Roman Date from Knossos

Some notable examples of published pottery groups of Roman date have been completed in a form that provides a level of quantification suitable for comparisons with material uncovered as part of other projects already completed or planned for the future.

Principally, excavations at the *Unexplored Mansion* (Sackett 1992) have provided our best understanding to date of the Roman pottery (1st century BC-late 2nd century AD in particular) due to the good stratigraphy of the site and the extensive contents of the best deposits therein. For this report the specific quantitative information provided in the publication consists of the following:

For fine-wares a summary of total counts (and relative frequency in terms of percentage by count) was given for each of the identified wares on the site as a whole. Similarly the relative frequencies for each of the wares present in each of the main deposits was provided as well as an estimated number of vessels represented.

For coarse cooking and plain wares an estimation of numbers of particular vessel types is the only information available (with the exception of ‘Pompeian Red’ and similar wares, for which a total sherd count is known). In addition to the above,

the approximate magnitude of a deposit in terms of its total weight as a whole was recorded.

Additionally, a more comprehensive account exists for the material from the *Villa Dionysos* (Hayes 1983) which was quantified and presented in table form for each of the main deposits (the ‘main destruction deposit’ being of most significance). Quantities for each ware and form were given for fine, coarse cooking and plain wares and were presented in the form of counts and % of total (as a % of total, inclusive and exclusive of amphorae, which were dealt with separately). Unfortunately however, this excavation, though exceptionally useful in providing information for part of the Roman period at Knossos (later 2nd century AD in particular), does not provide the chronological range of deposits in the same way as that of the *Unexplored Mansion*.

Knossos 2000 and quantification

With these accounts in mind, the process of recording detailed earlier in this chapter was carried out in order to provide the following data for each of the excavated deposits:

General nature of the deposit (size and composition)

	% of total in brackets	
	count	weight
Fine wares:	... (..)	... (..)
Featured Coarse cooking wares	... (..)	... (..)
Non-featured Coarse cooking wares	... (..)	... (..)
Featured Coarse plain wares and amphorae	... (..)	... (..)
Non Featured Coarse plain wares and amphorae	... (..)	... (..)
‘Residual’	... (..)	... (..)
<u>Total</u>

For all fine wares within a deposit the following information was provided:

	% of total in brackets	
	count	weight
Fabric 1	... (..)	... (..)
Fabric 2	... (..)	... (..)
Fabric 3	... (..)	... (..)
.	.	.
.	.	.
.	.	.
Fabric <i>n</i>	... (..)	... (..)

In addition, within each fabric group the following information was also provided:

	RBH (count)	RBH(%)
Form 1
Form 2
Form 3
.	.	.
.	.	.
.	.	.
Form <i>n</i>

In the case of coarse wares (cooking, plain and amphorae), since only featured material was dealt with in detail for the reasons discussed earlier, it was not possible to give total weights, incorporating all sherds for individual fabric groups. However, as with the fine ware, records of the number of RBH were recorded for each of the fabrics and forms within each group. The result that, based on these counts, the relative frequencies of these wares were calculated.

It should be noted that the number of rims, bases and handles for each particular form (for all wares) was also noted individually, as was the % of rim or base represented by the individual pieces, so that this information was available for the presentation of the material in terms of 'minimum estimated vessel equivalents' (EVE's) if it was thought applicable at a later date.

However, following experiments carried out on similar material from Benghazi (Berenice) where numerous methods of calculating EVE's for an easily recognisable type produced widely fluctuating results (Riley 1981, 102) it was concluded that relative proportions of pottery expressed by percentages were at this stage more useful for comparisons between different contexts (groups detailed in Chapter 5).

2.8 Comments

With the background to the work already carried out at Knossos discussed above, the methodology adopted for the processing of the material from the *Knossos 2000* excavations detailed in this chapter has been developed in a way which is intended to allow meaningful comparison with the work which has gone before it. At the same time the process carried out closely follows widely accepted approaches and remains consistent, in terms of current working methodological practices with that carried out at other similar sites, in order to enable useful comparisons with evidence from elsewhere.

In order for this study to be completed it was necessary at the earliest possible stage to provide a comprehensive type series for the pottery present on the site. Initially this was provided by a compilation of the various series published to-date and was subsequently extended to incorporate all the additional material

uncovered as the project continued. It was decided that since this work could prove a useful tool for other archaeologists working in the area, and for useful comparisons for those working elsewhere, it would be worthwhile to produce an annotated version of this series that included extensive background information on the fabric and types of each of the principal wares. Following an invitation from the Council of the British School at Athens to produce part of one of two handbooks dealing with the pottery of Knossos (one dedicated to the Neolithic period and Minoan Bronze Age, the second, the Early Greek down to Late Roman Periods) the major elements of the preliminary work discussed above were compiled and set alongside similar works made for earlier periods (Early Greek-‘Subminoan’ to Hellenistic). This summary was subsequently published as the Roman period chapter as part of the *Knossos Pottery Handbook: Greek & Roman* (Coldstream, Eiring & Forster 2001) in co-ordination with the editors and co-authors (J.N. Coldstream and L.J. Eiring) in order to provide an aid to making quick, specific identification and interpretation of pottery from Knossos, elsewhere in Crete and regionally.

In the following chapters the results of the processes discussed above will be demonstrated with the chronology of the site highlighted (Chapter 3), the annotated type series-catalogue provided (Chapter 4) and the most significant groups presented in full (Chapter 5) together with an analysis and discussion of the information provided therein (Chapter 6).

CHAPTER 3: *KNOSSOS 2000* – SUMMARY & CHRONOLOGY

3.1 Introduction

Initiated by the *Knossos 2000 Project*, two seasons of geophysical work were carried out, directed by C.A. Shell and R.E. Jones (of the University of Cambridge and Fitch Laboratory of the British School at Athens respectively), with the cooperation of S. Papamarinopolos (Patras University). The results of which were a number of distinct rectilinear features located within the *Knossos 2000* study area that were noted to be of high resistance and magnetic signature, thought to represent substantial masonry walls (Fig. 1.5 (D6); 1.6; French 1992, 59-60; 1993, 68).

During the first season an area of 0.85ha was surveyed at 1m intervals using twin-probe resistivity equipment and proton magnetometer. In addition, a total area of 1.5ha was searched with a fluxgate gradiometer at the closer spacing of 0.25 x 0.5m. The results of this work, together with the recording of surface features and stone scatters, appeared to confirm the extensive nature of the remains in this area of Knossos (French 1992, 59-60). Further work, during the second season, increased the survey area and allowed rectilinear features at the southern end of the gradiometer survey to be confirmed by resistivity. Further, four areas were examined using impulse radar in order to investigate the features suggested previously by the other methods (French 1993, 68).

In order to assess the anomalies presented by the survey, a number of trial trenches were laid out (initially planned at 2m x 15-20m), of which, seven were opened during the first excavation season during 1993 (with three of these (C, E and H) extended to expose larger areas). In addition to the opening up of a further trial (FA), expansions of the areas selected in the first season were continued as part of the follow up excavation carried out in 1995 (Fig. 1.6/3.15).

In this chapter, each of these trenches and excavated areas will be discussed in turn, with special attention given to the three principal areas in which the bulk of the work was carried out. The discussion of the physical remains recorded will be presented alongside the chronological information provided by the pottery. However, in the absence of a completed excavation report (the final form of which remains incomplete/unavailable at time of writing), the discussion in this account can only be provided in a summary form, derived from the original site archive of recording forms/diaries and in the case of the main excavation areas (namely C, E and H), the summaries supplied by K.A.Wardle (unpublished).

Trenches/Areas discussed:

Trench AA (1993)

Area C (incorporating trenches BA,CA,DA (1993) and CB-CC (1995))

Area E (incorporating trenches EA-EB (1993) and EC (1995))








Trench FA (1995)

Trench GA-GB (1993)

Area H (incorporating trenches HA-B (1993) and HC-D (1995))

In this chapter the ceramic evidence most relevant to the dating of the various features and levels that provide the chronological framework for the site will be presented in the form of chronology tables and *Harris-matrices*. All matrix diagrams are shown, for convenience, colour coded according to broad chronological periods (see below), with the more detailed information for each individual level provided within the tables (Tables 3.1-3.14). All form or type numbers supplied in the tables relate to those provided in the pottery catalogue, often derived from established schemes (see Chapter 5).

Key: Matrix chronology guide

	Topsoil/modern disturbance
	4th-5th cent. AD + (Late Roman/Byzantine)
	2nd-3rd cent. AD (Mid Roman)
	Mid 1st BC -1st cent. AD (Early Roman)
	pre-Roman (Minoan-Hellenistic) /undiagnostic
	Transitional or unclear
	Level number

3.2 Criteria for chronological interpretation

As we have seen in the previous chapter, one of the primary purposes of the pottery study is to help establish the chronology of the site itself and those structures within it. In the excavations detailed here, like many other sites, the majority of the conclusions relating to the dates provided by the pottery are heavily reliant on evidence provided externally, most commonly from the best-known schemes of fine-wares. The outcome, that unless a particular deposit on the site has some other reliable, independent dating evidence, little can be added in terms of improving or refining the chronology of established classes of pottery, upon which the dating of the deposit itself is dependant. However, in cases such as this, important gains can still be made in improving our knowledge of lesser-known wares found within good, closely dated contexts in association with those already studied.

The approach used for the chronological interpretation of a deposit and its contents has been discussed earlier and, in accordance with work elsewhere, essentially the date assigned for any deposit in most cases remains the ‘terminal’ one (see Chapter 2.4).

3.3 Trench AA

In the western half of the field, the most obvious geophysical anomaly comprised a strong linear feature (thought, most likely to be a 'terrace-wall'). This was investigated at its southern end with a trench placed perpendicular to it, roughly running west to east (Trench AA, 20m x 2m; Fig. 1.6). As work progressed, it became clear that there were no structures or floors close to the surface and the area of excavation was reduced, first to the western two-thirds of the trench and then, ultimately, to the central area only. With the discovery of the top of a wall c.0.8m below the surface, the central area was broadened, so that the final "sounding" extended approximately 3m east-west and reached a depth of 1.80m below the original ground surface.

Levels and features

Among the limited number of features uncovered in this area were two walls, one running east-west built of large rough blocks, the other aligned north-south and including courses of tile fragments. The walls (founded approximately 1.8m below the present ground surface) formed the corner of one room that extended to the northeast, beyond the limits of the excavated area.

Above what was interpreted as the floor level of this structure (no longer intact) there was a heavy fall of stone and tile and a layer of debris incorporating brown earth with white patches (possibly formed by decayed mud-brick). Over-lying this layer were alternate spreads of rubble and earth, suggesting a series of washes or levelling episodes gradually bringing the depth of soil over the building to its present level. One of these spreads (level 9) contained a glazed tile fragment while in the area to the west of the sounding was found a fine seal-stone with a male head in *intaglio* (Pl. 7.II).

The original geophysical anomaly recorded here appears to be no more than a pile of stones running across the trench 5m from its western end, which, assuming it

continues beyond the trench limits, would have given the impression of a strong linear feature.

To the south of the walls a surface provided by a mix of stone and tile was cleared. The surviving strip was thought to form part of a street surface or drainage gully (rather than a fall of debris) and to the east of it, a large block with a circular cutting (perhaps originating from a well-head) was found stood on end suggesting it had been re-used as part of a culvert running alongside the street.

3.4 Area C (Incorporating Trenches BA, CA, DA (1993) and CB-CC (1995)).

BA, CA and DA.

Work in this area was started during the 1993 season with trench CA (20m x 2m) aligned east-west across an escarpment in the field. A plaster floor (found to belong to a cistern roof) was found almost immediately below the surface in the centre of the trench and it was decided that a further two trenches should be laid out following the same alignment as this initial investigation (Trench BA was started 5m to the west and DA 5m to the east), together forming a straight cut across the scarp (Fig. 1.6, Fig 3.15, Area C).

Following the discovery of distinct features, incorporating concrete masonry walls and fragments of mosaic floor, CA was extended in a series of 2m strips to the north, reaching a width of 6m for much of the original length of the trench and to 8m along the eastern face of the cistern. The remaining 5m baulk between CA and BA was also removed at a later stage of the excavation, creating one large excavated area with trench DA limited to a small sounding to the east.

In the eastern most end of CA, a room (Room 6, Fig 3.16) was exposed to a width of 2m east-west. Both the northern and southern walls of this room lay within the area uncovered, defining the room as running 5m north-south. The walls were faced with brick, surviving in the northwest corner, and were set on a wider footing of small stones. The floor made of plaster carried the traces of regularly spaced hypocaust

pilae, though all of the bricks which would have made up the stacks had been robbed away.

The western wall of Room 6 formed the boundary to a further pair of rooms (Rooms 4 and 5, both 3m west-east) which showed traces of having once been furnished with good plaster floors, laid on a sub-structure of moderately sized stones. The dividing wall between the two rooms lay within the trench with the northern extent of Room 5 and the southern extent of Room 4 lying beyond its limits.

The western boundary of these two rooms, provided by a wider, mortared wall (continuing north beyond the trench), defines the division between the smaller rooms (4 and 5) and a larger one, referred to as the 'Room of the Net Pattern Mosaic', measuring c.7.5m east-west x 7m north-south (Room 3, Fig 3.16). The western boundary of this room was a good, mortared wall that had been largely robbed out, with the wall to the south also robbed away (visible in a small extension to the southern limit of the trench).

The floor of this large room was made up of a well laid sub-structure of small angular stones set in mortar over which a mosaic floor was laid in a thick layer of pink plaster. The mosaic consisted of a plain white border and a carpet effect provided by small, blue cross images within the 'lozenges' made by a diagonal net pattern and a thicker blue border. The extent to which this mosaic is preserved intact is limited to where it was protected from later activity in the area by the construction of a wall (Wall B), and therefore only survives in a narrow strip in the west of the room (Room 3, Fig 3.16; Plate 3.II).

To the west of this room was the cistern (Room 1; c.3.5m x 3.5m) dug more than 2m into the underlying strata and capped with substantial, concrete masonry (c.0.5m thick). The upper surface was formed by several layers of stone set in mortar, gradually reducing in size, with the last being formed of very fine, hard gravel in the mortar matrix. Wall robbing was also apparent in this area and the limited investigation provided by the trench did not locate the lower floor or any access to this part of the structure.

North-west of the cistern, at its north-western corner, a small platform of mortared masonry (c.1.5m x 0.8m) formed the upper level of a short flight of stairs leading down to the next room to the north (Room 2). This room had a floor of small pebbles set in mortar and extended northwards beyond the limits of the trench. The western wall of this room was robbed away, as with the cistern, and further walls were located to the west though at this stage were not investigated.

Later activity in this area, following the destruction or abandonment of the buildings/complex or rooms described above, included extensive stone robbing. This later phase represented by 'robber-trenches' backfilled with loose stone debris and overlaid with evidence for later building, visible in the western half of trench CA and in BA to the west.

Following the degradation of the building and the subsequent robbing of the masonry walls for their dressed stones, a phase of building consisting of rough, un-mortared masonry was laid out. A surviving fragment of wall (Wall H) survived close to the northern baulk and a strip of wall, or a 'building platform' (Wall B), running north-south for the width of the trench provided the protection for the surviving area of mosaic in Room 3. This platform was made up of many tile fragments with an edging of larger stones on the eastern side but it remains unclear whether it is part of a wall, or if it ran alongside a wall (later robbed away) which had replaced the robbed out wall of the previous phase in the same alignment. In places, a fall of tiles lay on the upper part of this fill, assumed to date to the final period of use of the later building.

To the west of the cistern and at the same level there was c.2m of a neatly constructed wall (Wall G) running east-west at a slight angle to the alignment of the mortared walls of the earlier phase. On either side of this a rough floor surface was cleared, made up of broken tile and sherds and demonstrating patches of burning. The western end of this wall appears to have been disturbed by later ploughing action and only survives as a jumble of stones (Wall A).

A well-head was located (partially in the baulk between CA and BA), formed by a rough circle of irregular stones (c.1.35m across) but was only partially investigated (to a depth of c.0.8m). It was bounded to the west by an un-mortared wall of large

irregular stones forming the eastern limit of what was thought to be a partially paved courtyard (4m wide and bound to the west by a similar wall). Set within the courtyard floor a large, baseless *pithos* or storage jar was located alongside a large pit (later filled with stone) that may represent a setting for a second, similar jar. Further to the west a trodden floor surface was uncovered extending 3m west, and covered by a heavy tile fall at its western end, further representing the later phase of building in this area.

In addition, the trial trench (DA, 2m x 2m) located 5m to the east of trench CA was excavated. Following the removal of several spits of topsoil and grey-brown earth (Levels 1-3) a mortared wall was uncovered just below the surface. The wall (surviving to 0.35m high at its west end and visible in the baulk) was slightly misaligned with the trench layout and only partially projected into the excavated area (to c.0.1m of its width). A later wall, with only one course surviving and resting on earth, was located abutting that already noted and defined a corner of a single room, though, due to the close proximity to the surface and subsequent disturbance in this part of the site, no associated floor levels or features survived intact.

Although little remained in terms of well-defined features in this test area, it was, at the time, thought that a street surface may have survived between DA and the building complex in CA to the west. However, as work was continued during the subsequent season (1995, Trench CC) it was found that the series of rooms uncovered in CA extended further than first assumed and that DA did not lie beyond its eastern limits (which were not located).

No further building phases were apparent in these trenches. Extensive stone robbing of both the earlier, mortared masonry, and the later, 'dry-stone' masonry, clearly took place in the latest phases of activity on the site. This together with post-depositional activities carried out up until recent times, in particular agricultural activity and ploughing (still visible as score marks in the plaster surface of the cistern), has heavily disturbed, and in most cases destroyed, the uppermost phases of the site in this area.

Trenches CB and CC

A further season of excavation (during 1995) facilitated a considerable extension to the area of the building complex discovered in the trenches discussed above (BA, CA and DA). This was made possible due to the shallow level of the deposits in this part of the site and resulted in exposing a total area of c.250 m² in area C.

In addition to the six rooms already uncovered, five further rooms (Rooms 7-11) and a possible courtyard were revealed. Several of these confirm that the building included a bathing establishment, on a scale that would suggest private (or at least restricted) use, rather than a public utility. The whole complex is gently terraced down the slope from west to east (Plate 3.I) with the western limit of the *insula* represented by a robber trench containing substantial concrete masonry foundations at its base.

To the west of this robber trench it did not prove possible to test through the levels of later activity (see above) for what was assumed would have been a street level. The remains of a concrete masonry wall, whose facing of dressed blocks has been robbed away, marked the southern limit of the *insula*. No exterior street or yard surface was found in the small area investigated to the south of this wall. The northern and eastern limits of the *insula* remain beyond the existing trenches but it is likely that it measures at least c.30m x 20m.

The hypocaust room (Room 6) discovered in CA was fully excavated (Plate 3.III) and was found to be linked by brick-lined flue passages to another room (Room 7, Fig 3.16) to the east of it, though none of the floor was preserved here. Several examples of clay spacers used to hold the wall facings in place with an air duct between them and the wall were also found in this area (Plate 8).

The presence of a third hypocaust room to the east may be deduced from the fact that the furnace chamber has not been located in the excavated area. There is no sign of heating or burning in the small room (Room 8) immediately to the south where only the substructure of the floor remained. The presumed hypocaust room has not yet been uncovered, although its southern extent is represented by the wall exposed in the narrow trench (DA) to the east of the main area.

To the north west of the hypocaust room a plunge bath, or *natatio*, was uncovered (Room 11), approximately 3m square and originally marble lined over a brick facing, still preserved to thirteen courses in height. Its floor level was approximately 0.75m lower than in the room immediately to the south (Room 5). A raised platform in the southwest corner suggested the presence of stairs leading down into the bath and gaps in the walls to the north and east may indicate further sets of steps no longer surviving. The bath was drained to the east by a clay drainpipe at its base. An unusual, perhaps unique find made on the floor close to the drain was a stone bath plug with the remains of iron fittings for a chain and handle (Plate 4.I). Further finds, lying on the plaster floor of the bath included a limestone column base and a slender, twisted, marble column-drum.

In the large adjacent room to the east of the bath (Room 10), which measured c.5m square, the eastern half of the floor had been destroyed by ploughing. In the western half however, was preserved (though only poorly) part of a mosaic pavement in blue on white with the name ...ΚΛΟΣ ΣΑΤΟΡΝΙΑΟΣ depicted over the heads of a pair of facing male figures with outstretched arms, most likely boxers, pancratiasts or similarly athletic combatants (Plate 4). The left-hand figure (to the south) was better preserved and the details of features and clothing were picked out in different shades of blue *tesserae*. Although the significance of this portrayal remains to be studied, one tantalising suggestion is the possibility that it depicts a known individual from the records of Olympic victors for the year AD 209, with the epithet *Cres Gortynios* - a Cretan from Gortyn by the name Σατορνίβος (Paton 2000, 179).

To the north and east was a complex of walls and drains that were only partly explored. The western and northern extent of the room (Room 9) remains undefined, while to the east of it, fragments of wall were uncovered which abut the outer face of a concrete masonry apse belonging to a structure lying further to the east.

The particularly impressive surviving drain network consists of a conduit running across the west wall of the plunge bath just below the floor level of the surrounding rooms. It turns eastward to run under the floor of Room 5 and to continue northeast under the mosaic floor of Room 10. Still under this floor, it is joined by the drain from the plunge bath already mentioned and continues beside the north wall of the room before turning

north, to the east of Room 9. This section, which is approximately 0.2m wide and 0.2m deep is carefully lined with plaster and maintains a steady fall. It was originally covered with flat limestone slabs that still survive in the sections below the mosaic pavement. In the north east corner of the excavated area the drain opens out into a rectangular ‘inspection chamber’ with the main outlet to the north and an overflow to the east in the direction of the apsidal wall.

To the north of the ‘Room of the Net Pattern Mosaic’ (Room 3) initially uncovered in trench CA, and to the west of the plunge bath (Room 11) what is thought to be an open courtyard was located. Its floor was made up of trodden clay and lay c.0.75m below the floor level to the south and at the same level as that of the plunge bath. The northern face of the north wall of Room 3 is carefully plastered but there is no sign of the northern limit of the yard. If it is assumed that this courtyard is located on the east-west axis of the *insula* and that the north walls of Rooms 10 and 11 represent this axis, we may presume a total width of 22m (north-south) for the *insula*.

3.5 Area E (Incorporating Trenches EA (1993) and EB-EC (1995)).

EA

The initial trench EA (20m x 2m) was cut across the scarp which was visible prior to the excavation (Fig 1.6). This was divided into an upper and lower sector, the lower of which was subsequently extended to the north (North Extension) and to the south (Southwest Extension).

The lowermost levels (thought to be ‘Minoan’/Bronze-Age in date) provided by a test made below the floor level of a room in the North Extension (Room 1) incorporated what was thought to be the natural bedrock cut away to the north and the south. The southern cut appeared to allow the insertion of a single row of stones running east-west, forming the foundations for a wall (Wall 3). Alongside the northern cut was a fill of rough stones but no sign of an existing structure. Above the natural layer, a level of hard, red clay c.0.05m thick which may have made up the floor level defined

by Wall 3 and that visible to the west (Wall 4) underneath the west wall of Room 1 (Wall 9).

These walls only survived to a single course in height and the only other remaining stones, three laid flat in close proximity to the baulk, may have formed part of the original floor.

In an area of the original trench to the south (below Room 2), two further walls (also thought to be 'Minoan') aligned at right angles to each other (Wall 5 east-west and Wall 6 north-south) were uncovered. Excavation was carried out below the top of these features but only to a depth of c.0.10m when it was noted that finds uncovered appeared to be consistently 'Minoan' in date. It was decided that work here, due to the presumed continuation of the deposit, would have to be continued at a later stage (see Trench CC below for further work in this area).

To the east of these features a narrow gully containing later pottery (including Roman) was located, possibly the cut made when founding the stone wall (Wall 7) revealed beyond it. Another wall, perhaps of the same date (Wall 8), almost totally concealed by the later dry stone masonry wall (Wall 9) extended westwards.

At the western edge of the lower sector of the original trench and the Southern Extension, a neatly built dry-stone wall (Wall 10) 0.5m wide and uncovered to a depth of one course at its southern end, was cleared. This wall was further overlaid by another massive, dry-stone masonry wall (Wall 100). In the restricted area provided by the trench it was not possible to identify to what depth this wall survived. Although standing three courses high at the northern end, it remained unclear as to whether this was part of the original construction or part of a 'rebuild' made to incorporate a step in a stepped street at a later date. The relationship of this wall and those noted at the eastern end of the original trench also remains uncertain. A small area to the west of this wall was excavated and found to contain large quantities of 'Minoan'/Bronze-Age pottery.

The next construction phase identified in this area appeared to be the massive dry-stone wall (Wall 100) mentioned above as overlying Wall 10. This wall, running

north-south and exposed in the original trench and the Southern Extension, was built with roughly dressed, medium-sized blocks, but included one well-squared block of gypsum. The rear face of this feature was made up of small, irregular stones which appeared to make up part of a terrace at the time of constructing the wall. Limited excavation to the west of this wall (including back-fill against the wall and that of Wall 101, including large quantities of 'Minoan' pottery) was inconclusive in clarifying this however.

The massive wall was found to make an internal corner at the northern end and a return to the east. Both its eastern and southern faces were covered with gypsum plaster, surviving in this corner alone. It was therefore not clear whether the two walls were bonded together or if the east-west wall abutted the massive, north-south one.

A further east-west wall (Wall 102) was located 3m to the south in the Southern Extension to the trench. It was made up of mortared masonry and abutted the massive dry-stone wall (Wall 100). Traces of a trodden floor level (Room 2) survived under a moderate fall of roof-tiles in the area defined by these three walls (Walls 100, 102 and 110/111).

At some time after the construction of the northernmost east-west wall (Wall 10), it was extended on a slightly different alignment by a further dry-stone wall (Wall 9) and further wall (Wall 11) built northwards (again the relationship between these walls is not clear due to the facing of plaster) but they define an area of 3.5m north-south by 2m east-west within the Northern Extension of the trench (Room 1). The western wall (Wall 11) was constructed of medium-sized, roughly squared blocks and faced with hard, whitish plaster with a coat of darker plaster still visible in places. This wall was founded on the earlier 'Minoan' wall (Wall 4) with the plaster face beginning just above this level (presumably defining the floor level for this room). No evidence of a constructed floor existed and it is therefore assumed that it was made up simply of trodden earth since no sign of disturbance or robbing was apparent and the whole area of the excavated room was covered by a heavy tile fall.

This western wall (Wall 11) aligns approximately with the walls on the west side of the peristyle of the *Villa Dionysos* though the floor level is a little higher. It appears that these walls form part of a contemporary building to the south of the Villa though it is not possible to identify any relationship between the two at this stage.

In the southern room of the original trench (Room 2) destruction debris was located 0.3m above the trodden floor level. Some time after, a fill comprising mud-brick debris was dumped in Room 3 (and assumed in Room 1 and 2 though not as clearly defined) in a levelling process prior to new building.

A later wall (Wall 12) was constructed with a concrete core and fine, dressed blocks carefully mortared and plastered. It was set on the underlying wall (Wall 11) at a slight angle (c.10 degrees to the west) and aligned approximately with the concrete masonry walls visible in the sections of the *Villa Dionysos*.

About 3.5m of the face of this wall was exposed north-south and survived to three dressed courses in height (c. 0.6m) with a further 1.3m of rubble masonry exposed above this to the level where it remained visible at the modern ground surface prior to the excavation. At the south end of this face, a neat corner and a faced end of the wall were exposed. This faced end, 1.2m wide and surviving four courses in height, with a single stone of the fifth course left *in situ* following stone robbing. To the west, this face was found to abut what remained of the underlying walls (Walls 10 and 100) that survived much higher at this point. There was no continuation of this wall face to the west, thus giving a total width for the concrete masonry wall of 1.36m. This dressed corner is assumed to have made up the corner of a building that would have extended to the northwest with an open space to the east and, possibly, a street to the south.

The surface of this assumed street was represented at the base provided by the dump of tile and pottery (Level 11), the scatter of tiles at a similar level in the lower sector of the original trench and in the South Extension in the area of Room 2. The east face of the massive dry-stone (Wall 100) appears to have been altered to form a step (100A) in a stepped street, rising to the west above the level of the tile fall by c.0.2m. Behind this small stones were cleared, apparently forming a cobbled surface. The width of the step thus created was approximately 1m. Confirmation of this was

provided by the fact that the robber trench visible in the north section of the original trench to the west of Wall 12 does not reach this level. There is no sign of stone robbing immediately above the level of the lower step and the cobbled surface mentioned and it is therefore assumed that it was not preserved above this level at the period of use of the concrete masonry wall. A second step made up of two facing courses built on top of the narrower dry-stone wall (Wall 101) underlying the massive one, provided a rise of 0.25m. Any surviving surface further to the west remained concealed by later levels.

To the south of this assumed street it is thought that the massive dry-stone masonry wall (Wall 100) built in the earlier phase was still standing to a height equivalent to that of the concrete masonry wall (Wall 12) to the north though this has been largely obscured by later stone robbing.

It is thought that this concrete masonry building was destroyed during an episode thought to have widely affected the entire site. In this area of the site the debris making up the tile/pottery dump (Pit 11) best represents this destruction.

The next phase of activity in this area of the site is represented by the structures in the upper sector at the western end of the original trench. Here a corner of small, neatly laid dry-stone masonry (Wall 13) was located, providing the northeast corner of a room extending to the south of the trench. Abutting this to the north, a stretch of wall running north-south (Wall 14) defined another room extending north beyond the trench limits. These walls only survived to a maximum of two courses due to their close proximity to the surface (no more than 0.3m below the modern level).

To the east of the wall corner a group of larger stones were located apparently forming a path to the northeast. Just beyond this feature, in the north section, another dry-stone wall (Wall 15) with three surviving courses ran parallel to the north baulk, perhaps related to a further wall (Wall 16) which was set into the top of the concrete masonry wall (Wall 12) which survived in this area above the ground surface 10m to the north and cut across it obliquely at c.30 degrees.

To the west of this group of dry-stone walls a surface of tile and stone thought, possibly, to represent the floor for this structure, or perhaps that of a further, later phase. Beyond this, at the extreme west end of the trench a section of a tile-lined drain, with good mortar and sloping north to south, was located and thought to be the latest surviving feature in the area.

Following abandonment of the site, a robber trench was cut to the west of the concrete masonry wall in search of building stones. This continued southwards beyond the limits of the archaeological investigation and its northern extent remained unclear. The top of the robber trench is approximately a metre below an earlier surface of the scarp and itself appears to have been cut by what is thought to have been an archaeological trench in the same alignment (its straight sides clearly distinguished during the excavation of the Southern Extension). A further archaeological trench was located running east-west up to the face of the concrete masonry wall in the Northern Extension.

Above the level of both these trenches some 0.3-0.4m of washed debris had built up, presumably due to natural erosion and cultivation further up the slope.

EB

The area of excavation opened in 1993 (EA) was extended during 1995 with a further trench (EB), measuring 5.5m x 5m, in order to continue the exploration of the substantial walls located previously.

Initial work concentrated on removing the topsoil from the upper part of the scarp and revealed the continuation of the concrete-cored wall to the south (*Wall A*), first exposed as an irregular mass of concrete with none of its facing blocks remaining at its upper levels (Level 1).

Behind this wall, at a higher level (c. 0.7m further up the slope to the west) another neatly built wall of roughly dressed blocks was uncovered (*Wall B*), it formed a 'bowed' alignment turning away slightly to the west at its northern end, leaving a

narrow strip of large cobbles, laid flat, between it and the original wall. Although three courses of this wall were exposed and several spits were excavated below the immediate topsoil (which demonstrated that the cobbled layer was not associated with the construction of *Wall B* but was a later modification in the area), no further investigation in this area was carried out.

At the northern end of the trench a soft fill containing quantities of small stones was uncovered against the east end of the concrete-masonry wall and found to be a modern pit (Level 2). However, the removal of this modern disturbance began to expose the original face of the wall, with three courses of its relatively well-dressed blocks made visible. It was found that the face of the wall was made up of small, roughly squared blocks, cemented over to provide a good, smooth surface, through which the joints between the blocks could just be made out.

At the southern end of the trench, a later 'dry-stone' wall incorporating irregular blocks and packed with a large number of tile fragments was located, aligned east to west and butting up against the plastered face of *Wall A (Wall C)*. Continued removal of the fills to the east of *Wall A* to a level c.0.15m below the level of the top of the dry-stone (*Wall C*) uncovered a narrow strip of fallen tile and stone. Excavation continued below the tiles (Level 6) and a level was cleared, largely comprised of broken fragments of mud-brick with large amounts of vegetable temper (Level 7). In some places, the rectangular outline of the bricks still remained visible on the surface that was uncovered (level 8).

The removal of the tile fall that had been left against *Wall A* revealed what was presumed to be the upper part of an earlier un-mortared wall (*Wall E*), re-used as a footing course for the concrete-masonry wall, and likewise, carefully plastered at this level (As in Trench EA).

Continued work uncovered a slightly wider dry-stone wall phase (*Wall F*) immediately below *Wall C*, thought to mark the division of the rooms in the earlier phase of the buildings. A further, uniform layer of brown soil, containing very little stone was removed from the fill against *Wall E* where patches of decomposed plaster still remained. In the southwest corner of the trench (at the junction of *Wall E* and *F*)

a random pile of tiles was exposed (Level 9) at a similar depth as the tile fall in Trench EA.

Although the tile scatter was found to be far less substantial than that of trench EA to the south, it did appear to form a consistent level across the area (Level 10). However, no coherent floor level was revealed and it is presumed that it is most likely that the original floors were made up of earth, though the presence of a floor tile, found against the north section, may imply that a floor of this material had been robbed out. Preservation at this level is nowhere as good as in EA and traces of the wall plaster facing have almost totally decayed and only remain visible in the joints between blocks.

The excavation in this area was terminated after reaching natural 'bedrock' following the removal of shallow pit fills containing large quantities of burnt earth located below the tile spread (Level 12, 15).

Now that parts of three rooms have been exposed (with their eastern limits beyond the excavated area), the nature of the construction, alignment and depth of the lower phases uncovered suggests that it provided part of the range of buildings which included the *Villa Dionysos* to the north. This same alignment was continued (though not necessarily the same building) by a north-south robber-trench in the area (FA) located 5m further to the north discussed below.

EC

In addition to the trench laid out to the north of EA (trench EB discussed above), further work in this area carried out during 1995 provided the opportunity to excavate below the earth floors of all three Roman rooms found in the previous season. This allowed the extension of the small area reached in 1993 (to approximately 40 m²) of deposits thought to be of 'Middle Minoan' date.

Two phases were identified, the uppermost defined by undressed masonry walls founded on the natural clay delimiting parts of two rooms. The deposits were dated to the

'Middle-Minoan' period (MMIIA – c.2000BC) through the identification of many diagnostic conical cups (personal observations S. MacGillivray; Wardle 1997,19).

The lower phase was represented by a deep pit or cavity that had been partially lined with masonry to form a kind of 'basement', subsequently overbuilt by the wall of the northern room. This was more or less homogenous and rich in pottery, with some vessels lying intact at different levels of the fill. Over sixty complete (or near complete with whole profiles surviving) were mended, with very little in the way of wheel-made pottery which conforms to the material uncovered in the *West Court Basements* excavated by Evans in 1904 and identified as transitional MMIB/IIA (personal observations S. MacGillivray; Wardle 1997,19). Other finds included large parts of three stone vases and an intact conch shell. Organic material included plant remains and animal bones. The eastern limit of this deposit remains outside the area, under c.2m of Roman and later deposits, and therefore awaits further excavation.

Owing to the clear 'Bronze-Age' contexts of these deposits, they were set aside and dealt with separately from the other material presented in this report (see K.A. Wardle – forthcoming). However, the clearing of spits immediately above the Minoan levels did provide pottery of Roman date, including a number of examples from the southwest area of the trench (Chapter 4 - catalogue; 47, 154).

3.6 Trench FA

During the second season of excavation carried out in 1995, a trench was opened up 5m further to the north than that made to extend area E (EB above). This trench (Fig. 1.6; 3.15), initially 5m x 5m was planned so as to continue the exploration of the substantial structures already located in the area. It was later extended a further 4m to the north in order to further investigate features uncovered as work proceeded.

Following the removal of the topsoil and a superficial spread of stones following the line of the slope (Levels 1-3) a drain was uncovered, made up of tile set in mortar (built up of Levels 4-6) which overlaid a cobbled surface thought to be an earlier street (Level 8). This 'street', was defined at its western side by a wall of small stones

running north-south and at the east by an un-mortared wall (which was later robbed away). It was assumed that since the cobbling did not extend beyond the robber-trench used to remove this wall that it therefore must have provided its eastern limit. Immediately above this cobbled surface a thin layer of charcoal filled soil was excavated, containing olive pips and bone fragments (Level 9).

The north-south robber trench (itself only 1m wide) was excavated (Level 13), the north-east corner of which, where it was found to be cutting a further robber-trench, running east-west (Level 12), revealed a finely worked limestone architectural fragment with dentils and moulding alongside another large block, overlying a large concentration of stones.

In order to remove these blocks and to expose the pit they were located in (Level 14) an extension was made to the north-west of the trench. As work in this extension continued a small 1m square, hearth-like structure was located, apparently built up against the now missing north-south wall. The fill of this structure was removed (Level 16) and it was found that it overlay a trodden floor (Level 18).

A further extension was made to the south-east which exposed layers incorporating mud-brick (Levels 19-20) down to a floor at a similar level (Level 21).

3.7 Trench GA and GB

Two trenches towards the southern end of the field, running approximately north-northwest, south-southeast, were originally laid out in order to cut a rectangular feature that was shown up in the geophysical survey (Fig. 1.6, 3.15).

Trench GA (15m x 2m) was placed across what was thought to be the northern wall of this feature. Following the discovery of a pipe trench exactly aligned with the centre of the excavation and the realisation that the geophysical feature reflected a layer of rubble, as opposed to any coherent construction the trench width was reduced to c. 1.20m for the northernmost 6m of its length. In this area, excavation was carried down to a floor level made up of brick tiles approximately 2m below the ground surface.

A smaller trench (GB - 2m x 5m) was opened to the east with the aim of cutting what was assumed to be the eastern wall of this rectangular feature. Once it was clear that the eastern wall was in a similar state of preservation to that in the north, consisting of another closely packed fill of rubble and mortar with a few pieces of tile and fragmentary marble, the work was terminated at a depth of just 0.2m.

GA

Following the removal of the topsoil (Level 1) a series of spits was excavated through mixed, heavily disturbed layers that produced a good quantity of tile, brick and plaster fragments, together with *tesserae* (occasionally still attached to traces of pink plaster), glass and pottery of post-Roman date (Levels 2-5).

A long linear feature was uncovered during this initial stage of excavation and was found to be a modern pipe trench. This modern feature, cut in the same alignment as GA and almost exactly down the centre c.0.8m below the surface, surprisingly, had not shown in the geophysical survey. Clearing of this modern trench produced more brick and tile, mosaic *tesserae* (including some made of glass) and a small terracotta head (Level 6). The 'pipe trench' had remained unused and it was later discovered that it had been dug during 1958 and at that time to have yielded a group of sculptured stones (Archaeological Reports 1957-8, 21).

Continued excavation was reduced to the northernmost six metres of the trench, to the east of the pipe trench. The modern work was found to have cut through a wide ditch or pit filled with rubble and large pieces of white plaster. This feature (c.0.2m below the surface) ran approximately east-west and coincided with the strong geophysical anomaly registered in the survey. The removal of a two-metre section of this feature produced, amongst a great quantity of packed rubble and plaster, a few square bricks and much tile (Level 14). It appears that this represented the back-fill of a robber-trench that had been used to remove whatever building materials remained from what is thought to have been a large structure. Another rubble-filled pit in the northeast corner of the trench was thought to correspond to a related episode in this phase of robbing (Level 9).

At the bottom of the pipe-trench an area of stones was uncovered that continued into the baulk, the partial extent of which, was revealed following an extension to the east of the excavation area (Levels 8, 10-11, including a fragmentary inscription). A large fall of roof tiles to the north of this feature suggested a collapse from an associated building and, within the section, fragmentary mud-brick was visible and seen to form a layer of debris *c.*0.3m deep above the tiles. The removal of the tile fall (Level 12) demonstrated that it rested on a layer (*c.*0.18m thick) of yellow-brown soil with patches of burning, most clearly seen in the area closest to the 'wall' and in proximity to the east baulk, including a concentration of charcoal and carbonised seeds (Level 13). Below this layer, a floor of tightly laid building tiles was cleared, bedded on a carefully prepared foundation of white clay.

The floor was preserved intact *c.* 2m wide from north to south and lay at a similar level as the 'wave-crest' mosaic floor discovered in trench HB (see below). No surviving walls were found to accompany this floor but the general alignment of the tiles coincides with that of the massive wall uncovered in area H to the north.

Once the rubble (including pink mortar) was removed from the area of stones, originally thought to be a wall (Level 7), no foundations were located and, in fact, an additional section of the tile floor was found to survive beneath. Continued excavation to the south of this 'wall' (Levels 15-17, 19) revealed a small pit containing charcoal and animal bone (Level 18) and finally, more of the poorly preserved patches of tile floor (level 20-22), immediately above which, a figured lamp discus was uncovered. Unlike the area to the north no associated spread of fallen tiles existed and the remains of the floor had been cut through by a rubbish-pit (Level 21).

GB

In this area it was quickly discovered, following the removal of topsoil and layers affected by cultivation (Levels 1-3), that the feature present in the geophysical survey consisted of another closely packed fill of rubble and mortar with a few pieces of tile and marble fragments, as in trench GA. The decision was made at this early stage to abandon digging.

It appears that the geophysical survey identified the remains of a large rectangular building lying above that of the tile floored structure. Although the state of preservation means that little can be concluded with great confidence, the large amount of rubble and mortar would suggest a substantial structure. The number of *tesserae* and marble fragments, present in the back-fill of the robber trenches and within the later up-cast following modern disturbances, further demonstrate the relatively high level of decoration utilised within the building(s) in this area.

3.8 Area H (Incorporating Trenches HA-HD)

Trench HA was opened up in order to investigate traces of a linear masonry feature in the north-east of the field (Fig. 1.6; 3.15). Two sections of wall were visible above the surface running along the escarpment from which the ground dropped away markedly towards the modern Knossos-Heraklion road to the north-east. Excavation revealed an impressive concrete-masonry wall, preserved in places up to 6m in height.

Due to the scale of the structure uncovered in HA, a second trench (HB) was opened further to the north-east in order to investigate the extent of the structure as its line approached the area of the *Villa Dionysos*.

In a second season of excavation carried out in 1995, it was decided to expand on the area uncovered during 1993 with trenches HC and HD extending the excavation area to the south-east and north-east respectively, the aim being to locate the limits of the massive wall.

The combined trenches exposed some 30m of the structure without, however, revealing its entire length. It appears to form part of a massive, two storey building with a large central room (c.15m across) flanked by two further rooms (perhaps of similar size) built as additions to the central structure.

Fragmentary mosaic pavements were located in each of the rooms and may have been associated with a semi-circular mosaic, reportedly north-east of the escarpment and discovered by Halbherr at the end of the 19th century (first noted in plan of Hogarth 1900; subsequently in Hood & Smyth 1981, 43(no.115)). The brick-tile floor uncovered in trench GA was at a similar level to those in area H and both buildings appear to maintain the same alignment.

HA

Trench HA was laid out (8m x 1.5m, running north-east-south-west) directly to the east of remaining sections of concrete-masonry wall that was preserved above ground level along a scarp in the north-east of the field.

The removal of topsoil and hill-wash (Level 1) produced a Byzantine lead seal of an official named *Ioannis* who held the titles *vestiarius* and *protonotarius sakellion* which denote an officer of the Imperial Treasury, otherwise unknown, most likely at Knossos during the early 9th century, shortly before the Arab conquest (Plate 7.III).

It was clear from the modern debris visible that much of the soil to the east of the wall had been re-deposited in recent times, a fact further clarified by workmen on the site who confirmed that spoil from earlier excavations at the *Villa Dionysos* had been ‘conveniently’ tipped over the scarp. The resulting mixed and loose soil (Levels 2, 3, 5 and 9, up to 0.4m deep in places) contained much plaster, tile and pink mortar.

The narrow concrete-masonry wall which had been visible above the ground surface was seen at a lower level to be much more substantial and in excess of 1.5m thick. To the north-east of the line of the wall two large sections of fallen masonry were located on undisturbed ground. Approximately 0.6m below the ground surface a ‘robber-trench’ (Levels 4 and 8) was uncovered running alongside the larger section of collapse. The removal of this collapse (Level 11) and the fill beneath the debris and beyond it to the north-east (Levels 6, 7, 10) revealed the actual face of the major wall, which consisted of good dressed blocks, some up to a metre in length. Partial robbing of stone had left several large rectangular ‘sockets’ in the concrete and the first of

several smaller voids filled with pinkish plaster were identified (thought to have been original scaffolding holes).

Further spits into the deep fill against the wall (Levels 12-13) produced quantities of stone and plaster fragments (perhaps remnants from the robbing of the dressed blocks). The floor surface was finally reached (4.4m below the top of the exposed wall and 1.5m below the top of the preserved facing blocks). The lower part of the wall had been faced with marble set against pink mortar and a mosaic floor was laid, decorated with a blue 'wave-crest' pattern on a white background, now surviving in a narrow strip against the wall (Levels 14-15, Plate 6).

HB

A further trench (HB) was opened in order to investigate the relationship between the concrete-masonry wall excavated in HA and an exposed section of similar masonry further along the scarp. The wall ran along the obvious escarpment to the south of the *Villa Dionysos* and parallel with the modern road. The trench followed the line of this scarp (initially to a length of 13 x 2.5m). Excavation to a depth of 0.6m of topsoil and upper wash levels demonstrated that the top of this wall was preserved for the whole length of the trench as in HA and that it belonged to an impressively large structure. The decision was made to expand the trench to 19 x 3.5m in order to determine the northern most end of the wall and to further investigate its north-eastern face.

Once the upper layer was removed (Levels 1, 3) it became clear that this whole area had been a dumping ground for spoil (as in HA) and a deep deposit (up to 1m deep in places) of mixed, very loose soil containing modern debris was removed (Level 5) in part by machine (Level 10). Alternating tip-lines were seen clearly in the section and as with work in trench HA it was confirmed that this area also had proved to be a convenient place from which to tip spoil from the *Villa Dionysos* excavations carried out some years earlier.

The exposed outer face of the main wall had been much robbed away, leaving the concrete-core and several sockets of missing masonry blocks. In the north-western

half of the trench two walls at right angles to the upper wall line and running into the baulk formed a row of three chambers. The central one was 1.7m wide whilst the others remained undefined due to the limits of the excavation (see HD for expansions to this area). The walls of these chambers had good inner faces and the floors were made up of small stones set in what was very decayed plaster (Level 2), stepped as they ran along to the south-east. It appears that they formed rooms at the level of the top of the scarp but owing to the extent of the excavation their full dimensions or function remain unclear.

At the south-eastern end of the trench the baulk between HA and HB was removed and revealed a water channel (Level 17) built of two walls made up of small stones bonded with and faced with pinkish mortar and a floor of squared white limestone slabs. The channel was preserved (to 0.06m in height) and ran for approximately 2m at a slight angle from the main wall beneath it. Severe robbing had removed the north-west end of the channel, but the pink 'hydraulic plaster' was visible running into the baulk. This feature appeared to have been a later construction, using the main wall line as its foundation (see trench HC).

To the north-west and beneath the water channel the main wall was in a poor state of preservation with a large gap in the facing of the wall filled with lumps of fallen concrete (Levels 4, 6). It became clear that this area had been severely robbed and a narrow, irregular 'robber-trench' filled with much rubble, fragments of painted plaster and stone mouldings (Level 12, 22) ran parallel to the north-eastern face of the main wall. A large ashlar block was found, cracked and lying at an angle within this trench, presumably too difficult to move following a fall during an episode of robbing of the lower wall courses (where similar blocks still remained *in-situ*).

More evidence of robbing of facing blocks was apparent in the north-west of the trench (Level 19, 21) but was not to the same extent as that in south-eastern end. It was noted that the concrete-masonry wall in this area (Wall 3) was slightly off-set from the rest of the wall in HB. It appears that there must have originally been a return to the main wall running north-eastwards towards the modern road and that the masonry wall found in HA and running into HB was a later addition built up against the original structure. This would perhaps explain why there was a good, squared

face at the north-western end of Wall 3. The extensive robbing out of this return wall-line and the area of its junction with the main wall is likely due to stone robbers following the (possibly exposed) blocks of the return wall in from the lower ground level to the north-east.

The level of robbing in the south-western end of the trench allowed the investigation of the levels behind the main wall. A deep fill (c.1.5m) – presumed to be backfill between the wall and the terraced hillside behind it to the west – was found to be full of a huge amount of pottery, almost entirely ‘Minoan’ (Levels 7, 8 and 9). This peculiar construction technique was also been observed in other parts of the Roman town at Knossos including excavations at the *Royal Road* and *Villa Dionysos* (various personal communications, K.A Wardle (et.al)).

The main wall was much better preserved at the deeper levels with many of its facing blocks still *in-situ*, 3.5m above the floor level and, perhaps, originally connected with the springing of a vault (see HD also).

A later wall approximately 2m long (wall 4) was discovered abutting the face of the main wall and running off at a slight angle towards the east. The trench was widened at this point to 5m in order to investigate this wall that was surrounded by rubble debris (Level 10, 11). The debris to the south of the wall was excavated (Levels 14-16, 20) and was found to contain much tile and plaster, including moulded and painted architectural fragments. This wall was made up of masonry incorporating many tile fragments, very different in construction to the others in the trench. The southern face was plastered, as was the short eastern end, which perhaps represented one side of a doorway. The plaster extended to c.1m below its highest preserved point at a footing course, projecting slightly from the wall, but there was no surviving evidence for the floor. Over 1m of loose stone and debris lay beneath this later wall.

The lowest courses of the main wall were generally well preserved and contained a series of ‘scaffolding holes’ (as noted above), one of which, just south of the later Wall 4 contained three ‘hinged iron rings’. These manacles (or ‘fettters’) were found to be broken open and are assumed to be associated with this later remodelling phase

of the structure (Plate 6.IV). Severe cracks observed in the main wall may suggest damage from an earthquake(s).

The floor associated with the main structure was finally reached some 4.4m below the top of the concrete-masonry wall (Level 18). A narrow strip of mosaic, similar to that found at the base of the wall in HA, was revealed and, although the robber trench had destroyed its junction with the main wall, fragments of thin, marble facing slabs were found.

To the north-west, in the area just to the south of, and disturbed by, Wall 4, no mosaic survived, but a surface of trodden reddish-clay including a few plaster patches was found at a similar level (Level 20-21, 23). A sounding was dug through this floor against the face of the main wall and below was a deep fill of earth (c.1m) containing much pottery, especially Minoan (Levels 23-24, 28-30). This appears to represent a similar building technique as that used in the fill behind the wall to the south-west.

At the base of the fill a spread of mortar and plaster fragments (Level 25-6) and compacted soil (Levels 31-2) lay above a surface of yellow clay, perhaps a levelling layer (Level 27 and 33). The main wall at this depth bore preserved traces of a smooth mortar facing which curved outwards to rest on a footing course. Beneath the yellow clay were alternating layers of brown and yellow earth containing much pottery, again almost entirely Minoan (Levels 34-36).

HC

Trench HC was opened up during the second season of excavation in 1995 at the south-eastern end of HA, in order to locate a return wall to the north-east. A baulk was left between HC and HA and the initial excavated area measured 6m x 4m. The upper layers of topsoil and re-deposited spoil were removed (Level 1), revealing a continuation of the watercourse found in HA (see above).

This was formed of two lines of small, dressed limestone blocks (partially missing) set into and faced on their inner surface with pink, hydraulic plaster (apparently repaired/replaced with patches of clay). This watercourse was set on top of the upper

part of the concrete-masonry wall and its floor, made up of stone slabs, sloped down to the south east, dropping almost 0.2m along its preserved length. The fill of this channel was removed and a large bronze coin was found and a corroded metal object was found lying directly on its plastered floor (Level 2).

To the north east of the water channel, mixed deposits containing plaster, concrete and stone fragments (some architectural) were cleared (Level 3). They appeared to be re-deposited or at least heavily disturbed levels. The top of the main concrete-masonry wall was located as in HA/B, and a layer of collapsed material was then removed, incorporating a bronze coin and made up of much rubble and plaster, (Level 4 and 5). This collapse, as well as much of the facing of the main wall-line, was found to be missing to the north-west end of the trench due to an area of extensive robbing which had also been seen towards the south-eastern end of HA. The damage to this part of the wall appears to have been caused by the comprehensive robbing out of a return wall which originally would have followed a line towards the north-east.

The decision was therefore made to limit the excavation to the south-eastern quadrant of the trench. It was found that the main wall was faced with large, dressed blocks, although, as in HA/B, many had been robbed out from the upper courses. In this area of the trench the wall contained an apsidal recess, neatly faced with brick-tiles set in plaster. The great amount of white plaster found in the collapse deposits within the niche is likely to represent its original facing. A semi-circular setting, perhaps for a column, was found on the main wall directly above the niche. The further removal of debris to the north-east (Level 6) exposed the base of this niche, which was now visible to a height of 1.6m, as were facing blocks of the main wall beneath it. Further layers contained less in the way of debris (Level 7) before remnants of plaster and some 2m of surviving marble facing slabs were found, set against the wall in a thick layer of pink plaster (Level 8). Approximately 1.5m below the base of the niche a patch of mosaic pavement was located (surviving to a length of c.1m) bearing the same wave-crest pattern with dark blue *tesserae* on a white ground as that found in HA. The mosaic terminated to the northwest where a single, large stone remained, inserted into the marble slabs up to the plaster backing, presumably representing a later east-west wall.

Neither this mosaic floor, nor the marble facing was traceable near the southeast baulk, where a tiled arch could be seen built into the main wall. About one half of the arch was visible, the rest concealed by the extent of the remaining baulk. It suggests that a conduit must exist through the main wall and implies the wall is freestanding (at least in part), and therefore that archaeological deposits are likely to exist to the same depth behind the wall to the west.

HD

Trench HD was opened up during the second season of excavation in 1995 at the north-eastern end of HB. Measuring 3m x 10m the trench included a section of the northernmost extension to HB that, in the previous season, had only been excavated down to the level of the top of the main concrete-masonry wall. HD was further extended as an attempt to define the north-eastern limit of the main wall and to confirm the presence of what had appeared in 1993 to be a return wall.

The initial cleaning of the section to the south west of the chambers running along the top of the wall (as excavated in 1993) revealed a row of large dressed blocks two courses high resting on top of the chambers' walls. These blocks may have been associated with the water channel located further to the south-east in HA/C but were not investigated further.

The removal of the baulk left in 1993 (Level 2) exposed another cross-wall to the chambers built along the top of the main wall (see HB). This wall, almost 1m wide ran south-westwards from a good inner face of the northernmost chamber and under the dressed blocks in the section. To the north-west of this cross-wall was the foundation of a floor surface made up of small angular stones set in, and surfaced by very decayed white plaster – just as was seen in the chambers to the south-east in 1993. The northernmost chamber was 3m long, as indeed was the now visible neighbouring chamber to the south-east. Thus a series of four chambers had now been excavated with their floors over 5m above the level of the mosaic pavements associated with the main concrete-masonry wall.

Cleaning of the top of the main wall revealed a clear corner at the north-western end. Here too, a surface was located of two-stones width extending to the north-east of the wall for approximately 3m, suggesting a floor level to an upper room at a similar level to the floors in the neighbouring chambers. As was anticipated from the previous excavations a great depth of re-deposited soil was encountered to the north-east of the wall. As the first layers of this were removed (Level 3), clear tipping lines were visible in the north-west section.

Facing blocks of the main concrete-masonry wall were exposed, including a pair of vertical blocks similar to those found in HB and again perhaps originally connected with the springing of a vault. Further scaffolding holes were also noted in the wall-face.

The large quantities of loose stone encountered at a lower level (level 4 and 5) dictated the narrowing of the trench to 1m wide and the over-burden of spoil to the north-east (the nearest point to the Villa Dionysos excavation area from which most of the spoil appears to originate) amounted to over 4m of deposits. A machine was used to clear an area 5m wide here and beyond the limits of HD exposing over a metre in depth of good wall face.

There was however an area of severe robbing at the north-eastern end of the wall below the point where a corner to this main wall had been revealed. It appears that another cross-wall had been robbed out here, leaving only two rough stones projecting beyond the concrete core (just as had been observed at the junctions of HA and HB). A further section of concrete core was visible extending to the north-west beyond the robbed out area. It appears that this main building was symmetrical and that sometime later, another room had been added to the original central section at this end, just as it had been appended to the south-eastern end.

3.9 Chronology and principal pottery groups

As noted in the introduction to this chapter, Harris Matrix diagrams for each of the trenches summarised above were compiled (Figs. 3.1 – 3.14) together with tables detailing specific terminal dates for the individual levels recorded (Tables 3.1-3.14). Pottery groups that were selected for specific study here are detailed in Chapter 5 and comprise of four principal groups (A, D, F and G) together with seven supplementary groups (B-C, E and H-K)

‘Early Roman’ (c.mid 1st Century BC-1st Century AD)

Group A – Trench FA level 16 (‘Hearth fill over trodden floor’)

Group B – Trench FA level 14 (‘Pit fill over trodden floor’)

Group C – Trench FA level 9 (‘Fill over cobbled pavement’)

‘Mid Roman’ (c.2nd-3rd Century AD)

Group D – Trench CA level 8/16 (‘Fill over floor of Room 3’)

Group E – Trench CB level 26-9 (‘Fill over floor of Room 11’)

Group F – Trench EA level 11 (‘Large pit fill’)

‘Late Roman’ (c.4th-6th Centuries AD).

Group G – Trench CA level 3 (‘Fill over floor of Room 6’)

Group H – Trench CA level 5 (‘Upper fill in Room 3’)

Group I – Trench CB level 22 (‘Lower fill of Courtyard area’)

Group J – Trench CB level 10 (‘Upper fill of Courtyard area’)

Group K – Trench AA combined levels (‘Accumulated wash-levels’)

CHAPTER 4: CATALOGUE

4.1 Introduction:

The material presented in the catalogue has been divided for convenience into the major functional categories, principally 'Fine Wares' and 'Coarse Wares', with coarse wares further divided between 'Cooking Wares', 'Plain Utilitarian Wares' and 'Amphorae'.

Presented in an approximate chronological order (with some inevitable overlaps), fine wares are arranged by individual ware, with the best known of the imported wares, belonging to schemes established elsewhere, presented first. Locally manufactured and other miscellaneous wares (including specialist glazed and 'thin-walled' wares) follow, together with the various categories of coarse ware.

Presentation of the coarse wares is slightly different. Due to the production, in many cases of a limited number of common types in a variety of fabrics, it is simply the functional category that provides the division in this section. Catalogued vessels are arranged broadly by type with differences in fabric highlighted within the relevant sections or individual catalogue entries as appropriate.

As it remains impossible to represent every featured vessel from the excavations, those chosen for presentation in the catalogue were provided by a combination of featured examples from the best stratified deposits (presented in Chapter 5) and supplementary examples from the numerous, less well-defined contexts, which often yielded more complete individual examples of particular types. The intention is to minimize as far as possible the number of illustrated examples, while offering a

comprehensive representation of each of the wares, forms and types present on the site. As noted in Chapter 2, all original illustrations were drawn at scale 1:1 and following regional conventions (common, but not by any means exclusive) it was decided to present pottery with profiles shown on the right for easy comparison with the bulk of other published material from the area.

Catalogue entries are individually numbered and presented in the following format:

Catalogue Number (**bold**), vessel form and type where relevant (as described in the associated text), description and fabric (as described below or detailed for individual vessels). Diameter of Rim/Base in cm (D), Height (where relevant) in cm (H), percentage of vessel represented (%), excavation area and level where the vessel was located.

4.1.1 Fabric – Fine wares:

Fine Ware categories include the standard imported *sigillata* (namely Eastern Sigillata A, Cypriot Sigillata, Italian Sigillata and Eastern Sigillata B) and Later Roman period imports (Çandarlı Ware, African Red Slip Ware and Phocaeen Ware) alongside the ‘Local Fine Wares’. In addition are the ‘Glazed Wares’ that are represented in much smaller quantities than the principal fine ware categories already highlighted. As almost all the fine ware pottery on the site during the Roman period belongs to these established schemes, fabric descriptions follow, where possible, those set out elsewhere, with additions to existing descriptions and minor variations provided in the relevant sections within the catalogue.

Although locally produced fine-wares do not belong to these well known schemes, they have been relatively well defined in earlier works carried out at Knossos and are therefore similarly presented, with existing schemes incorporated within the catalogue as appropriate.

So-called ‘Thin-walled wares’ (incorporating a wide range of wares and often dealt with as a separate category for convenience) are presented immediately following the

fine wares. Although many of these thin-walled wares are produced without decoration (in a range of more coarse fabrics than the very finest examples), they are presented in the same way as the fine-ware discussed above due to their use for vessel forms that were used for similar functions (predominantly cups, small bowls and beakers) and, particularly in the case of the decorated examples, have much in common with standard fine wares.

4.1.2 Fabric – Coarse Wares:

Coarse wares (incorporating those for cooking and plain utilitarian vessels) together with transport amphorae as mentioned, unlike the majority of the fine wares discussed above do not clearly belong to such well-defined and long-established schemes (with the possible exception of the best-known transport amphorae). However, previous works at Knossos that have dealt with the various coarse wares from the site do provide detailed descriptions of some of the more commonly occurring wares. Where it has been possible, these definitions have been maintained and assigned a suitable code during the recording stages, with a number of additional fabrics that relate to numerous examples catalogued here, all being defined and assigned a similar code (used in the catalogue descriptions that follow and summarised below). Where a fabric described is only relevant to a single (or very few) individual pieces, or depicts only minor variations from an already defined fabric, it is simply described as part of the catalogue entry.

4.1.3 Cooking Wares:

Cooking Ware - Fabric 1: Hard-fired, gritty fabric, red-brown or pink sometimes fired to grey at the core. Exterior surfaces grey with internal surfaces often red. Occasional, small ‘calcite’ inclusions.

Cooking Ware - Fabric 1b: As Fabric 1 but generally a thicker red-brown and somewhat grittier, sandier fabric with brown tinted grey surfaces.

Cooking Ware - Fabric 2: Hard-fired, rough and hackly at the break, red-brown fabric ranging to pink or maroon (commonly 2.5YR/6/6), sometimes fired grey to the core. Interior and exterior surfaces grey (or with a distinctive blue-grey tinge) with red-brown margins. Fine white calcite inclusions common (as Hayes 1983, 106)

Cooking Ware - Fabric 3: Hard-fired, rough and hackly at the break, red-brown fabric (2.5YR/5/6). Brown interior surface, brown or grey exterior. Fine, irregular white ('calcite') grits sparsely represented with large 'gold mica' flakes (very sparse) and very fine 'silver mica' (common). Fabric appears similar to **Fabric 2** (C01) but with a more brown appearance to the external surfaces and distinctive mica inclusions visible.

Cooking Ware - Fabric 4: Hard-fired, rough, hackly at the break. Very coarse, gritty brown fabric (7.5YR/5/4). Gold 'mica' flakes (commonly small, very occasionally large) with rare, large, white ('calcite') grits and large clear 'quartz like' grits alongside range of sandy inclusions. Burning to exterior common to many examples.

Cooking Ware - Fabric 4b: As Cooking Ware **Fabric 4** but with an additional orange-red wash visible on the interior surface.

Cooking Ware - Fabric 4c: As **Fabric 4** with the addition of a thick, red interior slip (similar to 'Pompeiiian Red Wares').

Cooking Ware - Fabric 5: Coarse, very gritty, red-brown fabric (7.5YR/6/6), hard-fired, rough and hackly at the break. Small, gold 'mica' flakes and brown/red-brown grits (commonly small, occasionally large). Similar to Cooking Ware **Fabric 4** but with a more orange-red appearance and an orange-red wash applied to interior surfaces (as Cooking Ware **Fabric 4b**) occasionally noted.

Cooking Ware - Fabric 6: Coarse Grey-black fabric (5Y/6/1), hard-fired, rough and hackly at the break, black exterior surface. White 'calcite' grits (abundantly small, commonly large) and occasional large red grits.

Cooking Ware - Fabric 6b: Hard grey, abrasive fabric as Cooking Ware **Fabric 6** (C005) but including silver ‘mica’ and more abundant sandy grits.

Cooking Ware - Fabric 7: Coarse red-brown/grey fabric. Hard-fired, rough and hackly at the break, external surface brown, interior more grey-brown. White, ‘calcite’ (commonly small, occasionally large) and occasional, large flakes of gold ‘mica’ present. A very fine red-brown wash survives in some cases on the exterior surface.

Cooking Ware - Fabric 8: Coarse brown/grey (exterior more brown), hard-fired, rough and hackly at the break with silver ‘mica’ inclusions (common, small) and gold ‘mica’ flakes (occasional, large).

Cooking Ware - Fabric 9: Coarse grey-brown (often with patchy burning marks), smooth exterior surface, interior surface brown. Occasional small lime grits.

Cooking Ware - Fabric 9b: As Cooking Ware **Fabric 9** but markedly more ‘Thin-walled’.

4.1.4 Plain Utilitarian Wares (including storage jars & amphorae):

Plain Ware - Fabric 10: Most commonly a yellow-buff fabric (10YR/8/6) with core and margins occasionally pink. Relatively poorly fired and often worn and eroded. Fairly smooth with fine/hackly breaks. Inclusions are limited to sparse, small, white (‘lime’) grits, very occasionally large and irregular. The surface generally appears a brighter yellow-orange with a marked pinkish tinge but does range to cream-buff in some cases.

Plain Ware - Fabric 10b: As **Fabric 10** but appears more brown in colour.

Plain Ware - Fabric 10c: As **Fabric 10** with small, silver flakes (‘mica’) occasionally visible.

Plain Ware - Fabric 11: A cream fabric (10YR/8/3) with the internal surface more pink in colour. Much in common with **Fabric 10** but is visibly more cream coloured, is harder fired with common small, white (lime) grits and sparse, very large, dark brown grits are noted in larger examples.

Plain Ware - Fabric 12: A pink to brick-red fabric (2.5YR/6/6) with the exterior surface more pink in colour. Inclusions comprise of an abundance of small white (lime) grits, commonly large and breaking the surface with the occasional appearance of large red-brown grits.

Plain Ware - Fabric 12b: As **Fabric 12** but more orange to brick-red (2.5YR/6/8), grittier with little lime.

Plain Ware - Fabric 12c: As **Fabric 12** with a pale buff wash surface treatment and traces of mica more visible.

Plain Ware - Fabric 13: Brown fabric (10YR/4/2) with interior and exterior surfaces appearing more grey or even black. Relatively hard fired with a soapy feel and hackly at the break. Inclusions comprise of occasional large, white (lime) grits, an abundance of silver (mica) flakes and occasional larger gold (mica) flakes more visible on the surface.

Plain Ware - Fabric 13b: As **Fabric 13** but depicting a distinctly more brown exterior surface.

Plain Ware - Fabric 13c: As **Fabric 13** with a lighter brown-buff appearance, much less common.

Plain Ware - Fabric 14: Plain cream fabric (2.5YR/8/2). Quite poorly fired in some cases, rough and producing hackly breaks. Sparse, large white (lime) grits visible with small-medium grey and brown grits common. The surface commonly appears smoothed and depicts a distinct green tinge to the exterior wash.

Plain Ware - Fabric 15: Hard pink fabric (5YR/7/4) rough and hackly at the break. Contains common white (lime) grits ranging in size from small to large, abundant black sandy grits and fine, black 'volcanic' glass providing a speckled appearance. Buff wash survives in traces over the exterior surface..

Plain Ware - Fabric 16: Pale orange fabric (5YR/7/6). Poorly fired, rough and hackly at the break with common-abundant large brown grits.

Plain Ware - Fabric 17: Orange/brick-red fabric (2.5YR/6/6). Relatively hard fired, rough and hackly at the break. Small white (lime) grits and medium fine brown flecks are sparsely distributed.

Plain Ware - Fabric 18: Reddish-pink fabric (2.5YR/6/8). Poorly fired, rough and hackly, very worn breaks. Exterior surface depicts a pale buff wash. Inclusions comprise of commonly spaced small black-brown grits, small silver (mica) flakes and rare small white (lime) grits.

Plain Ware - Fabric 18b: Harder fired variant of **Fabric 18** with fine break.

Plain Ware - Fabric 19: Plain cream-buff fabric (10YR/8/3). Hard fired, rough and hackly at the break. Inclusions comprise of small red (rare) and small white (lime) grits (common) with abundant small red-brown grits giving a very speckled appearance.

Plain Ware - Fabric 20: Gritty orange fabric, hard fired, rough and hackly at the break.

Plain Ware - Fabric 20b: As **Fabric 20** with large grey-brown and white (lime) grits common and occasionally breaking the surface with large red grits visible but rare.

Plain Ware - Fabric 21: Grey/brick-red fabric. Grey at core with exterior surface dark red-maroon and brick-red margins. Hard fired, rough and hackly break. Occasional, medium sized grey-brown grits included.

4.2 EASTERN SIGILLATA A

4.2.1 Introduction

Although the true source of this ware still remains elusive (and has been incorrectly termed ‘Pergamene’ in the past - Waagé 1948, Jones 1950 and Robinson 1959) the Syrian region is currently thought to represent the most likely place of origin with eastern Cilicia also a possibility. Produced as early as the mid-second century BC and found throughout the eastern Mediterranean, it became common at Knossos in the early Roman period, providing by far the majority of the imported fine ware at that time, with a range of shapes most fully represented in deposits of Augustan date. The ware continued to be imported in declining numbers throughout the remainder of the first century AD, though examples dating to the latter part of this sequence are rare.

4.2.2 Fabric

The clay [‘chunky’ at the break] is fine and visible impurities are rare; in colour and texture it ranges from cream, hard and finely granular, to a warmer pink or orange-buff, softer and very fine. The slip [contrasting distinctly with the body fabric] ranges from a bright orange-red to a deep red-brown or maroon and is frequently only semi-lustrous or dull, though it may on occasion match the brilliance of the finest Italian Sigillata (see below). It is often fugitive, which serves to accentuate the characteristic ‘double-dipping streak’ formed where applications of slip to either side of the vessel overlap, producing a thicker coating in a strip across the diameter (Kenrick 1985, 223; Robinson 1959, 6).

4.2.3 Forms

Forms represented by material from excavations at Knossos, as elsewhere, demonstrate three successive stylistic trends, in part matched on other eastern wares. In the earlier phases the most characteristic shapes are a series of platters or large dishes with very stable, broad bases and floors decorated with groups of rouletted

circles, often flanking a band with small palmette stamps. These shapes, in part mirror those of metal-wares, and partly, late Italian black-gloss ware types. Later, in the first century AD, flat-floored Italian shapes are in fashion commonly featuring one or more 'steps' on the underside. A final phase, only scantily represented at Knossos, further copies trends in metal-wares and provides a series of flat-based dishes and bowls (Forster 2001, 139-140; Hayes 1997, 57).

Of the fifteen shapes known from published excavations in the Knossos area, the bulk date from the later first century BC to the mid first century AD when the ware was most 'in vogue', with only two forms noted as belonging to the later first century AD. (Hayes *EAA* forms represented 3, 4, 7, 9, 12, 22, 24, 30, 33, 35, 37, 42, 45, 101).

Material from the *Knossos 2000* excavations does little more than provide further examples of this ware, similar to those best provided by the other excavations on the site. Although the fragmentary nature of the examples catalogued makes identification problematic, several types of dish (belonging to the 'Hellenistic' series and *EAA3* in particular) are variously represented, surviving, on the whole, as residual pieces (Fig. 5.1).

4.2.4 Eastern Sigillata A - Form descriptions

'*Hellenistic series*': (=Berenice 313) Large Dish with gently sloping floor, plain upcurving rim and heavy, low foot-ring of relatively small diameter with a broad resting surface; sometimes narrow bands of rouletting on the floor which may also include stamped decoration. D. c.28-50.

EAA3 (=Antioch 121-4; Samaria 1; Berenice 314): Dish with flat floor, plain upcurving rim and low foot-ring of more than half the rim diameter with a broad resting surface; sometimes narrow bands of rouletting on the floor which may include stamped decoration. D. 14-29. (note: rim-fragments are difficult to distinguish from *EAA4* if diameter is uncertain or c. 25-30, see description below).

EAA4 (4A=Antioch 125, 4B= Antioch 126; Samaria 1; Berenice 315): Bowl with heavy foot-ring similar to *EAA3*, up-curving wall and plain rim. Type A-thin wall and

incurving rim; Type B ('Augustan') - heavier built and more open curve (Late second century BC- c. AD 10/20).

EAA9 (=Antioch 101; Samaria 8a): Flat based dish with stepped underside, low curving wall and bead rim; rouletting and grooves on floor (c. 50-25 BC.).

5.2.5 Eastern Sigillata A Catalogue (Fig. 4.1): 'Hellenistic'/EAA form 3/9 (1-6), Misc. (7-8).

1. *Dish*. ('Hellenistic'/EAA3). Plain rim, curved upwards. Rim D.38, 8% (FA level 9)
2. *Dish*. (EAA3). Plain rim, curved upwards. Rim D.32, 15% (FA level 9)
3. *Dish*. (EAA3). Thick walled, square-cut foot, sloping floor. Base D.18, 12%. (BA level 9)
4. *Dish*. (EAA3). Thick walled, square-cut foot with slightly sloping floor. Base D. 20, 5% (FA level 9)
5. *Dish*. (EAA9). Low ring-foot with stepped underside, very patchy slip. Base D. 10, 18%. (CB level 3)
6. *Large dish*. ('Hellenistic' series). Thick walled, low, square ring-foot with no visible decoration. Base D.12, 10% (FA level 2)
7. *Dish*. (misc.). Flat foot fragment rising to small step on underside, palmette stamp within grooved band decoration on floor. (HC level 8)
8. *Flat-based dish*. (misc.). Underside of base sloping upwards slightly, narrow grooved band on floor. Base D. 10.5, 15% (CB level 4)

4.3 CYPRIOT SIGILLATA

4.3.1 Introduction

This ware is attributed to Cyprus due to its prevalence there, although rival claims are provided by some nearby regions which have yielded large quantities of it (Hayes 1967, 1997, 54). At Knossos it is only found in relatively small quantities from the latter first century BC – 1st century AD, commonly alongside vessels of ESA. Though examples are found sporadically in later contexts, they only appear on the whole as residual pieces in deposits thought to post-date the middle of the first century AD. The popularity of Cypriot Sigillata is thus confined predominantly to the short period from *c.* 25 BC - AD 25.

4.3.2 Fabric

The body clay is extremely fine grained, of a muddy consistency, and breaks cleanly; the only visible impurities are occasional lumps of hard lime, which in the poorer pieces can be of considerable size. Vessels are given a complete coating of a thin wash of the same clay, which generally appears a shade darker than the body in colour, this wash, depending on the firing-temperature, has a more or less pronounced metallic lustre, a feature peculiar to this ware, distinguishing it from other Eastern fabrics. Double-dipping streaks are generally visible on dishes, though not on other forms; finger-marks can frequently be observed around the bases of vessels. The firing of the pots is generally good and uniform for any given piece, but shows considerable variations from vessel to vessel. Well-fired examples are mostly brick red, maroon, purplish-red or dark brown in colour, while the poorer-fired ones (common in later phases) tend to be orange-red. Some early pieces were fired in a reducing kiln and have a metallic black or purplish-black gloss. The potting, particularly in the later phases, is rather heavy, with predominant tool-marks on the undersides of the vessels. In general, one may say that the earlier products are better finished, thinner walled and better fired than the later ones; a general decline in standards sets in during the second half of the first century AD (Hayes 1967, 66).

4.3.3 Forms

Forms are generally rather simple, without any of the fine mouldings characteristic of Italian Sigilatta (see below). Decoration is rather sparsely applied and amounts to no more than a few line of neat rouletting or a groove or two. A few early fragments of the ware combine rouletting with white-painted decoration in the Hellenistic tradition. Most examples are, however, completely plain.

Most forms known from Knossos date approximately to the Augustan period (late first century BC-early first century AD) when the ware was at its most popular. Included are standard tablewares - dish, plate and bowl - alongside elaborate kraters, occasionally large and decorated with grooves and rouletting (forms represented Hayes, EAA - 4B, 5, 10, 31A, 34, 37, 38, 40, 44/6, 48; Sackett 1992, 152).

Very few examples of note were uncovered during the *Knossos 2000* excavations and almost entirely consist of fragmentary, worn body sherds surviving as residual pieces and not clearly identifiable. One notable vessel however, (from a late 1st century BC – early 1st century AD context) may be a miniature version of a small bowl or cup (similar to form 34) decorated with simple, characteristic grooves.

4.3.4 Catalogue (Fig. 4.52):

317. *Miniature/cup:* Thin, rounded wall ending in a flaring, out-curved rim with squared lip. Decorated with two, deep, horizontal grooves. Low, slightly bevelled foot-ring. Rim D5, 100% (FA level 9).

4.4 ITALIAN SIGILLATA

4.4.1 Introduction

Enormously influential, this fine quality *terra sigillata* or red-gloss ware was first produced, from approximately 40 BC, in an area known for the earlier production of black-gloss wares, initially at Arretium (modern Arezzo in northern Tuscany) and later at a number of other provincial centres. Vessels manufactured in moulds and bearing relief decoration were soon added to the repertoire along with other features that further betray Hellenistic influences. The development of delicate and sharply angled forms mimics that of contemporary metal-ware, in particular silver plate. The best known of these wares are those which were distributed within the northern and western provinces between c. 25 BC to AD 25, supplied from Arezzo itself and also from subsidiary factories at Pisa and Lyon. This definition emphasises the care needed when referring to “Italian Sigillata” collectively, due to the number of provincial production centres known.

Overlapping to some extent with this well-known distribution pattern are wares produced at a slightly later date, at different sources in and around the Po Valley marketed predominantly to the northeast towards the northern Adriatic. More important for our purposes are those distributed at Knossos and in the eastern Mediterranean markets generally (from c. AD 1-125 at Knossos). These wares originate from various sources, with the wares of Pozzuoli (Puteoli) and other Campanian centres perhaps most dominant during the period AD 10-50 (Hayes 1997, 43), coinciding with the period Italian Sigillata was becoming more and more common at Knossos and, similarly, other eastern markets. This is of particular interest for studies of this site since further investigation is needed to establish whether the colony itself maintained any ‘special’ links with Campania or whether the presence of these wares simply reflects a picture common to the region in general.

However, the variations in the appearance of the fabric, visible to some extent to the naked eye, remain difficult to quantify with any real accuracy and even more difficult to communicate in print. Numerous attempts have been made, ranging from a division

into four sub-classes (described below), to more complicated reports defining twelve or more such divisions.

4.4.2 Fabric

The four fabrics described here range from a pale pinkish-buff clay similar to ESA, through to a pink fabric, a darker pink version with a good adherent slip, and a redder version with a generally glossy but flaking slip. A parallel progression from a softer to a harder texture is also apparent. Variations in the appearance of the slip are less obvious, generally fine, red-brown and glossy; it does appear marginally brighter over the paler pinkish-buff clay fabric (Kenrick 1985, 128).

Fabric 1: Pale pinkish buff clay (like some EsigA); [5YR/7/4,7/6 to 7.5YR/6/4,7/4,7/6]

Fabric 2: Pink clay [5YR/6/4, 6/6]

Fabric 3: Darker pink clay, good adherent slip [5YR/5/4, 2YR/5/4]

Fabric 4: Similar to 3 but often a little redder, generally glossy but flaking slip which may leave a whitish film beneath [2.5YR/6/4]

Of these, fabrics 1 and 2 were by far the most common at Berenice with fabric 4 apparently associated with later forms (Kenrick, 1985, 128). This situation is paralleled by finds at Knossos from the Unexplored Mansion where each of the four fabrics are similarly represented, 42%, 37%, 15% and 6% respectively (Sackett 1992, 155).

4.4.3 Forms

The vessels represented at Knossos, most popular in the middle of the first century AD comprise above all a long series of footed plates with flat floors and variously profiled rims. These forms were regularly produced in large and small sizes each with

their own treatment of the foot: larger examples, usually termed ‘platters’ with broad flat bottomed feet and the smaller versions, ‘plates’, depicting more slender bevelled ones. To accompany these plates a series of bowl-like cups were also equally widely distributed, many with similar rim and foot characteristics. Those which display two rim mouldings separated by a hollow marked off by fine grooves represent the Italian ‘services’ most influential on Mediterranean products, widely copied with varying success, and considered by some, the Roman shape *par excellence* (Hayes 1997, 44). Versions of a slightly later form, the small, flanged bowl (first produced c. AD 40 with manufacture continuing into the second century AD), are represented at Knossos in both plain, and decorated forms, including the addition of appliqué spirals (imitating handle shapes) and rosettes. Relief decorated vessels, another favoured Italian import at Knossos, are also represented including a bowl depicting hunting scenes and masks together with a signature stamp, identifying the vessel as a Campanian product attributable to *N. Naevius Hilarus* (Sackett 1992, 198; C1, 1).

4.4.4 Form Descriptions

Form C20.4 (=Conspectus 20.4, see Kenrick B213 below) *Plate or Platter* with smooth or finely moulded vertical rim. Simple convex mouldings at top and bottom of rim outside, inside plain or with a groove at lip. Regularly decorated on outer face with a wide variety of applied motifs.

Form C21 (=Conspectus C21, see Kenrick B215 below) *Plate or Platter* with smooth or finely moulded vertical rim and quarter-round moulding or step between rim and floor.

Form C22 (=Conspectus C22, see Kenrick B210 below) *Conical cup* with concave and normally finely moulded vertical rim.

Form C34 (=Conspectus C34) Hemispherical cup with short vertical rim and pronounced flange on wall.

Form B210 (=Kenrick B210) *Conical cup* with flat floor, simple ring-foot and vertical moulded rim; rouletting mostly on the upper and lower rim mouldings. Rim diameter 8.8-12.5cm. Dated c.AD10/15-80/90.

Form B213 (=Kenrick B213) *Large plate or platter* with flat floor and vertical rim. The rim is flat or slightly concave on the outside, with single or double convex mouldings at top and bottom; the space between occasionally covered in rouletting and is regularly decorated with a number of repeated or alternating applied motifs; the inner face of the rim is flat and may have a single groove at the lip or a wider concave band with grooves above and below. Dated *c.*AD30-80/90.

Form B214 (=Kenrick B214) *Standard-sized plate* with a flat floor and plain vertical rim with simple mouldings at top and bottom and sometimes a groove on the inside at the lip, usually applied decoration on the outside. Dated *c.*AD30-80/90.

Form B215 (=Kenrick B215) *Standard-sized plate* corresponding to form B214 but with a quarter-round moulding beneath the rim. Dated *c.*AD30-80/90.

Form B217 (=Kenrick B217) *Hemispherical flanged cup* with ring-foot; plain vertical rim, terminated below on the outside by a flange (variously rounded, pointed or hooked) and decorated with applied motifs; regularly a groove on the outside of the lip, sometimes also on the inside. Rim diameter ranging 7.5-15cm. Dated *c.*AD35/40-80/90

4.4.5 Italian Sigillata catalogue (Figs. 5.2-3):

9. Plate: (C20.4) Flat floor and thin walled, vertical rim moulding with single interior groove, 'lion' appliqué ornament Rim D20, 7% (EB level 1)

10. Plate: (C21) Flat floor with thick, upright rim moulding with internal groove, distinct rounded step between wall and floor Rim D18, 2% (EA level 34)

11. Plate: (C21) Thick flat floor, upright rim moulding with 'animal' and 'face' appliqué ornaments, distinct rounded step between wall and grooved floor. Good quality glossy slip. Rim D17, 27% (FA level 16)

- 12. Plate:** (C20.4/B213) Slender, bevelled foot-ring, flat floor with central *in planta pedis* stamp (illegible) surrounded by two central grooves and a further band of rouletting, bordered by further grooves Base D8, 35% (FA level 16)
- 13. Plate:** (B214) High, slender foot, lower part bevelled, rouletted floor decoration. Base est. D9, 20% (EA level 7/11)
- 14. Platter:** (B213/215) Broad, square, flat foot with rouletted decoration on floor. Base D10, 10% (FA level 2)
- 15. Cup:** (C22) Conical with concave rim moulding. Rim D13, 4% (EA level 7)
- 16. Cup:** (B210) Conical, thin-walled, vertical rim moulding with double internal groove. Rim D? (tiny fragment only) (CB level 24)
- 17. Cup:** Thin-walled, upright rim with external groove and ‘spectacle spiral’ appliqué ornament. Rim est. D9, 4% (EA level 8)
- 18. Hemispherical bowl:** (C34/B217) Narrow, vertical, flanged rim with rosette appliqué. Rim D12, 2% (HA level 12)
- 19. Hemispherical bowl:** (B217) Vertical, flanged rim with single horizontal groove just below lip, indistinguishable appliqué decoration. Rim D10. (CC level 2)
- 20. Hemispherical bowl:** (C34, B217) Fragmentary decorated rim moulding. (AA level 21)
- 21. Cup:** (B210) Small, slender foot, lower part bevelled, grooved floor decoration. (EA, un-stratified)
- 22. Cup:** (form?) Slender foot-ring with central floor *in planta pedis* stamp (illegible) surrounded by groove. Base D5. (EA level 42)
- 23. Floor stamp fragment** (est. CO...) surrounded by groove. (AA level 1)

- 24.** Floor stamp fragment, square and on two lines, upper (...EI.), lower ...R). (EA level 13)
- 25.** Floor stamp fragment *in planta pedis* (est. C. VEA...) surrounded by groove, slender foot surviving at break. (CA level 1)
- 26.** Thick-walled, fragmentary relief decoration depicting two figures, one winged, possibly a 'victory'. (CA level 20)
- 27.** Fragmentary relief decoration with 'fruit stand' appliqué ornament, worn exterior surface. (EA level 7)
- 28.** Fragmentary 'head' appliqué ornament. (CC level 2)
- 29.** Fragmentary relief decoration with 'bird' ornament. (EA level 7)
- 30.** Fragmentary relief decoration. (AA level 41)
- 31.** Fragmentary 'floral' relief decoration. (DA level 1)

4.5 EASTERN SIGILLATA B

4.5.1 Introduction

This product of western Asia Minor, possibly originating from workshops at Tralles in the Meander Valley and using Ephesos as its major outlet for export, was first introduced at Knossos in the early first century AD. It gained in popularity throughout the century, finally at the expense of Italian Sigillata, which had been all but ousted prior to the start of the second century AD. The producers of ESB vessels in the earliest phases adopt treatments most blatantly characteristic of the Italian wares such as sharply articulated mouldings, rouletted decoration and small neat stamps found in both Latin and Greek. These features of the ware no doubt trends of the time but also the influence of some of the early workshops, which were apparently Italian foundations directly linked with known potters (e.g. *C. Sentius*) who had been involved in both the Arezzo and Lyon factories.

The ware itself, described below, is divided into a finer, earlier class (B1) and a coarser, later one (B2) introduced in the latter part of the first century AD. The earlier series is largely dependent on Italian influence for its successive vessel forms, with a distribution predominantly centred on Aegean markets; the later is more widely distributed in simpler, mass-produced forms from *c.* AD 70- 150 (confusingly, early accounts (following Robinson, 1959) refer to B1 and B2 as “Samian B” and “Samian A” respectively).

4.5.2 Fabric

The clay of this ware is normally orange-red, with much fine mica visible, but no other major impurities. It is sometimes compact, but more often splintery or flaky, varying greatly in hardness. A rather waxy or soapy appearance characterises the gloss; both clay and gloss tend to be highly porous. The fabric of the two classes differs appreciably. The gloss of the best pieces of B1 is firm, and bright red in colour; on other examples it is dull, with a tendency to flake away in countless minute patches. Double-dipping streaks are normally present on B1 plates and dishes; such streaks, scarcely differing in their colour from the rest of the surface, are often hard to

detect, showing up merely as a faint ridge, best observed from an oblique angle. Some pieces of B1 are fired black, perhaps deliberately, while others have turned creamy-white or pale orange, almost certainly as the result of accidental burning. The mica is very noticeable in the former case, virtually invisible in the latter. B1 vessels are generally thin-walled and as smoothly finished as Arretine 'Italian Sigillata'. In contrast, B2 ware tends to be thick and flaky, and in many cases is poorly fired and friable. Its gloss is normally a bright waxy orange-red, thickly applied, which often flakes off in large patches. Double-dipping streaks are rarely visible.

Elaborate mouldings defined by very fine grooves are a constant feature of the B1 pieces; the variety of forms is enormous. In B2, on the other hand, the same relatively simple shapes are found over and over again (Hayes 1973, 452).

4.5.3 Form Descriptions

B1 Ware

Form 12 (=EAA12) *Dish* with sloping floor, rounded sides and an overhanging upright rim-band; low grooved foot. Lines of rouletting on rim-band, rouletting between grooves on floor. Groove inside rim, another around edge of floor.

Form 38 (=EAA38) *Krater* with pedestal foot. General form as decorated Arretine kraters, deep rounded body, foot comprising a stem with a cordon at narrowest point and a stepped-out base, moulded on the outside and inside. In most cases a potter's stamp at the centre of the floor surrounded by grooves.

B2 Ware

Form 60 (=EAA60) *Flat-based dish* with sloping wall and in-turned rim, convex on outside and bearing two grooves or offsets at junction with wall on inside. Normally two sets of shallow combed grooves on floor with a 'palmette' stamp (or similar motif) at centre.

Type A-Early examples (B1/B2 ware): rim is low and triangular with a carinated exterior.

Type B-Later examples: rim is taller, with a pronounced overhang at the bottom and a convex inner face (almost 'hammer-head' in profile).

Form 71 (=EAA71) *Flat-based bowl* with plain sloping sides, slightly rounded. A single groove on floor, surrounding a stamp (almost always a rosette). Most examples are rather thick-walled for their size. Much more common in B2 ware.

Form 74 (=EAA74) *Conical bowl* with a narrow overhanging rim with the lip hooked upwards. Rather broad and shallow in comparison to forms 72-3; thicker fabric. Handles applied in the form of strips with central loops on the rim of some examples. Stamps, mainly in the form of rosettes, but also include potters name stamps.

Type A: plain rim.

Type B: grooved rim with rouletting.

Form 75 (=EAA75) *Bowl* as form 74 but with plain overhanging rounded rim.

Form 80 (=EAA80) *Shallow rounded bowl* with flat-topped rim (sloping up towards lip) marked off by two grooves on outside and a single groove on inside; small low foot; two steps round centre of floor, surrounded by a fine groove. No stamps.

4.5.4 ESB Catalogue (Fig. 4.4-5):

32. Dish: (misc.) Shallow with thin walled, upright rim, double groove on exterior wall surface, immediately below offset with rim (Fabric B1). D26, 2% (CB level 22)

33. Dish: (Form 12) with overhanging, upright rim with interior groove (Fabric B1). D19, 4% (HB level 5)

34. Bowl: (misc.) small, very worn and hemispherical with incurved rim, plain with trace of internal groove (Fabric B1). Rim est. D11. (HB level 5)

- 35. Footed bowl:** (misc.) slightly rounded floor, low foot with small step on inside. Thin wall rising directly from foot on outside (Fabric B1). Base D5, 30% (AA level 32)
- 36.** Very worn, fragmentary, flat floor *in planta pedis* stamp ...ANO. (as Sackett 1992, 143; plate 124, Y48-KOIP[ANO]Y?). (EA level 57)
- 37. Krater:** (Form 38) Pedestal foot, stepped out base, moulded on outside and inside, illegible squared stamp on centre of floor (Fabric B1). Base D4.5, 100% (AA level 1)
- 38. Large flat-based dish:** (Form 60) with sloping wall and tall in-turned rim, convex on outside (Fabric B2). Rim D27, 12% (AA level 23)
- 39. Large flat-based dish:** (Form 60) Large, thick-walled with two sets of grooves on floor (very worn), wall rising directly from base (Fabric B2). Base D26, 8% (AA level 31)
- 40. Bowl:** (Form 75) Plain, overhanging, rounded rim (Fabric B2). Rim D13, 15% (EA level 11)
- 41. Conical bowl:** (Form 74B) Narrow overhanging rim with the lip hooked upwards, handles applied in the form of strips with central loops on the rim. Rim grooved with exterior rouletting (Fabric B2). Rim est. D12.5. (EB level 8)
- 42. Conical bowl:** (Form 74) Narrow, overhanging rim with the lip hooked upwards (Fabric B2). Rim est. D8, 23% (EA level 11)
- 43. Bowl:** (Form 80) Shallow, rounded with flat-topped rim, grooved on the interior just below the lip (Fabric B2). Rim D16, 7% (BA level 2)
- 44. Bowl:** (Form 80) Shallow and rounded with flat-topped rim, grooved on the interior just below the lip (Fabric B2). Rim D16, 6% (CA level 3)

4.6 ÇANDARLI WARE

4.6.1 Introduction

Çandarli Ware, from the Pergamon region, was first investigated almost a century ago and provided one of the first eastern wares for which a source was conclusively located (Loeschcke 1912). Factory dumps of debris from pottery kilns excavated at Çandarli (ancient Pitane) on the East Aegean coast provide the evidence for one production centre with nearby Pergamon thought to be another, though it is likely that a number of other regional centres existed.

Initially, during the first century AD, the distribution of the ware was restricted to the northern and north-western Aegean; however in the subsequent period between the mid second and mid third centuries it was found in markets stretching in a broad band from the Black Sea to Cyrenaica, becoming the leading fine ware throughout the Aegean region and the principal competitor to Eastern Sigillata B. A picture further confirmed by finds presented here from Knossos, as elsewhere within the province of Crete and Cyrene.

4.6.2 Fabric

The distinguishing mark of the Çandarli fabric is the occasional appearance in the clay of large flakes of golden mica. The ware is otherwise often virtually identical in appearance to late pieces of Italian Sigillata, though the Çandarli products are rather thicker-walled and can be distinguished by their low heavy feet and lack of decoration. As noted by Loeschcke, two fabrics may be distinguished. The products of the first century are characterized by a fine-grained orange body with a lustrous orange or orange-red gloss, generally thicker on the inside than on the outside, and often omitted under the base. In the second century and later the fabric approximates more closely to that of Italian and Gallic Sigillata: it is almost always hard fired, generally red-brown, maroon or even purplish in colour, with (on the inside, at any rate) a good gloss of a similar shade. The interior of these late products is normally

finely smoothed and given a thick glossy surface, highly resistant to wear, the exterior, on the other hand, tends to be poorly finished, with numerous scratches from the final tooling, and its gloss coat is thin and lacking in lustre. On occasion the gloss contains quantities of fine silvery mica. Not infrequently the marks of small pad-like kiln supports are visible on the floor of the resting surface of the foot. Decoration is kept to a minimum (Hayes 1972, 252).

The commonly used type series includes three recognizable groups, namely the early or 'Augustan' series, the original Loeschcke series which embraces the vessel forms of the mid first-early second century AD and a later, prolific series described by Hayes which extends to the end of the third century AD onwards.

None of the ware uncovered during the *Knossos 2000* excavations belonged to the earliest 'Augustan' series and examples from the original Loeschcke series were limited to very few individual pieces. In contrast, almost the entire collection of Çandarlı Ware is made up the later series as defined by Hayes.

4.6.3 Form Descriptions

Earlier Forms

Form 9 (=Loeschcke form 9) Flat based 'saucer' or small dish with shallow sloping sides and flat rim. Undecorated or with a single groove on the floor. (1st-2nd century AD).

Form 26 (=Loeschcke form 26) *Dish* with flat floor; sloping sides and low broad squarish foot. Small rim moulding; one or two grooves on floor. Version A-early (Mid-Late 1st century AD), version B (first half of 2nd century AD) – predecessor of Form 2 below.

Form 29 (=Loeschcke form 29) Basin with high, steep, straight wall and short flat rim.

Later Forms

Form 1 (=Hayes form 1) *Basin* with straight wall, flaring at c. 45°, heavy angular rim and low, heavy foot.

Form 2 (=Hayes form 2) *Dish*, medium-sized or small, with shallow flaring wall and plain or thickened rim, and a low heavy foot as on form 1, often hollowed out on the inside.

Form 3 (=Hayes form 3) *Hemispherical Flanged Bowl* with low, heavy foot.

Form 4 (=Hayes form 4) *Dish*, medium-sized or large, with shallow curving floor, incurved wall and triangular tapering foot. Normally a slight angle on outside where wall and floor meet.

Form 5 (=Hayes form 5) *Small Bowl* with upright wall, rare counterpart of form 4.

Form 6 (No equivalent in existing series) *Plate*, very shallow curving floor with faint traces of rouletting on upper surface, triangular tapering foot as on form 4 and a slightly thickened rim, grooved on the underside.

4.6.4 Catalogue

Çandarlı Ware-early forms (Fig. 4.6):

45. Basin: (Form 26) Sloping wall with small plain, squared, flat rim. Rim est. D30. (AA level 31)

46. Small dish: (Form 9) Plain, shallow, sloping sides with flat rim. Rim D.15, 13% (AA level 31)

47. Bowl: Fragmentary, moulded wall fragment with part of 'motto' or 'name' ...PFON... little gold mica present (possibly early series, form unclear). (EC level 31)

Çandarli Ware-later forms (Figs. 4.7-8):

48. Basin: (Form 1) Flat, slightly down-turned rim moulding with straight, sloping wall. Rim D30, 5% (CA level 16)

49. Dish: (Form 2) Medium sized with shallow, flaring wall and small rim moulding. Rim D24, 7% (CA level 16)

50. Dish: (Form 2) Shallow, flaring wall ending in slightly squared rim. Rim D26, 8% (CA level 8)

51. Dish: (Form 2) Medium sized with shallow, flaring wall and slightly thickened rim. Rim D23, 8% (CA level 16)

52. Dish: (Form 2) Shallow, flaring wall ending in plain rounded rim. Rim D26, 12% (EA level 11)

53. Dish: (Form 2) Low, heavy foot with flaring wall. Base est.D19, 10% (AA level 31)

54. Dish: (Form 2) Low, heavy foot with shallow flaring wall, faint groove on floor. Base est. D20, 12% (AA level 35)

55. Bowl: (Form 3) Hemispherical with flanged rim, grooved on inside. Rim D18, 5% (CA level 16)

56. Bowl: (Form 3) Hemispherical with low, heavy foot. Base D5, 100% (CA level 24)

- 57. Bowl:** (Form 3) Hemispherical with flanged rim. Rim D18, 6% (CA level 16)
- 58. Bowl:** (Form 3) Hemispherical with quite high, vertical, flanged rim. Rim D18, 5% (CA level 24)
- 59. Dish:** (Form 4) Incurved wall to more upright rim, slightly angular ridging on exterior. Rim D28, 6% (CA level 16)
- 60. Dish:** (Form 4) Shallow, curving floor with wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D26, 8% (CA level 16)
- 61. Dish:** (Form 4) Shallow, wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D26, 6% (CA level 16)
- 62. Dish:** (Form 4) Shallow, curving floor with wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D19, 6% (CA level 16)
- 63. Dish:** (Form 4) Shallow, curving floor with low, triangular, tapered foot (form H4). Base est. D12, 18% (EA level 11)
- 64. Dish:** (Form 4) Shallow, curving floor with tapering, slightly more rounded foot. Base est. D10, 6% (CA level 16)
- 65. Dish:** (Form 4) Shallow, curving floor with low, tapered foot. Base est. D11, 16% (CA level 16)
- 66. Plate:** (Form 6) Very shallow, curving floor, triangular tapering foot, slightly thickened rim, grooved on the underside with faint traces of rouletting on upper surface of floor (foot characteristics similar to Form 4). Rim D34, 20% (CA level 16)
- 67. Bowl:** (Form 5) Small with upright wall. Rim est. D12.5, 5% (CA level 16)
- 68. Bowl:** (Form 5) Small with upright, slightly carinated wall. Rim est. D10.5, 5% (CA level 16)

4.7 AFRICAN RED SLIP WARE

4.7.1 Introduction

This ware provides one of the most important classes of Late Roman pottery found on sites around the Mediterranean and the 'market-leader' in most parts at the heart of the Roman Empire (including Rome itself). Produced by a variety of regional workshops over a very long period of time, (from the late first century AD and well into the seventh century) it belonged to a single unbroken tradition with origins traceable back to the Hellenistic period. The series is distinct from the *terra sigillata* wares that preceded it by differences in fabric. It does not, except in rare cases, have the highly glossy surfaces of the earlier wares, and is generally coarser and lighter in colour.

Though the quantities of African Red Slip wares at Knossos are relatively small in comparison to some of the earlier sigillata, they represent almost the entire import market of fine wares at the site from the later part of the third and throughout the fourth century AD. It was not until a serious competitor in the east was established, with wares matching the function of the later African wares, that this monopoly was successfully challenged.

4.7.2 Fabric

The standard body-clay of the series is fairly coarse, with a rather granular appearance. The normal colour-range is orange-red to brick-red; many of the finer pieces have a pronounced pinkish tinge. The commonest impurity is lime, frequently present in small particles, with occasional larger lumps where these have not been eliminated by the washing of the clay; these sometimes erupt as a result of firing, to leave small pock-marks on the surface. In addition, fine quartz particles, white or brownish, are frequently visible, together with occasional black particles; these appear to account for much of the granular texture of the ware. Specks of silvery mica can be observed on most vessels, though these are never present in great quantity.

The slip used, which is merely a refined version of the body-clay is of good quality but lacks the reflective powers and glossiness of that on terra sigillata, except in rare instances. It is generally a shade or two deeper in tone than the body-clay. When thickly applied it has a smooth, faintly lustrous appearance; thinner coatings tend to be matt and to merge with the body-clay. In the latter case, it is not always possible to distinguish a thin coat of slip from mere wet-smoothing of the surface. Being of the same basic consistency as the body, it normally fuses well and is not prone to flaking; the eruption of lime particles below the surface is the most frequent cause of damage (Hayes 1972, 13-14).

4.7.3 Forms

The majority of the vessels, like their terra sigillata predecessors, belong to a comparatively small number of standardised types. Individual vessel-forms change fairly frequently with few surviving more than a century without any modification, most being superseded by completely new shapes dictated by the trends of the day. Additionally, from the fourth-sixth centuries stamped decoration is a characteristic feature of the ware. This is normally found on the floors of dishes and bowls, of the larger varieties, within concentric grooves (in the manner of a large medallion, as in the case of stamped decoration on Classical and Hellenistic black-glazed wares, heavily influenced by contemporary metal vessels). Changes in the choice of motifs, and in the rendering and arrangements of the stamps, permit us to distinguish several successive styles, each of limited duration and regularly associated with particular vessel-forms. The combination of these features permits the relatively precise dating by archaeologists of even small fragments.

From approximately the middle of the third century onwards, African Red-slip Wares made an increasing impact on the Knossian market with vessels aping metal ware in both their thinness and shape. Most common are the large dish with straight sloping sides and tiny bevelled foot, just under the edge of the floor (Form 50 below). These mould made, undecorated dishes were produced in a range of fabrics from thin fine examples dated to the third and earlier fourth centuries, to a slightly less fine variety thought to date soon after and to continue in production until *c.* AD 400.

Other comparable shapes, also thought to be of fourth century date, are a series of wide flat-based dishes commonly occurring in similar fabrics but sometimes of a thicker, coarser nature. These dishes, often with stamped decorations on the floor, were produced in a range of forms, some with a vertical or slightly incurved rim flattened on the outside to give an almost triangular profile (Form 61 below) and others with a more or less horizontal stepped rim (Form 59 below). The latter shape at times demonstrates vertical gouging on the exterior walls, impressed by a blunt instrument while the clay was still damp and heavy enough to create slight ridges visible on the interior of the vessel.

4.7.4 Form Descriptions

Form 8A (=Hayes form 8A) *Carinated bowl*. Straight flaring wall, sloping floor and small foot. Large convex moulding below rim, with a small ridge below, matched by two corresponding grooves on the inside.

Type A, one of the most common of the early repertoire of the ware, has rouletted decoration in two or three lines above and below the carination (c.AD80/90-160+).

Form 14 (=Hayes form 14, Lamboglia 3a-b) *Bowl*. Straight sloping or vertical wall, sloping floor and small low foot; more or less carinated. Undecorated. Type B: more open with vertical wall. Type C: shallow and open with low inward-sloping wall. c.AD160-200+

Form 32 (=Hayes form 32) *Dish* with broad flat floor, sloping wall and short flat rim; small foot of large diameter. On the inside, a slight inset at junction of wall and floor; on the outside, the wall meets the bottom at an angle about a centimetre outside the line of the foot. Sometimes grooves on floor. Rather thick, coarse fabric; thick bright slip.

Form 49 (=Hayes form 49, Antioch 838, Carandini 9C) *Plate* with broad flat floor and low curved wall ending in a sharply incurved rim. Fine ware (as form 50 below) with fine closely spaced turning marks on exterior of wall (c.AD230/40-300+).

Form 50 (=Hayes form 50, Lamboglia 40, Antioch 836 p-x) *Large Dish*, with broad flat floor and high straight wall rising at an angle to a plain rim, tiny bevelled foot under edge of floor. Undecorated. Thin-walled; fine fabric with tin smooth slip.

Type A: with steep wall and broad floor; fine fabric (c.AD230/40-325).

Type B: more flaring wall and proportionately smaller base (sometimes lacking the small foot); fabric rather less fine (c.AD350-400+).

Form 58 (=Hayes form 58, Lamboglia 52A, Antioch 820-3) *Flat-based dish*, generally large, with curved wall and short flat rim. Lower part of wall generally provides the resting surface; the broad slightly hollowed base is marked off by a small inset (sometimes a tiny foot as form 50). On inside, a corresponding offset, generally combined with a small groove at edge of floor. Normally grooves on rim and floor.

Type A: fairly fine clay, generally hard fired to a brownish or maroon-red colour, with a slightly lustrous slip of similar colour covering the whole of the vessel. Tend to be rather well made, with sharp-cut tapering rims, steep walls and tiny feet.

Type B: coarser fabric. Clay fairly granular, generally fired orange-red to red, with semi-lustrous or matt slip of similar colour covering inside and upper part of outside only, the rest of the outside merely being smoothed. Generally shallower than Type A, with more sloping walls, downturned rims and inset bases. Grooves on rim, two grooves on floor.

(c.AD290/300-375).

Form 59 (=Hayes form 59, Lamboglia 51, Antioch 817-8) *Flat-based dish*, as form 58 but rather shallower, with broad flat rim. Generally large. Ware as form 58B, but often rather thicker and coarser; slip, either thick and semi-lustrous or thin and matt, on inside and upper part of outside; surface may bear fine smoothing marks. The rim, more or less horizontal, is stepped up in two fasciae, the outer (which is broader) bearing either a groove or a slight upward roll at the lip. Stamped decoration,

surrounded by grooves, is normal on the floor except on some of the smaller examples (c.AD320-420).

Type A: (=Antioch 818) with vertical gouging on exterior of wall, impressed with a blunt implement while the clay was still damp, creating slight ridges on the interior (c.AD320-380/400).

Type B: (=Antioch 817) with plain wall.

Form 61 (=Hayes form 61, Lamboglia 54, Antioch 830-831) *Flat-based dish* as form 58-9 but with vertical or slightly incurved rim, flattened on outside to give a more or less triangular profile. Generally large. Ware as forms 58-9. Stamped decoration and grooves on floor, except on some small examples with grooves alone.

Type A: with incurved or vertical rim, with external chamfer meeting wall at a sharp angle. Generally shallow, with broad floor (c.AD325-400/420).

Form 62 (=Hayes form 62) *Flat-based dish* with curved wall and plain rim. Base defined from bottom of wall by a slight moulding; corresponding slight offset at edge of floor. Stamped decoration and grooves on floor (c.AD350-425).

Form 67 (=Hayes form 67, Lamboglia 42, Antioch 869-873) *Large bowl* with curved slightly sagging body, flat base and two part flaring rim. Ware as form 59-61, sometimes heavy and coarse. The rim consists of a flat member, rising gently, surmounted by a curved, everted member, hooked or rolled at the lip; the articulation of the two parts usually blurred on the underside. The upper part of the rim is generally somewhat flattened on top, bearing a groove (sometimes two) at or near the lip; rim roll may be heavy. The floor usually bears stamped decoration and grooves (some small and late pieces the stamps are omitted). c.AD360-420+

Form 105 (=Hayes form 105, Antioch 802) *Large plate*, with shallow sloping floor terminating in a heavy knobbed rim, and rounded foot of medium height. Thick coarse ware with slip on inside and over the rim. Floor well-smoothed, underside

rough, with brush marks. Slip often thin and poor compared with earlier forms (c.AD580/600-660+).

4.7.5 Catalogue (Figs. 4.9-13):

69. Carinated bowl: (Form 8A) Straight, flaring wall with large convex moulding below the rim with a small ridge below, matched by two corresponding grooves on the inside. Two lines of rouletted decoration on the exterior of moulding. Rim D25, 5% (AA level 5)

70. Bowl: (Form 14B/C) Upright wall with sloping floor, plain rim. D20, 11% (CB level 28)

71. Large dish: (Form 49) Curved wall ending in sharply incurved rim. (CA level 20)

72. Large dish: (Form 50A) Thin, straight walled, rising to a plain rim, fine fabric with good, smooth slip. Rim D28, 5% (CB level 26)

73. Large dish: (Form 50A) Base fragment. Tiny, bevelled foot. Very thin, fine fabric with good, smooth slip on interior and exterior surfaces. (CA level 8)

74. Large dish: (Form 50A) Thin, high, straight wall rising to a plain rim, fine fabric and smooth slip. Rim D32, 3% (CB level 10)

75. Large dish: (Form 50A) Straight wall rising at an angle from a broad, flat floor with tiny bevelled foot under its edge. Base D28, 6% (CA level 20)

76. Large dish: (Form 50A/B) Broad, flat floor and straight, slightly flaring wall, rising at an angle to a plain rim, tiny bevelled foot under the edge of the floor. Slip on interior surface and over rim, slightly rougher exterior. Rim D22 (CC level 16)

77. Large dish: (Form 50B) Quite thick, flaring wall rising to a plain rim, fabric less fine. Rim D27, 6% (AA level 5)

78. Large dish: (Form 50B) High, slightly flaring wall rising to a plain rim. Rim D27, 7% (CA level 5)

79. Large dish: (Form 50A/B) Broad, flat floor and straight, slightly flaring wall, rising at an angle to a plain rim, tiny bevelled foot under the edge of the floor. Slip on interior surface and over rim, slightly rougher exterior. Rim D28 (CB level 22)

80. Large dish: (Form 50A/B) Straight walled (lightly curved in lower half), rising to a plain rim, slip more orange-red. Rim D26, 5% (CB level 24)

81. Large dish: (Form 50A/B) Base fragment. Tiny, bevelled foot. (CA level 24)

82. Dish: (Form 32/58) Sloping wall with short, flat rim. Rim D32, 3% (AA level 5)

83. Flat-based dish: (Form 58) Curved wall with short, flat rim, grooved on the upper surface. Rim D30, 4% (CB level 10)

84. Flat-based dish: (Form 58B) with curved wall and short, flat, slightly downturned rim with groove. (AA level 19)

85. Flat-based dish: (Form 59) Shallow, curved wall and flat base with horizontal, stepped rim. Rim D32, 10% (AA level 27)

86. Flat-based dish: (Form 59A) Shallow with broad, flat, horizontal rim, stepped with groove on outside. Body decorated with distinct, near vertical gouging,

impressed with a blunt instrument, leaving slight ridges on the interior. Rim D31, 30% (CB level 15)

87. Flat-based dish: (Form 59) Shallow, with broad, flat, horizontal rim, stepped with a slight upward roll at the lip. Rim D26, 2%. (AA level 1)

88. Large dish: (as Form 59) Broad, hollowed base and gently curved wall. Base D24. (BA level 3)

89. Large dish: (Form 32/58, 59) Broad flat floor with minute, hollowed base, very faint trace of grooves on upper surface of floor, where floor joins slightly curving angle with wall. Base D19, 10% (CB level 10)

90. Large dish: (Form as **89**) Broad, hollowed base and gently curved wall. Fabric rough and granular at break, dull slip. Base est.D16. (CA level 5)

91. Flat-based dish: (Form 61A) Shallow, with slightly incurved rim, flattened on the outside, presenting a more or less triangular profile. Rim est. D31 (BA level 3)

92. Flat-based dish: (Form 61A) Shallow with slightly incurved rim, flattened on the outside, presenting a more or less triangular profile. Rim D28, 9% (AA level 5)

93. Flat-based dish: (Form 61A) Shallow, with slightly incurved rim, flattened on the outside, presenting a more or less triangular profile. Rim est. D22, 3% (CB level 10)

94. Large dish: (Form 62) Shallow with sharply curved wall and plain rim. Rim D35, 4% (AA level 5)

95. Large bowl: (Form 67) Curved, everted, flaring rim, heavily rolled and hooked at the lip. Rim D32, 4% (AA level 9)

96. Large plate: (Form 105) Shallow, sloping floor terminating in a heavy knobbed rim. Rim convex on outside, quite rounded with slight hook. Rim D32, 1% (AA level 26)

97. Dish: (Misc.) curved wall with slight ridging on exterior, plain rim. Rim D28, 8% (AA level 3/5)

98. Small bowl: (Misc.) Base with sloping floor and low, square foot-ring. Base D4.5, 100% (CB level 28)

99. Stamp: Small rosette fragment (Hayes Style A (i), type 44A) with two surviving concentric grooves (Common, especially on forms H59, mainly AD350-375). (AA level 26)

100. Stamp: Two slightly larger rosettes within two bands of concentric double grooves (Hayes Style A (ii), type 44B, mainly AD350-375). (CB level 11)

101. Stamp: With band of concentric circles between grooves (Hayes Style A (ii), c.AD350-420). (GA level 5)

102. Stamp: Two surviving 'palm-branch' motifs radiating from centre (Hayes Style A (ii), type 3) surrounded by a band of alternate 'palm-branch' and square 'grille-patterns' bordered by grooves (Hayes Style A (ii-iii), Type 69, Common c.AD350-450). (CC level 3)

103. Stamp: Fragmentary, broad 'palm-branch' with double central rib and flattened base (Hayes style A (iii), Type 5, not common c.AD450-475). (EA level 36)

104. Stamp: Base with low foot, gently sloping floor, decorated with 'palm-branch' style motifs (each comprising three branches radiating from a central point), grouped in a band around the centre, bounded by shallow grooves (Hayes Style A (i-ii) c.AD450). Fabric and slip very worn (not clearly African Red Slip Ware). (CA level 5)

4.8 PHOCAEAN WARE

4.8.1 Introduction

Phocaean Ware was formerly termed “Late Roman C” in the *Antioch* classification (Waage, 1933). However, a source has since been located through the presence of kiln wasters at Phocaea. It provided the only real competitor with North African Red-slip Wares at Knossos and the major competitor elsewhere in the East from the fourth century onwards. The emergence of the ware was perhaps linked to the increasing market provided by the eastern Roman capital of Constantinople. Rarely represented at Knossos by intact examples, finds to date have generally been fragmentary and in relatively small numbers from mixed upper fills (e.g. Sackett 1992, 161).

However, the *Knossos 2000* excavations have provided a number of fully restorable vessels from a good 5th century AD domestic deposit (Ch5, Group G), together with numerous other examples representing a range of common forms and variants from less well-defined contexts. In addition, later forms of the ware have recently been published from the excavation of the so-called ‘Knossos Medical Faculty’ (KMF) a short distance to the north of the site (Hayes 2001).

4.8.2 Fabric

The clay is a fine-grained red, not unlike that of finer African products, but having a different range of impurities. A large number of small lime particles are frequently (but not always) present in it, producing in the case of darker, harder-fired examples a distinctive fine-speckled appearance; mica, on the other hand, is rare hardly ever more than a few specks and other impurities are absent. The ware is generally hard-fired, with a brownish-red, purplish-red or maroon tint, and breaks cleanly without splintering. The red slip, which covers the whole surface, is generally no more than a fine film, which fuses with the body-clay; sometimes however, it is more thickly

applied on interiors. It is merely a refined version of the body-clay, dull or occasionally metallic in appearance, with none of the gloss of the terra sigillata wares.

The interior surface of Phocaean Ware products appear to have been carefully smoothed, the exteriors, below the rim, bear smoothing-marks similar to those on the insides, but in addition display numerous small scratches, apparently caused by lime particles being dragged round the surface during manufacture. This difference in surface texture seems to me to indicate the use of moulds in the manufacturing process (Hayes 1972, 323).

One suggested method of production, which accounts for this characteristic, is that the vessels were formed on a wheel, inverted over an internal mould, the outer profile of the body being finished off by turning against a template (Kenrick 1985, 379).

Phocaean Ware is generally hard fired. The normal red-brown or purplish-red colour of the ware indicating a firing temperature, probably somewhat in excess of 1000°C. Softer pieces, with an orange or orange-red tint, occur less frequently, mostly in the earlier phase of the ware. The firing was generally even, producing a uniform colour throughout, with the exception of the outer rim surface. This area is more often than not, discoloured and subject to partial reduction, producing a sepia, black or creamy-white result, and, in severe cases, some flaking on the surface (Hayes, 1972, 323).

4.8.3 Forms

Forms known from Knossos, including those uncovered during the *Knossos 2000* excavations belong entirely to the series defined by Hayes (1972), described below.

Form 1 (=Hayes form 1, Antioch 965, 967) *Dish* with vertical curved rim, shallow curved floor, and foot of varying height, often tapering. No stamped decoration. Large and small sizes.

Type A: vertical rim, fairly high, tending to curve inwards at lip; tapering foot of medium height, chamfered on exterior; slight carination between rim and underside. Undecorated. *c.*AD390/400-425.

Type B: similar or rather lower rim as type A; low foot (as form 2). Undecorated. (early-third quarter of fifth century AD).

Type C: variant with curved wall and plain rim, with slight thickening. Rouletted decoration on outside of rim. (first half of fifth century AD).

Type D: small variant, with shallow curved wall and plain rounded rim, low foot. Undecorated. (early-third quarter of fifth century AD).

Form 2 (=Hayes form 2, Antioch 910) *Dish* with shallow curved body and broad flaring rim, flattened on top. Flat base, hollowed out on underside to form a false foot (sometimes a low foot, produced by turning). Stamped decoration on the larger examples (*c.*AD370-450).

Type A: large with stamped decoration on the floor in one or two zones, each surrounded by a single shallow groove.

Type B: medium-sized or small, undecorated. Rim narrower than on Type A, often slightly convex; occasionally a groove at lip.

Form 3 (=Hayes form 3, Antioch 940-947) *Dish/Bowl* with vertical rim incorporating a flange. Flaring wall, curved, slightly angled or almost straight; low foot or false foot (as Form 2), produced by turning. Vertical thickened rim, generally concave on outer face, with more or less pronounced overhang at bottom.

Type C: with tall vertical rim, thickened on outside to form a narrow flange; outer face flat or slightly concave; top either flattened, with the highest point at the outer edge, or slightly convex. In some cases rouletting (one to three lines) on outside (*c.*AD450-490).

Type E: a continuation of Type C. Rim still vertical, but with rather greater overhang at bottom; underside flat or concave, with a slight offset at junction with wall. Often one or two lines of rouletting on outer face (c.AD475-500).

Type G: as Type E with a flat or slightly convex outer face with no rouletting.

Form 10 (=Hayes form 10) *Dish/Bowl* with sloping wall, curved or almost straight, low foot and knobbed or flattened rim, rounded on the outside, and concave underneath, with a small offset at junction with wall. Few early examples bear stamped decoration (AD570-660).

Type A: with heavy rim, knobbed or squarish profile (=Antioch 949 a-k)

4.8.4 Catalogue (Figs. 4.14-16):

105. *Large Dish:* (Form 1A) vertical, curved rim with shallow curved floor. Exterior of rim discoloured brown due to partial reduction. Rim est. D35. (BA level 3)

106. *Large Dish:* (Form 1A) vertical, curved rim with shallow curved floor. Exterior of rim discoloured brown due to partial reduction. Rim est. D35. (BA level 3)

107. *Large dish:* (Form 1A) vertical, slightly incurved rim, with sloping floor. Reduced to black on exterior of rim. Rim D28, 10% (AA level 2)

108. *Large dish:* (Form 2A) with shallow, curved body and broad, flaring rim, flattened on top. Rim D32, 10% (CA level 5)

109. *Large dish:* (Form 2A) with shallow, curved body and broad, flaring rim, flattened on top, slight ridge on exterior of wall. Rim D32, 3% (HA level 11)

110. Large dish: (Form 2A) with shallow, curved body and broad, flaring rim, flattened on top. Exterior of lip discoloured buff-brown due to partial reduction. Rim D32, 3% (AA level 9)

111. Dish: (Form 2B smaller variant) with shallow, curved body and broad, flaring rim, flattened on top, slight ridge on exterior of wall. Rim est.D18. (CA level 2/3)

112. Large bowl: (Form 3C) vertical rim incorporating a flange, flaring, curved wall with low foot. Vertical thickened rim, concave on outside, rounded on top. Central floor stamp of 'double-ribbed Greek cross with pendants' (Hayes group IIA, type 70, c.AD475-500 AD). Rim D30, 100% (CA level 3)

113. Large bowl: (Form 3C) vertical rim incorporating a flange, flaring, curved wall with 'mend-hole'. Vertical thickened rim, slightly concave, almost flat on outside, bevelled at top with small overhang at bottom. Broad band of rouletting on exterior of rim. Rim D30, 5% (CA level 3)

114. Large bowl: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top with highest point on outer edge, slight overhang at bottom. Single band of narrow rouletting on exterior where rim is most concave. Rim D20, 5% (AA level 3)

115. Large bowl: (Form 3C) vertical rim incorporating a flange, flaring, curved wall. Vertical thickened rim, concave on outside, rounded on top with quite pronounced overhang at bottom. Discoloured to dark brown, due to partial reduction of rim exterior. Decorated with single broad band or rouletting on rim. Rim D30, 2% (AA level 1)

116. Large bowl: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, slightly concave on outside, rounded on top with small overhang at bottom. Rim D30, 11% (AA level 2)

117. Large bowl: (Form 3C) vertical rim incorporating a flange, flaring, curved wall with low foot. Vertical thickened rim, concave on outside, rounded on top, with

thicker, overhanging, rounded bulge at bottom. Discoloured brown, due to partial reduction on lower half of rim exterior. Rim D28, 8% (HC level 8)

118. Large bowl: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top, slight overhang at bottom. Single band of rouletting on exterior. Rim D27, 9% (AA level 14)

119. Bowl: (Form 3C) Plain, vertical rim incorporating a small flange, slightly concave, rounded top and bottom. Deep curved wall. Rim D28, 6% (CA level 3)

120. Bowl: (Form 3C) vertical rim incorporating a flange, rounded top and bottom, concave exterior with single band of simple rouletting. Shallow curved wall with small ledge on interior of rim. Rim D24, 3% (CA level 3)

121. Bowl: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top with highest point on outer edge, pronounced overhang at bottom. Broad band of rouletting on exterior. Rim D20, 5% (AA level 2)

122. Bowl: (Form 3C) narrow, vertical rim incorporating a flange with steep curved wall. Rim, concave on outside, slightly rounded on top with small overhang at bottom. Rim D18, 10% (EA level 1)

123. Bowl: (Form 3C) narrow, vertical rim incorporating a flange, flaring, curved wall with low foot. Vertical thickened rim, concave on outside, slightly rounded on top with pronounced overhang at bottom. Rim D15, 100% (CA level 2/3)

124. Large bowl: (Form 3E) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, rounded on top, underside almost flat with slight offset at junction with wall. Two bands of rouletting on exterior. Rim D30, 2% (CA level 1)

125. Large bowl: (Form 3E) vertical rim incorporating a flange. Vertical, thickened rim, almost flat outside, flattened on top, small overhang, underside flat with offset at join with wall. Rim D29, 5% (AA level 9)

126. *Large bowl:* (Form 3E) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, rounded on top, underside bulging with slight offset at junction with wall. Single, simple band of rouletting on exterior. Rim D28, 8% (AA level 9)

127. *Large bowl:* (Form 3E/G) flat, vertical rim, almost square in profile, slightly concave underside with small offset at junction with wall. Rim D28, 10% (EA level 1)

128. *Dish:* (as Form 3) thickened rim, slightly concave exterior vertical surface, incorporating a small flange with offset at junction with wall. Rim D26, 5% (HC level 6)

129. *Large bowl/dish:* (Form 10A) sloping wall with 'knobbed' rim, rounded on outside, concave underside with small offset. Partially reduced (part cream, part black) on exterior surface. Rim D28, 6% (HB level 16)

4.9 MISCELLANEOUS LATE ROMAN FINE WARE

4.9.1 Introduction

In addition to the imported fine wares of Late Roman date discussed above, a single example, perhaps a locally produced, or regional imitation of a well known imported shape, was uncovered amongst mixed upper levels. Only the base of the vessel was represented, relatively crudely made and similar in form to an African Red Slip Ware type which dates to *c.* mid-late 5th century AD (**130**; similar to ARSW form 84, Hayes 1972, 132-133). Similarly, copies of Late Roman imported plates and dishes, also identified as locally manufactured, are known from excavations in the area (Hayes 2001, 433-434; Hayes 1972, 160-171; forms 104-106). These examples suggest some level of imitation of common imports, similar to that presented here, continuing throughout the latter part of the Late-Roman period (*c.* 6th-7th centuries AD).

4.9.2 Catalogue

130. *Deep dish:* (Form = ARSW form 84, see above) steep, straight wall and slightly curved, sloping floor with narrow foot-ring. Body depicting traces of worn, shallow rouletted decoration. Soft, buff fabric (as local) with a dull, pale orange-brown flaky slip. Base D16, 12% (AA level 5).

131. Fragmentary body sherd: Quite thick, hard, red-brown fabric with maroon surfaces. Exterior decorated with incised, slightly angular, vertical grooves (decoration akin to that common on vessels of Cypriot Red Slip Ware (Hayes 1972, 372) rough and poorly finished. AA level 5.

4.10 LOCAL FINE WARES

4.10.1 Introduction

This group of wares comprises a substantial proportion of the whole volume of slipped fine wares dating from the Early Roman period at Knossos. Produced in ever-decreasing quantities from the Augustan period onwards, the ware is technically speaking not *sigillata* and, as such, was not a serious competitor to the finer imported wares. The vessels produced in this ware serving to supplement the popular *terra sigillata* wares imported at the time.

The shapes include a series of small jugs not often found among the high quality wares imported from elsewhere. The most common form is a baggy jug with flaring rim and small vertical lip, perhaps derived from the fine Augustan wine-jug shape or *oinochoe* made in the Hellenistic style with appliqués on the inside of a trefoil lip (Sackett 1992, 182; *Knossos 2000*, fragmentary ‘head appliqués’ BA level 11, GA level 1). Although a diverse range of open shapes were provided, continuing in the Hellenistic tradition throughout the Augustan period, a tendency to copy forms of the imported fine wares became more and more common. Almost all the known major *sigillata* wares were imitated at some time, copying shapes of Eastern Sigillata A in the first century AD through to Çandarlı Ware shapes in the second and third (collection of locally copied *sigillata* forms; Forster 2001, 154, Fig.4.8). The potters in and around Knossos appear to have accepted the trends of the day but concentrated on the production of less articulated forms, generally softer fired.

In addition, during the Early Roman period, it remained common practice to use painted decoration for otherwise plain vessels in the same way as during the Hellenistic and earlier periods. Colour washes or paint were most commonly used on the inside and over the rim of the vessel with the outside left plain, or often, alternatively, with a series of simple plain bands. As with other locally manufactured fine wares, the painted products were favoured less and less and ceased to be in use towards the end of the first century AD (Forster 2001, 153-154).

4.10.2 Fabric

The fabric is relatively fine, soft-fired, buff to cream [10YR/8/6] with some variation commonly in the body of the clay towards a pinkish tinge, particularly with ‘thicker’ examples. Decorations consist of a wide variety of colour washes ranging from dark-red, maroon and red-brown all the way to orange or yellow-brown.

4.10.3 Form Descriptions

The forms presented here consist of a series of open shapes, basins, dishes and bowls, demonstrating the decorative features discussed above and paralleling those from deposits of Early Roman date elsewhere at Knossos.

4.10.4 Catalogue (Fig. 4.19)

140. *Basin*: Deep, slightly sloping sides, thick square rim with two horizontal grooves on exterior. Handle set horizontally just below the rim. Worn, dark, red-brown wash on interior surface and over rim (more orange on top of rim). Pale buff wash on exterior surfaces. Rim D29, 18% (BA level 5)

141. *Large dish*: (form as Eastern Sigillata A-EAA3) shallow sloping floor with plain, upcurved rim. Thin, orange-brown colour wash (darker where more thickly applied) brushed onto exterior surface leaving distinct streaks. Interior slip more evenly applied giving a darker, grey-brown appearance. Rim D30, 9% (BA level 9)

142. *Bowl*: Thick, slightly rounded ring-foot, very worn. Base D6.5, 100% (FA level 9)

143. *Bowl*: Thick, slightly bevelled ring-foot, partial dark red-brown colour wash. Base D11, 20% (EA level 11)

4.11 GLAZED WARES

4.11.1 Introduction

Although lead-glazed vessels were produced intermittently at times throughout the Roman imperial period, their presence on sites around the Mediterranean is relatively rare. Knossos is no exception and representation is very sparse, limited to only a few fragments. Seen as an alternative to luxury metal plate whose forms and ornamentation they copy, glazed vessels provided a new range of colours (brown, green and yellow being the norm) which otherwise did not become commonplace until *c.* seventh-eighth centuries AD (Hayes 1997, 64-5).

Examples of Roman date from Knossos include a shallow cup or *skyphos* decorated with vines in relief with a lead-glaze surface, ranging in colour from turquoise to light green and yellow. Thought to date approximately to early in the first century AD and most likely to originate from an eastern source (comparable to material in Tarsus Group 3; Hochuli-Gysel 1977, 103; Sackett 1992, 186). The *Knossos 2000* excavations have provided little to add to this limited representation. However, in addition to fragmentary examples of glazed wares (of Medieval and later date surviving in the uppermost levels/topsoil), one large vessel (**144** and **145** below), decorated with stylistically ‘Hellenistic’ scenes provides an example of a ware with green and yellow surface glaze over relief decoration, similar to that depicted on the lead-glazed cup mentioned above.

Excavated in the ‘courtyard’ area of the North extension to Trench C, below a substantial dump of tiles, the date and origin of this particular vessel remains unclear. Found in association with a mixture of pottery, including Minoan to Late Roman sherds, the best indicator of a terminal date for the deposit is provided by the presence of African Red Slip Ware, including a dish dated to *c.* AD 300-360. Numismatic evidence, provided by a single coin, together with that from other associated finds, is not yet available but may still refine the dating of this particular deposit (see Chapter 5.10 Group I). Although the origin of this vessel is not known, the most likely

suggestion is that it was manufactured somewhere in the East, possibly in Asia Minor or Northern Syria, where lead-glazed pieces are characteristically described as exhibiting:

‘...an inner honey brown glaze and an outer green glaze (which turns silver as the surface disintegrates)..’ (Brown & Strong 1976, 86).

All of these visible characteristics closely resemble those represented on the example described below (see fabric) and the implied origin coincides closely with that of much of the other imported pottery found on the site during the Roman period.

Until suitable parallels, whether from the eastern Mediterranean or elsewhere, can be identified more conclusively, this suggestion remains tentative and the consideration that the fragmentary pieces could be intrusive, and therefore later by some time than the date provided by the other finds, has been made.

However, with this in mind, the existing evidence provided by the stratigraphic location as well as the associated finds (within the same context and also those included in the levels of accumulated fills immediately above), together with the style of the decoration and technical characteristics of the vessel itself, appears to reinforce a fourth century date, as suggested above.

4.11.2 Fabric

The fabric is fairly hard fired, buff-pink (5YR/4/7), with large, irregular white grits, very sparsely represented (occasionally leaving voids). Decorated on the exterior surface with a green and yellow-brown glaze, darker where it is more thickly applied or has accumulated in the grooves of the moulded relief (only partially surviving on a flaking background of silver-blue appearance).

4.11.3 Catalogue (Fig. 4.20; Plates 13-14)

144. Misc. vessel, possibly a *table-amphora*: Large, thick, fragments with a broad, horizontal moulded band and deep, relief decoration, depicting a figure pouring from a krater (CB level 22).

145. Misc. vessel, possibly a *table-amphora*: No demonstrable join with **144** but almost certainly from the same vessel. Relief decoration depicting reclining banqueters (CB level 22).

4.12 'THIN-WALLED' FINE WARES

4.12.1 Introduction

A range of fine wares, collectively called 'thin-walled' provided a complementary series for table use alongside the bowls and plates provided by the mass-produced *terra sigillata* discussed earlier. The vessels themselves were produced in relatively large numbers, though not on the scale of the major *sigillata* industries, and were often made in fragile, extremely thin, occasionally even 'egg-shell-like', lightweight fabrics. This was a conscious attempt to emulate drinking cups or beakers made in metal or, alternatively, those in glassware. Moulds were used for some wares while others were wheel-thrown in the normal way with handles and decoration added by hand. Rouletting and barbotine ornament provided the most common decoration with 'rough-cast' surfaces produced by the scattering or brushing of fine grits on to the vessel, also used. Though these wares were manufactured in a range of fabrics from various locations, one distinctive group, imported during the mid-late 1st century AD and thought to originate in Italy, was the most common at Knossos (Sackett 1992, 166-7; see Fabric 1 below).

4.12.2 Fabric

Fabric 1. Thin-walled grey ware: Fine dark grey clay, with a lustrous black slip, inside and out. In some areas where the slip is worn the surface tends to show a duller grey colour. Drip marks occur where the slip has run thicker down the lower body: in some cases there are finger marks at or above the foot, where the potter held the bowl while dipping. The vessels are thin-walled, sometimes 'egg-shell' thin and have a variety of decorative motifs in barbotine or rouletted decoration. (Sackett 1992, 166-7).

Fabric 2. Thin-walled red ware: Hard, fine pink fabric with dark red slip showing signs of dripping. Thin-walled with barbotine decoration (see **136** below).

4.12.3 Form/Type Descriptions

Thin-walled Ware Cup – Type 1: *Small Cup* with upright wall, rounded lower body, with a tiny, beaded rim decorated with an external groove. Decorated with striated blobs on upper body and tiered ‘feathered’ rouletting on remainder of underside.

Thin-walled Ware Cup – Type 2: *Small Cup* with an incurved lip set off by grooves. Body decorated with a grid of tiny horizontal grooves divided by spaced vertical grooves.

4.12.4 Thin-walled grey wares catalogue (Fig. 4.18):

132. *Small cup:* (Type 1) with upright wall, rounded on underside, tiny beaded rim with external groove. Decorated with striated blobs on upper body and tiered rouletting on remainder of underside. Rim D8 (Fabric 1). EA level 7.

133. *Small cup:* (Type 1) with upright wall, rounded on underside, tiny beaded rim with external groove. Decorated with striated blobs on upper body. Rim D8, 7% (Fabric 1). FA level 16.

134. *Small cup:* (Type 2) with incurving lip set off by grooves. Body decorated with tiny horizontal grooves divided by additional spaced vertical grooves (form, Sackett 1992, IG20). Rim D8, 30% (Fabric 1). FA level 16.

135. *Cup:* Tiny beaded rim offset by a groove. Rim D10, 9% (Fabric 1). FA level 16.

136. *Small cup:* (Type 1) Rounded on underside, upright wall ending in tiny beaded rim offset by narrow groove. Decorated with a barbotine floral motif. Hard, pink fabric with dark red slip showing signs of dripping (Fabric 2). Rim D8. FA level 16

137. *Cup*: (Form = Cosa XLII, mid 1st century AD) with rounded base depicting three, small, overlapping, tiered bands of rouletting (Fabric 1). Base D3, 17%. AA level 32.

138. *Cup*: Rounded base with tiny foot-ring. Decorated with a series of simple, linear and 'dot' motifs. Fragmentary stamp on underside of base (possibly the an incomplete sides of a triangle or 'delta' Δ). Fabric 1 (EA level 7).

139. *Cup*: (Form = 'Megaran bowl') Rounded base with tiny foot-ring. Moulded 'leaf' decoration (Hellenistic?) Base D5. EA level 11.

4.13 THIN WALLED 'COARSE' WARES

4.13.1 Introduction

Thin-walled fine wares such as those discussed above (4.12) were widely imitated throughout both western and eastern provinces and at Knossos, as elsewhere, they were increasingly superseded by a class of thin-walled mugs, manufactured in a range of fabrics from a number of sites around the Aegean and in western Asia Minor. These 'mugs', providing a further alternative for cups, beakers and small bowls, were widely exported as far west as Rome in relatively large quantities and remained popular at Knossos during the second and third centuries AD.

4.13.2 Form/Type Descriptions

Amongst the vessels represented at Knossos are two types of mug, one thought to originate in Asia Minor the other from an unknown source perhaps in the northern Aegean. The former has a high offset rim, the latter (commonly termed *urnetta a collarino*), a low rim marked off with an external ridge. Late versions of which were occasionally decorated with white painted ornaments or simple 'blobs'.

Thin-walled Ware Mug – Type 1: *Large mug* with a slightly flaring rounded rim and a deeply ridged globular body, relatively coarse. It has a thick, flat base and a narrow, sliced handle set vertically between the rim and upper body.

Thin-walled Ware Mug – Type 2: *Mug*, relatively fine, smooth finished with a flat, sloping, rounded rim, slightly thickened. A small, ridged 'collar' is present on the exterior, just below the rim. Base is flat and offset with a tiny foot.

4.13.3 Catalogue (Fig. 4.21):

146. *Mug*: (Type 2) very thin-walled, slightly flaring rim. Smooth finished, grey-brown with occasional small lime grits. Rim D8, 36% (FA level 16)

- 147.** *Mug*: (Type 2) thin-walled, vertical rim. Red-brown with grey exterior surface occasional small white inclusions. Rim D8, 15% (FA level 16)
- 148.** *Mug*: (Type 2) thin-walled with thickened, flat, sloping rounded rim. Small ridged 'collar' on exterior just below rim. Smooth finished, grey-brown with occasional small lime grits. Rim D12, 27% (FA level 16)
- 149.** *Mug*: (Type 2) very thin-walled, slightly flaring rim, small ridge on exterior. Smooth finished, grey-brown with occasional small lime grits. Rim D7, 36% (FA level 16)
- 150.** *Mug*: (Type 2) very thin-walled with flat base offset with a tiny foot. Smooth finished, grey-brown with occasional small lime grits (exterior surface more brown than **148-9**). Base D4.5, 100% (FA level 16)
- 151.** *Small bowl/beaker*: Thin-walled with slightly everted, rounded rim. Body with defined wheel ridging. Pink fabric, exterior fired grey. Rim D9, 20% (EA level 62)
- 152.** *Small bowl/beaker*: Thin-walled with sloping, flat rim. Body with defined wheel ridging. Pink fabric, exterior fired grey (exterior more brown than **151**). Rim D10, 22% (EA level 62)
- 153(a).** *Large Mug*: (Type 1) slightly flaring rounded rim, deeply wheel-ridged body. Gritty, dark brown fabric with grey-brown interior surface, grey outside. Small white and small red grits common, occasionally large and breaking the surface. Rim D10, 15% (AA level 34)
- 153(b).** *Large Mug*: Flat base, with step on interior, globular body, deeply wheel-ridged (as 153(a)). Base D5, 12% (AA level 35)
- 154.** *Large Mug*: (Type 1) slightly flaring rounded rim, globular, deeply wheel-ridged body with thick, flat base. Narrow sliced handle set vertically between rim and upper body. Damaged prior to firing with part of rim pressed out of shape and body

dentured. Gritty, dark brown fabric with grey-brown interior surface, grey outside. Small white, red grits common, occasionally large and breaking the surface, (= Sackett 1992, S1.6; Late 2nd - Early 3rd century AD). Rim D8.5, H11, 100% (EC unstratified?)

155. *Mug*: base with tiny, bevelled foot. Orange-brown with tiny shiny inclusions, perhaps 'silver mica'. Fired grey above the stacking line (=Sackett 1992, S1.8; Late 2nd - Early 3rd century AD). Base D4, 100% (HB level 5)

156. *Large Mug*: (Type 1) with flat base, globular body, deeply wheel ridged. Gritty, dark brown fabric with grey-brown interior surface, grey outside. Small white, red grits common, occasionally large and breaking the surface (lower part of the exterior, perhaps below the kiln stacking line, more brown in appearance). (HB level 5)

4.14 COOKING WARES: COOKING POTS & 'CASSEROLES'

4.14.1 Introduction

Produced in a range of fabrics, often relatively thin-walled to aid the transmission of heat, the globular cooking pot provides the most common shape of cooking vessel at Knossos. Early Roman examples show little development from shapes in use during the Hellenistic period and retain the internal ledged rim and horizontal handles common to them. A change to vertical handles is observed during the first century AD and becomes a standard characteristic by the second century AD. Sliced handles representing the norm appear to have been made progressively smaller in size and width throughout the period until by the end of the second century they are little more than tightly pinched coils just below the rim.

Other developments, also mirrored in the most common casserole, include the progressive turning out and lowering of the angle of the straight or slightly concave, everted rim. The shape changes from a raised oblique angle in the examples from the earliest Roman period to that of a frequently lower angle from the mid-first century AD onwards. A relatively flat-rimmed form is noted by the later second century AD and by the end of the second/early third century AD the rim is commonly noted to overhang somewhat. Though this simple guide is of some use as a general indicator, it should be viewed with a level of caution, particularly since newly introduced forms do not completely replace earlier ones, with traditional forms continuing to be used for long periods, often in large numbers alongside the newer introductions. It should be noted however, that in the case of small variations in vessel types like these, which were in use over an extended period of time and was most likely produced at a large number of locations without any strict standardisation, are likely, to some extent, to be misleading and may well prove (following more extensive statistical studies) to be of only limited chronological significance.

More significant changes in characteristics are noticeable however, with cooking pots of the second and third centuries AD, unlike their predecessors, being manufactured with horizontal 'ribbed' bodies, and in less baggy shapes with more deeply rounded bottoms.

Additionally, smaller versions of these cooking pots, produced in similar fabrics (in some cases depicting a more distinct brown tint) were made in the same shapes and followed parallel developments to their larger counterparts but often with only one handle set beneath the rim.

Many similarities can be drawn between the development of the carinated casserole and that of the round bellied cooking pot, with early examples being basically of Hellenistic shape, again often with horizontal handles and internal ledged rim. Changes in the fabrics used, progression in the handles adopted and in the angle of the rim can be similarly noted. However, although many of the casseroles match in ware the best of the cooking pots, a greater variety is evident, with some manufactured in a dull, brown clay with markedly thicker walls, perhaps produced locally or imported from an alternative source. Later examples from the second and third centuries AD are ribbed in the same way as the cooking pots and are similarly produced in deeper, more rounded shapes. In the case of the casserole, however, the ribbing is generally restricted to the area of the vessel below the carination.

4.14.2 Type Descriptions

Cooking Pot - Type 1: (=VillaD Type 1). Deep or slightly ‘baggy’ round bellied cooking pot with two handles of sliced type, rounded bottom with body ribbed. Rim is short and down-turned, almost triangular in section. Thought to be of Early Roman date and rarely noted during *Knossos 2000* excavations (similarly rare at *VillaD*).

Cooking Pot - Type 2: (=VillaD Type 2). Deep or slightly ‘baggy’ round bellied cooking pot with two handles of sliced type, rounded bottom with body ribbed and a wide, flat sloping rim, rising towards the lip. Provides by far the most common type at Knossos.

Cooking Pot - Type 3: (=VillaD Type 3). Deep or slightly ‘baggy’ round bellied cooking pot with two handles of sliced type, rounded bottom with body ribbed and a wide, down-turned rim.

Cooking Pot - Type 4: (=VillaD Type 4). Small version of the cooking pot with similar characteristics to those above but with an out-curved thickened rim and, in many cases, with only a single, small handle set below it.

Cooking Pot – Type 5: (=AgoraV. F83/5). Round bellied cooking pot with an upright, slightly everted rim. With either, two broad strap handles with a small central ridge attached vertically between the rim and upper body (see Sackett 1992, B1.25), or alternatively with the opposite handle, set horizontally (Robinson 1959, 19; F83-5). Early Roman in date and depicting characteristics of ‘Hellenistic’ cooking pots.

Casserole - Type 1: (=VillaD Type 1). Shallow casserole with distinct body carination and two handles of sliced type, rim is short and down-turned, almost triangular in section (as **Cooking Pot - Type 1**).

Casserole - Type 2: (=VillaD Type 2). Shallow casserole with distinct body carination and two handles of sliced type and a wide, flat sloping rim, rising towards the lip (as **Cooking Pot - Type 2**).

Casserole - Type 3: (=VillaD Type 3). Shallow casserole with distinct body carination and two handles of sliced type and a wide, down-turned rim (as **Cooking Pot – Type 3**).

4.14.3 Catalogue

Cooking wares (‘Early Roman’) - (Fig. 4.22):

157. *Cooking-pot:* (Type 5) with upright, slightly everted rim, flattened on top, slight ledge on interior (Fabric 1). Rim D14, 12% (FA level 16)

158. *Cooking-pot*: (Type 5) with large, upright, slightly everted rim, flattened on top. Stump from vertical, strap handle surviving (Fabric 1). Rim D30, 6% (FA level 16)

159. *Cooking-pot*: (Type 5) Round bellied with upright, slightly everted rim. Quite broad, angled, strap handle with small central ridge, attached vertically between rim and upper body. Composite drawing here shows opposite handle, set horizontally, rising from upper body (Fabric 1 with red core, grey exterior). Rim D12.5. (CB level 3)

160. *Cooking-pot*: (Type 5) Round bellied with upright, slightly everted rim, flattened on top (Fabric 1 with red core, grey exterior). Rim D21. (CB level 3)

Cooking wares ('Early Roman') - (Fig. 4.23):

161. *Cooking-pot*: (Misc.) Upright, slightly everted rim, rounded at lip. Thick, strap-handle attached vertically between rim and upper body with double groove formed by a central ridge. Slightly less globular, with deeper, straighter walls (Fabric 9). Rim D19, 9% (FA level 16)

162. *Cooking-pot*: (Misc.) Upright, incurving rim with rounded lip and concave interior, forming slight ledge. Broad looping, vertical handle (Fabric 9). Rim D22, 11% (FA level 16)

163. *Cooking-pot*: (Misc.) Upright, slightly everted rim. Quite broad, angular strap-handle attached vertically between rim and upper body with double groove, formed by a central ridge,. Slightly less globular, with deeper, straighter walls (Fabric 9). Rim D16, 100% (FA level 16)

Cooking wares ('Mid Roman') - (Fig. 4.24):

164. *Small cooking-pot*: (Type 4) Sloping, flat rim (Fabric 3). Rim D12, 12% (CA level 16)

- 165.** *Cooking-pot*: (Type 2) Broad, flat, sloping rim with sliced strap handle, stump surviving below handle (Fabric 2). Rim D16, 5% (CA level 16)
- 166.** *Cooking-pot*: (Type 2) Broad, flat, sloping rim (Fabric 3). Rim D19, 2% (CA level 16)
- 167.** *Large cooking-pot*: (Type 2) Broad, flat, sloping rim with flattened lip (Fabric 3). Rim D27, 8% (CA level 16)
- 168.** *Large cooking-pot*: (Type 2) Broad, flat, sloping rim with flattened lip (Fabric 3). Rim D27, 10% (CA level 16)
- 169.** *Cooking-pot*: (Type 2) with flat, sloping rim with broad wheel-ridging on body. Large, vertical, sliced handle attached beneath rim (gritty, red-brown core, grey exterior). Rim D19.5, 16% (CA level 16)
- 170.** *Cooking-pot*: (Type 2) Flat, sloping rim with broad wheel-ridging on body. Vertical, sliced handle stump beneath rim (Fabric 2). Rim D19, 12% (EA level 11)

Cooking wares; casseroles ('Early Roman' 171-3; 'Mid Roman' 174-7) - (Fig. 4.25):

- 171.** *Casserole*: (Misc.) with shallow carination, vertical sides and upright rim, flat-topped with internal ledge. Horizontal strip handle, slightly rising in the middle, attached just below the rim (Fabric 8; 'Hellenistic'/Early-Roman). Rim D24, 15% (FA level 9)
- 172.** *Casserole*: (Misc.) As **171** with slightly deeper, more rounded base, upright rim with internal ledge, no handle surviving (Fabric 9). Rim D22, 20% (FA level 16)
- 173.** *Casserole*: (Misc.) As **171-2** Carinated with slightly rounded base, upright rim with internal ledge, broad wheel ridge visible on interior. Horizontal strip-handle

set below rim. Fabric red-brown with brown (partially grey) surfaces. Small gritty 'calcite' grits and grey-brown inclusions common. Rim D24.5, 35% (CB level 4). (Mid 1st Century AD, Hayes 1971, 266, No.45; Sackett 1992, 202, C1.105).

174. *Casserole*: (Type 2) Broad, flat, sloping rim. Sliced handle, tightly coiled beneath rim with sharply carinated body (Fabric 3). Rim D19, 12% (EA level 11).

175. *Casserole*: (Type 2) Flat, sloping rim (only surviving at break) carinated body, ridged on lower half of deeply rounded body (Fabric 3). Rim D19, 15% (CA level 8)

176. *Casserole*: (Type 2) Broad, flat, sloping rim with carinated body, defined by ridge. Sliced handle, tightly coiled beneath rim (Fabric 3). Rim D19, 13% (CA level 8)

177. *Casserole*: (Type 2) Flat, sloping rim, carinated body (Fabric 2). Rim D16, 7% (CA level 16)

Cooking wares ('Mid Roman') - (Fig. 4.26):

178. *Cooking-pot/Casserole*: (Type 1) Short, down-turned, flat rim, triangular profile (Fabric 2). Rim D14, 12% (AA level 19)

179. *Cooking-pot/Casserole*: (Type 1/3) Down-turned, flat rim, almost triangular profile (Fabric 3, grey exterior). Rim D17, 7% (CA level 8)

180. *Cooking-pot/Casserole*: (Type 3) Thin, down-turned, flat rim (Fabric 3, grey exterior). Rim D17, 3% (CA level 8)

181. *Cooking-pot/Casserole*: (Type 3) Thin, down-turned, flat rim with sliced handle stump below (Fabric 2). Rim D19, 8% (EA level 11)

4.15 COOKING WARE: TREFOIL-MOUTHED JUGS

4.15.1 Introduction

In addition to the cooking pots and casseroles discussed above, a series of trefoil-mouthed jugs, with hollow 'button-like' bases, made up a standard kitchenware element. They were made in the same fabrics as the cooking pots and casseroles and demonstrate similar characteristic developments. Early examples have plain walls with those of the second century AD onwards show signs of the same ribbing found on contemporary cooking vessels. As with some cooking pots, evidence for boiling water (indicated by the presence of lime deposits on the interior surface) survives on some examples.

4.15.2 Form/Type Description

Trefoil-mouthed Jug – Type 1: (=VillaD Type 1). Small to medium sized trefoil-mouthed jug with plain body (ribbed in later examples, from 2nd century AD) and hollowed base with small, central button. Sliced handle as with contemporary cooking pots and casseroles.

4.15.3 Catalogue (Fig. 4.26)

182. *Jug:* (Type 1) Trefoil mouthed (Plain brown fabric). Rim 100%. (EA level 11).

183. *Jug:* (Type 1) Trefoil mouthed jug fragment (Fabric 2). (HB level 5)

184. *Jug:* (Type 1) Trefoil mouthed jug fragment (Fabric 2). (AA level 35)

4.16 COOKING WARES: 'LATE ROMAN' COOKING POTS

4.16.1 Introduction

Cooking vessels of the fourth-early fifth centuries AD have, to-date, been poorly represented at Knossos, though numerous fragmentary sherds are known, some with distinctive rim shapes which can be paralleled elsewhere around the Aegean. It appears that at this time a return, to some extent, to locally made products was made, with vessels manufactured in fabrics closely matching those used more commonly during the first and early second century AD.

Marking the end of the series discussed here is an alternative series of round-bellied cooking pots, with double sliced handles and thick rolled lips. These vessels, uncovered in association alongside a larger, thick walled type with a flatter base and large rolled handles merging with the rim. The examples presented here (Types 4 and 5 below), dating to the late fifth century AD (see Chapter 5, Group G), are thought to represent a continuation of the 'Phocaeen' series imported to Knossos as part of a long-standing tradition in the specialised trade of cooking wares known throughout the Aegean.

4.16.2 Type Descriptions

Late Roman Cooking Pot Type 1. Globular Cooking pot with flat, angled rim thickened at lip. Heavy ridging to body. (depicting characteristics similar to those of 'Cooking pot type 2' discussed earlier and thought to be a late variant of that type, 4th–5th century AD).

Late Roman Cooking Pot Type 2. Globular Cooking pot with distinct ‘stepped’ rim with an internal ledge and flat, slightly grooved exterior face, concave underside (4th to early 5th century AD).

Late Roman Cooking Pot Type 3. Deep Cooking pot with straight-sided body, carinated towards the base and slightly sloping towards the bottom. Neat, horizontal grooves (more tightly spaced towards carination) ‘decorating’ the exterior of the body. With an elaborate, angled rim ending in a vertical lip, rounded on top and with concave exterior surface. Internally there is a broad, flat internal lip, presumably for use with a lid.

Late Roman Cooking Pot Type 4. Round bellied, globular cooking pot with slightly flattened bottom. Short, flat rim, sloping upwards to a thick, rounded lip. Broad, double-sliced handles are attached vertically from rim to body. Relatively thin-walled with traces of a red-brown wash on exterior (dated to Late 5th century AD).

Late Roman Cooking Pot Type 5. Large, deep-bodied cooking pot with short, thick, rounded rim, slightly flattened on top. Broad, rolled vertical handles set from body to rim (and merging with it). Broadly rounded upper body, slightly tapering to an almost flat base. Relatively thick-walled in comparison with other cooking pots (Late 5th century AD).

4.16.3 Catalogue

Cooking Wares (‘Late Roman’) - (Fig. 4.27):

185. *Cooking-pot:* (Late Type 1) Flat, sloping rim, thickened at lip, heavy, wheel ridging on rounded, globular body (Fabric 1b). Rim D14 (CA level 5)

186. *Cooking-pot:* (Late Type 1) Flat, sloping rim, thickened at lip, wheel ridged (Fabric 1b). Rim D21, 9% (AA level 5)

- 187.** *Cooking-pot*: (Late Type 1) Flat, sloping rim, thickened at lip, wheel ridged (Fabric 1b). Rim D24, 9% (AA level 5)
- 188.** *Cooking-pot*: (Late Type 2) Distinct 'stepped' rim, with internal ledge and flat, vertical, slightly grooved exterior face, concave underside (Fabric 1b). Rim D20, 8% (AA level 28)
- 189.** *Cooking-pot*: (Late Type 2) Distinct 'stepped' rim, with internal ledge and flat, vertical, slightly grooved exterior face, concave underside (Fabric 1b, surfaces burnt black, core grey with brown margins). Rim D? (CA level 2)
- 190.** *Cooking-pot*: (Late Type 2) Distinct 'stepped' rim, with internal ledge and flat, vertical, exterior face, concave underside (Fabric 1b). Rim D19, 10% (AA level 26)
- 191.** *Cooking-pot*: Distinct 'stepped' rim, with internal ledge and flat, vertical exterior, concave underside (Fabric 1b, surfaces burnt black, core grey with brown margins). Rim D19, 6% (CA level 5)
- 192.** *Cooking-pot/dish*: (Misc.) Sloping wall with flat rim, almost triangular in profile with internal ledge for lid. Wheel ridged exterior. Rim D29, 10% (AA level 19)
- 193.** *Deep cooking-pot*: (Late Type 3) Straight sided with carination towards base, slightly sloping towards bottom. Neat, horizontal grooves more tightly spaced towards carination. Elaborate angled rim ending in vertical lip, rounded on top with concave exterior surface. Broad, flat internal lip (hard-fired, brown core, grey-green margins and black exterior surface with abundant small-medium flakes of silver 'mica'). Rim D26, 27% (CB level 10)
- 194.** *Cooking-pot/dish*: Broad, flat sloping rim, thick with internal ledge (gritty with sandy inclusions, red-brown, grey patchy exterior). Rim D24, 12% (CB level 10)

Cooking Wares ('Late Roman') - (Fig. 4.28):

- 195.** *Cooking-pot:* (Type 4) Round bellied, globular cooking pot, slightly flattened bottom. Short, flattened, sloping rim, rounded at lip with broad, double-sliced handle, attached vertically from rim to body (Fabric 7, quite thin-walled with traces of a red-brown wash on exterior). Rim D16, 100% (CC level 2)
- 196.** *Cooking-pot:* (Type 4) Round bellied, globular cooking pot, slightly flattened bottom. Short, thick rounded rim with broad, double-sliced handle, attached vertically from rim to body (Fabric 7, with traces of a red-brown wash on exterior). Rim D16, 100% (CC level 2)
- 197.** *Cooking-pot:* (Type 4) Round bellied, globular cooking pot. Short, flattened, sloping rim, rounded at lip with broad, double-sliced handle, attached vertically from rim to body (Fabric 7). Rim D16, 35% (CB level 3)

Cooking Wares ('Late Roman') - (Fig. 4.29):

- 198.** *Large cooking-pot:* (Type 5) Thick-walled, deep bodied cooking pot with short, thick, rounded rim, flat on top. Broad, rolled vertical handle merging with rim. Broadly rounded upper half, slightly tapering body to almost flat base (Fabric 7, thick-walled). Rim D20, 100% (CA level 3)
- 199.** *Small cooking-pot:* (Misc.) Narrow, flaring rim with rounded lip (Fabric 7). Rim D13, 20% (CA level 3)

4.17 COOKING WARES: DISHES & 'FRYING PANS'

4.17.1 Introduction

In addition to the cooking pots and casseroles already discussed, a series of flat bottomed cooking dishes or pans suitable for baking were introduced (in parts of the Mediterranean as early as the second century BC). The best known of these, termed 'Pompeiiian Red Ware', is characterised by its hard granular fabric with a thick red or red-brown slip on the inside and over the rim. The name, describing the colour of the slip (which matches the common red tint of wall plaster at Pompeii), is a particularly fortuitous one since a series of vessels of this type, in a fabric containing indicative dark volcanic grits, actually comes from the same region (Hayes 1997, 78).

A range of these types are represented at Knossos, including examples with a thickened or rolled rim, a distinctive type of 'frying pan' with a tubular screw handle attached obliquely to a thick rounded rim, and a series of broad flat-rimmed dishes with no handle. The situation is further complicated by the recognition of locally produced versions in use alongside those imported, possibly from a number of rival centres. Production centres in the East, particularly Phocaea on the west coast of Asia Minor, provided a viable alternative to traditional Western sources, and are well represented at Knossos by vessels made in fabrics exhibiting characteristics of the Phocaeian series (see Fabric 4) including traces of golden 'biotite' mica.

Examples of cooking dishes from contexts of the first century AD tend to have short, thickened or rolled rims, while those from the second century AD and later, appear more commonly, to have a broader, flatter rim. The practice of giving horizontal ribbing to the walls is a feature of second century vessels and becomes more pronounced on the later examples dating to the latter second or third centuries AD. One further characteristic, common to both the flat-rimmed types and the distinctive handled 'frying pan' made in similar fabrics, is the addition of potter's marks or stamps depicted on the underside of the vessel.

The cooking dishes thought to have been produced locally, some with a reddish wash on the interior, others not, on the whole copy these shapes and follow much the same development of those discussed above.

4.17.2 Type Descriptions

Cooking Dish Type 1: (=VillaD Type 1). Flat-based Cooking Dish or ‘Frying-pan’ with a low sloping wall, ending in a thickened rounded rim, from which protrudes a short tubular handle, set obliquely.

Cooking Dish Type 2 (=VillD Type 2). Flat-based Cooking Dish with sloping wall, broad flat rim and no handle.

Cooking Dish Type 3 Flat-based Cooking Dish with upward curving wall, thickened or rolled rim and no handle.

4.17.3 Catalogue

Cooking Wares - Dishes (Fig. 4.30):

200. *Cooking-dish:* (Type 2) with sloping wall with short, flat rim, slightly rounded at lip (Fabric 4c, gritty brown, with good thick red slip on interior and over lip, like ‘pompeiiian red ware’). Rim D30, 6% (EA level 11)

201. *Cooking-dish:* (Misc.) with low, curving body ending in thick, rounded rim, slightly sloping and flattened on top, offset outside (Fabric 4c, gritty brown with good thick red slip on interior like ‘pompeiiian red ware’. Mid 1st Century AD (Sackett 1992; B2, 78). Rim est. D40? 5% (FA level 16)

202. *Cooking-dish:* (Type 2 var.) Sloping wall with broad, flat rim, slightly rounded at lip. Sharply cut at interior of rim to form a ledge for a lid (Fabric 4, gritty brown). Rim D29, 11% (EA level 11)

- 203.** *Cooking-dish:* (Type 2) with sloping wall and broad, flat rim, slightly squared at lip (Fabric 4, gritty brown). Rim D29, 11% (EA level 11)
- 204.** *Cooking-dish:* (Type 2) Sloping wall with broad, flat rim, slightly rounded at lip with broad ridging on exterior (Fabric 4, gritty brown). Rim D33, 6% (EA level 11)
- 205.** *Cooking-dish:* (Type 2) Sloping wall with broad, flat rim, rounded at lip. Broad ridge visible on exterior (Fabric 4). Rim D26, 5% (EA level 11)
- 206.** *Cooking-dish:* (Type 2) Sloping wall with broad, flat rim, rounded at lip. Broad ridges visible on exterior (Fabric 4). Rim D24, 25% CD9 (CA level 16)
- 207.** *Cooking-dish:* (Type 2) Sloping wall with broad, flat rim, rounded at lip. Floor rising slightly towards centre, broad ridges visible on exterior (gritty brown fabric with medium red-brown, pink and white inclusions common, occasional large 'voids' visible on exterior surface, light brown-orange wash). Rim D28, 25% (HB level 5)
- 208.** *Cooking-dish:* (Type 2) Shallow, sloping wall with short, flat rim, rounded at lip. Heavy ridges visible on exterior. Rim D34, 15% (AA level 35)

Cooking Wares - 'Frying-pans' (Fig. 4.31):

- 209.** *Cooking-dish/'frying-pan':* (Type 1) Thick, rounded rim fragment with a short, tubular handle set obliquely (gritty red-brown fabric, burned grey and black on exterior. D? (AA level 25)
- 210.** *Cooking-dish/'frying-pan':* (Type 1) Flat floor, sloping slightly on underside, thick, sloping wall with broad, thickened rounded rim (Fabric 5, gritty, red-brown). Rim D31 5% (CA level 16)

211. *Cooking-dish/'frying-pan'*: (Type 1) Flat floor, sloping slightly on underside, thick, sloping wall with broad, thickened rounded rim (Fabric 5, gritty, red-brown). Rim D30, 19% (EA level 11)

212. *Cooking-dish/'frying-pan'*: (Type 1) Thick, flat floor, with low, sloping wall, ending in a thickened rounded rim (gritty, red-brown fabric with abundant small-medium, dark brown, black and white inclusions, white grits occasionally large. Exterior grey-brown, partially burned). Rim D33, 12% (HB level 5)

4.18 COOKING WARES: LIDS

4.18.1 Introduction

Lids, manufactured in a range of fabrics and sizes (commonly gritty, red-brown or grey in colour) are assumed to have been used, primarily, with the standard casserole type (a suggestion that is perhaps supported by the approximate similarity in their size and numbers (e.g. from the 'Unexplored Mansion' (Sackett 1992, 173)), although a number of other cooking ware types (examples discussed depicting an internal lip) must also have been designed in order to incorporate a lid. Many lids are more crudely made and are often found with a simple cylindrical knob as a handle (commonly with the top sliced off to provide a flat handle).

4.18.2 Form/Type Descriptions

Lid – Type 1: Lid with a cylindrical, flat topped 'sliced' handle and gently sloping wall and a thickened, rolled lip.

Lid – Type 2: Lid with cylindrical 'knob' handle.

4.18.3 Catalogue - Coarse-ware Lids (Fig. 5.32).

213. *Lid:* (Type 1) Thin-walled with flat sliced top. D3, 100%. (AA level 32)

214. *Lid:* (Type 1) Fragmentary with flat-top, gently sloping wall (gritty orange fabric). (FA level 16)

215. *Lid:* (Type 1) Broad, flat-topped, thick-walled with ridging (orange fabric with large dark brown and white grits). D4.5, 100%. (FA level 16)

216. *Lid:* (Type 1) Crude with broad ridging and flat, sliced top (red-brown, hard, gritty fabric with small white grits common, small red-brown grits abundant, occasionally large). D4.5, 100%. (BA level 5)

217. *Lid:* (Type 1) Small, crude with heavy ridging, sliced top, slightly angled (pale grey, hard, gritty fabric). Rim D13, 100%. (CA level 10)

218. *Lid:* (Type 2) Small, round 'knob' handle, concave underside (light brown, rough fabric with abundant silver 'mica'). D2.5, 100%. (CA level 16)

219. *Lid:* (Misc.) Small with flat top, thickened at edge, slightly concave underside (hard, gritty, grey fabric). D3, 100% (at handle). (CA level 16)

4.19 PLAIN WARES: BOWLS, BASINS & PLATTERS

4.19.1 Introduction

At Knossos during the Roman period, following earlier fashion, clays which fired to a cream or buff tint were widely used for a range of vessels, commonly bowls, basins jugs and pitchers.

This broad class, incorporating a diverse range of vessels, are generally less well fired during the Roman period compared to those from earlier periods. Included is a class of large basins very common at Knossos, small-medium sized jugs for table and kitchen use as well as a variety of less common shapes. Due to the use of local fabrics for the larger plain vessels in particular (such as utility bowls, tubs and other storage jars) this category, along with amphorae, accounts for by far the bulk of ceramic finds on the site.

The most frequently encountered are the large basins of a basic type comprising a flat base, rough on the underside, with obliquely sloping straight sides and flat rim. The majority of these basins have grooves on the edges of the rim's upper surface, occasionally with a wavy line between. Though little chronological significance can be attributed to these characteristics, these vessels, along with a series of large flat platters (Fig. 4.35; **231**) and the numerous types of cooking ware already discussed appear to make up the standard kitchen equipment.

Excavations at Knossos, have also revealed a number of vessels with a kind of 'frilled' treatment of the rim similar to that found on early Roman *tazza* in the Western Empire and adopting features reminiscent of metal vessels. This treatment, not otherwise common in the East, is best represented by the large, shallow basin manufactured in the local 'cream' fabric. It is suggested that some may even have served some form of religious purpose, perhaps within a domestic setting and involving the burning of incense. Examples of these 'censers' or *thymiateria* are well known from elsewhere

and in some cases evidence of burning on the interior surface is still visible (*Corinth* XVIII.2 68-9; Hayes 1983; 111, 132, 136).

4.19.2 Form/Type Descriptions

Plain Ware Bowl – Type 1: Large hemispherical bowl with sharply down-turned, overhanging rim, concave on outside.

Plain Ware Bowl – Type 2: Large, smoothly finished hemispherical bowl with down-turned, sloping rim. Hellenistic/Early Roman? (Hayes 1983, 128-130, No.160; Sackett, 208, C2.64).

Plain Ware Bowl – Type 3: Large Bowl (or Censer) with flaring rim and ‘pie-crust’ decoration around the exterior of the lip.

Plain Ware Basin – Type 1: (=VillaD Type1, 1A, 1B). Large flat based basin (left rough on the underside), straight, obliquely sloping sides and a flat rim, rarely plain (**Type 1**), most commonly with a groove above each of the edges (**Type 1A**) an occasionally decorated between with a wavy line (**Type 1B**). Early examples generally have a narrower rim and straighter wall and flat lifting handles (**Type 1 – early variant**), whilst later versions (e.g. those common in VillaD destruction levels) are large, (mostly 30 – 40cm. in diameter) and have no handles, a wider rim and more sloping wall.

Plain Ware Basin – Type 2: Large Basin with flat, sloping rim moulding. Wavy decoration on upper face or rim and ‘pie-crust’ decoration around the exterior of the lip.

Plain Ware Platter – Type 1: Platter (varying in size but usually large) with a flat floor and a short, thick vertical rim, slightly chamfered at the top. Often crudely and unevenly finished.

4.19.3 Catalogue

Plain Wares; Large Bowls (Fig. 4.33):

220. *Bowl*: (Type 3) Possibly a *censer*, with flaring rim with 'pie-crust' decoration around exterior of lip (Fabric 10). Rim D36, 6% (Un-stratified)

221. *Basin*: (Type 2) with broad, flat, sloping rim moulding. Waved decoration on upper face with 'pie-crust' decoration around exterior of lip (Fabric 10, visibly more orange). Rim D32, 5% (CC level 15)

222. *Basin*: (Type 2) with broad, flat, sloping rim moulding. Waved decoration on upper face with 'pie-crust' decoration around exterior of lip as B7 (Fabric 10, slightly harder fired). Rim D36, 5% (CC level 15)

223. *Bowl*: (Type 2) Large hemispherical bowl with sharply down-turned overhanging rim, concave on outside (Fabric 10, very worn, soft fired). Rim D31, 20% (CA level 8)

224. *Bowl*: (Type 2) Large, hemispherical bowl with down-turned, sloping rim (Fabric 10, smoothly finished surfaces). Rim D32 (CA level 16)

Plain wares; Large Bowls/Basins (Fig. 4.34):

225. *Bowl*: (Type 1) Plain, flat rim, concave underside and slightly rounded at lip (Fabric 10). Rim D31, 6% (CA level 8)

226. *Basin*: (Type 1A-early) Slightly curved wall with flat rim, grooved at outer and inner edge. Horizontal handle set just below rim (Fabric 10, quite rough, hard fired with small grey-brown inclusions common). Rim D33, 5% (BA level 1)

227. *Basin*: (Type 1A) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge (Fabric 10). Rim D38, 10% (EA level 11)

228. *Basin*: (Type 1A) Flat based with straight, obliquely sloping wall and broad, flat rim, grooved at outer and inner edge. (Fabric 10). Rim D40, 9% (EA level 47)

229. *Basin*: (Type 1A) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge. (Fabric 10). Rim D40, 5% (CA level 16)

230. *Basin*: (Type 1B) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge with waved decoration between. (Fabric 10). Rim D40, 3% (CA level 16)

Plain wares: See Misc. (Fig. 4.35):

231. *Platter*: (Type 1) Flat floor with thick vertical rim, slightly chamfered at top, uneven and crudely made (Fabric 10). RimD32+ (CA level 8)

232. *Platter*: (Type 1) Flat floor with simple, upright, inward curving rim (Fabric 10). Rim D26, 15% (EA level 11)

4.20 PLAIN WARES: MISC. TUBS & BEEHIVES

4.20.1 Introduction

Other vessel types in use at Knossos during the Roman period, not fitting into the traditional categories of domestic wares already discussed, include a number of large 'tubs' and beehives. Apiculture was a traditional practice at Knossos long before the Roman period and the methods employed remained, on the whole, unchanged throughout the history of the site. The ceramic tubs, which make up the main body of the hive, are recognizable due to their scratched or 'combed' interior surfaces (as with their Hellenistic predecessors). Common on sites around the Aegean, some examples at Knossos demonstrate a characteristic domed inner end, a feature known from Gortyn and perhaps peculiar to Crete (Hayes 1983, 132, No.177). Extensions to these 'tub-like' beehives, in the form of additional ceramic 'rings', are also evident, as are known modern day examples still in use around the Aegean (Jones 1973, 397-413, 443-52). Another series of cylindrical tubs, similar in many respects to the hives, but with a plain, sloping rim (occasionally with an internal lip) and small horizontal handles, were in fairly common use on the site of the Villa Dionysos, possibly as churns of some sort or even portable toilets (Hayes 1983, 132, No.173-176).

4.20.2 Form/Type Descriptions

Plain Ware Tub – Type 1: (=VillaD 173-6). Large, cylindrical Tub with straight, sloping walls and a plain, flaring rim. Two horizontal, rolled, handles set on each side of the body. Decorated with a thick, waved pattern between broad, very shallow grooves (simply applied with a 'brush' prior to firing).

Plain Ware Beehive (extension) – Type 1: Cylindrical ring, slightly irregular and flattened at each end, with numerous, 'combed', horizontal grooves on the interior surface. Manufactured to provide an extension to large 'tub-like' beehives.

4.20.3 Catalogue

Plain wares: Misc. (Fig. 4.35):

233. *Tub*: (Type 1) Cylindrical with straight, sloping walls and plain flaring rim. Horizontal handles (one surviving) set on side of the body. Decorated with thick, waved pattern between broad, shallow grooves (Fabric 10). Rim D32, 15% (GA/B level 15/18/19)

234. *Beehive-extension*: (Type 1) Fragment from 'ring', slightly irregular, flat at each end with internal horizontal grooves (Fabric 10). Rim est. D26+ (BA level 3)

4.21 PLAIN WARES: JUGS

4.21.1 Introduction

Common at Knossos are a series of jugs or pitchers of varying size (from fairly small and rather thin-walled, akin to the painted examples included amongst the locally manufactured fine wares, to those as large as bulk storage jars or even amphorae), generally with a squat globular body, depressed underside and often with a 'button' base. The mouth is most commonly flaring and often has a short, vertical, overhanging lip.

4.21.2 Form/Type Descriptions

Plain Jug – Type 1: (=VillaD Type 1) Jug with an overhanging 'collar' rim, a groove on the shoulder, and a thick handle; the body is fairly tall and low-bellied, set on a thin foot that encloses a moulded bottom with a central 'button'. Sometimes with a low ring-foot and plain bottom, occasionally large (**Type 1A**).

Plain Jug – Type 2: Small Jug with down-turned rim and thick sliced handle.

Plain Jug – Type 3: Large Jug with a high, slightly convex rim-band and a slightly carinated lower body finished with a low ring-foot. Often approximating the size of transport amphorae and storage jars, fragmentary examples remain difficult to distinguish, although some do have more widely-flaring thin strap handles which serves to differentiate them.

Plain Jug – Type 4: Variant with a simple thickened, out-curved rim.

4.21.3 Catalogue

Plain Jugs (Fig. 4.36):

235. *Jug*: (Type 1) 'collar rim' with overhang and concave underside (Fabric 10). Rim D7.5, 15% (CA level 16)

236. *Jug*: (Type 1) 'collar rim' with overhang (Fabric 10). Rim D9, 20% (EA level 11)

237. *Jug*: (Type 1) 'collar rim', slightly angled with overhang (Fabric 10). Rim D8, 19% (CB level 22)

238. *Jug*: (Type 2) Small down-turned rim fragment with thick sliced handle (EA level 11)

239. *Jug*: (Type 1 var.) Thin-walled with upright rim, stepped on the interior but without the overhang characteristic of Type 1 (Fabric 10). Rim D6, 12% (CA level 16)

240. *Jug*: (Type 1) 'collar rim' with slight overhang and groove at offset with narrow neck (Fabric 10). Rim D6, 30% (CB level 10)

241. *Jug*: (Type 4) Narrow neck with thickened, flaring rim, rounded at lip (plain, orange fabric with traces of cream-buff wash, small white grits common). Rim D6, 10% (CB level 10)

242. *Jug*: (Type 1) small conical base with tubular foot (Fabric 10). Base D6, 21% (CA level 16)

243. *Jug*: (Type 1) Moulded base with central 'button' and ring foot. Body tall and steeply curved (Fabric 10). Base D5, 100% (EA level 11)

- 244.** *Jug:* (Type 1) Base with low ring foot (Fabric 10). Base D6, 30% (CB level 10)
- 245.** *Jug:* (Type 1A/3) Large moulded base with central 'button' and very low ring foot. Wall curving gently upwards (Fabric 10). Base D6, 30% (EA level 11)
- 246.** *Jug:* (Type 1A/3) Large moulded base with central 'button' and low ring foot. Wall curving gently upwards (Fabric 10). Base D7.5, 100% (EA level 11)
- 247.** *Jug:* (Type 1A/3) Large moulded base with central 'button' and high ring foot (Fabric 10). Base D7, 100% (EA level 11)

4.22 PLAIN WARES: MISC. LATE ROMAN.

4.22.1 Introduction

Plain wares which can be exclusively termed as of Late Roman in date, due to their association with well-dated finds in good quality contexts, are only known from a very few limited areas at Knossos. Those highlighted below derive from the area of the excavations discussed more fully in Chapter 5 (see Group G dated to *c.*AD475-500).

4.22.2 Form/Type Descriptions

Late Roman Plain Bowl – Type 1: Globular Bowl with plain flaring rim and slightly thickened, rounded lip. Ridging visible on interior of the lower body and with a flat base. Exterior surface finished with a pale buff wash (*c.* Late 5th Century AD).

Late Roman Plain Jug – Type 1: Narrow-necked Jug with a globular body, decorated with a single, narrow, horizontal groove, with handle from body to neck. The base is moulded and has a slightly flaring footring. (*c.* Late 5th Century AD).

Late Roman Plain Jug – Type 2: Narrow-necked Jug with a squat, globular body and thin, flat base. A rolled handle with slight groove is attached between the lower part of neck and the upper body (*c.* Late 5th Century AD).

4.22.3 Catalogue - Late Roman Plain wares (Fig. 4.37):

248. *Bowl:* (Late Type 1) Globular with plain flaring rim (Fabric 18, very worn at breaks with a pale buff wash on exterior surface). Rim D19, 75% (CA level 3)

248b. *Bowl:* (Late Type 1) Flat base fragment with curved body, distinct wheel ridging on interior, suggested as base for globular bowl form **248** (Fabric 18). Base est D9 (CA level 3)

249. *Jug:* (Late Type 1) with narrow neck and globular body, decorated with a single horizontal groove, handle stump surviving at neck. Moulded base with slightly flaring ring foot (Fabric 18B, harder fired). Base D8, 100% (CA level 3)

250. *Jug:* (Late Type 2) Narrow necked with squat globular body and thin, flat base. Rolled handle with slight groove attached between lower part of neck and upper body (Fabric 18B). Base D8, 100% (CA level 3)

4.23 AMPHORAE

4.23.1 Introduction

Amphorae, providing the standard commercial shipping container for a range of mostly liquid and semi-liquid goods, make up by far the bulk of the pottery assemblage from almost any urban site in the Mediterranean during the Roman period. Knossos is no exception, and the widespread use of amphorae for transport and storage purposes, together with their physical size, means that at times well over eighty percent of the pottery found in excavation belongs to this category of vessel.

This huge amount of material provides us with some of our best evidence for trading contacts and the transference of perishable commodities that, if it were not for their containers, would not otherwise be represented in the archaeological record.

Excavations at Knossos, due to Crete's strategic location and accessibility to maritime trade, have provided an extensive range of amphorae types imported, at various times, from locations all around the Mediterranean, some well known and others only hinted at by the fabric used in their manufacture which still awaits analysis. Further complications arise since many distinctive shapes, known from various sites throughout the Empire, are often copied in a range of fabrics, produced at a number of locations and, therefore, remain difficult to distinguish clearly without detailed, scientific study.

One further feature of amphorae from the Roman Imperial period is that distinctive shapes became more indicative of their contents than, as in the earlier Greek tradition, of the region of origin. For instance, the shape of Hellenistic amphorae from Kos was adopted as the standard wine-container in Italy, a trend widely imitated in various parts of the Roman Empire. This proliferation of imitated regional types highlights one of the main problems encountered when dealing with amphorae of the period. This phenomenon, demonstrable at Knossos, is the known local production of forms derived from Hellenistic shapes from Rhodes and Kos.

However, relatively extensive studies of these vessels, produced at a variety of known sites around Crete, have been carried out and provide us with good insight into the nature of the locally produced, or more generally 'Cretan', amphorae used predominantly for the transportation of wine (Marangou-Lerat 1995). In addition, existing type series provide accounts for a wide range of amphorae, with reports from finds at the *Unexplored Mansion*, highlighting an estimated 432 examples (Sackett 1992, 177-8) and that of the *Villa Dionysos* providing information on some fifty recognisable types (Hayes 1983, 140-60). These reports (including many imported amphorae varieties), together with the material presented here, can be set alongside the number of major publications of comparative sites elsewhere in the region to give valuable insight into the trade, storage and consumption of perishable foodstuffs at the site.

4.24 AMPHORAE: STAMPS

4.24.1 Introduction

A small number of Roman amphorae stamps, usually set on top of the handle or on the shoulder of the vessel, are known from excavations at Knossos. Names are depicted, identifying the producer in the same way as in earlier Greek tradition and further information is occasionally provided by inscribed *graffiti* or painted *dipinti*, most commonly matt-red, applied directly on to the surface of the vessel, often on the shoulder, indicating for instance, the contents or recipient.

4.24.2 Catalogue

Amphorae Stamps and Graffiti (Fig. 4.38; Plate 17):

- 251.** *Amphorae*: Fragmentary handle stamp, [...HON...] reversed. (EA level 1).
- 252.** *Amphora*: Splayed, rolled handle fragment with stamp in Greek letters KOYA...(incomplete). Quite hard fired, pink fabric, exterior surface cream (stamp [KOYAPTOY] = *VillaD* type18, Hayes 1983, 149 **A50**). Rims of the same type of amphorae are known from a variety of 2nd-3rd century AD contexts (EA level 62).
- 253.** *Amphora*: Shoulder fragment with incised *graffito*, possibly ‘π’. Hard fired, cream fabric with occasional small white grits, smooth exterior finish (CA level 16).

4.25 CRETAN AMPHORAE

4.25.1 Introduction

Amphorae manufactured in Crete were produced in a number of shapes, the most common of which was copied for a time in mainland Greece during the second century AD (known from Athens and Corinth), whilst others derive from well-known predecessors elsewhere (Kos, Rhodes and Knidos). They were manufactured at numerous centres around Crete throughout the Roman period and were extensively used for the export of wine, mostly during the first – third centuries AD, throughout much of the Aegean, Egypt, Cyrenaica, and especially to markets in Italy (Southern Italy - Calabria and Campania in particular).

The two most common Cretan amphora types in use at Knossos include one type with a broad neck and thick rim, flattened on top, the other with a narrower neck and high convex collar-like rim. Both are characterised by markedly thin-walls for their size (approximately 20-24litres in volume) and a near cylindrical body, with a rounded button-like base. They were in production from the first century AD, with variants of the broad-necked version traceable to the Augustan period (Cretan Amphora Type 1 & 2 below).

Other types, less commonly encountered but known from the first and second centuries AD, adopt characteristics more common to amphorae from Kos (Cretan Amphora Type 3) and Knidos (Marangou-Lerat 1995, AC6), and others are imitations of traditionally Rhodian shapes, with distinctive peaked handles, pinched or spiked at the top (Cretan Amphora Type 4 below).

4.25.2 Type Descriptions

Cretan Amphora Type 1: (=VillaD Type 1; Marangou-Lerat AC3). Amphora with a cylindrical neck, lightly ridged, with a flattish rim moulding, flat on top, broad near-cylindrical body with sloping shoulder; short splayed handles from neck to shoulder.

Base rounded, with small button at centre. Body markedly thin-walled for the size of the vessel, fairly well finished, wet-smoothed and generally cream to buff in colour and well-fired. Common in the destruction levels of the *Villa Dionysos* (Hayes 1983, 141).

Cretan Amphora Type 2: (=VillaD Type 2; Marangou-Lerat AC1; Peacock41; Benghazi MR2). Amphora with ware and body as **Cretan Amphora Type 1**, also thin-walled. Narrow necked (narrower than type 1), generally rather short, with a high convex collar-like rim, short splayed handles, slightly angled, from neck to shoulder. Base rounded with small ‘button’ at centre (as type 1). Some examples have light ribbing on body or shoulder, often poorly finished and fired (ranging from buff, brownish to orange, sometimes cream or buff surfaced), with signs of erosion by soil action or spalling, and in many cases negligence by the potter is well demonstrated. Early versions have a slightly thickened lip (in examples from the first century AD) and appear, in many examples from the second century AD onwards (though not exclusively), to develop a thinner lip and a slightly shorter neck, with handles more obliquely splayed. Later versions, dating to the second and third centuries AD, also show characteristically more pronounced ribbing (a feature in common to **Cretan Amphora Type 1**, see also **Cretan Amphora Type 7**). This type provides the most common of the amphorae in the destruction levels of the *Villa Dionysos* (Hayes 1983, 143).

Cretan Amphora Type 3: (=Marangou-Lerat AC2; Peacock 39; Benghazi ER1). Amphora with a thickened rim which is often bevelled on the inner edge, with a bulging neck, arched bifid handles (‘double-rolled’ as in ‘Koan’ types) and an ovoid body ending in a short basal knob. Known from Pompeii, Leptis Magna and in some numbers from Benghazi, predominantly early first century to mid second century AD in date (with the main concentration of finds at Benghazi occurring in the early 1st century AD).

Cretan Amphora Type 4: (=VillaD Type 3; Marangou-Lerat AC4). Devolved ‘Rhodian’ shape; rather short cylindrical neck, rim marked off by a groove, peaked

handles of ovoid section, flattened on outer face at top, body form as **Cretan Amphora type 2**.

Cretan Amphora Type 5: (=Marangou-Lerat AC5). Type was included in anticipation of finds due to presence elsewhere but no examples from *K2K* excavations.

Cretan Amphora Type 6: (=Marangou-Lerat AC6). Type was included in anticipation of finds due to presence elsewhere but no examples from *K2K* excavations.

Cretan Amphora Type 7: A narrow-necked amphora depicting many characteristics similar to that of **Cretan Amphora Type 2** (essentially a late variant of that type) but with a more thickened, rounded rim with slightly incurved lip. Thick, rolled handles are set obliquely from neck to shoulder with pronounced ribbing on the body below the join with the handle.

4.25.3 Catalogue

Cretan Amphorae ('Early Roman') - (Fig. 4.39):

254. *Amphora:* (Type 1. early) Thick-walled with wide neck, flat-topped squared rim, slightly down-turned towards exterior, forming a 'collar' with tiny overhang. Broad strap handles with central ridge, rising vertically from shoulder, angled sharply to neck (Fabric 11, quite hard fired). Rim D15, 100% (FA level 16)

Cretan Amphorae ('Early Roman') - (Fig. 4.40):

255. *Amphora:* (Type 3. early) Thick walled with narrow neck, flat rim, angled upwards towards exterior. Sharp angle between upright neck and more sloping shoulder. Broad handles with central groove, rising vertically from shoulder with slight curve, angled downwards to neck (Fabric 10C). Rim D7, 100% (FA level 14)

256. *Amphora*: (Type 3) Thinner walled with narrow neck, thickened, rounded rim. 'Double-rolled' handles with central groove, rising from neck, angled sharply at the height of the rim and curved downwards (Fabric 10). Rim D7, 100% (FA level 14)

257. *Amphorae*: (Type 4) Peaked handle fragment (Fabric 10). Unstratified

258. *Amphorae*: (Type 4) Peaked handle fragment (Fabric 10). Unstratified

Cretan Amphorae ('Early – Mid Roman') - (Fig. 4.41):

259. *Amphora*: (Type 2) Thin-walled, narrow neck with high convex 'collar-like' rim (Fabric 10, quite hard fired). Rim D6, 40% (EA level 11)

260. *Amphora*: (Type 2) Thin-walled, narrow neck with high convex 'collar-like' rim (Fabric 10). Rim D7, 22% (CA level 16)

261. *Amphora*: (Type 2) Thin-walled with high, slightly thickened, convex 'collar-like' rim (Fabric 10). Rim D9, 22% (EA level 11)

262. *Amphora*: (Type 2) Thin-walled, narrow neck with high, slightly thickened, convex 'collar-like' rim (Fabric 10). Rim D8, 50% (EA level 11)

263. *Amphora*: (Type 2) Thickened vertical rim with handle stump (Fabric 10). Rim D8, 20% (EA level 11)

264. *Amphora/Large-necked Jug*: Thin-walled with high, convex 'collar-like' rim (Fabric 10). Rim D8.5, 45% (EA level 11)

265. *Amphora/Jug*: (Type 2) Thin-walled with high, convex 'collar-like' rim akin to Jug Type 1 (Fabric 10).

266. *Amphora*: (Type 2 var.) Thickened rounded rim (Fabric 10). Rim D9, 25% (EA level 11)

267. *Amphora*: (Type 2 var.) Thickened rounded rim with slight overhang (Fabric 10). Rim D9, 25% (EA level 11)

268. *Amphora*: (Type 2 var.) Thickened rim with slight overhang (Fabric 10). Rim D9, 30% (EA level 11)

269. *Amphora/Large-necked Jug*: Thickened rim with slight overhang, slightly flattened on top, narrow rolled handle stump with slight groove (Fabric 10). Illustrated here with two handles (only one surviving), with characteristics similar to single handled, large necked jug from the Villa Dionysos (Hayes 1983, 128, No.158). Rim D9, 30% (EA level 11)

Cretan Amphorae ('Mid Roman') - (Fig. 4.42):

270. *Amphora*: (Type 2) Thickened vertical rim, angled handles set obliquely from neck to shoulder, pronounced ribbing on neck and body (Fabric 10, more orange fabric). Rim D9, 100% (EA level 11)

271. *Amphora*: (Type 2) Thickened vertical rim, handles set obliquely from neck to shoulder, pronounced ribbing on neck and body (Fabric 10). Rim D8, 100% (EA level 11)

272. *Amphora/Two-handled Flagon*: (Misc.) Vertical, slightly flaring rim, handles set obliquely from neck to shoulder, pronounced ribbing on neck and body, crudely finished (Fabric 11). Characteristic similarities with Villa Dionysos 'two-handled flagon' type (Hayes 1983, 128 No.156-157). Rim D8, 18% (EA level 11)

273. *Amphora*: (Misc.) 'Button-base' fragment (Fabric 10). 100% (EA level 11)

Cretan Amphorae ('Mid Roman') - (Fig. 4.43):

274. *Amphora*: (Type 1) Wide necked, flat rim fragment (Fabric 10). Rim D10, 10% (EA level 11)

275. *Amphora*: (Type 1) Wide necked, flat rim fragment (Fabric 10).

276. *Amphora*: (Type 1) Wide necked, flat rim fragment (Fabric 10). Rim D10, 17% (EA level 11)

277. *Amphora*: (Type 1) Flat-topped rim (Fabric 10, likely part of **278**, no visible join). Rim D10, 17% (CB level 27)

278. *Amphora*: (Type 1) Wide necked, rim not surviving (see **277**). Thick, rolled handles set obliquely from neck to shoulder, pronounced ribbing on body (Fabric 10, quite hard fired). Rim D?, 100% (at neck). (CB levels 27-9)

Cretan Amphorae ('Late Roman') - (Fig. 4.44):

279. *Amphora*: (Type 7) Narrow neck with thickened rounded rim. Thick, rolled handles set obliquely from neck to shoulder, pronounced ribbing on body below join with handle (Fabric 10). Rim D7, 100% (EA level 7)

280. *Amphora*: (Type 7) Narrow neck with thickened incurved rim, rolled handle join at neck (Fabric 11). Rim D6, 30% (CA level 3)

281. *Amphora*: (Misc.) Thickened rim fragment, rounded at lip, rolled handle join at neck (Fabric 10). Rim D8, 15% (CA level 3)

4.26 AMPHORAE: IMPORTS

4.26.1 Introduction

Types of amphorae, imported to Knossos from overseas, include a wide range from throughout the Empire. Both Western and Eastern products are present, with examples from Spain, Italy, Cyprus, North Africa, Asia Minor and the Aegean region all variously represented during different periods at the site. The *Knossos 2000* excavations, not surprisingly, have uncovered a similarly diverse range of wares from numerous sources, many identifiable as well-known types, others only recognisable through their distinct fabric, whilst others remain unidentified and wait further study.

The catalogue includes the best represented examples of a number of types recognised as ‘common’, amongst which are a number from Asia Minor or Aegean sources, those from North Africa, Italy, and the Black Sea region. In the cases where a number of examples are known from Knossos, they are highlighted below together with their best known concordances from the site or from publications of sites elsewhere. In some cases, such as where only single examples exist or it is not clear as to the type represented, a description is simply made within the catalogue entry, with fabric details noted along with its stratigraphical location.

4.26.2 Type descriptions

Imported Amphora - Type 8: (=VillaD Type 37; Benghazi MR7; Peacock4; Zeest79; OstiaVI). Averaging a total height of approximately 75cm with a rim diameter of 6.5-7.0cm, this amphora type has a high, thick, conical neck, with a short, flattish shoulder and a tapering, conical body. The base is hollow and tubular in form, demonstrating shallow, horizontal grooves on the exterior. There is a distinctive, fairly sharp flange below the slightly thickened rim. The two handles are heavy and broad and extend from just below the flange to the shoulder and are steeply arched above the level of the rim. Known to have a widespread distribution, ranging from Britain, Germany, Greece, Iraq, and southern Russia, it is most frequent in the eastern

Mediterranean area and also at Ostia. Produced from the late second century AD, it is most commonly found dating to the third and fourth centuries AD. An origin in the eastern Aegean is suggested as the most likely source (Hayes 1983, 155; Riley 1979, 192).

Imported Amphora Type 9: (=VillaD Type 49; BenghaziMR3). The most basic form is narrow necked, thin-walled with a plump and ovoid body. There is very shallow, broad ridging on the body, neck and base. Only one broad handle extends from the lower neck to the shoulder and the rim is thickened (with slight variations in profile) and the base is tubular and hollowed. Developed between the late first and the fourth centuries AD (from an ovoid to a fusiform shape, with a narrower rim and sharper lip, and a narrower base), it has a widespread but predominantly eastern distribution and is thought, on petrological grounds, to originate from western Asia Minor (Hayes 1976, 117; 1983, 158).

Imported Amphora Type 10: (=VillaD Type 28). Amphora with a rather short, cylindrical neck with thickened, flat-topped, triangular rim with short handles attached below. Originating in north Africa and manufactured in a hard, very abrasive, pinkish ware with some fine white grits fired grey at the surfaces (similar fabric to VillaD29; BenghaziMR17b which have a stepped rim, and a more red ware). Both are known from the 'upper destruction fill' of the *Villa Dionysos* (Hayes 1983, 151-2).

Imported Amphora Type 11: (=BenghaziMR17a). A variant of the *Africano Grande* series (=BenghaziMR16; Riley 1979, 200) and has a conical neck with everted rim and distinctive overhanging lip. Most likely of Tunisian in origin and predominantly of fourth century AD date.

Imported Amphora Type 12: (=BenghaziMR17b; VillaD29). An additional variant of the *Africano Grande* series (=BenghaziMR16; Riley 1979, 200), with a distinctive step on the exterior of the rim.

Imported Amphora Type 13: (=BenghaziMR18; Zeest90). This amphora type has a conical neck with a long everted rim, curving inwards at the lip. The body is roughly

oval in form and there are two bowed handles from the neck to the shoulder. It has a rounded base with a 'nipple' toe. Known from many coastal sites of south Russia (mostly in first and second century AD contexts), at Knossos and Athens (in second and third century AD contexts (Hayes 1983 and Robinson 1959) and three examples are known from Berenice/Benghazi (mid-third century AD (Riley 1979, 206)). The type is thought most likely to originate somewhere in the Black Sea region.

Imported Amphora Type 14: (=BenghaziER4; Dressel2-4; Peacock10; Callender2; Carthage-EarlyAmphoraV; OstiaLI). A type demonstrating long, bifid handles formed from two rods (which often split when found as small fragments), a simple rounded rim and a pronounced carination on the shoulder. The base is solid and slightly flared and body sherds are usually less thick than with *Dressel I* amphorae. Often referred to as 'Koan type', 'Koan derived', or 'Greco-Roman amphora', the type was manufactured at a number of production sites around the Mediterranean (commonly in Italy, Spain and southern France, with the Italian varieties, particularly those from Campania, the most widely distributed throughout the Roman Empire). As a direct successor on Italian kiln sites to *Dressel I* amphorae it dates from the later first century BC to the mid-second century AD but it appears from quantitative trends that it was in decline by the later first century AD (Peacock and Williams 1986, 106).

4.26.3 Catalogue - Imported Amphorae (Fig. 4.45):

282. *Amphora*: (Type 8) Thickened, rounded rim with flange below. Very worn gritty orange-red fabric, quite hard fired with occasional large white (lime), small dark brown inclusions (Fabric 17). Rim D7, 37% (CA level 16)

283. *Amphora*: (Type 8) Upright rim with horizontal flange below (Fabric 17). Rim D7, 9% (AA level 19)

284. *Amphora*: (Type 8) handle fragment (Fabric 17). Rim D7, 9% (EA level 11)

Imported Amphorae (Fig. 4.46):

285. *Amphora*: (Type 9) Small, narrow-necked and thin-walled with thickened rim (Fabric 13B, brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits. Var. rim VillaD type 49, Benghazi MR3). Rim D4, 100% (EA level 11)

286. *Amphora*: (Type 9) Small, narrow-necked and thin-walled with thickened rim turned inwards. Single, broad handle curving from neck to shoulder (Fabric 13B, Brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

287. *Amphora*: (Type 9) Small, narrow-necked and thin-walled, upright rim with small flange (Fabric 13, Brown fabric with distinctive, soapy surface, exterior more grey-black, highly micaceous with occasional white grits). Rim D4, 25% (EA level 11)

288. *Amphora*: (Type 9) Hollow, tubular foot, thin-walled with broad ribbing (Fabric 13C, lighter brown-buff fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

289. *Amphora*: (Type 9) Small, narrow-necked and thin-walled with broad ribbing, rim missing. Single, broad, ridged handle curving from neck to shoulder (Fabric 13, Brown fabric with distinctive, soapy surface, more grey-black exterior, highly micaceous with occasional white grits). Rim D4, 80% (EA level 11)

290. *Amphora*: (Type 9) Hollow, high, tubular foot, thin-walled with broad ribbing (Fabric 13B, lighter brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

291. *Amphora*: (Misc.) Small, narrow, twisted toe spike (Fabric 13). (CB level 24)

Imported Amphorae (Fig. 4.47):

292. *Amph/Flagon*: (Misc.) Globular with tall, narrow neck and rounded lip. Distinctive flange above shoulder, where sliced-strap handle joins the neck (hard, orange-buff fabric). Rim D5, 100% (CB level 27)

293. *Amphora*: (Type 13) Wide, conical neck with long, everted rim, thickened and curving inwards at the lip. Broad, ridged strap handles surviving at join with the neck (orange fabric with red-brown grits, occasionally large and breaking the surface). Rim D14, 100% (EA level 11)

Imported Amphorae (Fig. 4.48):

294. *Amphora*: (Type 11) Large, wide-necked with thick, overhanging rim. Handle stump visible merging with rim (Pink fabric, pale wash on interior surface, exterior more cream coloured, including small grey-brown flecks, occasionally large with medium-large white grits). Rim D22, 11% (AA level 43)

295. *Amphora*: (Misc.) Thick-walled with slightly flaring rim, rounded at lip, strap handle stump visible at break where joins neck. Rim D12, 100% (AA level 21)

296. *Amphora*: (Misc.) (CA level 16)

297. *Amphora*: (Misc.) (EA level 11)

298. *Amphora*: (Misc.) (EA level 11)

299. *Amphora*: (Type 10) Cylindrical neck with 'collar-like' rim, sloping exterior surface, almost triangular in profile. Rolled handle fragment, circular in section at join with neck (Hard pink fabric, very abrasive with sandy inclusions, fired grey at surface). Rim D11 20% (AA level 22)

300. *Amphora/Jug*: (Misc.) Tall, vertical neck with short, flat rim, rounded at lip (Fabric 10C, buff as local fabric with occasional, small flakes of silvery mica, medium flakes of golden mica). Rim D9, 30% (EA level 11)

Imported Amphorae (Fig. 4.49):

301. *Amphora*: (Misc.) Thickened rim fragment, rounded at lip (Fabric 12B, Orange-red, gritty fabric with occasional small white (lime) grits, see **302**). Rim D8 est. (CA level 3)

302. *Amphora*: (Misc.) Thick-walled, broad bellied with thick, rolled handles set obliquely from neck to shoulder (Fabric 12B, Orange-red, gritty fabric with occasional small white (lime) grits, as **301**, no demonstrable join). (CA level 3)

303. *Amphora*: (Misc.) Thick, solid base spike (Fabric 12B). (CA level 3)

304. *Amphora*: (Misc.) Hollow base spike (Hard fired orange fabric with large grey-brown grits, large white grits ('calcite') occasionally breaking the surface, rare large red grits). (CA level 3)

305. *Amphora*: (Misc.) Base spike (brown fabric) (CA level 3)

306. *Amphora*: (Misc.) Conical base fragment (hard red fabric, small brown-black grits, occasionally large). (CA level 3)

307. *Amphora*: (Misc.) Solid spike with narrow flange at bottom (burned, brown at core). (CA level 3)

308. *Amphora*: (Misc.) Base spike (Brown micaceous fabric). (CA level 3)

Imported Amphorae (Fig. 4.50):

309. *Amphora*: (Type 14) Double-rolled 'Koan derived' handle fragment (Fabric 15, Hard pink fabric with speckled appearance from abundant small black, 'volcanic' grits and small dark specks. Small and large white (lime) grits and traces of a cream-buff wash on exterior). (EA level 11)

310. *Amphora*: (Type 7) Heavy, solid 'toe spike'. Somewhat thicker and larger than common for vessels of Type 7 and may more likely represent an amphorae of *Dressel 1B* (=Peacock 4, *Benghazi H9*), dating to the 1st Century BC (Fabric 15, as **309**). (CB level 3)

311. *Amphora*: (Misc.) Distinctive grooved, rolled handle fragment, round in section (Fabric 21). Characteristics as Sackett 1992, 255 No. 148). EA level 11

312. *Amphora*: (Misc.) Strap handle fragment, U-shaped in section (As *VillaD* type 33/34, Hayes 1983, 153) EA level 11

4.27 AMPHORAE: STANDS

4.27.1 Catalogue - Amphorae Stands (Fig. 4.51):

- 313.** *Amphora stand*: Buff fabric, slightly pink at core with occasional white inclusions (Fabric 10). Rim D14, 35% (FA level 16)
- 314.** *Amphora stand*: Plain cream fabric, soft fired with white and grey-brown gritty inclusions common (Fabric 11). Rim D10, 10% (EA level 11)
- 315.** *Amphora stand*: Buff fabric, slightly pink at core with occasional white inclusions (Fabric 10). Rim D13. AS2 (EA level 17)
- 316.** *Amphora stand*: (Fabric 10) Rim D10, 10% (EA level 11)

4.28 SPECIAL FUNCTION & MINIATURES

4.28.1 Catalogue - Miniatures and Misc. (Fig 4.52):

- 317.** *Miniature/cup*: Thin, rounded wall ending in a flaring, outcurved rim with squared lip. Decorated with two, deep, horizontal grooves. Low, slightly bevelled foot-ring (form? characteristics similar to 'Cypriot Sigillata' almost like a miniature 'Krater'). Rim D5, 100% (at base). (FA level 9)
- 318.** *Miniature/'ink-well'*: Small, flat based with globular body. Tiny, down-turned rim creating overhang. Handle stumps surviving at joins with body. Rim D3, 100% (EA level 47)
- 319.** *Bottle/Unguentarium*: Narrow, vertical neck and rim fragment. (Unstratified).

CHAPTER 5: POTTERY GROUPS (A-K)

5.1 Introduction

In the following chapter, each of the most significant pottery groups recovered during the *Knossos 2000* excavations will be presented in full. Each group was selected for study due to their stratigraphical significance for the interpretation of the site or owing to the notable range and state of preservation of the pottery.

The groups are arranged roughly chronologically, with Groups A-C dating broadly to the 'Early Roman' period (c. mid 1st Century BC-1st Century AD), Groups D-F of 'Mid Roman' date (c. 2nd-3rd Century AD) and Groups G-K dating to the latest occupation of the site in the 'Late Roman' period (c. 4th-6th Centuries AD).

Individual vessels are highlighted in detail (recorded within each group as featured vessels with catalogue numbers from Chapter 4 clearly stated). While notable characteristics, chronological relevance and details are noted within the group discussions, no attempt is made to repeat descriptions of particular wares, forms or types made more fully elsewhere (i.e. within Chapter 4 – catalogue).

Groups Detailed:

Group A – Trench FA level 16 ('Hearth fill over trodden floor')

Group B – Trench FA level 14 ('Pit fill over trodden floor')

Group C – Trench FA level 9 ('Fill over cobbled pavement')

Group D – Trench CA level 8/16 ('Fill over floor of Room 3')

Group E – Trench CB level 26-9 ('Fill over floor of Room 11')

Group F – Trench EA level 11 ('Large pit fill')

Group G – Trench CA level 3 ('Fill over floor of Room 6')

Group H – Trench CA level 5 ('Upper fill in Room 3')

Group I – Trench CB level 22 ('Lower fill of Courtyard area')

Group J – Trench CB level 10 ('Upper fill of Courtyard area')

Group K – Trench AA combined levels ('Accumulated wash-levels')

5.2 Group A: Trench FA – level 16 - ‘Hearth fill over floor’

5.2.1 Context

Within Trench FA (1995) opened up in order to extend the area of investigation for the substantial structures located in Area E (located 5m to the south, discussed in Chapter 3.5-3.6). During the excavation a ‘robber-trench’ aligned east to west was located which revealed a large masonry block and a finely detailed architectural fragment. In order to expose these blocks and the pit in which they were found an extension was made to the trench. As work in this extension continued a small (1m. square) hearth-like structure was uncovered, apparently built up against a further, also now missing, robbed out north-south wall. The pottery discussed below is derived from the fill from within this structure (Level 16) that was found to overly a floor of trodden earth (level 18). Additional supplementary material discussed below was located from within the associated pit containing the architectural fragments (Level 14) and from elsewhere in the trench, located immediately above a cobbled floor (Level 9).

5.2.2 Pottery (Tables 5.1 – 5.4)

Consisting of 1031 sherds (c.22kg of pottery) the group is made up of a range of wares common elsewhere at Knossos as part of standard domestic assemblages from the site. Fine wares, making up approximately 2% of the group as a whole (less than 1% by weight), are represented by two Italian Sigillata plates along with a number of ‘Thin-walled ware’ cups and mugs. Standard kitchen wares in the form of cooking pots, casseroles and dishes were present in a range of fabrics together with a number of amphorae that made up over three quarters of the deposit (by weight). Pre-Roman residual material was only present in relatively low quantities (amounting to c.5% by weight and, owing to its inevitably fragmentary nature, 14% by count) and the bulk of the dateable Roman vessels present appear to be roughly contemporary.

Principal fine-wares represented are essentially limited to two Italian Sigillata plates (**A1-2** below, making up by far the bulk of the fine ware present) together with a number of very small thin-walled ware (almost egg-shell thin) cups with various decorations (**A3-6**). The Italian Sigillata plates, one with an upright rim moulding and appliqué decorations, the other with a slender bevelled foot and central *in planta pedis* stamp (of forms 21 and 20.4 respectively; Ettliger 1990, 86-88) both depict a good quality, glossy slip and are known forms of mid-late 1st Century AD date (c.30-80/90AD). Of the small cups present, all but one belonged to the ware described as ‘Italian Thin-walled Grey Ware’ (a fine dark grey clay with a lustrous black slip) known from other excavations at Knossos, predominantly from contexts also datable to mid-late 1st Century AD (c.AD50-80). The examples presented here show a variety of decorations, including blobs applied and striated with a sharp or forked instrument (**A3**), and tiny horizontal grooves (**A4**). One further example, manufactured in a hard, pink fabric with a dark red slip, decorated with barbotine floral motifs, represents similar cups, possibly manufactured at an alternative source (**A6**). A further series of cups or mugs is represented, manufactured, possibly locally, in a similarly thin fabric but lacking the slips and decorative features discussed above (**A7-11**).

Cooking wares, represented by a series of cooking pots, casseroles and flat dishes, are represented by a number of near complete profiles making up approximately one third of the vessels present (c.18% by weight). Cooking pots were noted in a range of types sharing characteristics, such as upright slightly everted rims, but with wider variations in the handle (**A12-14**, **A16-17**). Two related fabrics were recorded, in equal numbers for the cooking pots and casseroles in the group (Cooking Ware – Fabric 1 and Fabric 9), with Fabric 1 depicting a more red or red-brown internal surface (see Chapter 4.1.3)) and are thought to represent the locally produced cooking wares.

Additional, flat-based cooking dishes were recorded in a gritty brown fabric, with a thick, red interior slip closely resembling distinctive ‘Pompeiiian Red Ware’ (Fabric 4-4c) and as with the cooking pots and casseroles, closely paralleled in form elsewhere at Knossos from contexts of 1st century AD date (**A18**, Sackett 1992, 168-9; B2, 78).

Plain wares and amphorae, although making up three quarters of the group by weight due to their obvious bulk, were limited to a number of Cretan amphorae

(manufactured in the local fabric to varying degrees of hardness, see Plain Ware Fabric 10-11). A possible maximum of thirteen in total were recorded, mostly represented by handle fragments. However, one amphora with a wide neck and flat-topped, downturned square rim, was preserved surviving from rim to shoulder (A21, Plate 18) and is thought to represent a type akin to that described as Type 1, perhaps an earlier variant (Chapter 4.25.2).

5.2.3 Date

The most closely dateable vessels present in the group belong to the classes of fine wares discussed above. The Italian Sigillata plates suggest a terminal date for the deposit of *c.*AD30-80/90. This mid to late 1st century AD date is reinforced by the presence of the range of fine cups (closely paralleled *c.*AD50-80) and the range of cooking wares known from deposits of 1st century AD contexts from earlier excavations elsewhere at Knossos.

5.2.4 Discussion

It seems reasonable to suggest that the vessels illustrated here are contemporary with each other and therefore date the fill immediately above the trodden floor in this area (Floor level 18) to the second half of the 1st Century AD (*c.*AD50-90). This deposit, together with the supplementary groups highlighted below, are notable due to the general lack of other 'Early Roman' contexts in the other areas of the *Knossos 2000* excavations (with the exception of a single, only partially excavated well-fill located in Area C – Trench CB levels 3-4 dating a little earlier than that presented in Group A above).

5.2.5 Featured vessels, Figs. 5.1 – 5.3 (Ch5 Catalogue number in ()'s):

A1 (11). *Plate:* (C21) Thick flat floor, upright rim moulding with 'animal' and 'face' appliqué ornaments, distinct rounded step between wall and grooved floor. Good quality glossy slip. Rim D17, 27% (FA level 16)

A2 (12). *Plate*: (C20.4/B213) Slender, bevelled foot-ring, flat floor with central *in planta pedis* stamp (illegible) surrounded by two central grooves and a further band of rouletting, bordered by further grooves Base D8, 35% (FA level 16)

A3 (133). *Small cup*: (Type 1) with upright wall, rounded on underside, tiny beaded rim with external groove. Decorated with striated blobs on upper body. Rim D8, 7% (Fabric 1). FA level 16.

A4 (134). *Small cup*: (Type 2) with incurving lip set off by grooves. Body decorated with tiny horizontal grooves divided by additional spaced vertical grooves (form, Sackett 1992, IG20). Rim D8, 30% (Fabric 1). FA level 16.

A5 (135). *Cup*: Tiny beaded rim offset by a groove. Rim D10, 9% (Fabric 1). FA level 16.

A6 (136). *Small cup*: (Type 1) Rounded on underside, upright wall ending in tiny beaded rim offset by narrow groove. Decorated with a barbotine floral motif. Hard, pink fabric with dark red slip showing signs of dripping (Fabric 2). Rim D8. FA level 16

A7 (146). *Mug*: (Type 2) very thin-walled, slightly flaring rim. Smooth finished, grey-brown with occasional small lime grits. Rim D8, 36% (FA level 16)

A8 (147). *Mug*: (Type 2) thin-walled, vertical rim. Red-brown with grey exterior surface occasional small white inclusions. Rim D8, 15% (FA level 16)

A9 (148). *Mug*: (Type 2) thin-walled with thickened, flat, sloping rounded rim. Small ridged 'collar' on exterior just below rim. Smooth finished, grey-brown with occasional small lime grits. Rim D12, 27% (FA level 16)

A10 (149). *Mug*: (Type 2) very thin-walled, slightly flaring rim, small ridge on exterior. Smooth finished, grey-brown with occasional small lime grits. Rim D7, 36% (FA level 16)

A11 (150). *Mug*: (Type 2) very thin-walled with flat base offset with a tiny foot. Smooth finished, grey-brown with occasional small lime grits (exterior surface more brown than **148-9**). Base D4.5, 100% (FA level 16)

A12 (157). *Cooking-pot*: (Type 5) with upright, slightly everted rim, flattened on top, slight ledge on interior (Fabric 1). Rim D14, 12% (FA level 16)

A13 (158). *Cooking-pot*: (Type 5) with large, upright, slightly everted rim, flattened on top. Stump from vertical, strap handle surviving (Fabric 1). Rim D30, 6% (FA level 16)

A14 (161). *Cooking-pot*: (Misc.) Upright, slightly everted rim, rounded at lip. Thick, strap-handle attached vertically between rim and upper body with double groove formed by a central ridge. Slightly less globular, with deeper, straighter walls (Fabric 9). Rim D19, 9% (FA level 16)

A15 (162). *Cooking-pot*: (Misc.) Upright, incurving rim with rounded lip and concave interior, forming slight ledge. Broad looping, vertical handle (Fabric 9). Rim D22, 11% (FA level 16)

A16 (163). *Cooking-pot*: (Misc.) Upright, slightly everted rim. Quite broad, angular strap-handle attached vertically between rim and upper body with double groove, formed by a central ridge,. Slightly less globular, with deeper, straighter walls (Fabric 9). Rim D16, 100% (FA level 16)

A17 (172). *Casserole*: (Misc.) As **171** with slightly deeper, more rounded base, upright rim with internal ledge, no handle surviving (Fabric 9). Rim D22, 20% (FA level 16)

A18 (201). *Cooking-dish*: (Misc.) with low, curving body ending in thick, rounded rim, slightly sloping and flattened on top, offset outside (Fabric 4c, gritty brown with good thick red slip on interior as 'Pompeian Red Ware' (Sackett 1992; B2,78). Rim est. D40 5% (FA level 16)

A19 (214). *Lid:* (Type 1) Fragmentary with flat-top, gently sloping wall (gritty orange fabric). (FA level 16)

A20 (215). *Lid:* (Type 1) Broad, flat-topped, thick-walled with ridging (orange fabric with large dark brown and white grits). D4.5, 100%. (FA level 16)

A21 (254). *Amphora:* (Type 1. early) Thick-walled with wide neck, flat-topped squared rim, slightly down-turned towards exterior, forming a ‘collar’ with tiny overhang. Broad strap handles with central ridge, rising vertically from shoulder, angled sharply to neck (Fabric 11, quite hard fired). Rim D15, 100% (FA level 16)

A22 (313). *Amphora stand:* Buff fabric, slightly pink at core with occasional white inclusions (Fabric 10). Rim D14, 35% (FA level 16)

5.3 Supplementary Group B: Trench FA – level 14 - ‘Pit over floor’

As noted above (Chapter 5.2), the pit group first excavated in order to uncover the detailed architectural fragment also overlay the same trodden floor as discussed in Group A. The pit itself contained fragmentary examples of material identical to that already illustrated and, in addition, provided two additional Cretan amphorae (**B1-2** of Type 3, equivalent to *Marangou-Lerat* AC2; *Peacock* 39; *Benghazi* ER1) thought to date from early in the 1st – mid 2nd Century AD, with the greatest concentrations of known examples from elsewhere (e.g. *Benghazi*) dating earlier in this range.

5.3.1 Featured vessels, Fig. 5.4b (Ch5 Catalogue number in ())s:

B1 (255). *Amphora:* (Type 3. early) Thick walled with narrow neck, flat rim, angled upwards towards exterior. Sharp angle between upright neck and more sloping shoulder. Broad handles with central groove, rising vertically from shoulder with slight curve, angled downwards to neck (Fabric 10C). Rim D7, 100% (FA level 14)

B2 (256). *Amphora*: (Type 3) Thinner walled with narrow neck, thickened, rounded rim. ‘Double-rolled’ handles with central groove, rising from neck, angled sharply at the height of the rim and curved downwards (Fabric 10). Rim D7, 100% (FA level 14)

5.4 Supplementary Group C: Trench FA – level 9 **-‘Fill over cobbled pavement’**

Elsewhere in FA a thin layer of charcoal filled soil was excavated, containing olive pips and bone fragments immediately above a cobbled surface (see Chapter 3.6, Level 9).

Amongst the finds located within this fill were a small number of fragmentary vessels, also thought to be of Early Roman date, and provide the earliest Roman material presented from the *Knossos 2000* excavations. Fine wares included a collection of Eastern Sigillata A dishes with plain rims curved upwards and flat floor (**C1-3**, equivalent to type *EAA3*) best represented in deposits of ‘Augustan’ date elsewhere at Knossos (c. late 1st Century BC, Hayes 1971, 252 No1-2). Other fine wares were on the whole were restricted to a single Local Colour Coated Ware bowl (**C4**), a distinctive miniature (**C5**) and scrappy, indistinguishable body sherds of similar vessels. Cooking vessels were most fully represented by a single shallow casserole with horizontal strip handles set just below the rim, depicting characteristics similar to those provided by ‘Hellenistic’ series (**C6**).

5.4.1 Featured vessels, Fig. 5.4a (Ch5 Catalogue number in ()’s):

C1 (1). *Dish*. (‘Hellenistic’/EAA3). Plain rim, curved upwards. Rim D.38, 8% (FA level 9)

C2 (2). *Dish*. (EAA3). Plain rim, curved upwards. Rim D.32, 15% (FA level 9)

C3 (4). *Dish.* (EAA3). Thick walled, square-cut foot with slightly sloping floor. Base D. 20, 5% (FA level 9)

C4 (142). *Bowl:* Thick, slightly rounded ring-foot, very worn. Base D6.5, 100% (FA level 9)

C5 (317). *Miniature/cup:* Thin, rounded wall ending in a flaring, out-curved rim with squared lip. Decorated with two, deep, horizontal grooves. Low, slightly bevelled foot-ring. Rim D5, 100% (FA level 9).

C6 (171). *Casserole:* (Misc.) with shallow carination, vertical sides and upright rim, flat-topped with internal ledge. Horizontal strip handle, slightly rising in the middle, attached just below the rim (Fabric 8; 'Hellenistic'/Early-Roman). Rim D24, 15% (FA level 9)

5.5 Group D: Area C – Trench CA levels 8 and 16 (Fig. 3.16, Plate 3.II)
– ‘Room 3, Large room with ‘net-pattern’ mosaic’

5.5.1 Context

The deposit discussed here represents the material from the fills excavated above the mosaic floor of the largest room of the building uncovered in Area C. The floor itself survives, partially intact, where it was protected from later activity by an existing wall and a fall of roof-tiles in the westernmost part of the room. The so-called ‘carpet mosaic’ comprises a plain white border and a net-pattern of blue cross-hatching. Elsewhere in the room only the sub-construction of the mosaic floor exists, made up of pebbles set in mortar covered by a layer of pink plaster into which the individual *tesserae* would have been set.

The large number of small finds and pottery found in the fills, on, and immediately above this floor, are thought to best represent the activity on the site sometime soon after the abandonment of the complex of rooms. In addition to the pottery catalogued below, small finds recovered include numerous iron nails, possibly from roofing beams, lead objects, bone pins, fragments of worked stone and marble (including a pestle and a broken piece in the shape of an animal foot). Other finds, which may yet provide further evidence influencing the date attributed by the pottery to the deposit, consist of a single coin and a number of lamp fragments.

The deposit discussed below is sealed by a layer, incorporating a collapse of roof-tiles overlain by a fill of soft, sandy brown soil located immediately below the topsoil (Level 5). Containing a range of recognised pottery types, this upper fill dates to c.AD370 – 450 (see Group H).

5.5.2 Pottery (Tables 5.5 – 5.8)

Consisting of 5818 sherds (almost 60kg of pottery), the group is made up of the wide range of wares that make up a standard domestic assemblage on the site. Fine wares, although making up less than 2% of the group, are dominated by the presence of Çandarli Ware vessels, and the full range of kitchen and other utilitarian wares (including cooking pots, casseroles and dishes as well as basins, bowls and jugs along with numerous amphorae, both Cretan and imported from elsewhere), are all represented, with plain wares and amphorae providing the bulk of the deposit (c.80% by weight). Pre-Roman residual material, although evident, is only present in relatively low amounts (only c.6% by weight) and the deposit as a whole appears to have accumulated over a relatively short period of time with almost all of the dateable material apparently contemporary.

Fine wares are represented, almost exclusively, by Çandarli Ware (94% by weight) of the common late vessel types (Forms 1-5; Hayes 1972, 316-22), mirroring the near monopoly of this ware noted in deposits of Severan date from excavations elsewhere at Knossos ('*Unexplored Mansion*'; Sackett 1992, 246-7; S1).

Of the forms present the medium-to-large-sized dish, with a shallow curving floor, incurved wall and triangular tapering foot, was the most common (equivalent to Hayes form 4 and thought basically to date to the 3rd century AD (**D7-12**)). Fragmentary rim sherds represented other common forms and included a basin, shallow dishes and flanged or small bowls, equivalent to Hayes forms 1-3 and 5 respectively (**D1-6, 14-15**). Of special interest is the presence of an additional form (not known elsewhere), a very shallow dish or plate, surviving as an almost complete profile (Form 6 - **D13**). The example noted depicting a triangular tapering foot identical to that which is common on form 4 dishes and, in addition to the variations in form, has a rouletted decoration on the surface of the floor, close to the rim (a decorative feature not generally found on Çandarli ware vessels and only faintly impressed, perhaps surviving after an attempt to remove it prior to the firing of the plate (see Plate 10)).

Notable amongst these recognised forms was the fact that the majority (72% or all fine wares by weight) was made up by the twelve Form 4 dishes and the single example of the Form 6 plate, depicting similar characteristics (i.e. the same triangular foot).

Significantly, in addition to the Çandarlı Ware described above, a single, very fine, base fragment with a glossy slip, most likely from a large dish of African Red Slip Ware Form 50A was present (**D16**), and provides a terminal date for the deposit similar to that suggested for the lower fill of the ‘plunge-bath room’ in the same building complex (see Group E).

Coarse cooking wares (making up c.15% by weight, 21% by sherd count) were represented by the standard types of cooking pots, casseroles and dishes as defined in reports for excavations elsewhere at Knossos (principally Hayes 1983; Sackett 1992). By far the majority of the cooking pots and casseroles was made up by vessels of Type 2, the most common known from Knossos, depicting a wide, flat sloping rim, rising towards the lip (cooking pots **D18-21**; casseroles **D22-24**). An alternative type (Type 3) with most characteristics similar to those of Type 2 but with a distinctive, down-turned rim (**D25-26**) was represented by two examples (thought to represent a later version of the cooking pot/casserole). In addition a number of smaller (Type 4) versions of the cooking pot were also noted (**D17**) along with ‘trefoil mouthed jugs’ in the same fabrics. The ninety one vessels representing these types were manufactured in two different fabrics (see *Cooking Ware - Fabric 2 & 3*; Chapter 4.1.3), with 43% made in Fabric 2 (57% in Fabric 3). Although it is not possible in many cases to distinguish cooking pots and casseroles from each other when surviving in a fragmentary state (owing to both forms having similar characteristics, handles and rims), where it has been possible (owing to the survival of a greater portion of the vessel, usually including the wall carination), it appears that casseroles provide a much greater proportion of those manufactured in Fabric 3, (making up 20 of the 22 vessels clearly identified as casseroles (some 90%)) and they also show greater variations in the thickness of the body.

Flat cooking dishes were represented by eleven sherds, three of Type 1 (often called ‘frying pans’ with a low, sloping wall ending in a thickened round rim and a tubular

handle; **D28**), six of Type 2 (with a broad, flat rim and no handle, demonstrating more pronounced ribbing to the body in later examples; **D27**) and two of unclear type, made up the remainder of the cooking vessels in the deposit. Produced in three recognisable fabrics, most were manufactured in *Cooking Ware Fabric 4 and 5* (five examples of each) with a single sherd (unclear dish type) of *Cooking Ware Fabric 6*.

Plain utilitarian wares made up of basins, bowls, platters and jugs were manufactured exclusively in what is thought to be the local, ‘buff’ fabric, fired to varying degrees of hardness (see *Plain Ware Fabric 10 & 11*). Basins, with a sloping wall and very broad, flat rim were the most common (with eighteen examples of with a ‘plain’, ‘grooved’ or ‘grooved and waved’ decorated rim (**D33-35**)). Alongside the basins were two broad, flat platters (**D31**), several jugs (**D36-37**) and large bowls (one of which, with a sharply down-turned, overhanging rim (**D32**)).

Thirty four amphorae (belonging to recognised types) were identified. Of these, over two thirds belonged to classes of amphorae produced in Crete and in close proximity to Knossos, and it was noted (as with the plain utilitarian wares) that they were manufactured in *Fabric 10 and 11*, thought to originate ‘locally’. Most common were those of Type 2 (=VillaD type 2; AC1), making up as many as nineteen of the twenty-four Cretan types recorded (**D39**). It should be noted that in many cases it remained impossible to distinguish between fragments of Type 1 and Type 2 Cretan amphorae due to the similarity in characteristics of their body sherds, bases and handles. Others examples included four Type 1 (=VillaD type 1; AC3 as **Cat. 274-8**) and a single ‘peaked –handle’ belonging to Type 4 (=VillaD type 3, AC4 as **Cat. 257-8**).

Ten other amphorae were noted as belonging to recognised imported types known from elsewhere (in 80% of cases by the identification of handle fragments only). Included were three of imported amphora type =VillaD type 33-4 (*Fabric 12*), three of imported amphora - Type 8 (**A40**; *Fabric 17* =VillaD type 37), two imported amphorae Type 9 (as **Cat. 285-90**; *Fabric 13* =VillaD type 49) and two further examples, only represented by sections of ‘double-rolled’ handles, of imported amphora Type 14 (*Fabric 14* =VillaD type22; *Dressel 2-4*; see Chapter 4.26).

5.5.3 Date

The Çandarlı Ware forms that dominated the most closely datable material in the deposit would certainly point to a 3rd Century AD date. The fragment of the large African Red Slip Ware dish (broadly dated *c.*AD230/40-325) would add further to this suggestion. Additionally, owing to the glossy slip and very thin wall of the form 50A dish, characteristic features of the earlier versions of this form, it is implied that this vessel is more likely a date to sometime soon after *c.*AD230/40 when the form was first becoming popular. The general nature of the associated coarse wares (including the later forms of the cooking pot types, casseroles with more pronounced ribbing to the lower body and cooking dishes depicting similar characteristics common during the later 2nd – 3rd centuries AD), although not able to refine the date any more closely, adds further weight to the conclusion drawn. Similarly, amphorae present range in date from 2nd – 4th centuries AD, but include many examples depicting characteristics common to the 3rd Century AD. The terminal date for the deposit suggested here closely approximated to the mid 3rd Century AD (*c.*AD230-250), similar to that attributed to deposits from the lowermost fills in rooms elsewhere in the building (e.g. represented by Group E).

5.5.4 Discussion

The pottery group presented above appears to be our best indication as to when the building complex of the ‘*Well Appointed Town House*’ went out of use. With the accumulation of closely dated finds represented suggesting that it must have been out of use by sometime close to the middle of the 3rd Century AD. This suggestion is reinforced by almost identical results from Group E (presented below) provided by a small collection of vessels originating from the lower fills elsewhere in the same building. It was noted previously (Chapter 3.4) that the collection of rooms making up the town-house (as depicted in Fig. 3.16) incorporated a room decorated with the ‘*Saturnilos Mosaic*’ (showing named boxers, pancratiasts or similarly athletic combatants) which, it has been suggested, is likely to closely post-date AD209, a year for which a Cretan athlete ‘*Saturnilos*’ is recorded as an Olympic victor (Paton 2000, 179)). If this is the case, then it clearly suggests that the building was still in use

during the earlier 3rd Century AD and must have been abandoned sometime relatively soon after.

5.5.5 Featured vessels, Figs. 5.5 – 5.8 (Ch5 Catalogue number in ()'s):

Fine wares

Çandarli Ware

D1 (48). *Basin*: (Form 1) Flat, slightly down-turned rim moulding with straight, sloping wall. Rim D30, 5% (CA level 16)

D2 (49). *Dish*: (Form 2) Medium sized with shallow, flaring wall and small rim moulding. Rim D24, 7% (CA level 16)

D3 (50). *Dish*: (Form 2) Shallow, flaring wall ending in slightly squared rim. Rim D26, 8% (CA level 8)

D4 (51). *Dish*: (Form 2) Medium sized with shallow, flaring wall and slightly thickened rim. Rim D23, 8% (CA level 16)

D5 (55). *Bowl*: (Form 3) Hemispherical with flanged rim, grooved on inside. Rim D18, 5% (CA level 16)

D6 (57). *Bowl*: (Form 3) Hemispherical with flanged rim. Rim D18, 6% (CA level 16)

D7 (59). *Dish*: (Form 4) Incurved wall to more upright rim, slightly angular ridging on exterior. Rim D28, 6% (CA level 16)

D8 (60). *Dish*: (Form 4) Shallow, curving floor with wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D26, 8% (CA level 16)

D9 (61). *Dish:* (Form 4) Shallow, wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D26, 6% (CA level 16)

D10 (62). *Dish:* (Form 4) Shallow, curving floor with wall incurved to rim, slight angle on exterior where wall and floor meet. Rim D19, 6% (CA level 16)

D11 (64). *Dish:* (Form 4) Shallow, curving floor with tapering, slightly more rounded foot. Base est. D10, 6% (CA level 16)

D12 (65). *Dish:* (Form 4) Shallow, curving floor with low, tapered foot. Base est. D11, 16% (CA level 16)

D13 (66). *Plate:* (Form 6) Very shallow, curving floor, triangular tapering foot, slightly thickened rim, grooved on the underside with faint traces of rouletting on upper surface of floor (foot characteristics similar to Form 4). Rim D34, 20% (CA level 16)

D14 (67). *Bowl:* (Form 5?) Small with upright wall. Rim est. D12.5, 5% (CA level 16)

D15 (68). *Bowl:* (Form 5?) Small with upright, slightly carinated wall. Rim est. D10.5, 5% (CA level 16)

African Red Slip ware

D16 (73). *Large dish:* (Form 50A) Base fragment. Tiny, bevelled foot. Very thin, fine fabric with good, smooth slip on interior and exterior surfaces. (CA level 8)

Coarse wares (Cooking)

D17 (164). *Small cooking-pot:* (Type 4) Sloping, flat rim (Fabric 3). Rim D12, 12% (CA level 16)

D18 (165). *Cooking-pot:* (Type 2) Broad, flat, sloping rim with sliced strap handle, stump surviving below handle (Fabric 2). Rim D16, 5% (CA level 16)

D19 (166). *Cooking-pot:* (Type 2) Broad, flat, sloping rim (Fabric 3). Rim D19, 2% (CA level 16)

D20 (167). *Large cooking-pot:* (Type 2) Broad, flat, sloping rim with flattened lip (Fabric 3). Rim D27, 8% (CA level 16)

D21 (168). *Large cooking-pot:* (Type 2) Broad, flat, sloping rim with flattened lip (Fabric 3). Rim D27, 10% (CA level 16)

D22 (175). *Casserole:* (Type 2) Flat, sloping rim (only surviving at break) carinated body, ridged on lower half of deeply rounded body (Fabric 3). Rim D19, 15% (CA level 8)

D23 (176). *Casserole:* (Type 2) Broad, flat, sloping rim with carinated body, defined by ridge. Sliced handle, tightly coiled beneath rim (Fabric 3). Rim D19, 13% (CA level 8)

D24 (177). *Casserole:* (Type 2) Flat, sloping rim, carinated body (Fabric 2). Rim D16, 7% (CA level 16)

D25 (179). *Cooking-pot/Casserole:* (Type 1/3) Down-turned, flat rim, almost triangular profile (Fabric 3, grey exterior). Rim D17, 7% (CA level 8)

D26 (180). *Cooking-pot/Casserole:* (Type 3) Thin, down-turned, flat rim (Fabric 3, grey exterior). Rim D17, 3% (CA level 8)

Dishes

D27 (206). *Cooking-dish:* (Type 2) Sloping wall with broad, flat rim, rounded at lip. Broad ridges visible on exterior (Fabric 4). Rim D24, 25% CD9 (CA level 16)

D28 (210). *Cooking-dish/'frying-pan'*: (Type 1) Flat floor, sloping slightly on underside, thick, sloping wall with broad, thickened rounded rim (Fabric 5, gritty, red-brown). Rim D31 5% (CA level 16)

Lids

D29 (218). *Lid*: (Type 2) Small, round 'knob' handle, concave underside (light brown, rough fabric with abundant silver 'mica'). D2.5, 100%. (CA level 16)

D30 (219). *Lid*: (Misc.) Small with flat top, thickened at edge, slightly concave underside (hard, gritty, grey fabric). D3, 100% (at handle). (CA level 16)

Coarse wares (Plain)

D31 (231). *Platter*: (Type 1) Flat floor with thick vertical rim, slightly chamfered at top, uneven and crudely made (Fabric 10). RimD? (CA level 8)

D32 (223). *Bowl*: (Type 2) Large hemispherical bowl with sharply down-turned overhanging rim, concave on outside (Fabric 10, very worn, soft fired). Rim D31, 20% (CA level 8)

D33 (225). *Bowl*: (Type 1) Plain, flat rim, concave underside and slightly rounded at lip (Fabric 10). Rim D31, 6% (CA level 8)

D34 (229). *Basin*: (Type 1A) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge. (Fabric 10). Rim D40, 5% (CA level 16)

D35 (230). *Basin*: (Type 1B) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge with waved decoration between. (Fabric 10). Rim D40, 3% (CA level 16)

D36 (235). *Jug*: (Type 1) 'collar rim' with overhang and concave underside (Fabric 10). Rim D7.5, 15% (CA level 16)

D37 (242). *Jug*: (Type 1) small conical base with tubular foot (Fabric 10). Base D6, 21% (CA level 16)

Coarse wares (Amphorae)

D38 (253). *Amphora*: Shoulder fragment with incised *graffito*, possibly 'π'. Hard fired, cream fabric with occasional small white grits, smooth exterior finish (CA level 16).

D39 (260). *Amphora*: (Type 2) Thin-walled, narrow neck with high convex 'collar-like' rim (Fabric 10). Rim D7, 22% (CA level 16)

D40 (282). *Amphora*: (Type 8) Thickened, rounded rim with flange below. Very worn gritty orange-red fabric, quite hard fired with occasional large white (lime), small dark brown inclusions (Fabric 17). Rim D7, 37% (CA level 16)

5.6 Group E: Area C – Trench CB levels 26-9 (Fig. 3.16, Plate 4.I) **– ‘Fill immediately over floor of Room 11’**

5.6.1 Context

As part of the complex of room uncovered in Area C a plunge bath, or *natatio*, was excavated (see Fig. 3.16). This room (Room 11), approximately 3m square and originally marble lined over brick faced walls, remains preserved to thirteen courses in height. Its floor level was approximately 0.75m lower than in the room immediately to the south (Room 5). A raised platform in the southwest corner suggested the presence of stairs leading down into the bath and the existing gaps in the damaged walls to the north and east may indicate the original presence of further, similar sets of steps which unfortunately have not survived. The bath was drained to the east by a clay drainpipe at its base (Plate 4.I).

The small pottery group discussed below was uncovered in the lowermost levels of fill, immediately above the floor of the plunge bath. An impressive gemstone, thought to depict *Artemis Ephesia* flanked by the sun and moon and a pair of deer, was also found within this fill (Plate 7.I) with the possibility of further dating evidence provided by the presence of a single coin. Other finds, also located on the plaster floor, included a stone bath plug (rare or perhaps unique) with the remains of the iron fittings for a chain and handle close to the drain, along with iron fragments and nails, a limestone column base and a slender, twisted-marble column-drum.

5.6.2 Pottery

Consisting of only a few featured vessels, the pottery assemblage of 425 sherds (6.3kg) is dominated by the presence of a single amphora, a pitcher and a number of dateable, fine ware fragments. Pre-Roman residual material makes up a small proportion of the overall group as elsewhere on the site but the dating evidence for the deposit is best provided by the small number of identifiable fine wares.

Of these, Çandarlı ware is represented by a number of relatively scrappy body sherds (over 40% of the count but only *c.*10% by weight), the rest being made up by examples of African Red Slip Ware. Features included two bowls (rim of Form 14B/C (**E1**) and

base of Form 14/17 (**E3**) and a single fine, large dish with very glossy slip (rim of Form 50A (**E2**)).

Although no Çandarlı ware forms were clearly discernable from the number of small body sherds, the latest of those known from elsewhere on the site are thought to date to c. mid 3rd century AD. This, together with the African Red Slip Ware bowls dated c. AD160-200 (possibly into 3rd century AD) and the terminal date for the deposit provided by the very common ARSW large dish form (c. AD230/40-325), the fine wares present would suggest a date no earlier than early-mid 3rd century AD. The glossy slip and thin wall of the large dish are characteristic features of the earlier versions of this form adding further weight to the suggestion of a mid-3rd century AD date.

The representation of coarse ware and amphorae, although making up the majority of the deposit due to their relative size, was limited to just two featured vessels (possibly 3, see below). An amphora, of Cretan origin (Type 1 = *Villa D* type 1, AC3; **E4-5**, Plate 20. I) together with a single narrow necked jug or flagon (**E6**, Plate 20.II) makes up the bulk of the group as a whole. The Amphora depicts pronounced ribbing on the body and characteristic splayed handles which also points to a later 2nd - 3rd century AD date for the group. The group therefore appears to reinforce the suggestions made above (Group D) in relation to the abandonment of the complex of rooms.

A further fill of the room (Level 24), overlying that discussed above, incorporated pottery which was dated by a mix of finds including an African Red Slip Ware rim fragment of a flat based dish - Form 59A (as Cat no. **86**), to no earlier than c. AD320-380/400.

Featured vessels, Fig. 5.9 (Ch4 Catalogue number in ()'s):

Fine wares (African Red Slip Ware)

E1 (70). Bowl: (Form 14B/C) Upright wall with sloping floor, plain rim. D20, 11% (CB level 28)

E2 (72). *Large dish:* (Form 50A) Thin, straight walled, rising to a plain rim, fine fabric with good, smooth slip. Rim D28, 5% (CB level 26)

E3 (98). *Small bowl:* (Misc.) Base with sloping floor and low, square foot-ring. Base D4.5, 100% (CB level 28)

Coarse Wares & Amphorae

E4 (277). *Amphora:* (Type 1) Flat-topped rim (Fabric 10, likely part of **278**, no visible join). Rim D10, 17% (CB level 27)

E5 (278). *Amphora:* (Type 1) Wide necked, rim not surviving (see **277**). Thick, rolled handles set obliquely from neck to shoulder, pronounced ribbing on body (Fabric 10, quite hard fired). 100% (at neck). (CB levels 27-9)

E6 (292). *Amph/Flagon:* (Misc.) Globular with tall, narrow neck and rounded lip. Distinctive flange above shoulder, where sliced-strap handle joins the neck (hard, orange-buff fabric). Rim D5, 100% (CB level 27)

5.7 Group F: Area E – Trench EA levels 11, 46 and 52 and 57 – ‘Large Pit fill’

5.7.1 Context

Located in Area E in close proximity to the *Villa Dionysos* (Trench EA) and excavated during 1993, the group derives from fills of a large pit containing debris including a large dump of pottery and tile (Level 11 subsequently extended to include levels 46, 52 and 57). This pit is thought to represent the destruction of the concrete masonry building in the area and to represent an episode that is thought to have affected the entire site. It was made up of a very loose, yellow/grey-brown fill containing many large stones and packed with tiles and substantial quantities of pottery, and was overlain by a more compact light-brown layer (Level 7) immediately below the loose brown earth of the topsoil. Finds other than the pottery included a single coin, lamps (including a complete example), various metal objects of iron and bronze, bone pins, loom-weights, fragments of worked stone and decorative marble.

5.7.2 Pottery (Tables 5.9 – 5.12)

The pottery group presented here comprises a large collection (5151 sherds, weighing c.101kg) predominantly made up of amphorae and coarse plain utilitarian wares, making up over 92% of the pottery recovered. The presence of fine wares is notably low with only eleven sherds in total (including a number of very scrappy examples, of wares almost certainly residual in this context and pre-dating the bulk of the pottery by some time). In addition to these residual examples, incorporating two Eastern Sigillata A, one Italian Sigillata and two Local-Colour-Coated ware, fragmentary body sherds of no clearly discernable form, there were four vessels which could be attributed to known types. These examples, represented by three rim fragments and a single base included two Eastern Sigillata B bowls (form 74 and 75 (**F2** and **F1** respectively)), a Çandarlı Ware dish (form 2 (**F3**)) and a base fragment with a tapered, triangular foot from a dish of Form 4 (**F4**). Although these forms include vessels of 2nd century AD date, the dish Form 4 is broadly recognised as dating to the third

century AD, and therefore provides the most significant indicator for the terminal date attributable to the deposit, implying that it is unlikely to have accumulated prior to this time.

Cooking wares, only 4% of the total represented in the group, included thirty examples similar to the range presented in Group D, namely cooking pots, casseroles, dishes and so-called 'frying pans'. Cooking pots and casseroles, as in Group D discussed earlier, were mostly of Type 2 (with wide, flat sloping rim, rising towards the lip (**F5-6**)), providing at least thirteen of the eighteen vessels represented (c.72%). Similarly, two Type 3 cooking pots were represented (**F7**), as well as a single small example of Type 4 and a lip fragment of a trefoil-mouthed jug. As earlier, the cooking pots and casseroles are noted as being manufactured in *Cooking Ware - Fabric 2 & 3* (with nine examples of each), again with the casseroles making up the majority of those of *Fabric 3* (c.67% where the type was clearly discernable).

Flat based cooking dishes were represented by three Type 1 'frying-pans' (**F13**) and seven of Type 2 (**F8-12**), including a single example with a thick, red, glossy slip on the interior and over the lip, similar to that of 'Pompeian Red Ware' dishes (**F8**). Over 80% were manufactured in *Cooking Ware - Fabric 4*, the remaining examples in *Fabric 5*.

As in Group D, plain utilitarian wares made up of basins, bowls, platters and jugs were manufactured almost exclusively in what is thought to be the local, 'buff' fabric, fired to varying degrees of hardness (see *Plain Ware Fabric 10 & 11*). Basins, with a sloping wall and very broad, flat rim were again the most common (five examples with a 'plain' rim and eight 'grooved' (**F14**)). Alongside the basins a single broad, flat platter was represented (**F15**), several jugs in the same fabric (**F17; F20-21**) and a single trefoil-mouthed jug (in a plain brown fabric (**F22**)). It should be noted here that a large number of vessels were represented by a variety of bases (depicting a ring-foot) that cannot be attributed to a particular vessel types with any certainty. They make up almost 20% of the entire number of vessels in the group and could therefore represent bases for vessels (numerically similar in their representation in the deposit) depicting characteristics attributed to Cretan amphora. The suggestion here, that many of the vessels attributed to amphorae classes, may well not be 'transport'

amphora in the literal sense, but vessels produced locally (as the amphorae) but manufactured with alternative bases, more suited to large jugs or domestic storage vessels (**F16; F18-19**).

Bearing this in mind, the ‘amphorae’ represented in the group, along with the variety of coarse plain wares discussed above, make up by far the bulk of the pottery in this deposit (c.92%). Just over half were of Cretan types, with as many as ninety-one possibly represented (**F26-37**; *Cretan Amphorae Types 1 and 2*), the remainder being made up by a similar number of imported types. Amongst the imported examples were a substantial number of *Imported Amphorae Type 9* (**F39-44**, in *Plain ware Fabric 13 and = VillaD Type 49; BenghaziMR3*) which provided c.34% of the amphorae, a single example of *Imported Amphorae Type 8* (**F45**, in *Plain ware Fabric 17 and = VillaD Type 37; Benghazi MR7*), seven, represented by their distinctive ‘double-rolled’ handles, of *Imported Amphorae Type* (**F47**, in *Plain ware Fabric 14 and 15 and = BenghaziER4; Dressel2-4*) and a single example of *Imported Amphorae Type 13* (**F46**).

5.7.3 Date

The most dateable of the fine wares present, albeit from a very small number, suggest a date during the third century AD, similar to that provided for Group D (c.230-250 AD) discussed earlier. Similarly, the coarse wares that make up almost the entire bulk of this group bear a number of characteristics common to those from contexts of third century AD date and almost identical to those represented in the previous groups D-E. Many of the amphorae, common during the third century AD, are dated much more loosely and could possibly date to sometime later (during the fourth century AD). This in mind, and also due to the absence of any other material that clearly dates to this late possibility, it is suggested here that the date assigned to the accumulation of the pit fill should approximate that of Groups D-E, namely early – mid third Century AD or very soon after.

5.7.4 Discussion

If this pit fill represents the destruction of the concrete masonry building in area E, and, as suggested above, it closely approximates Groups D-E in date (from Area C and thought to represent the abandonment of buildings in that area of the site during the third Century AD), it appears that together they represent an episode that is likely to have widely affected the entire site.

5.7.5 Featured vessels, Figs. 5.10 – 5.15 (Ch5 Catalogue number in ()'s):

Fine wares

Eastern Sigillata B2

F1 (40). *Bowl:* (Form 75) Plain, overhanging, rounded rim (Fabric B2). Rim D13, 15% (EA level 11)

F2 (42). *Conical bowl:* (Form 74) Narrow, overhanging rim with the lip hooked upwards (Fabric B2). Rim est. D8, 23% (EA level 11)

Çandarli ware

F3 (52). *Dish:* (Form 2) Shallow, flaring wall ending in plain rounded rim. Rim D26, 12% (EA level 11)

F4 (63). *Dish:* (Form 4) Shallow, curving floor with low, triangular, tapered foot. Base est. D12, 18% (EA level 11)

Coarse Cooking Wares

F5 (174). *Casserole*: (Type 2) Broad, flat, sloping rim. Sliced handle, tightly coiled beneath rim with sharply carinated body (Fabric 3). Rim D19, 12% (EA level 11).

F6 (170). *Cooking-pot*: (Type 2) Flat, sloping rim with broad wheel-ridging on body. Vertical, sliced handle stump beneath rim (Fabric 2). Rim D19, 12% (EA level 11)

F7 (181). *Cooking-pot/Casserole*: (Type 3) Thin, down-turned, flat rim with sliced handle stump below (Fabric 2). Rim D19, 8% (EA level 11)

F8 (200). *Cooking-dish*: (Type 2) with sloping wall with short, flat rim, slightly rounded at lip (Fabric 4c, gritty brown, with good thick red slip on interior and over lip, like 'pompeian red ware'). Rim D30, 6% (EA level 11)

F9 (202). *Cooking-dish*: (Type 2 var.) Sloping wall with broad, flat rim, slightly rounded at lip. Sharply cut at interior of rim to form a ledge for a lid (Fabric 4, gritty brown). Rim D29, 11% (EA level 11)

F10 (203). *Cooking-dish*: (Type 2) with sloping wall and broad, flat rim, slightly squared at lip (Fabric 4, gritty brown). Rim D29, 11% (EA level 11)

F11 (204). *Cooking-dish*: (Type 2) Sloping wall with broad, flat rim, slightly rounded at lip with broad ridging on exterior (Fabric 4, gritty brown). Rim D33, 6% (EA level 11)

F12 (205). *Cooking-dish*: (Type 2) Sloping wall with broad, flat rim, rounded at lip. Broad ridge visible on exterior (Fabric 4). Rim D26, 5% (EA level 11)

F13 (211). *Cooking-dish/'frying-pan'*: (Type 1) Flat floor, sloping slightly on underside, thick, sloping wall with broad, thickened rounded rim (Fabric 5, gritty, red-brown). Rim D30, 19% (EA level 11)

Coarse Plain Wares

F14 (227). *Basin*: (Type 1A) Straight, obliquely sloping wall and very broad, flat rim, grooved at outer and inner edge (Fabric 10). Rim D38, 10% (EA level 11)

F15 (232). *Platter*: (Type 1) Flat floor with simple, upright, inward curving rim (Fabric 10). Rim D26, 15% (EA level 11)

F16 (247). *Jug*: (Type 1A/3) Large moulded base with central 'button' and high ring foot (Fabric 10). Base D7, 100% (EA level 11)

F17 (236). *Jug*: (Type 1) 'collar rim' with overhang (Fabric 10). Rim D9, 20% (EA level 11)

F18 (245). *Jug*: (Type 1A/3) Large moulded base with central 'button' and very low ring foot. Wall curving gently upwards (Fabric 10). Base D6, 30% (EA level 11)

F19 (246). *Jug*: (Type 1A/3) Large moulded base with central 'button' and low ring foot. Wall curving gently upwards (Fabric 10). Base D7.5, 100% (EA level 11)

F20 (243). *Jug*: (Type 1) Moulded base with central 'button' and ring foot. Body tall and steeply curved (Fabric 10). Base D5, 100% (EA level 11)

F21 (238). *Jug*: (Type 2) Small down-turned rim fragment with thick sliced handle (EA level 11)

F22 (182). *Jug*: (Type 1) Trefoil mouthed (Plain brown fabric). Rim 100%. (EA level 11).

Cretan Amphorae

F23 (274). *Amphora*: (Type 1) Wide necked, flat rim fragment (Fabric 10). Rim D10, 10% (EA level 11)

F24 (276). *Amphora*: (Type 1) Wide necked, flat rim fragment (Fabric 10). Rim D10, 17% (EA level 11)

F25 (262). *Amphora*: (Type 2) Thin-walled, narrow neck with high, slightly thickened, convex 'collar-like' rim (Fabric 10). Rim D8, 50% (EA level 11)

F26 (261). *Amphora*: (Type 2) Thin-walled with high, slightly thickened, convex 'collar-like' rim (Fabric 10). Rim D9, 22% (EA level 11)

F27 (263). *Amphora*: (Type 2) Thickened vertical rim with handle stump (Fabric 10). Rim D8, 20% (EA level 11)

F28 (264). *Amphora/Large-necked Jug*: Thin-walled with high, convex 'collar-like' rim (Fabric 10). Rim D8.5, 45% (EA level 11)

F29 (265). *Amphora/Jug*: (Type 2) Thin-walled with high, convex 'collar-like' rim akin to Jug Type 1 (Fabric 10).

F30 (259). *Amphora*: (Type 2) Thin-walled, narrow neck with high convex 'collar-like' rim (Fabric 10, quite hard fired). Rim D6, 40% (EA level 11)

F31 (266). *Amphora*: (Type 2 var.) Thickened rounded rim (Fabric 10). Rim D9, 25% (EA level 11)

F32 (267). *Amphora*: (Type 2 var.) Thickened rounded rim with slight overhang (Fabric 10). Rim D9, 25% (EA level 11)

F33 (268). *Amphora*: (Type 2 var.) Thickened rim with slight overhang (Fabric 10). Rim D9, 30% (EA level 11)

F34 (269). *Amphora/Large-necked Jug*: Thickened rim with slight overhang, slightly flattened on top, narrow rolled handle stump with slight groove (Fabric 10). Illustrated here with two handles (only one surviving), with characteristics similar to single handled, large necked jug from the Villa Dionysos (Hayes 1983, 128, No.158). Rim D9, 30% (EA level 11)

F35 (270). *Amphora*: (Type 2) Thickened vertical rim, angled handles set obliquely from neck to shoulder, pronounced ribbing on neck and body (Fabric 10, more orange fabric). Rim D9, 100% (EA level 11)

F36 (271). *Amphora*: (Type 2) Thickened vertical rim, handles set obliquely from neck to shoulder, pronounced ribbing on neck and body (Fabric 10). Rim D8, 100% (EA level 11)

F37 (272). *Amphora/Two-handles Flagon*: (Misc.) Vertical, slightly flaring rim, handles set obliquely from neck to shoulder, pronounced ribbing on neck and body, crudely finished (Fabric 11). Characteristic similarities with Villa Dionysos 'two-handled flagon' type (Hayes 1983, 128 No.156-157). Rim D8, 18% (EA level 11)

F38 (314). *Amphora stand*: Plain cream fabric, soft fired with white and grey-brown gritty inclusions common (Fabric 11). Rim D10, 10% (EA level 11)

Imported Amphorae

F39 (285). *Amphora*: (Type 9) Small, narrow-necked and thin-walled with thickened rim (Fabric 13B, brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits. Var. rim VillaD type 49, MR3). Rim D4, 100% (EA level 11)

F40 (286). *Amphora*: (Type 9) Small, narrow-necked and thin-walled with thickened rim turned inwards. Single, broad handle curving from neck to shoulder

(Fabric 13B, Brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

F41 (287). *Amphora*: (Type 9) Small, narrow-necked and thin-walled, upright rim with small flange (Fabric 13, Brown fabric with distinctive, soapy surface, exterior more grey-black, highly micaceous with occasional white grits). Rim D4, 25% (EA level 11)

F42 (288). *Amphora*: (Type 9) Hollow, tubular foot, thin-walled with broad ribbing (Fabric 13C, lighter brown-buff fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

F43 (289). *Amphora*: (Type 9) Small, narrow-necked and thin-walled with broad ribbing, rim missing. Single, broad, ridged handle curving from neck to shoulder (Fabric 13, Brown fabric with distinctive, soapy surface, more grey-black exterior, highly micaceous with occasional white grits). Rim D4, 80% (EA level 11)

F44 (290). *Amphora*: (Type 9) Hollow, high, tubular foot, thin-walled with broad ribbing (Fabric 13B, lighter brown fabric with distinctive, soapy surface, brown exterior, highly micaceous with occasional white grits). Rim D4, 100% (EA level 11)

F45 (284). *Amphora*: (Type 8) handle fragment (Fabric 17). Rim D7, 9% (EA level 11)

F46 (293). *Amphora*: (Type 13) Wide, conical neck with long, everted rim, thickened and curving inwards at the lip. Broad, ridged strap handles surviving at join with the neck (orange fabric with red-brown grits, occasionally large and breaking the surface). Rim D14, 100% (EA level 11)

F47 (309). *Amphora*: (Type 14) Double-rolled 'Koan derived' handle fragment (Fabric 15, Hard pink fabric with speckled appearance from abundant small black, 'volcanic' grits and small dark specks. Small and large white (lime) grits and traces of a cream-buff wash on exterior). (EA level 11)

F48 (297). *Amphora*: (Misc.) (EA level 11)

F49 (300). *Amphora/Jug*: (Misc.) Tall, vertical neck with short, flat rim, rounded at lip (Fabric 10C, buff as local fabric with occasional, small flakes of silvery mica, medium flakes of golden mica). Rim D9, 30% (EA level 11)

F50 (298). *Amphora*: (Misc.) (EA level 11)

F51 (311). *Amphora*: (Misc.) Distinctive grooved, rolled handle fragment, round in section (Fabric 21). Characteristics as Sackett 1992, 255 No. 148). EA level 11

F52 (312). *Amphora*: (Misc.) Strap handle fragment, U-shaped in section (As *VillaD* type 33/34, Hayes 1983, 153) EA level 11

5.8 Group G: Area C – Trench CA level 3 (Fig. 3.16, Plate. 3.III)
– ‘Fill immediately over floor of Room 6’

5.8.1 Context

The deposit is comprised of pottery from within the ‘yellow-grey’ fill located immediately above the floor of the small room with an apsidal structure at its southern end (Fig. 3.16 – Room 6). The floor itself was made of hard, white plaster, on which, at regular intervals (0.37m apart) were set small platforms (0.3m x 0.3m) raised to a height of 3-4cm. These formed the bases for brick *pilae* such as would be constructed in a hypocaust, though all of the bricks have since been robbed away. Twelve platforms were clearly visible though it is likely to have extended over the whole room area originally. The walls of this room were faced with bricks, with four-five courses extant in some areas, the rest being robbed out. The wall foundations were provided by one course of dressed stone, jutting out a further 10cm. into the room.

In addition to the area excavated during 1993 (CA), the finds from which make up the bulk of this deposit, further clearing of the area during 1995 (CC) added further material (principally two intact cooking pots (see **G8-9** below)).

Finds other than the pottery discussed below include a single coin, three iron nails, a bronze pin, a marble fragment showing traces of painted decoration and a number of ceramic ‘wall-spacers’ (Plate. 8).

5.8.2 Pottery (Tables 5.13 – 5.16)

Made up of c.25kg of pottery (1218 sherds), the most significant feature of this deposit is the relatively low levels of pre-Roman residual material and high quality of preservation, incorporating a number of the best preserved Roman pottery vessels from the entire *Knossos 2000* excavations. Following mending, a number of complete

(or near complete) examples were noted, including fine-ware bowls, cooking pots, jugs, a plain bowl and a single amphora.

Principal among these vessels are a collection of five Phocaean Ware Red-Slip bowls (Hayes Form 3 (**G1-4, 6**)) that make up by far the majority of the fine wares present (c.93% of total by weight). A number of other fine ware examples are represented by a small Phocaean Ware dish (Hayes Form 2 (**G5**)), an African RSW dish (Hayes Form 59), as well as two Çandarli Ware fragments, miscellaneous sigillata and thin-walled wares (limited to only six scrappy fragments in all, almost certainly residual in this context, including a rim of an Eastern Sigillata B bowl, (Form 80 (**G7**)) and a single thin-walled sherd).

Coarse wares were dominated by the presence of four cooking pots, three of which were complete (two globular and one large and thick walled (**G8-11**)). Providing by far the bulk of the cooking ware present in the deposit, they were manufactured in a fabric, thought, like the fine wares described above, to be Phocaean (*Cooking Ware - Fabric 7*).

Other featured examples were limited to one small, locally manufactured, cooking pot (**G12**), a single dish and a fragmentary lip of a jug.

Plain wares included a globular bowl made in a soft, pink, micaceous fabric (**G13-14**, *Fabric 18*) and two jugs (**G15-16**, *Fabric 18b*), both well preserved and near complete.

Amphorae, with the exception of one surviving from the neck to shoulder with an adjoining handle (with numerous body sherds and a fragmentary rim of the same fabric, almost certainly belonging to the same vessel (**G19-20**)) and two other Cretan examples with rim, neck and handle surviving (**G17-18**), were on the whole more scappily represented by a number of 'base spike' fragments (**G22-26**, one showing evidence of burning and including a number of possible residual examples).

5.8.3 Date

Dating of this deposit relies most heavily on the Phocaean Ware vessels that dominate the fine wares present. The examples predominantly belong to the common form (Hayes Form 3C) dated to *c.*AD450-490 and include two with rouletted decoration around the vertical face of their rim (one with a hole for mending purposes by method of the 'hole and clamp' technique, commonly using lead clamps) and three plain vessels (including one small variant (**G6**)). The largest example (**G5**) depicts a central floor stamp representing a 'double-ribbed Greek cross with pendants' of Hayes group IIA - type 70, dating to *c.*AD475-500 (Hayes 1972, 365). The other single Phocaean Ware dish (Hayes Form 2A, *c.*AD370-450) could possibly be contemporary with the earliest date for the form 3 bowls, whereas The African Red Slip Ware dish (Hayes form 59) is thought to be somewhat earlier and unlikely to date from any later than the beginning of the 5th Century AD. Other fine wares represented consist of scrappy material dating from the third century AD or earlier, and therefore are almost certainly residual in this context. It is assumed, due to the similarly good condition of the complete (or near complete) coarse cooking ware vessels together with the generally low levels of residuality in the deposit as a whole, that these can also be treated as contemporary with the Phocaean Ware bowls and may even have been imported to Knossos alongside them.

This in mind, it seems most likely that the deposit as a whole dates most closely to that suggested by the large bowl decorated with the stamp and the other similar vessels, namely *c.*AD475-490/500.

4.8.4 Discussion

This group provides the best-preserved examples from throughout the *Knossos 2000* excavations and includes a number of complete examples of vessel types that only survive as fragments elsewhere on the site.

Domestic activity represented by the pottery in this group is provided here by the first intact assemblage dating to the Late Roman period from the vicinity of central

Knossos (in this case towards the end of the 5th century AD), with all previous representations provided by finds in closer proximity to the Christian basilicas to the north.

What is clear is that the floor of Room 6 was certainly exposed, or re-exposed, at some point during, or very soon following, the later 5th Century AD. The presence of the pottery presented here, dating long after the previous building had gone out of use (see Group D-E), would suggest some level of re-use of the earlier structures, perhaps partially remaining in association with those built later (in most cases only now surviving as wall fragments or traces of mud-brick in the uppermost levels).

This ‘chance’ find of an intact deposit, protected from later activity by the depth of the ‘hypocaust’ room (in part provided by the terracing of the building down the gentle slope) as well as the substantial nature of the 2nd-3rd century AD townhouse walls, provides us with our best example, albeit small, of a domestic group from the period. Contemporary pottery of this nature is only otherwise found in fragmentary condition, associated with the upper levels elsewhere on the site (the structures from which are often now only evident through the traces of poorly preserved mud-bricks found within the soil matrix just below the surface). This, the latest activity on the site during the Roman period, has notably been the most susceptible to subsequent damage (e.g. that caused by agricultural work carried out up until modern times) and thus remains difficult to interpret clearly.

The fragmentary nature of these latest phases, together with their close proximity to the surface, adds significantly to the likelihood of their poor state of preservation (possibly mirrored throughout the site) and perhaps provides a reason why little in the way of Late Roman activity has been recorded until relatively recently. In addition, as highlighted earlier (Chapter 1.3), traditionally what interest has been taken in the area close to the centre of Roman Knossos (with the exception of the *Villa Dionysos* excavations) has been initiated by, and limited to, the presence of substantial concrete remains, often still visible above the surface and belonging to the few, large civic buildings known (namely the theatre & basilica, most likely dating to the 2nd-3rd Century AD). The concentration on these remains may, in part at least, account for why the last phase of the city at its former centre has remained almost unknown.

5.8.5 Featured vessels, Figs. 5.16 –5.19 (Ch5 Catalogue number in ()'s):

Fine wares (Phocaeen)

G1 (112). *Large bowl:* (Form 3C) vertical rim incorporating a flange, flaring, curved wall with low foot. Vertical thickened rim, concave on outside, rounded on top (form 3C). Central floor stamp of 'double-ribbed Greek cross with pendants' (Hayes group IIA, type 70, c.475-500 AD). Rim D30, 100% (CA level 3)

G2 (113). *Large bowl:* (Form 3C) vertical rim incorporating a flange, flaring, curved wall with 'mend-hole'. Vertical thickened rim, slightly concave, almost flat on outside, bevelled at top with small overhang at bottom. Broad band of rouletting on exterior of rim. Rim D30, 5% (CA level 3)

G3 (119). *Bowl:* (Form 3) Plain, vertical rim incorporating a small flange, slightly concave, rounded top and bottom. Deep curved wall. Rim D28, 6% (CA level 3)

G4 (120). *Bowl:* (Form 3C) vertical rim incorporating a flange, rounded top and bottom, concave exterior with single band of simple rouletting. Shallow curved wall with small ledge on interior of rim. Rim D24, 3% (CA level 3)

G5 (111). *Dish:* (Form 2B smaller variant) with shallow, curved body and broad, flaring rim, flattened on top, slight ridge on exterior of wall. Rim est.D18. (CA level 2/3).

G6 (123). *Bowl:* (Form 3C) narrow, vertical rim incorporating a flange, flaring, curved wall with low foot. Vertical thickened rim, concave on outside, slightly rounded on top with pronounced overhang at bottom. Rim D15, 100% (CA level 2/3)

ESB

G7 (44). *Bowl:* (Form 80) Shallow and rounded with flat-topped rim, grooved on the interior just below the lip (Fabric B2). Rim D16, 6% (CA level 3)

Coarse wares (Cooking)

G8 (195). *Cooking-pot:* (Type 4) Round bellied, globular cooking pot, slightly flattened bottom. Short, flattened, sloping rim, rounded at lip with broad, double-sliced handle, attached vertically from rim to body (Fabric 7, quite thin-walled with traces of a red-brown wash on exterior). Rim D16, 100% (CC level 2)

G9 (196). *Cooking-pot:* (Type 4) Round bellied, globular cooking pot, slightly flattened bottom. Short, thick rounded rim with broad, double-sliced handle, attached vertically from rim to body (Fabric 7, with traces of a red-brown wash on exterior). Rim D16, 100% (CC level 2)

G10 (197). *Cooking-pot:* (Type 4) Round bellied, globular cooking pot. Short, flattened, sloping rim, rounded at lip with broad, double-sliced handle, attached vertically from rim to body (Fabric 7). Rim D16, 35% (CB level 3)

G11 (198). *Large cooking-pot:* (Type 5) Thick-walled, deep bodied cooking pot with short, thick, rounded rim, flat on top. Broad, rolled vertical handle merging with rim. Broadly rounded upper half, slightly tapering body to almost flat base (Fabric 7, thick-walled). Rim D20, 100% (CA level 3)

G12 (199). *Small cooking-pot:* (Misc.) Narrow, flaring rim with rounded lip (Fabric 7). Rim D13, 20% (CA level 3)

Coarse wares (Plain)

G13 (248). *Bowl:* (Late Type 1) Globular with plain flaring rim (Fabric 18, very worn at breaks with a pale buff wash on exterior surface). Rim D19, 75% (CA level 3)

G14 (248b). *Bowl:* (Late Type 1) Flat base fragment with curved body, distinct wheel ridging on interior, suggested as base for globular bowl form **248** (Fabric 18). Base est D9? (CA level 3)

G15 (249). *Jug:* (Late Type 1) with narrow neck and globular body, decorated with a single horizontal groove, handle stump surviving at neck. Moulded base with slightly flaring ring foot (Fabric 18B, harder fired). Base D8, 100% (CA level 3)

G16 (250). *Jug:* (Late Type 2) Narrow necked with squat globular body and thin, flat base. Rolled handle with slight groove attached between lower part of neck and upper body (Fabric 18B). Base D8, 100% (CA level 3)

Coarse wares (Amphorae)

G17 (280). *Amphora:* (Type 7) Narrow neck with thickened incurved rim, rolled handle join at neck (Fabric 11). Rim D6, 30% (CA level 3)

G18 (281). *Amphora:* (Misc.) Thickened rim fragment, rounded at lip, rolled handle join at neck (Fabric 10). Rim D8, 15% (CA level 3)

G19 (301). *Amphora:* (Misc.) Thickened rim fragment, rounded at lip (Fabric 12B, Orange-red, gritty fabric with occasional small white (lime) grits, see **302**). Rim D8 est. (CA level 3)

G20 (302). *Amphora:* (Misc.) Thick-walled, broad bellied with thick, rolled handles set obliquely from neck to shoulder (Fabric 12B, Orange-red, gritty fabric with occasional small white (lime) grits, as **301**, no demonstrable join). (CA level 3)

G21 (303). *Amphora*: (Misc.) Thick, solid base spike (Fabric 12B). (CA level 3)

G22 (304). *Amphora*: (Misc.) Hollow base spike (Hard fired orange fabric with large grey-brown grits, large white grits ('calcite') occasionally breaking the surface, rare large red grits). (CA level 3)

G23 (305). *Amphora*: (Misc.) Base spike (brown fabric) (CA level 3)

G24 (306). *Amphora*: (Misc.) Conical base fragment (hard red fabric, small brown-black grits, occasionally large). (CA level 3)

G25 (307). *Amphora*: (Misc.) Solid spike with narrow flange at bottom (burned, brown at core). (CA level 3)

G26 (308). *Amphora*: (Misc.) Base spike (Brown micaceous fabric). (CA level 3)

5.9 Group H: Area C, ‘Upper fill in Room 3’ – Trench CA, Level 5

5.9.1 Context

Located in Area C and deriving from the upper level uncovered in the largest room of the building (Room 3), the deposit discussed here makes up that overlying the deposits which were located immediately over the mosaic floor which partially survived in the room (discussed earlier in Group D). It consists of a layer located just below the topsoil, and comprising a collapse of roof-tiles overlain by a soft, sandy brown fill (Level 5) which contained the pottery presented below. Two coins were noted but other small finds were limited to a single loom-weight and an iron nail.

5.9.2 Pottery

This relatively large deposit (including *c.*43kg of pottery) is somewhat more mixed than that which it overlies (namely that of Group D). The fine wares present incorporate a small number of early Roman sigillata fragments (very worn and including an example of Eastern Sigillata B – Form 60), Çandarlı Ware vessels as in the levels immediately below (two dishes of Form 2 and three of Form 4), and similarly, two tiny fragments of bases most likely belonging to African Red Slip Ware Form 50A dishes, also noted in Group D.

However, more significant to providing the terminal date for the deposit, a number of examples of vessels dated somewhat later were also present and are highlighted amongst the featured vessels below. Included are a number of well-dated African Red Slip and Phocaean Ware vessels, one depicting a distinctive stamp. The African examples are made up of two large dishes akin to those already mentioned, but manufactured in a slightly thicker, coarser fabric, often much more poorly slipped (Form 50B (**H3-4**)). A large Phocaean Ware dish (Form 2A - **H1**), along with the stamped vessel base, decorated with ‘palm-branch’ style motifs, each comprising three branches radiating from a central point, grouped in a band around the centre of

the floor and bounded by shallow grooves (**H2**) make up the rest of the fine wares uncovered and provide the best estimate for the terminal date of the deposit.

A collection of coarse wares is also present, with many of the examples most likely dating to the 2nd – 3rd centuries AD (or earlier in some cases) and very similar in character to those presented in Group D. A minimum of thirteen cooking pots or casseroles were represented, predominantly by the identification of fragmentary rim sherds, one cooking dish of Type 1 and another, represented by a single scrappy body sherd only, demonstrating a dark red, thick internal slip like that of ‘Pompeiiian Red Ware’ cooking dishes (see cooking ware - *Fabric 4c*). Of the cooking wares, two examples (one globular cooking pot surviving substantially intact) are highlighted here and best represent the latest material in the deposit (**H5-6**).

Plain utilitarian wares and amphorae are equally represented with fragmentary examples, including basins, bowls and Cretan amphorae along with a single imported amphora of Type 8 (= *VillaD Type 37*; thought to be originate in western Asia Minor and most commonly found during the 3rd – 4th centuries AD (as Cat. **282-4**)). All are akin to those presented earlier in Group D and therefore may well date much earlier than that presented for the deposit represented here.

5.9.3 Date

Although much more mixed than the group presented for the lower fill in this room (Group D) and including much material which is similar in character, the deposit presented here dates somewhat later. The African red Slip Ware dishes noted (Form 50B) are very common *c.*AD350-400 (possibly later) and the equally common and well-known Phocaeian Ware dish (Form 2A) dates to *c.*AD370-450. The stamped decoration on the floor of the large dish belongs most closely to what is described as ‘Style A (i-ii)’ and is dates to *c.*AD450. The coarse wares present can do little more than add weight to the suggestion of a 4th - 5th century AD date as terminal for the deposit. It appears that a deposit could not have accumulated prior to *c.*AD370 and is more likely to date to well into the 5th Century AD.

5.9.4 Discussion

The mix of finds from within the fill highlighted here, sealing that which provided the principal group discussed earlier (Group D), can do little more than provide evidence for later activity in Area C, sometime during the later 4th or first half of the 5th century AD, long after the building complex (in the form presented in Fig. 3.16) had gone out of use. Similar evidence is also noted elsewhere in the building such as that provided by the upper fills of the ‘plunge-bath room’ (Room 11 – CB Level 24 discussed alongside Group E).

Featured vessels, Fig. 5.20 (Ch5 Catalogue number in ()’s):

Fine Wares - Phocaeen Ware

H1 (108). *Large dish:* (Form 2A) with shallow, curved body and broad, flaring rim, flattened on top. Rim D32, 10% (CA level 5)

Fine Wares - African Red Slip Ware

H2 (104). *Stamp:* Base with low foot, gently sloping floor, decorated with ‘palm-branch’ style motifs (each comprising three branches radiating from a central point), grouped in a band around the centre, bounded by shallow grooves (Hayes Style A (i-ii) c.450 AD). Fabric and slip very worn (not clearly African Red Slip Ware). (CA level 5)

H3 (78). *Large dish:* (Form 50B) High, slightly flaring wall rising to a plain rim. Rim D27, 7% (CA level 5)

H4 (90). *Large dish:* (Form 32/58, 59) Broad, hollowed base and gently curved wall. Fabric rough and granular at break, dull slip. Base est.D16. (CA level 5)

Coarse Cooking Wares

H5 (185). *Cooking-pot.* (Late Type 1) Flat, sloping rim, thickened at lip, heavy, wheel ridging on rounded, globular body (Fabric 1b). Rim D14 (CA level 5)

H6 (191). *Cooking-pot.* Distinct 'stepped' rim, with internal ledge and flat, vertical exterior, concave underside (Fabric 1b, surfaces burnt black, core grey with brown margins). Rim D19, 6% (CA level 5)

5.10 Group I: Area C – CB level 22 – ‘Lower fill in courtyard area’

5.10.1 Context

The area of the ‘courtyard’ discussed here was located in trench CB within the extension made to the north of trench CA, first excavated during 1993. Lying to the north of Room 3 (incorporating Group D and H) and west of Room 11 (the ‘plunge bath’ room that included Group E), its floor was made up of trodden clay at the same level as that of the plunge-bath and c.0.75m below the floor level of the room to the south (see Fig. 3.16, ‘courtyard’). Since the northern limit of the courtyard lies beyond the excavated area, its full extent is not yet known. The pottery presented here was recovered from the lowest level of the various fills that lay directly over the clay floor (Level 22), made up of brown earth uncovered immediately below a substantial layer of roof tiles (Level 21). Small finds also uncovered were limited but did include a single coin, four iron nails and one fragmentary loom-weight.

5.10.2 Pottery

The pottery featured here is derived from a small group (14.5kg) located within a relatively mixed deposit, comprising pre-Roman residual material that is almost ubiquitous on the site as well as a number of early Roman coarse-ware and sigillata examples (Including an example of Eastern Sigillata B1 (**I2**) dating significantly earlier than the latest material in the deposit, see below). Later material is provided by two vessels of African Red Slip Ware (Form 50 dishes) including an almost full profile of a dish of form 50A/B (**I1**). Most distinctive within the group is the presence of two, thick body sherds from what is thought to be a large closed vessel of some sort, perhaps a ‘table amphora’. What is more notable is their glazed and moulded decoration, incorporating a broad, horizontal band and depicting, in deep relief, a figure pouring from a krater and reclining banqueters (**I3-4**). Coarse wares are restricted to two cooking dishes (Type 2), a plain basin, jug (**I5**) and fragmentary

cooking pots (or casseroles) of types common in deposits of 2nd- 3rd century AD elsewhere on the site.

5.10.3 Date

Due to the relatively mixed nature of the pottery present, the dating for this deposit relies most-fully on the best dated of the fine wares. The majority of the dateable material represented amongst the pottery, including much of the coarse ware, is clearly residual within this context and dates considerably earlier than that implied by the latest examples presented here. Most significant is the large African Red Slip Ware dish (Form 50A/B (**I1**)), very common in contexts of the 4th Century AD and dating to *c.*AD300-360. With the absence of suitable comparisons from elsewhere, the presence of the large glazed vessel (**I3-4**) can add little to assist in the dating of the deposit and therefore the date suggested above remains the best available indication.

5.10.4 Discussion

Although the structures that overly the building complex that is thought to have gone out of use during the 3rd Century AD do not survive in a state providing anything like as coherent a plan, the abundance of pottery dating to the 4th – 5th century AD in the immediate area (see Groups G and H) attests to significant continued activity, in part reusing elements of the earlier surviving structure.

The deposit presented here, of fourth century AD date, was located below a series of other fills, including the large dump of roof tile, all incorporating material of later Roman date. Levels, including evidence of substantial burning and incorporating hard red-brown earth (Levels 11-12 and 14-15), above that of the tile layer were dated by the presence of an African Red Slip Ware stamped vessel (**Cat. 44**) and an African Red Slip Ware dish of Form 59A (**Cat. 86**) dating to *c.*AD350 – 375 and *c.*AD320 – 380 respectively.

5.10.5 Featured vessels, Fig. 5.21 (Ch5 Catalogue number in ()'s):

I1 (79). *Large dish:* (Form 50A/B) Broad, flat floor and straight, slightly flaring wall, rising at an angle to a plain rim, tiny bevelled foot under the edge of the floor. Slip on interior surface and over rim, slightly rougher exterior. Rim D28 (CB level 22)

I2 (32). *Dish:* (misc.) Shallow with thin walled, upright rim, double groove on exterior wall surface, immediately below offset with rim (Fabric B1). D26, 2% (CB level 22)

I3 (144). Misc. vessel, possibly a *table-amphora*: Large, thick, fragments with a broad, horizontal moulded band and deep, relief decoration, depicting a figure pouring from a krater (CB level 22).

I4 (145). Misc. vessel, possibly a *table-amphora*: No demonstrable join with **144** but almost certainly from the same vessel. Relief decoration depicting reclining banqueters (CB level 22).

I5 (237). *Jug:* (Type 1) 'collar rim', slightly angled with overhang (Fabric 10). Rim D8, 19% (CB level 22)

5.11 Group J: Area C, 'Upper 'pit' fill in courtyard area' – CB level 10

5.11.1 Context

Located in the courtyard area (Area C) above those discussed as Group I, this collection of pottery was found within the loose dark brown soil fill of a pit, uncovered below a much harder yellow-brown layer that included many fragments of plaster and cement revealed immediately below the topsoil (level 9).

5.11.2 Pottery

Consisting of only a few featured vessels from a deposit, limited in size (7kg), the pottery group is dominated by the presence of a small number of dateable fine ware vessels and a single large 'cooking pot' alongside several other fragmentary coarse ware examples. Fine wares represented are all African Red Slip Wares and include three dishes in a variety of forms (Form 50A, 61A both represented by rim sherds and a single base and floor fragment belonging to a large dish, possibly of Form 32/58 or 59 (**J1-3**)). The large, deep 'cooking pot' included in the group is of a distinct type, to-date not known from elsewhere on the site. With its full profile surviving almost intact, it comprises an elaborate rim, angled slightly upwards and terminating with a vertical lip, rounded on top with a concave, vertical exterior surface. It is deep and straight sided with a slight carination towards the lower part, sloping slightly towards the bottom (almost bucket like) and demonstrates neat, horizontal grooves, more tightly spaced close to the carination. Made in a fabric dissimilar to that used for the other cooking wares known on the site but demonstrating clear signs of burning to its exterior surface, this 'unique' example may have been manufactured in order to perform a specific function other than cooking, as yet, unknown (**J4**). Coarse-wares are further represented by a collection of small plain ware jugs (**J6-8**) and a fragmentary rim from a cooking dish (**J5**).

5.11.3 Date

Pre-Roman residual material makes up a small proportion of the overall group as elsewhere on the site but the dating evidence for the deposit is best provided by the small number of identifiable fine wares. The forms represented include single dishes of form 50A (c.AD230/40-325) and 61A (c.AD325-400/420), both of very common types, together with a form unclear due to its fragmentary nature (depicting characteristics common to dishes of form 32/58/59, possibly ranging in date c.AD290/300 – 420). It is implied therefore that the deposit is unlikely to have accumulated prior to c.AD325, and may date as late as sometime following c.AD420.

5.11.4 Discussion

Although this group is very limited (derived from a single, small pit), it provides further evidence for continued activity during the 4th - early 5th centuries AD within Area C, long after the '3rd Century AD' complex of rooms had been abandoned.

5.11.5 Featured vessels, Fig. 5.22 (Ch5 Catalogue number in ()'s):

Fine Wares – African Red Slip Ware

J1 (74). *Large dish:* (Form 50A) Thin, high, straight wall rising to a plain rim, fine fabric and smooth slip. Rim D32, 3% (CB level 10)

J2 (93). *Flat-based dish:* (Form 61A) Shallow, with slightly incurved rim, flattened on the outside, presenting a more or less triangular profile. Rim est. D22, 3% (CB level 10)

J3 (89). *Large dish:* (Form 32/58, 59?) Broad flat floor with minute, hollowed base, very faint trace of grooves on upper surface of floor, where floor joins slightly curving angle with wall. Base D19, 10% (CB level 10)

Coarse Cooking Wares

J4 (193). *Deep cooking-pot:* (Late Type 3) Straight sided with carination towards base, slightly sloping towards bottom. Neat, horizontal grooves more tightly spaced towards carination. Elaborate angled rim ending in vertical lip, rounded on top with concave exterior surface. Broad, flat internal lip (hard-fired, brown core, grey-green margins and black exterior surface with abundant small-medium flakes of silver 'mica'). Rim D26, 27% (CB level 10)

J5 (194). *Cooking-pot/dish:* Broad, flat sloping rim, thick with internal ledge (gritty with sandy inclusions, red-brown, grey patchy exterior). Rim D24, 12% (CB level 10)

Coarse Plain Wares

J6 (240). *Jug:* (Type 1) 'collar rim' with slight overhang and groove at offset with narrow neck (Fabric 10). Rim D6, 30% (CB level 10)

J7 (241). *Jug:* (Type 4) Narrow neck with thickened, flaring rim, rounded at lip (plain, orange fabric with traces of cream-buff wash, small white grits common). Rim D6, 10% (CB level 10)

J8 (244). *Jug:* (Type 1) Base with low ring foot (Fabric 10). Base D6, 30% (CB level 10)

5.12 Group K: Trench AA - Accumulated Upper Levels (mixed)

5.12.1 Context

Trench AA was located in the western half of the field and excavated in order to investigate the most obvious geophysical anomaly in that area. Little in the way of discrete features were uncovered, limited to very fragmentary structural remains, including traces of mud-brick and a section of a possible street surface and drainage channel. However, they were overlain by an accumulation of alternate levels, most likely originating as wash from further up the slope to the west and bringing the depth of soil to its present height (c.1.8m above the level of the street), that contained a number of wares and forms not otherwise well represented in other areas of the site.

The 'group' selected for presentation here, comprises of material from throughout these wash-levels and those immediately overlying the few recognised features. Although not a coherent pottery group from a single context, like those presented earlier, it has been chosen in order to highlight the date range and variety of Roman wares and forms present, the Late Roman wares in particular, that were recovered in higher densities than has generally been the case in previous excavations elsewhere at Knossos.

Other finds from this trial trench included a number of iron nails and various other metal objects in bronze, copper and lead (not yet studied). In addition a seal-stone *intaglio*, depicting a young man or perhaps a representation of the god Apollo (Plate 7.II) was recovered along with worked stone, decorated marble and painted plaster fragments. Amongst this collection of small finds were seven coins and numerous fragmentary lamps, which, following future studies, may well provide the best alternative chronological indicators to the pottery presented here.

5.12.2 Pottery

Along with ubiquitous pre-Roman residual material, early Roman fine wares were limited to a small number of fragmentary examples of Italian and Eastern Sigillata B (twelve sherds in total), all almost certainly residual in the levels in which they were located. The earliest deposits were best represented by two examples of Eastern Sigillata B2 (**K1-2**) and Çandarli Ware vessels (**K5-6**) along with associated coarse wares.

The bulk of the fine wares, located within the accumulated wash-levels, were provided by a wide range of African Red Slip Ware, often only represented by single examples, and ranging in date from the 2nd – 7th centuries AD (a minimum of twelve vessels in total and including Hayes Forms 8A, 32/58, 50A, 50B, 58B, 59, 61A, 62, 67, 105 (**K7-18**)). Similarly, the most common Phocaean Ware forms (Hayes Forms 1-3) were represented by nineteen vessels (sixteen of which belonged to the most common type of bowl, Form 3), and were dated to the late 4th – late 5th century AD (**K19-27**).

5.12.3 Date

Accumulated deposits ranging from the late 2nd - late 6th/7th centuries AD were evident (the latest pottery described as ‘Roman’ on the site represented by a single sherd (**K16**), dating to c.AD580-660+). Those dating to the mid – late 5th century AD, contemporary with Group G discussed earlier, remain the most strongly represented, in particular by the most common form of Phocaean Ware (Hayes form 3) which made up a third of all recognised Roman fine wares. Evidence of post-Roman activity was limited to that provided by fragmentary examples from within the topsoil, dating from ‘Medieval’ glazed wares (five sherds decorated with distinctive green and yellow glaze) to modern day material.

5.12.4 Featured vessels, Figs. 5.23 – 5.25 (Ch5 Catalogue number in ()'s):

Eastern Sigillata B

K1 (38). *Large flat-based dish:* (Form 60) with sloping wall and tall in-turned rim, convex on outside (Fabric B2). Rim D27, 12% (AA level 23)

K2 (39). *Large flat-based dish:* (Form 60) Large, thick-walled with two sets of grooves on floor (very worn), wall rising directly from base (Fabric B2). Base D26, 8% (AA level 31)

Çandarli Ware

K3 (45). *Basin:* (Form 26) Sloping wall with small plain, squared, flat rim. Rim est. D30. (AA level 31)

K4 (46). *Small dish:* (Form 9) Plain, shallow, sloping sides with flat rim. Rim D.15, 13% (AA level 31)

K5 (53). *Dish:* (Form 2) Low, heavy foot with flaring wall. Base est.D19, 10% (AA level 31)

K6 (54). *Dish:* (Form 2) Low, heavy foot with shallow flaring wall, faint groove on floor. Base est. D20, 12% (AA level 35)

African Red Slip Ware

K7 (69). *Carinated bowl:* (Form 8A) Straight, flaring wall with large convex moulding below the rim with a small ridge below, matched by two corresponding grooves on the inside. Two lines of rouletted decoration on the exterior of moulding. Rim D25, 5% (AA level 5)

K8 (77). *Large dish:* (Form 50B) Quite thick, flaring wall rising to a plain rim, fabric less fine. Rim D27, 6% (AA level 5)

K9 (82). *Dish:* (Form 32/58) Sloping wall with short, flat rim. Rim D32, 3% (AA level 5)

K10 (84). *Flat-based dish:* (Form 58B) with curved wall and short, flat, slightly down-turned rim with groove. (AA level 19)

K11 (85). *Flat-based dish:* (Form 59) Shallow, curved wall and flat base with horizontal, stepped rim. Rim D32, 10% (AA level 27)

K12 (87). *Flat-based dish:* (Form 59) Shallow, with broad, flat, horizontal rim, stepped with a slight upward roll at the lip. Rim D26, 2%. (AA level 1)

K13 (92). *Flat-based dish:* (Form 61A) Shallow with slightly incurved rim, flattened on the outside, presenting a more or less triangular profile. Rim D28, 9% (AA level 5)

K14 (94). *Large dish:* (Form 62) Shallow with sharply curved wall and plain rim. Rim D35, 4% (AA level 5)

K15 (95). *Large bowl:* (Form 67) Curved, everted, flaring rim, heavily rolled and hooked at the lip. Rim D32, 4% (AA level 9)

K16 (96). *Large plate:* (Form 105) Shallow, sloping floor terminating in a heavy knobbed rim. Rim convex on outside, quite rounded with slight hook. Rim D32, 1% (AA level 26)

K17 (97). *Dish:* (Misc.) curved wall with slight ridging on exterior, plain rim. Rim D28, 8% (AA level 3/5)

K18 (99). *Stamp*: Small rosette fragment (Hayes Style A (i), type 44A) with two surviving concentric grooves (Common, especially on forms H59, mainly 350-375AD). (AA level 26)

Phocaean Wares

K19 (107). *Large dish*: (Form 1A) vertical, slightly incurved rim, with sloping floor. Reduced to black on exterior of rim. Rim D28, 10% (AA level 2)

K20 (110). *Large dish*: (Form 2A) with shallow, curved body and broad, flaring rim, flattened on top. Exterior of lip discoloured buff-brown due to partial reduction. Rim D32, 3% (AA level 9)

K21 (114). *Large bowl*: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top with highest point on outer edge, slight overhang at bottom. Single band of narrow rouletting on exterior where rim is most concave. Rim D20, 5% (AA level 3)

K22 (115). *Large bowl*: (Form 3C) vertical rim incorporating a flange, flaring, curved wall. Vertical thickened rim, concave on outside, rounded on top with quite pronounced overhang at bottom. Discoloured to dark brown, due to partial reduction of rim exterior. Decorated with single broad band or rouletting on rim. Rim D30, 2% (AA level 1)

K23 (116). *Large bowl*: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, slightly concave on outside, rounded on top with small overhang at bottom. Rim D30, 11% (AA level 2)

K24 (118). *Large bowl*: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top, slight overhang at bottom. Single band of rouletting on exterior. Rim D27, 9% (AA level 14)

K25 (121). *Bowl*: (Form 3C) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, flattened on top with highest point on outer edge, pronounced overhang at bottom. Broad band of rouletting on exterior. Rim D20, 5% (AA level 2)

K26 (125). *Large bowl*: (Form 3E) vertical rim incorporating a flange. Vertical, thickened rim, almost flat outside, flattened on top, small overhang, underside flat with offset at join with wall. Rim D29, 5% (AA level 9)

K27 (126). *Large bowl*: (Form 3E) vertical rim incorporating a flange. Vertical, thickened rim, concave on outside, rounded on top, underside bulging with slight offset at junction with wall. Single, simple band of rouletting on exterior. Rim D28, 8% (AA level 9)

Other Late Roman Wares

K28 (130). *Deep dish*: (Form = ARSW form 84, see above) steep, straight wall and slightly curved, sloping floor with narrow foot-ring. Body depicting traces of worn, shallow rouletted decoration. Soft, buff fabric (as local) with a dull, pale orange-brown flaky slip. Base D16, 12% (AA level 5).

K29 (131). Fragmentary body sherd: Quite thick, hard, red-brown fabric with maroon surfaces. Exterior decorated with incised, slightly angular, vertical grooves (decoration akin to that common on vessels of Cypriot Red Slip Ware (Hayes 1972, 372) rough and poorly finished. AA level 5.

CHAPTER 6: CONCLUSIONS

6.1 Introduction

The pottery presented in the preceding chapters, when set alongside that provided by existing publications, provides us at this point with an opportunity to construct a relatively comprehensive overview of the ceramic sequence for the site for the majority of its existence during the Roman period.

The most significant groups presented in Chapter 5 will be discussed in association with those from elsewhere at Knossos that together present us with the best indication of the nature of the wares and types present on the site and, where appropriate, the evident changes in character of these wares that are noted throughout the period in question. The pottery from the *Knossos 2000* excavations will be highlighted where it most significantly adds to our knowledge of the pottery sequence, together with implications regarding our understanding of the social and economic history of the city.

As noted in Chapter 1, the principal published groups incorporated (see also Appendix I) essentially belong to those provided by a collection of three *Early Roman wells* (Hayes 1971), the numerous domestic assemblages ranging in date from the Augustan period to the 3rd Century AD from the so-called *Unexplored Mansion* (Sackett 1992) and two additional deposits (the ‘main’ and ‘upper’ destruction deposits of late 2nd and early-mid 3rd Century AD date) uncovered during the excavation of the *Villa Dionysos*, (Hayes 1983). Additional material from the *Knossos Medical Faculty* site is also noted, including a well/cistern deposit, that extends the sequence to c.AD620 – 640 and the end of the period discussed (Hayes 2001).

Material that dates to the very beginning of the Roman period is poorly represented, with pre-Augustan deposits restricted to that provided by the lowermost levels of the earliest of the wells. Pottery at this time demonstrates characteristics that suggest a continuation of the 'Hellenistic' series best represented by vessels of Eastern Sigillata A (known to have been imported to Knossos from the early 1st Century BC), Italian thin-walled wares, Knidian cups and locally manufactured wares (Eiring 2001, 91, 135).

From the Augustan period onwards we are better served, with the deposits of the *Unexplored Mansion* providing nine substantial pottery groups, including six from floor deposits. Of these, four originated from deposits that were stratigraphically well defined and sealed by destruction debris, the best of which present a continuous pottery sequence for the site from the later 1st century BC to the late 2nd/early 3rd century AD. These major groups are further supplemented by 1st century BC – 1st century AD material from further well fills and pottery of 2nd – 3rd Century AD date from the two main groups published from the *Villa Dionysos*.

The groups presented earlier (Groups G-K) provide our best evidence for the continuation of this sequence, and when set alongside the evidence from the upper disturbed levels of the other major excavations noted above (albeit scappily represented), extend the pottery series for the period to the end of the 5th Century AD (most fully represented here by Group G).

6.2 Fine Wares (Figs. 6.1 – 6.2)

The changing nature of the fine wares present at Knossos can be best demonstrated by comparing the proportions of each of the various wares represented in the most fully quantified of the deposits discussed above. These changing relative frequencies, indicative of changing popularity or availability of the major imported wares, and also reflecting the variations in the level of local manufacture (summarised in Fig.6.1a-c/Table 6.1).

In the Early Roman period the majority of imported fine wares were represented by those manufactured in the East, from Cyprus (Cypriot Sigillata) and in larger numbers

from other sources not yet identified, most probably from somewhere in the Syrian region or eastern Cilicia (Eastern Sigillata A –ESA). ESA continued to dominate until Italian Sigillata wares, the finest of the *terra sigillata*, became a standard import at Knossos during the first century AD. The Italian wares themselves peaked in popularity by the middle of that century when an alternative competitor (Eastern Sigillata B–ESB) was able to gain more and more control over Knossian markets. This ware was produced in western Asia Minor, with Tralles or the surrounding region being a suggested origin and Ephesos apparently providing its main export outlet. Some of these production centres are thought to have been Italian-owned subsidiary workshops set up by individuals well known as Arretine potters with a number of provincial interests. The dominance of ESB at the expense of the Italian wares and the limited competition from elsewhere (including Pontic Sigillata that appeared at this time in relatively small quantities) continued well into the second century. This ware still maintained a substantial share of the import market until it was itself superseded by another Asia Minor product. This new competition came from a product manufactured at Pergamon and at the nearby coastal site of Çandarlı, and provides part of a long-standing regional series from the area. Çandarlı Ware gained a position of almost total monopoly at Knossos by the end of the second century. This situation continued into the third century when the emergence of ‘red-slip’ wares from North Africa and elsewhere began to make an increasingly large impact on Mediterranean markets.

During this time the red-gloss *terra sigillata* was progressively replaced throughout the Roman Mediterranean market by less sophisticated wares with smooth red-slipped surfaces. Products of North Africa, first made in the Carthage region and soon after at related factories in various parts of (modern) Tunisia and eastern Algeria, were the leaders in this development. Utilising clays which did not require the closely controlled firing conditions of the *sigillata* wares, and capitalising on the production of vessels in shapes designed for efficient transport and shipping, the red-slip wares were able to gain an ever-increasing share of the market. This process escalated during the second and third centuries; and by the fourth century in particular, these red-slip wares had in reality no effective competitor. In reaction to this dominance, regional imitations began to proliferate including products from Asia Minor (Phocæan Ware), most commonly dating from c. AD 350-550, as a continuation of

the Pergamon/Çandarli *terra sigillata* tradition which had previously dominated Knossian and eastern markets in general.

These shifts in the relative popularity of imported fine-wares are set against a background of decline in locally produced wares. The local potters appear to have contented themselves by supplementing those imported, often with softer fired versions of less articulated forms and copying those of the more common imported types. These local wares appear to be represented in declining numbers until the later 2nd century AD and only as survivals or residual scraps in deposits dated thereafter. A return to local or regional manufacture of vessels (still mimicking those imported) is demonstrated in the latest of the deposits discussed here, with locally produced derivatives of African Red Slip Ware plates and dishes making up much of the pottery from the early – mid 7th Century AD well/cistern deposit from the *Knossos Medical Faculty* excavations (Hayes 2001, 433-4; B7-15).

Fine wares from the Knossos 2000 excavations for the earlier part of this sequence (to the end of the 2nd Century AD) do little more than provide parallel examples, supplementing those that exist from previous excavations (Groups A-C).

Where the Knossos 2000 material best adds to our knowledge is in the subsequent period from the third to fifth centuries AD. Groups D-F provide us with substantial deposits dating to the early-mid third century AD which demonstrate (particularly in the case of Group D) the continued dominance of Çandarli Ware, closely paralleling the story provided by the ‘Upper Destruction’ deposits from the Villa Dionysos. Incorporated within Group D was an additional vessel of Çandarli Ware, a previously unknown plate form, depicting many similar characteristics to vessels of form 4 and assumed therefore to be an addition to the Late Roman series discussed by Hayes (Hayes 1972, 1980).

It is immediately apparent on viewing Fig. 6.1a-c that material of 4th-5th Century AD date on the site is less well represented, with little in the way of large groups lending themselves to any level of meaningful quantification or analysis. However, significantly large amounts of material dating to this period are provided by the various ‘Supplementary Groups’ (Groups H-K), from a range of contexts presented in

the previous chapter and the limited evidence provided by material from the scrappy upper levels from previously published excavations (see Ch.6.4 below). The groups, appearing very limited due to their small scale when viewed in isolation, but when combined, further demonstrate the relative popularity of African Red Slip Wares at Knossos at this time, reflected elsewhere throughout much of the Mediterranean area together with the introduction of Phocaean Ware, increasing in popularity on the site from the later 4th Century AD onwards. The chronological range of Late Roman wares and types present (highlighted in Fig 6.2) indicates this continued activity on the site, the nature and extent of which, is discussed more fully below (Ch.6.4).

Occupation during the late 5th Century AD is best represented by the material incorporated within the upper levels discussed as part of Group K, and more specifically, the well-preserved deposit incorporating a number of complete or near complete vessels (Group G). Almost all of the fine ware in this group is provided by Phocaean Ware bowls (of Form 3), further demonstrating the renewed monopoly of wares from Asia Minor, as a continuation of that previously held, by the Pergamon/Çandarli *terra sigillata* tradition.

6.3 Late Roman Knossos (Figs. 6.3 - 6.4)

Although it is accepted that Knossos suffered numerous upheavals during the Roman period due to earthquakes, it is also well known that the area continued to be an important, prosperous centre into Early Christian times. As noted in Chapter 1, two basilica churches have been excavated in the cemetery area to the north of the site, the largest thought to be a mortuary church dating to the fifth century AD, the other a *martyrion* built early in the sixth century AD (Hood & Smyth 1981, 26). Hence it may seem reasonable to expect that the provision and support of large, well-embellished basilicas at Knossos would require a substantial Christian community in the locality.

For some time evidence for domestic activity in this area, representative of the presence of such a community, remained elusive and hypotheses based on this lack of information forwarded theories of general abandonment -

"No late pottery is visible on the entire site, so it seems that basically Knossos was deserted after the fourth century. This may have been caused by the series of earthquakes known in the fourth century, perhaps particularly the massive one of 365" (Sanders 1982, 15).

Fortunately, in more recent years, various works have uncovered material remains that provide some insight into the nature of the Late Roman town and of life therein. However, the scant nature of architectural remains (other than that provided by the basilica churches) dating to this later period has further fuelled an impression of substantial urban decline -

"Knossos appears to have lost much of its urban character after the mid-third century. The major building sequences revealed by excavation over the last sixty years and more appear to come to an end at that time, and the cemetery finds follow a similar pattern. Hence the surroundings of the church complex, at the time of its construction, may have been predominantly rural in character, dotted with various part ruined structures. The regularity of the spacious church enclosure argues in favour of ample open space" (Hayes 2001, 433).

It should be emphasised however, that the religious centre mentioned above, representing a major focus of Knossos in the later Roman/Early Christian period, is located approximately 1/2km from the earlier Roman forum and twice this distance from the Bronze Age centre which has attracted the bulk of our archaeological attention. For this reason much of the material discussed in existing publication derives from areas which we may expect to be on the periphery of the Late Roman town, or from the isolated excavations focussing primarily on the more obviously visible and best preserved of the large scale 'civic' buildings (in most cases with substantial concrete structures part surviving above the modern day surface).

A summary of the information provided by the main areas of excavation have been highlighted below alongside that provided by the *Knossos 2000* excavations in order to assess to what extent the hypotheses, of abandonment or urban decline, are reflected in the existing archaeological record and how this record (in particular the

best-dated ceramic sequence presented here) can influence our understanding of the changing nature of the city during this period.

In the excavations devoted to the post-Minoan levels of the *Unexplored Mansion* (Sackett 1992, Hood & Smyth 1981, 47-8; no.186), final abandonment is thought to have occurred early in the third century AD. The only evidence post-dating this event is contained in wash-levels that gradually accumulated over the entire site. The material uncovered, from an amalgamation of 86 upper levels dating up to the fifth century AD (Group U; Sackett 1992, 250-256; pls. 190-9, 217-22), can do little more than suggest some level of activity in the general area at this time. Whether this was in close proximity to the excavated site, or perhaps further up the slope to the west is not known. Of the best-dated fine ware in this series of mixed deposits (comprising 1,542 pieces), 14% is made up of common African Red Slip Ware forms ranging chronologically from the mid third-early fifth centuries AD. Notably, representation of Phocaeen ware of similar date or later is particularly scant (with only three sherds identified in total).

However, it should be noted here that one factor which may well have affected the interpretation of the latest phase of occupation, is that the uppermost structures in the northern half of the site were uncovered by German military excavations during 1941-3. In addition, these works remained exposed for approximately a quarter of a century prior to the start of work in 1967 (Hood and Smyth 1981, 46-7, no. 186; Sackett 1992, 19, 250). Although in retrospect it is impossible to assess these excavations and the subsequent damage caused by erosion, it seems highly likely that what remained would have suffered to some extent, particularly if it consisted of any fragile mud-brick or earth floor phases.

Elsewhere, the *Stratigraphical Museum Excavations* (Warren 1988), located less than 100m west of the *Unexplored Mansion*, remains have been uncovered dating from the early first to the fifth century AD. The final period, with which we are most concerned, is represented by walled channels thought to have been for the controlled flow of liquids (perhaps involved in the production of wine). The principal dating evidence is provided by the presence of a North African Red Slip Ware fragment from within the make up of one of the channel walls (dated to AD 350-420 by the

identification of the style of its decorative stamped motif). Although other similar fragments are known from the site, the latest well-dated pottery consists of a Phocaean Ware fragment from a dish dating approximately to the mid-late fifth century AD (Warren 1988, 95, fig. 50-51,56).

The *Villa Dionysos* (Hayes 1983, Paton 1998, Hood & Smyth 1981, 43; no. 114), the destruction and abandonment of which has already been discussed, located just over half a kilometre north-west of the Palace site and very near to what is thought to have been the western limit of the Roman forum (and immediately north of the *Knossos 2000* study area), appears to have only limited representation of activity post-dating the so-called ‘squatter’ occupation of the 3rd Century AD. The latest period of activity, during the latter part of the fourth and the fifth century AD, is represented by building phases simply described as comprising of relatively minor walls and associated drains together with episodes of stone robbing (Hayes 1983, 98-9).

Evidence from elsewhere at Knossos, though limited, does still hint at Late Roman activity at some level. For instance, excavations located to the south of the Bronze Age palace site, close to the Sanctuary of Demeter, uncovered building remains thought to be of fourth century AD date including what was interpreted as a farmhouse (Coldstream 1973, 17; Hood & Smyth 1981, 56; no. 286).

Of greater significance, is the likelihood of a third basilica church of Early Christian date on the site of Ayia Sofia in Makritikhos village, unfortunately no longer visible due to a subsequent enlargement of the modern church (Hood and Smyth 1981, 52; no. 235).

Although it is apparent from the brief review above, much of what we know about the Later Roman/Early Christian town from existing publication is inferred from relatively fragmentary evidence. However, what is also clear is that Late Roman pottery is certainly visible on the site. In almost all areas that have been excavated some form of activity is attested at this time, albeit to varying degrees.

The relatively limited level of occupation suggested by the published excavations, predominantly carried out away from the centre of Roman Knossos, has provided the

background for the hypothesis of urban decline highlighted earlier. However, when we consider the evidence provided by the *Knossos 2000* excavations, located much closer to what is thought to be the central forum, we see far higher densities of Late Roman pottery than has been published to date.

For instance, material from the superficial levels of the trial trench (AA), out of approximately one hundred pieces of fine ware, produced almost ten times as many Phocaean Ware examples of 5th Century AD date as the entire combined upper levels of the *Unexplored Mansion* excavation (which contained over 1,500 examples), together with numerous African Red Slip Ware vessel fragments ranging in date up to the 7th Century AD (see Fig. 6.3 and Group K). This becomes even more significant when we consider the massive difference in the volume of material considered .

Further Late Roman activity is attested by the Groups H-J, derived predominantly from the upper levels of Area C, related to structures of un-mortared, undressed masonry and activities akin to those dismissed as ‘minor’ in the report on the pottery from the *Villa Dionysos*. Similarly dated pottery is also noted in the uppermost, mixed deposits throughout all the excavated areas, often in levels incorporating fragmentary traces of mud-brick walls (see Tables 3.1 – 3.14; Figs 3.1 – 3.14).

In addition, the *Knossos 2000* excavations have uncovered a single well-preserved deposit (Group G) dating to the latter part of the 5th Century AD and incorporating a number of complete and near complete vessels, providing the fullest domestic assemblage for the period known from the entire site. The deposit, located overlying the floor of what had been the hypocaust for the earlier town house, suggests that some level of re-use of existing concrete masonry buildings was still possible in the Late Roman/Early Christian period. This partial re-use of much earlier buildings, together with the fragile nature and poor preservation (exacerbated by the close proximity to the modern day surface and an inevitable greater susceptibility to damage by post-depositional activity) of some later, less substantial, phases of building may go some way to explaining why so little has attracted much attention or been previously noted.

It appears that limited occupation is suggested by what is known from the sites which we might expect to be found on the periphery of the town (e.g. *Sanctuary of Demeter*, *Unexplored Mansion*, *Stratigraphical Museum* excavations), with greater densities of activity represented by sites closer to what was previously the centre of Roman Knossos (*Knossos 2000*) and those in proximity to the focus provided by the Christian basilicas further to the north. In addition, the possibility of other potential foci for the town, principally that provided by a third basilica to the southeast of the site, but also including that which hints towards the possible occupation of the slopes towards the acropolis in the west, is suggested (Group K, Fig. 6.4).

Although any interpretations based on current evidence still remain tentative, as our knowledge increases, theories of near abandonment during the fourth century AD appear less and less sustainable. Though little can be said about the extent of the city at this period and the density of occupation within its limits, what does seem clear is that Knossos in later antiquity looked very different to its counterpart two or three centuries earlier.

Whether we choose to agree or not with the hypothesis presented earlier, that Knossos may have been predominantly rural in character, dotted with various part ruined structures, it is known that in other eastern cities and elsewhere, that there was a fundamental change of emphasis in the urban landscape in late antiquity. Public squares lost their role as centres for assembly, display and commerce, with churches becoming the principal form for expressing architectural grandeur (Potter 1995, 88). These churches, providing the major form of public architecture were often sited, away from the former political and religious heart, the forum. The creation of new Christian foci, combined with an increasing reluctance for private patronage of the construction or maintenance of public works and the demise of the forum itself, provide the context for what is often described, at Knossos and elsewhere, as urban decline.

Although it remains beyond the scope of the presentation here to assess whether this change in the urban landscape can be accurately described simply as decline, it appears that Knossos did undergo a similar process to that presented above. The principal basilica churches we are aware of were certainly sited to the north, away

from the earlier, most densely built-up area of the former Roman city centre. A move in itself that would allow for the provision of the regular, spacious church enclosure described earlier (without necessarily, as previously suggested, arguing in favour of a more open, rural character for the entire area). If this is the case then it may seem reasonable, in light of the evidence highlighted above, to suggest that levels of occupation, in parts of central Knossos at least, may well be more substantial than has been previously thought.

To what extent this activity is reflected across the entire site is not yet known but ongoing and future works may well provide us with a better insight into the limits and chronological range of the occupation throughout the area of the Knossos valley (see 6.6 below). Once complete, it is hoped we will be able to assess with much greater clarity the significance of the densities of activity dating to the Late Roman period provided by this report.

6.4 Appraisal and Future Works

From the outset, the purpose of the study presented here was to provide the chronological framework for the *Knossos 2000* excavations carried out during 1993 and 1995, to present where possible an extension to the existing ceramic sequence and, in doing so, contribute to the understanding of the city and its economic history during the later Roman and early Byzantine periods.

Through the identification and presentation of the pottery compiled in Chapter 3, and the specific pottery groups adding detailed information for stratigraphically significant areas of the site presented in Chapter 5, the first of these objectives has been wholly met. Matrices and tables chronological identifiers are now available for the entire excavation and will no doubt help facilitate the ongoing study and ultimate presentation of the excavations in future.

While much of the material studied does little more than provide parallels for similar finds made elsewhere on the site (namely the material dating to the earlier part of the sequence from mid 1st century BC-3rd Century AD), the material presented dating

from the subsequent period (most notably in Group G but supplemented by Groups H-K and throughout the site to some extent), a period poorly represented by publication of excavations in the area to date (3rd-6th Century AD), adds significantly to the ceramic sequence for Roman Knossos. Although representation for part of this period remains relatively patchy (with clear contexts on the whole restricted to where the latest phases survive in Area C), Group G alone provides a near-intact deposit of late 5th century AD date, the first ‘complete’ (albeit small) domestic assemblage of its type for the site.

When set against the body of material already published the groups detailed in this study assists in providing a pottery sequence (with some periods more fully or better represented than others) for the entire Roman period until the eventual abandoning of the site during the 6th Century (see 6.2-6.4 above).

As noted (6.4 above) it is not yet known to what extent this Late Roman activity is reflected across the entire site, however, ongoing and future work involving the systematic survey of the Knossos valley, will no doubt help assess with much greater clarity how far the densities of activity highlighted in this report are reflected in the area in general (‘The Knossos Urban Landscape Project’ directed by Todd Whitelaw, University College London).

With the above appraisal in mind, and in line with almost all studies, the process of investigation itself brings to light numerous questions that may be addressed, the pottery report presented here being no exception. It needs to be noted, as an unavoidable practical consequence of the study completed, identification of pottery wares was restricted, at this stage, to ‘macroscopic’ analysis alone. Although detailed recording of visual characteristics of fabrics was carried out, particularly for less well-known wares (with the ‘better-known’ wares assigned with a greater level of certainty), no attempt was made to address more specific questions of origin (beyond that suggested by visual characteristics).

In order to check the validity of the visual classifications relied on here, future work at Knossos related to the study of pottery fabric, where it is deemed it can address specific questions, needs to include the provision of thin-sections from selected sherds

for examination under petrological microscope (to include typical examples from each selected fabric group). The objective to furnish more accurate, descriptive data for future comparisons and where possible, identify characteristics that may prove to be diagnostic of geological origins for the wares we still know little about. Although this was not possible within the time and economic constraints of this particular report, a regional data-base or reference collection (comparable to that provided for Roman Britain, Dore & Tomber 1998) will prove invaluable in future.

It is hoped that, despite the limitations highlighted above, that this presentation of the ceramic evidence successfully adds to our understanding of Roman Knossos and in doing so will help facilitate, more specifically, the completion of the report(s) for the Knossos 2000 Project as a whole.

Gary Forster (June 2009)

Appendix I: List of Principal Deposits from Knossos (c. 50 BC – AD 640)

Abbreviations:

<i>K2K</i>	<i>Knossos 2000</i> excavations.
<i>KMF</i>	Hayes J.W. 2001 'Early Christian pottery from Knossos: the 1978-1981 finds from the Knossos Medical Faculty site' in <i>BSA</i> 96, 431-454.
<i>UMII</i>	Sackett L. H. 1992 <i>Knossos: from Greek City to Roman Colony, Excavations at the Unexplored Mansion II</i> . <i>BSA</i> Sup. Vol. 21
<i>Villa D</i>	Hayes J.W. 1983 'The Villa Dionysos Excavations, Knossos: the Pottery' in <i>BSA</i> 78, 97-169.
<i>Well KW13</i>	Hayes J. W. 1971 'Four Early Roman Groups from Knossos' in <i>BSA</i> 66, 249-276.
<i>Well MW</i>	As <i>Well KW13</i>
<i>Well RR/K</i>	As <i>Well KW13</i>

Date/Approx.

Deposit Description

c. 50-1 BC	<i>Well KW13</i> , 263-70. Early phase of well fill.
c. 25-1 BC	<i>UMII</i> , 178-183, pls. 125-7, 200-1, Deposit A1. Closed destruction deposit over earth floor, sealed by C1. <i>Well MW</i> , 257-63. Lower well fill. <i>Well RR/K</i> , 252-6. Well fill.
c. 25 BC- AD 25	<i>UMII</i> , 183-190, pls. 128-135, 201, Deposit A2. Re-deposited destruction debris.

- c. AD 25-50
- UMII*, 190-192, pls. 136-7, 202, Deposit B1. Well stratified, partial floor deposit.
- UMII*, 192-196, pls. 138-40, Deposit B2. Pit/tip.
- c. AD 50-60
- Well MW*, 257-63. Upper well fill.
- Well KW13*, 263-70. Later phase of well fill.
- UMII*, 197-203, pls. 141-9, 203-4, Deposit C1. Rich and varied destruction deposit over earth floor.
- UMII*, 203-210, pls. 150-5, 206, Deposit C2. Amalgamated material from mix of contexts supporting C1 (possibly wider date range *c.* 25-60 AD).
- c. AD 50-75
- UMII*, 210-14, pls. 156-9, 206-7, Deposit N1. Destruction deposit over clay floor.
- UMII*, 214-218, pls. 160-2, 208, Deposit N2. Re-deposited destruction material.
- UMII*, 218, pls. 163, 208, Deposit N3. Material similar to that in N2 but only loosely associated.
- c. AD 75-100
- UMII*, 218-20, pls. 166, Deposit F1. Pit Fill.
- UMII*, 220-3, pls. 166-8, 209, 213, Deposit F2. Supplementary examples supporting F1.
- c. AD 100-125
- UMII*, 223-5, pls. 213-4, Deposit T1. Tip over yard floor.
- UMII*, 225-6, pls. 213-4, Deposit T2. Abandoned well fill.
- UMII*, 226-8, pls 213-4, Deposit T3. Supplementary examples supporting T1.
- UMII*, 228-9, Deposit T4. Mixed, supporting T1.
- c. AD 125-150
- UMII*, 229-31, pls. 172-3, 214-5, Deposit D1. Destruction deposit over floor.
- UMII*, 231, pls. 173, Deposit D2. Fill over floor, part mixed.
- UMII*, 232-3, pls. 173-5, 215, Deposit D3. Supplementary examples only.

- UMII*, 233-239, pls. 175-182, 216, Deposit D4. Cistern fill, best and fullest group for this date from the site.
- UMII*, 239-41, Deposit D5. Tip over courtyard floor, links with D4.
- UMII*, 241-2, pls. 183, 213, Deposit D6. Supplementary examples from re-deposited destruction material.
- c.* AD 150-175 *UMII*, 242-3, pls. 184,216, Deposit R1. Well sealed cist fill.
- UMII*, 243-5, pls. 185-6, Deposit R2. Mix of fills from below floor.
- c.* AD 160-180+ *Villa D*, 102-15, 167-8, figs 2-7, 9-16. Main destruction deposit.
- c.* AD 200-250 *UMII*, 249, Deposit S2. Supplementary material similar to S1.
- c.* AD 225-240 *UMII*, 246-9, pls. 187-9, 218, 220, Deposit S1. Room fill and floor deposit.
- c.* AD 225-250 *Villa D*, 103, 116-7, 167-8, figs 2-7, 9-16. Upper destruction fills.
- K2K*, Area C. Group D. Fill over partially disturbed mosaic floor in Room 3
- c.* AD 225-250+ *K2K*, Area E. Group F. Large pit fill.
- c.* AD 225-450 *UMII*, 250-6, pls. 190-9, 217-22, Deposit U. Amalgamated wash levels (including much re-deposited earlier material).
- c.* AD 225-600+ *K2K*, Areas A Group K. Mix of contexts including amalgamated wash levels
- c.* AD 475-500 *K2K*, Area C. Group G. Fill over floor of Room 6
- c.* AD 450-600+ *KMF* various deposits (from building remains, pits and tombs). Group A.
- c.* AD 620-640 *KMF* Well-cistern deposit. Group B.

Appendix II: Knossos 2000 - Numismatic evidence

TRENCH AND LEVEL	Z NUMBER	NUMBER OF COINS
AA-3	10012-13	2
AA-6	10021	1
AA-8	10026	1
AA-20	10044	1
AA-28	10055-6	2
BA-2	17014	1
BA-5	17016	1
CA-1	12002,4-5,9,11,27,52	10
CA-2	12006,32	2
CA-4	12015	1
CA-5	12054	2
CA-16	12058	1
CA-19	12076	1
CB-9	22019	1
CB-22	22039	1
CB-24	22051,65	3
CB-27	22052	1
CC-1	23065	1
CC-2	23049	1
CC-3	23047	3
CC-6	23020	1
EA-4	16018	1
EA-40	16068	1
EA-45	16079	1
EA-47	16089	1
EA-48	16093	1
EA-52	16116	1
EB-4	26007-8	2
EB-5	26012	1
FA-1	21000	1
FA-2	21008	1
FA-5	21010	1
FA-13	21018	1
FA-20	21036	1
HA-10	19012	1
HA-12	19016	1
HC-1	29001,4,5	3
HC-2	29008	1
HC-3	29012	1
HC-4	29011	1

BIBLIOGRAPHY

- Alcock S. E. 1996 *Graecia Capta: The Landscapes of Roman Greece*. Cambridge
- Ashton R.H.J. 1989 'Knossos Royal Road South 1971 and 1972 excavations: the Coins' in BSA 84, 49 ff.
- Balance M, Boardman J, Corbett S. & Hood S. 1989 *Excavations in Chios: Byzantine Emporio*. BSA Suppl. Vol. no. 20. London.
- Blackman D. (ed) 1997 *Archaeological reports 43*. (1996-7).
- Briese M. & Vaag L. (eds) 2005 *Trade Relations in the Eastern Mediterranean from Late Hellenistic Period to Late Antiquity: The Ceramic Evidence: Proceedings of conference organised by the Dept. for Greek and Roman Studies, Odense University, (Sandbjerg, February 1998)*. Halicarnassian Studies Series III.
- Brown D. (ed) & Strong D. 1976 *Roman Crafts*. London
- Cadogan G, Hatzaki E. & Vasilakis A. (eds.) 2004 *Knossos: Palace, City, State: Proceedings of the conference organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Heraklion in November 2000, for the Centenary of Sir Arthur Evans Excavations at Knossos*. British School at Athens Studies Series No. 12
- Callaghan P.J. 1978 'Excavations at a shrine of Glaukos, Knossos' in BSA 73, 1.
- Callaghan P, Catling H.W & E.A. and Smyth D. 1981 'Knossos 1975: Minoan *paralipomena* and post-Minoan remains' in BSA 76, 83-108.
- Callender M.H. 1965 *Roman Amphorae*. London.
- Cameron A. 1993a *The Later Roman Empire*. London
- Cameron A. 1993b *The Mediterranean World in Late Antiquity AD 395-600*. London and New York.
- Carandini A. & Panella C. (eds) 1973 *Le Terme del Nuoatore, Scavo degli ambiente III, VI, VII, Scavo dell'ambiente V e di un saggio nell'area SO*. Ostia III, Studi Miscellanei 21. Rome.
- Carington Smith J. 1982 'A Roman chamber tomb on the south-east slopes of Monasteriaki Kephala, Knossos' in BSA 77, 255-93

Catling H.W. (et al) 1982 'Knossos 1978: Roman finds at the Venezelion' in *BSA* 77, 59-64.

Catling H.W. 1984 *Archaeological Reports* 30 (1983-84), 61

Cavanagh W.G, Curtis M, Coldstream J.N & Johnston A.W. (eds) 1998 *Post Minoan Crete: Proceedings of the 1st. Colloquium (1995)*, BSA Studies Volume No. 2. London

Chaniotis A. (ed) 1999 *From Minoan Farmers to Roman Traders: side-lights on the economy of ancient Crete*. Frankfurt

Coldstream J.N. 1973 *Knossos: the Sanctuary of Demeter*. BSA Suppl. Vol. no. 8, London.

Coldstream J.N, Eiring L.J. & Forster G. 2001 *Knossos Pottery Handbook: Greek and Roman*. British School at Athens Studies Series No. 7

Comfort H. & Oxé A. 1968 *A Catalogue of Signatures, Shapes and Chronology of Italian Sigillata*. Bonn.

Crawfoot J.W. (et al.) 1957 The Objects from Samaria. *Samaria-Sebaste iii*. London

Dark K. 2001 *Byzantine Pottery*. Gloucester.

Darling M. J. (ed) 1994 Guidelines for the Archiving of Roman Pottery. Study Group for Roman Pottery.

Dietz S, Sebai L.L. & Ben Hassen H. (eds) *Africa Proconsularis II*, 449-629. Copenhagen.

Dragendorff H. 1895-6 'Terra-sigillata' in *Bonner Jahrbücher* 96, 18-155; 97, 54-136.

Dunn. A. 2005 'A Byzantine fiscal official's seal from Knossos Excavations and the archaeology of 'Dark-Age' cities', *Creta romana e protobizantina. Atti del Congresso Internazionale*, Scuola Italiana Archeologica in Atene, 2005, vol.1, pp.139-146

Eiring L. J. 2001 'The Hellenistic Period' in Coldstream J.N, Eiring L.J. & Forster G. *Knossos Pottery Handbook: Greek and Roman*. British School at Athens Studies Series No. 7; 91-135.

Eiring L. J. & Lund J (Ed.) 2004 *Transport Amphorae and Trade in the Eastern Mediterranean – Acts of the International Colloquium at the Danish Institute at Athens (September 26-29, 2002)*. Monograph of the Danish Institute Vol. 5

Ettlinger E. (et al). 1990 *Conspectus formarum terrae sigillatae italico modo confectae (materialen zur römisch-germanischen Keramik 10)*. Frankfurt and Bonn.

Evely D, Hughes-Brock H. and Momigliano N. (eds) 1994 *Knossos: A Labyrinth of History: papers in honour of Sinclair Hood*. Oxford

Falkener E 1854 'A description of some important Theatres and other remains in Crete' from a MS *History of Candia by Onorio Belli in 1586* in Museum of Classical Antiquities, (supplement). London

Finley M.I. 1992 *The Ancient Economy (2nd ed)*. London.

Forster G. 2001 'The Roman Period' in Coldstream J.N, Eiring L.J. & Forster G. *Knossos Pottery Handbook: Greek and Roman*. British School at Athens Studies Series No. 7; 137-167, pl.39-43.

Forster G. 2004 'Shadow of a City? A Review of Late Roman Knossos' in Cadogan G, Hatzaki E. & Vasilakis A. (eds.) *Knossos: Palace, City, State: Proceedings of the conference organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Heraklion in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos*. British School at Athens Studies Series No. 12, 489-492.

Forster G. 2005 'The Roman city of Knossos-colonia julia nobilis: imported fine wares' in Briese M. & Vaag L. (eds) *Trade Relations in the Eastern Mediterranean from Late Hellenistic Period to Late Antiquity: The Ceramic Evidence: Proceedings of conference organised by the Dept. for Greek and Roman Studies, Odense University (Sandbjerg, February 1998)*. Halicarnassian Studies Series III.

Fraser P.M. 1969 *Archaeological Reports 15* (1968-69), 33.

French E.B. (ed) 1992 'Knossos: The first season of geophysical testing on the Roman town' interim report in *Archaeological reports 38*. (1991-2). 59-60.

French E.B. (ed) 1993 'Knossos: The second season of geophysical testing on the Roman town' interim report in *Archaeological reports 39*. (1992-3). 68.

French E.B. (ed) 1992 'Archaeology in Greece 1991-92' *Archaeological Reports 38* (1991-92).

French E.B. (ed) 1993 'Archaeology in Greece 1992-93' *Archaeological Reports 39* (1992-93).

French E.B. (ed) 1994 'Archaeology in Greece 1993-94' *Archaeological Reports 40* (1993-94).

Frend W.H.C. & Johnston D.E. 1962 'The Byzantine Basilica Church at Knossos' in *BSA* 57, 186-238.

Fulford M.G. 1975 The Pottery, in B. W. Cunliffe *Excavations at Portchester Castle; Roman*, Rep. Res. Com. Soc. Ant. London No. 32

Fulford M.G. & Peacock D. P. S. (eds) 1984 *The Avenue du President Habib Bourgiba, Salamambo: the pottery and other ceramic objects from the site. Excavations at Carthage: The British Mission I, 2.* Sheffield.

Gillam J.P. 1970 *Types of Roman Coarse Pottery Vessels in Roman Britain.* Oriel Press.

Greene K. 1979 *The pre-Flavian Fine wares, Report on the excavations at Usk 1965-1976.* Cardiff, University of Wales Press.

Greene K. 1986 *The Archaeology of the Roman Economy.* B. T. Batsford Ltd., London.

Greene K. 1991 'The Study of Roman Technology: Some Theoretical Constraints' in Scott E (ed), *Theoretical Roman Archaeology: Proceedings of the 1st conference*, Worldwide Archaeology Series Volume No.2, 39-47. Avebury.

Greene K. 1992 *Roman Pottery.* British Museums Press, London

Harris W.V. 1999 'Crete in the Hellenistic and Roman Economies: A Comment' in Chaniotis A (ed), *From Minoan Farmers to Roman Traders: Side-lights on the Economy of Ancient Crete*, 353-358. Frankfurt

Harrison G.W.M. 1998 'Crete the ordinary' in Cavanagh W.G, Curtis M, Coldstream J.N & Johnston A.W (eds) *Post Minoan Crete: Proceedings of the 1st. Colloquium, 1995*, BSA Studies Volume No. 2, 129-134. London.

Harrison G.W.M. (forthcoming) 'Crete and Palestine, 'Tramp-Steamers' and comparanda' in *Post Minoan Crete: Proceedings of the 2nd Colloquium* (Heraklion 1998). British School at Athens Studies Series. London.

Hayes J.W. 1967 'Cypriot Sigillata' *Report of the Department of Antiquities, Cyprus* (1967) 65-77.

Hayes J.W. 1971 'Four Early Roman Groups from Knossos' in *BSA* 66, 249-276.

Hayes J.W. 1972 *Late Roman Pottery.* London.

Hayes J.W. 1973 'Roman Pottery from the South Stoa at Corinth' in *Hesperia* 42, 416-70

- Hayes J.W. 1976 *Roman Pottery in the Royal Ontario Museum*. ROM Press. Toronto
- Hayes J.W. 1980 *A supplement to Late Roman Pottery*. London.
- Hayes J.W. 1983 'The Villa Dionysos Excavations, Knossos: the Pottery' in *BSA* 78, 97-169.
- Hayes J.W. 1986 'Typologies of eastern sigillata wares' in *Atlante della Forme Ceramiche II. Ceramica Fine Romana Nel Bacino Mediterraneo*, supplementary volume of the *Enciclopedia dell'Arte Antica, Classica e Orientale*, 1-96. Rome
- Hayes J.W. 1991 'Fine Wares in the Hellenistic World' in Rasmussen T. & Spivey N. (eds) *Looking at Greek Vases*. pp183-202. Cambridge
- Hayes J.W. 1992 'The Late Roman and Byzantine Pottery' in *Excavations at Sarāçhane in Istanbul Vol.2*, , 3-212. Princeton
- Hayes J.W. 1995 'An Early Roman Well Group from the Troia Excavations 1992'. *Sudia Troica*. Band 5. pp185-196.
- Hayes J.W. 1996 *Guide to the Pottery Fabrics, Hellenistic to Early Islamic* (for use in processing BEY 004-Beirut). Not Published.
- Hayes J.W. 1997 *'Handbook of Mediterranean Roman Pottery'*. British Museum Press, London
- Hayes J.W. 2001 'Early Christian pottery from Knossos: the 1978-1981 finds from the Knossos Medical Faculty site' in *BSA* 96, 431-454.
- Hochuli-Gysel A. 1977 *Kleinasiatische glasierte Reliefkeramik (50 v. Chr. bis 50n. Chr.) und ihre oberitalischen Nachahmungen* (Acta Bernensia VII). Bern.
- Hodder I. & Orton C.R. 1976 *Spatial Analysis in Archaeology*. Cambridge University Press, Cambridge.
- Hogarth D.G. 1900 'Knossos II. Early Town and Cemeteries' in *BSA* 6, 81. pl. xii
- Hood M.S.F. & Smyth D. 1981 *Archaeological Survey of the Knossos Area*. *BSA Suppl.* no. 14. London.
- Huxley D (ed.). 2000 *Cretan Quests – British Explorers, Excavators and Historians*. British School at Athens.

- Irving P. 1991 *The Management of Archaeological projects* (MAP2). English Heritage.
- Jones F.F. 1950 'The Pottery', in H. Goldman (Ed.) *Excavations at Gozlu Kule Tarsus, I, the Hellenistic and Roman periods*. Princeton.
- Jones J.E, Graham A.J. & Sackett L.H. 1973 'An Attic country house below the cave at Vari' in *BSA* 68, 355-452.
- Koester H. (ed.) 1995 *Ephesos, Metropolis of Asia-An Interdisciplinary Approach to its Archaeology, Religion and Culture*, Harvard Theological Studies 41, 217-28. Pennsylvania.
- Kenrick P.M. 1985 'The Fine Pottery' in *Excavations at Sidi Khrebish Benghazi (Berenice)*. Vol III. I. Tripoli.
- Knorr R. 1919 *Topfer und fabriken verzierter Terra-sigillata der ersten Jahrhunderts*. Stuttgart
- Lamboglia N. 1941 Terra sigillata chiara, *Rivista Studi Liguri* VII, 7.2
- Lamboglia N. 1950 *Gli scavi di Albintimilium e la cronologia della ceramica romana i. Campagne di scavo 1938-1940*, Bordighera, 139-206.
- Lamboglia N. 1958 Nuove osservazioni sulla 'terra sigillata chiara', *Rivista Studi Liguri* XXIV, 257-330.
- Lamboglia N. 1963 Nuove osservazioni sulla 'terra sigillata chiara', *Rivista Studi Liguri* XXIX, 145-212.
- Lund J. 1995 'Hellenistic, Roman & Late Roman Fine wares from the Sergermes Valley-Forms and Chronology' in Dietz S, Sebai L.L & Ben Hassen H. (eds) *Africa Proconsularis II* pp449-629. Copenhagen.
- Lund J. (forthcoming) 'A Fresh Look at the Roman and Late Roman Fine Wares from the Danish Excavations at Hama, Syria'. in Meyza, H. & Mlynarczyk J. (eds) *Hellenistic and Roman Pottery in the Eastern Mediterranean-Advances in Scientific Studies*, 135-163. Warsaw
- Lloyd J.A. (ed.). 1981 'The coarse pottery from Benghazi' *Sidi Krebish Excavations, Benghazi (Berenice)*, Vol II. Tripoli.
- Marabini Moeus M.T. 1973 *The Roman Thin-walled Pottery from Cosa* (Memoirs of the American Academy in Rome XXXII). Rome.
- Marangou-Lerat A. 1995 *Le Vin et le Amphores de Crète: de L'époque Classique à L'époque Impériale*. Études Crétoises 30. École Française D'Athènes.

Marangou-Lerat A. 1999 'Wine in the Cretan Economy' in Chaniotis A. (ed.), *From Minoan Farmers to Roman Traders: side-lights on the economy of ancient Crete*, 267-278. Stuttgart

Metenidis N. 1998 'Artemis Ephesia: the political significance of the Metellus coins' in Cavanagh W.G, Curtis M, Coldstream J.N & Johnston A.W (eds) *Post Minoan Crete: Proceedings of the 1st. Colloquium, 1995* BSA Studies Volume No. 2, (pp117-122). London

Meyza H. & Mlynarczyk J. (eds) forthcoming. 'Hellenistic & Roman Pottery in the Eastern Mediterranean-Advances in Scientific Studies' in Acts of the 2nd. Nebrov Pottery Workshop. Zas Pan, Warsaw.

Miles G.C. 1964 'Byzantium and the Arabs: Relations in Crete and the Aegean Area'. *Dumbarton Oaks Papers* XVIII.

Orton C. 1979 'Dealing with pottery from a 600-acre urban site' in Millet M. (ed) *Pottery and the Archaeologist*, Institute of Archaeology Occasional Publications 4 (London Institute of Archaeology) 61-71.

Orton C. 1992 'Counting Broken Objects-Statistics & Ceramic Assemblages' in *Proceeds of the British Academy* 77. 163-184.

Orton C., Tyers P. & Vince A. 1994 *Pottery in Archaeology*. Cambridge University Press.

Penella C. 1973 'Anfore' in *Ostia II: Le Terme del Nuotatore: scavo dell'ambiente I*. *Studi Miscellanei*, 16, 102-56. Rome

Panella C. 1973 'Cretan Amphorae at Ostia' in Carandini A. & Panella C. (eds) *Ostia III.ii, le Terme del Nuotore*. *Studi Miscellanei* 21, 477. Rome

Parker A.J. 1992 'Ancient Shipwrecks of the Mediterranean and the Roman Provinces' BAR S540. Oxford.

Pashley R 1837 *Travels in Crete*. London

Paton S. 1991 'A Roman Corinthian Building at Knossos' in BSA 86, 297-318.

Paton S. 1994 'Roman Knossos and the Colonia Julia Nobilis Cnossus' in Evely D, Hughes-Brock H. and Momigliano N. (eds), *Knossos: A Labrynth of History: papers in honour of Sinclair Hood*, 135-53. Oxford

Paton S. 1997 'Villa Dionysos: conservation and preparatory works' interim report in Blackman D (Ed) *Archaeological reports* 43. (1996-7). 106-108.

- Paton S. 1998 'The Villa Dionysos at Knossos and its predecessors' in Cavanagh W.G, Curtis M, Coldstream J.N & Johnston A.W (eds) BSA Studies Volume No. 2, *Post Minoan Crete: Proceedings of the 1st. Colloquium, 1995*, 123-128. London
- Paton S. & Schnieder R.M. 1999 'Imperial Splendour in the Province: Imported Marble on Roman Crete' in Chaniotis A (ed), *From Minoan Farmers to Roman Traders: side-lights on the economy of ancient Crete*, 279-304. Frankfurt.
- Paton S. 2000 'Hellenistic and Roman Crete' in Huxley D (ed.). *Cretean Quests – British Explorers, Excavators and Historians*, 174-181. British School at Athens.
- Paton S. 2005 'Knossos: an imperial renaissance' in Cadogan G, Hatzaki E. & Vasilakis A. (eds.) *Knossos: Palace, City, State: Proceedings of the conference organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Heraklion in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos*. British School at Athens Studies Series No. 12, 451-456.
- Peacock D.P.S. 1977 'Ceramics in Roman and Medieval archaeology' in Peacock D.P.S. (ed) *Pottery in Early Commerce* (London: Academic Press) 21-34.
- Peacock D.P.S. 1982 *Pottery in the Roman World: an Ethnographic Approach*. London & New York.
- Peacock D.P.S. & Williams D.F. 1986 *Amphorae and the Roman Economy*. London & New York.
- Pendlebury J.D.S. 1939 *The archaeology of Crete*. London
- Potter T.W. 1995 *Towns in Late Antiquity: Iol Caesaria and its Context*. Ian Sanders Memorial Fund (Occasional Publication 2). Sheffield.
- Poulter A.G. 1995 *Nicopolis ad Istrum: A Roman, Late Roman and Early Byzantine City*. JRS 8 Soc. Promotion of Roman Studies.
- Poulter A.G, Falkner R.F. & Shepard J.D. 1999 *Nicopolis ad Istrum, The Finds Volume 1*. Leicester University Press.
- Price J.M. 1992 'The Coins' in Sackett L.H. 1992 *Knossos: from Greek City to Roman Colony, Excavations at the Unexplored Mansion II*. BSA Sup. Vol. 21
- Raab H.A 2001 *Rural Settlement in Hellenistic and Roman Crete; The Akrotiri Peninsula*. BAR S984

- Rasmussen T. & Spivey N. (eds) 1991 *Looking at Greek Vases*. Cambridge
- Raven E.J.P. 1938 'The Hierapytnan coin hoard of Greek and Roman coins' in *Numismatic Chronicle* 5th series XVIII, 133.
- Reynolds P. 1995 'Trade in the Western Mediterranean AD 400-700; the Ceramic Evidence' in BAR S-604. Oxford.
- Rice P.M. 1987 *Pottery Analysis: a Source-book*. Chicago.
- Rigsby K.J. 1976 'Cnossus and Capua', *Trans. Amer. Philol. Ass.* 106, 313-30.
- Riley J.A. 1979 'The coarse pottery from Benghazi', in Lloyd J. (ed.) *Excavations at Sidi Krebish, Benghazi (Berenice)*, Vol II, Supplements to *Libya Antiqua*, Tripoli, 91-467.
- Robinson H.S. 1959 *Pottery of the Roman Period: Chronology*, Athenian Agora Vol. V. Princeton.
- Sackett L.H. 1992 *Knossos: from Greek City to Roman Colony, Excavations at the Unexplored Mansion II*. BSA Sup. Vol. 21
- Sanders I.F. 1982 *Roman Crete (An Archaeological Survey & Gazetteer of Late Hellenistic, Roman & Early Byzantine Crete)*. Aris & Phillips, Warminster.
- Scott E. (ed) 1991 *Theoretical Roman Archaeology: Proceedings of the 1st conference*, Worldwide Archaeology Series Volume No.2, 39-47. Avebury.
- Slane K.W. 1990 *The Sanctuary of Demeter and Kore: The Roman Pottery and Lamps*, Corinth Vol. XVIII.2. Princeton, New Jersey.
- de Souza P. 1998 'Late Hellenistic Crete and the Roman Conquest' in Cavanagh W.G, Curtis M, Coldstream J.N & Johnston A.W (eds) *Post Minoan Crete: Proceedings of the 1st. Colloquium, 1995*, BSA Studies Volume No. 2, 112-116. London.
- Spratt T.A.B. 1890 *Travels and researches in Crete*. London
- Sweetman R. 2003. 'The Roman mosaics of the Knossos Valley', *Annual of the British School at Athens* 98 (2003), 517-547
- Sweetman R. 2004a. 'Early Medieval Knossos: reassessing the contexts', *Annual of the British School at Athens* 99 (2004), 315-54
- Sweetman R. 2004b. 'The mosaics of Roman and Early Christian Knossos: interpreting the contexts and workshop production' in *Atti del convegno*

internazionale Iraklion, 23-30 settembre 2000 Creta romana e protobizantina (Padua 2004), 1173-85

Sweetman R. 2005a 'The changing nature of Knossos: Roman to Late Antique – some problems' in Cadogan G, Hatzaki E. & Vasilakis A. (eds.) *Knossos: Palace, City, State: Proceedings of the conference organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Heraklion in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos.* British School at Athens Studies Series No. 12, 481-488.

Sweetman R. 2005b. 'Knossos Medical Faculty site: Late Antique graves and other remains' *Annual of the British School at Athens* 100 (2005), 331-86

Sweetman R. 2007. 'Roman Knossos: the nature of a Globalized city', *American Journal of Archaeology* (2007) 111.1, 61-81

Talbert R.J.A. 1988 *Atlas of Classical History*. London.

Tomber R.S. 1990 'Roman Pottery Studies in the Mediterranean-Past Research and Future Prospects' *JRA* 3, 217-224.

Tomlinson R.A. (ed) 1996 *Archaeological Reports* 42. (1995-96).

Waagé F. 1933 The American excavations in the Athenian Agora, First Report: The Roman and Byzantine pottery, *Hesperia* 2, 279-328.

Waagé F.O. 1948 Hellenistic and Roman tableware of north Syria, in *Antioch on the Orontes*, IV, Part 1: *Ceramics and Islamic coins*, 1-60. Princeton

Walters H.B. 1905 *History of Ancient Pottery: Greek, Etruscan and Roman*. 2 vols. London

Wardle K.A. 1972 'Two notes from Knossos' in *BSA* 67, 271-83.

Wardle K.A & Wardle D. 1994 'Knossos 2000: interim report for 1993 excavations' in: French E.B (ed) 1994 *Archaeological Reports* 40. (1993-94). 75-6.

Wardle K.A. 1995 *New Light on Roman Knossos* paper given at the 1st. Colloquium on Post-Minoan Crete (BSA and the Institute of Archaeology, University College London 1995). Not published.

Wardle K.A & Wardle D. 1996 'Knossos 2000: interim report for 1995 excavations' in: Tomlinson R.A (ed) 1996 *Archaeological Reports* 42. (1995-96). 41-2

Wardle K.A. 1997 *Knossos 2000, III: 1992-97*. Excavation report for Sponsors. University of Birmingham. Not published.

Wardle K.A & Wardle D. 2005 'Glimpses of Private life: Roman rock cut tombs of the first and second centuries AD at Knossos' in Cadogan G, Hatzaki E. & Vasilakis A. (eds.) *Knossos: Palace, City, State: Proceedings of the conference organised by the British School at Athens and the 23rd Ephoreia of Prehistoric and Classical Antiquities of Heraklion in November 2000, for the Centenary of Sir Arthur Evans's Excavations at Knossos*. British School at Athens Studies Series No. 12, 473-480.

Warren P.M. 1988 'Knossos: Stratigraphic Museum Excavations 1978-82. Part IV' in *Archaeological Reports 34*. (1987-88). 86-104.

Wright K.S. 1980 'A Tiberian pottery deposit from Corinth' in *Hesperia* 49, 135-177

Young C.J. (ed) 1980 *Guidelines for the processing and publication of Roman pottery from excavations*. Directorate of Ancient Monuments and Historic Buildings (Occasional Paper 4).

Zabehlicky-Scheffenegger S. 1995 'Subsidiary Factories of Italian Sigillata Potters-The Ephesian Evidence' in Koester H. (ed.) *Ephesos, Metropolis of Asia-An Interdisciplinary Approach to its Archaeology, Religion and Culture*, Harvard Theological Studies 41, 217-28. Pennsylvania.

Zeest I.B. 1960 *Keramicheskaya Tara Bospora (Materiali I Issled. Po Arkheol.SSSR, LXXXIII)*.