THE DATE OF THE LINEAR B ARCHIVE FROM THE "ROOM OF THE CHARIOT TABLETS" AT KNOSSOS—LMII OR LMIIIA1?*

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Introduction

It is now a century ago since Sir Arthur Evans first visited Crete in his search for written documents of the Bronze Age civilization of the Aegean. The excavations of Evans, and of Minos Kalokairinos, his predecessor at Knossos, revealed the Palace of Minos. Excavations and research this century have further illuminated Knossos and its written records. Of the three categories of Cretan Bronze Age writing, i.e. Cretan Hieroglyphic, Linear A and Linear B, the last was deciphered by Michael Ventris in 1952 as a writing system conveying Mycenaean Greek. The last four decades have seen considerable research on the Linear B tablets of the Knossos archive. This has led to detailed publication and study of a great many aspects of the Linear B material from Knossos. As a result of international collaboration, and after patient and dedicated work, the Knossos archive has been made more complete by the discovery of joins between tablets and fragments of the Knossos archive, particularly since the 1984 discovery of c. 3000 fragments in Heraklion Museum.

Research continues, and other important epigraphic and historical questions are still being asked about the Knossos Linear B archive. Two

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Hooker 1980; Olivier 1986: 377-89; Chadwick 1987.

²Killen & Olivier 1989.

³ Melena, Owens & Serrano 1992: 413-7 for the latest report on the joins programme. I would like to thank Dr. John Chadwick, Prof. Jose Melena, and the Directors of Heraklion Museum, Drs. Ch. Kritzas and A. Karetsou, for the opportunity to collaborate on this research programme.

recent subjects of great importance are the relation between the Linear B of Knossos and the newly discovered Linear B tablets of Khania in West Crete, and the re-dating of the records of the Room of the Chariot Tablets. It is this last question which will be considered here as it requires a careful study of archaeology, epigraphy and philology, and such an interdisciplinary study will go some way towards better explaining the history of the Late Minoan period at Knossos and in particular the development from Linear A to Linear B.

The Linear B records of the Room of the Chariot Tablets (RCT) are of great importance because their probable date preceding the main Knossos archive raises many questions. It was previously thought that there existed a "unity of archives". This has now been seriously challenged in the case of the RCT. It was first suggested by Olivier in 1967 and again Chadwick in 1973 that the RCT material may pre-date the main Knossos destruction, generally dated to the beginning of LMIIIA2.5 Driessen, in the 1990 publication of part of his doctoral thesis, claimed that the RCT destruction level that contained the tablets was below that of LMIIIA2 and accordingly designated the RCT material as LMII-IIIA1.6 In fact in this 1990 work Driessen assigned both an LMII (Driessen 1990: 114) and an LMII-LMIIIA1 (Driessen 1990: 117) date. This dating needs closer scrutiny in view of its importance for a greater understanding of Knossos, and because theory may soon become accepted fact, whether it has been proved or not.

In 1994, Olivier in "Knossos: A Labyrinth of History", stated (Olivier 1994: 166): "The raising of the date of the tablets from the Room of the Chariot Tablets. Driessen using an assemblage of arguments, none of which would carry conviction by itself but which put together do seem persuasive, has demonstrated that the tablets found in the Room of the Chariot Tablets are two or three generations earlier than those of the 'main bulk' of the archive. If the 'main bulk' are put at the 'traditional'

⁴E. Hallager, Vlasakis & B.P. Hallager 1992: 61-87 and Olivier 1993: 19-33 for the important Khania material. See Palaima forthcoming in *Minos* for an important qualification of Olivier's article and see note 6 below for the RCT.

⁵Olivier 1967: 66-7; Chadwick 1968: 11-21; Chadwick 1973: 39 "The only possible exception [to the 'unity of the archives'] is the very special archive from what is known as the 'Room of the Chariot Tablets'; this seems to be self-contained and might conceivably belong to another period. But there is nothing in it which conflicts with an L.M.III A date."

⁶Driessen 1990 for a presentation of his arguments in detail and for an extensive bibliography of his own and other scholars' work on the subject. See also Warren 1992: 137-9. In addition see Driessen forthc., Driessen 1992: 197-214 and Driessen 1991: 267-75. It should be clearly noted that I do accept Driessen's findings concerning the earlier date of RCT. What I do not accept, however, is the LMII date assigned, and subsequently repeated as proven fact by Olivier.

date at the beginning of LMIIIA2, c. 1375 B.C., then the documents from the Room of the Chariot Tablets must go back to LMII, i.e. before 1400 B.C., and thus become, for us, the earliest Linear B tablets from Knossos. That makes them the first written manifestation of the economic and political activity of the Mycenaeans in Crete, at a moment when Minoan influence was still much more felt than it was some generations later." Two pages later (Olivier 1994: 168) under the heading of "Present and Future Lines of Research" number 2, Olivier stated: "1990: date of the destruction of the Room of the Chariot Tablets is pushed back to LMII."

It is the view of the present author that such categorical statements should be avoided when the evidence is not certain. It is accepted that the RCT records pre-date the main Knossos archive of LMIIIA2 as suggested by Olivier and Chadwick, and demonstrated by Driessen—but how much earlier are they? In view of the time-span covered by the LMII and LMIIIA1 periods it is necessary to try to be more precise in dating the RCT records. The archaeological evidence given by Driessen in 1990 (Driessen 1990: 61-6) is worthy of close attention and consists of ivory, bronze, wood and sealings.

The closest parallel for the RCT ivory carving that depicts a helmet is on a composition from the LMIII tholos tomb A at Archanes Fourni. The bronze objects associated with the RCT records appear to be hinges of a box. Such an association of a box with tablets is known from LMI Zakros and LHIIIB Pylos, thus not suggesting a date for the RCT. The piece of carved wood also seems to have an LMII-IIIA1 design. More important evidence, however, can be gained from the sealings found with the RCT records. Evans found at least 18 sealings in the RCT, 12 of which are preserved. 8 of these sealings were provisionally dated by Driessen (1990: 65-6, based on suggestions and personal communications from Pini and Younger). 1 can be dated to LMI?, 1 to LMIB-IIIA1, 1 to LMII-IIIA, 1 to LMIIIA and 3 to LMIIIA1. These dates were assigned on stylistic grounds.

Weingarten, an expert on such artifacts, had also commented that "the Sealings from the Room of the Chariot Tablets mix early and late features in a way seen nowhere else in the Palace. In short, the deposit seems transitional (in sealing terms) and a date of LMII or early LMIIIA1 would

⁸ Sapouna-Sakellaraki & Sakellarakis 1991: 72-85 and fig. 60; Sapouna-Sakellaraki 1990: 67-102.

1990. 07-102

^{&#}x27;The appearance of Evely, Hughes-Brock & Momligiano 1994 (which includes Olivier 1994) one hundred years after Sir Arthur Evans' first visit to Crete is most valuable in offering "an outline of the present state of our knowledge with some mention of current and outstanding problems and with pointers to future lines of enquiry" as the editors intended.

suit very well." The latest sealing from the RCT is marked by a seal whose decoration is assigned on stylistic criteria to LMIIIA1. Thus the deposit is pre-LMIIIA2. This was stated by Driessen and Weingarten, who assigned an LMII-IIIA1 date for the deposit associated with the RCT records. This was modified by Driessen to LMII (1990: 114) and pronounced as fact by Olivier (1994: 168).

However, in view of the presence of LMIIIA1 designs among the dateable sealings, and as a stratigraphic unit should be dated by the latest material it contains; if the RCT contains impressions of LMIIIA1 sealstones, then the deposit must be no earlier than LMIIIA1. The point being made here is that research should progress by short verifiable steps. Having suggested that the RCT records be dated archaeologically to LMIIIA1 rather than to LMII, it is necessary to see whether an epigraphic and textual study of the Linear B tablets of the RCT better support an LMII or LMIIIA1 date, and finally the historical significance of this will be discussed.

Epigraphical evidence

The RCT Linear B records consist of 576 documents, of which only 75 are more or less complete. Among the total of c. 2370 signs attested on tablets from RCT, only 57 of the signs common to both Linear A and B (designated by the prefix "AB" in GORILA) occur as opposed to a total possible of 65. This must be due to chance as there is no reason to suppose that the other 8 AB signs were not also in use as they form part of both the LMIB Linear A syllabary and the LMIIIA2 Linear B syllabary. The number of signs in use in the Late Minoan period were as follows: 12

		AB	Α	В	Total
LMIB	Linear A	65	10		75 (81)
RCT	Linear B	57 (65)		16	73
LMIIIA2	Linear B	65		19	84

The major difference between signs used in the RCT and those used in LMIB Linear A is the loss of 10 A signs and their replacement by 16

⁹ Weingarten 1988: 1-25, esp. 10-1.

¹⁰ Driessen 1988: 123-66.

¹¹ Godart & Olivier 1985 for the Linear A material and for the A and AB signs. The GORILA volumes have brought order to the Linear A material and their importance can not be emphasised too much.

¹² The hypothesized syllabary for LMIB Linear A consists of those signs attested in LMIB archival records, which constitute 92.5% of the Linear A corpus, excluding the regional variations found only at one provincial site, i.e. A319/323-325/327/329/330, 332-333/340-346 (HT), A334-338/347-352 (KH), A362-364 (ZA).

B signs, which had no Minoan predecessors. These additions are noteworthy, for although Driessen (1988: 140) states: "It is clear that the RCT scores badly with regard to complex signs", however 4 of the new Linear B signs have complex sound values (dwe, nwa, nwo and swi) and another 2 are doublets (a, and pte).13 So the RCT only "scores badly" if it is compared with later Linear B records from Knossos and Pylos. If, however, it is viewed as a stage in the development of the script from Linear A to Linear B on Crete, then the RCT is notable for introducing 4 more complex signs, in addition to the 4 already known in Linear A.14 Driessen (1988: 162) also draws attention to the unusual spelling and dialect features found in the RCT, but this of course is to be expected as the RCT syllabary is different from that of the main Knossos archive. This indicates that the RCT is earlier than LMIIIA2, but does not demonstrate how much earlier. 15 It is a regrettable deficiency of Driessen's otherwise very useful work that he considers the RCT only as the earliest stage of Linear B and not also as a development of Linear A.

In the Linear A of LMIB there were 4 complex signs and 7 doublet signs; in the RCT there were 8 complex and 9 doublet signs; while in the Linear B of LMIIIA2 there were 9 complex and 11 doublet signs. ¹⁶ There was therefore a gradual increase in the number of doublet and complex sound values used in the various stages of the development of the Linear A and Linear B scripts and it is important that this process had already started in LMIB Linear A, which had both complex and doublet sound values. This observation is of importance when the two languages expressed by Linear B and Linear A are considered, i.e. Mycenaean Greek and the Minoan language. It is important not to treat the RCT in isolation but rather in relation to the LMIB Linear A which preceded it and to the LMIIIA2 Linear B which followed it. The RCT is indeed transitional, but is considerably closer to LMIIIA2 Linear B than to

Lejeune 1960: 135-49 and Chadwick 1987: chapter 3 for a discussion of the basic, i.e. pure vowel or consonant + vowel, and non-basic sound values of Linear B. The basic sounds of a syllabary could convey any language, the non-basic sound values facilitate the specific language being expressed. This applies equally well to Mycenaean Greek of Linear B and the as yet unknown Minoan language of Linear

¹⁴The Linear A signs may be assigned Linear B sound values, with the caveat that this is extremely likely but not yet definitely proved for every sign. The likelihood that some changes having taken place as with the transmission of the Egyptian-Sinaitic-Phoenician-Greek-Etruscan-Roman-English alphabet can not be excluded. See Olivier 1975: 441-9; Godart 1984: 121-8; and Duhoux 1989: 59-119.

¹⁵ Woodard 1986: 49-74.

¹⁶These figures exclude the 4 syllabograms which were still untransliterated in 1992, i.e. *34/35, *47, *49, and *63, which all probably had a non-basic sound value. See Owens 1991-3: 265-6.

LMIB Linear A. This further supports an LMIIIA1 date for the RCT. The RCT Linear B syllabary shares a c. 96.5% overlap with LMIIIA2 Linear B, but only a c. 87.5% overlap with LMIB Linear A.

Textual evidence

It is now necessary to see whether the records of the RCT accord better with what is known of the LMII or LMIIIA1 period at Knossos.¹⁷ The subject matter of the RCT may also help to suggest a more likely date for the tablets. Of the RCT records, 38.3% are classed as Xd (subject matter unknown), 27.4% are Sc (chariots and armed warriors), 9% are Vc (lists without ideograms, perhaps personnel), 4.5% are Np (saffron), 2.6% are V (lists without ideograms), 2.6% are Uf (miscellaneous items), 2.4% are Ce (mixed livestock), and the other series account for less than c. 2% each.

So most subjects that are present in the main Knossos archive are also found in the RCT, with the glaring exception of sheep tablets, conspicuous by their absence from the RCT but constituting almost half of the main Knossos archive. 18. Another difference is that the Sc series, after which the Room of the Chariot Tablets was named by Evans, has the ideogram BIGA, i.e. fully-equipped chariots, along with TUNICA (armour) and Equus (horse), in contrast to the other chariot ideograms CAPSUS and CURRUS from the main Knossos archive that record stored chariot-frames without wheels. These two differences between RCT and LMIIIA2 Linear B tablets, i.e. different sorts of chariots recorded and lack of earlier sheep tablets, may be due to archaeological chance, i.e. the corresponding subject matter in the other archive has not survived, or may imply something of historical significance. Given the importance of the sheep and wool in the LMIIIA2 Mycenaean economy, the complete lack of such records in the RCT is striking, which along with the different chariots records suggests that they reflect different historical situations.

The RCT material can also be compared to the main Knossos archive

¹⁸ Killen 1964: 1-15 and Killen 1985: 241-305 for discussions of this important subject.

¹⁷Popham 1988: 217-27 for a discussion of the Linear B archive in it's historical context. It is proposed to follow the same constructive and questioning approach here. Do the RCT records reflect Knossos in LMII or LMIIIA1? It is the view of the present author, following Popham 1984, that the main Knossos archive be dated to LMIIIA2, but see Hallager 1977 and Niemeier 1982: 219-87 for differing views. Also see the most recent papers by Niemeier and Popham in Evely, Hughes-Brock & Momligiano 1994 for a continuing discussion of this question, now confused/illuminated even further by the new material from Khania (see note 4 above).

in regard to toponyms and personal names.¹⁹ The toponyms of the RCT, which are presumably the places controlled by the Knossian administration at that time, have a geographical spread as wide as that of the main Knossos archive, i.e. within the area bounded by Knossos, Khania and Phaistos, if not as exhaustive within that area of Central and Western Crete. Geographically there does not seem to be much difference between the places dealt with by the two archives. In regard to personal names, it can be observed that as would be expected names which can easily be etymologized as Greek predominate among the RCT charioteers followed by chariot, armour and horse ideograms. These are the names of Mycenaeans present at Knossos at this time, who were serving as charioteers in a state of readiness. It seems most probable that these charioteers were connected with the warrior-grayes in the Knossos area and the militaristic air apparent at Knossos in LMII-IIIA1.²⁰

The earlier tablets of the RCT are the first Mycenaean records and date from a time when the rulers were more concerned with chariots than with sheep. By the time of the main LMIIIA2 archive, however, this had changed and the administrative emphasis lay less on warfare and more on economic matters.²¹ The Linear B tablets allow a "freeze-frame" of history to be studied, and the RCT archive and the main Knossos archive allow glimpses of two different phases some years apart. Having seen that the RCT is earlier than LMIIIA2, does the picture presented accord better with LMII or LMIIIA1?

Mycenaean warriors at Knossos in LMII and LMIIIAI

The presence of Mycenaean warriors at Knossos in LMII-IIIA1 is now generally accepted. What is not agreed upon, however, is what was the exact role of these Mycenaeans at Knossos.²² A further study of the warrior-graves may provide some clues as to the role of the Mycenaeans at Knossos and their integration within Knossian society. Warrior-graves are those in which a burial occurs with a major weapon, i.e. sword, dagger

¹⁹ For the toponyms see McArthur 1993; and for the personal names see the papers by Bennet, Carlier, Driessen and Godart in Mykenaika (see note 6 above).

²⁰Evans 1935: 785-6 for the observation that "(....) the last Palatial phase at Knossos represents a military and indeed militaristic aspect". The observation still holds good, and indeed has been supported by further discoveries and excavations, and has been discussed in recent publications, e.g. Driessen.

²¹ An historical analogy can be offered by the Spanish conquistadors of Cortez and Pizarro, who, after a hard fought conquest, settled down on *encommiendas* to enjoy their financial gains.

²² La Crete mycenienne, a forthcoming supplement of the Bulletin de Correspondance Hellénique, discusses various aspects of the Mycenaean presence in LM Crete.

or spear.²³ The men buried in the LMII-IIIA2 period with these weapons are to be recognised as warriors. The weapons they used in life accompanied them in death.

There are 23 warrior-graves from the Knossos area, as well as one at Archanes and one at Phaistos, and the related burials with bronzes at Archanes and Khania (see appendix).²⁴ Most of these burials have more than one major weapon each, exceeding the basic criterion and emphasising that these were indeed the graves of warriors. These graves are important as evidence of military activity in the Knossos area in the period following the LMIB destructions. The weapons from the LMII level of the Minoan Unexplored Mansion (3 spearheads, an arrowhead and 2 sword/dirk fragments) should also be considered, for this is clearly not a burial context but must be considered as a weapons workshop.²⁵

The earliest of these warrior-graves (Agios Ioannis 1 and 2 and New Hospital Site I, II, and IV) are extremely rich in weapons and have little pottery, but what there is dates from LMII. They are also located with other warrior-graves and not with non-warrior, i.e. non-Mycenaean, tombs. The Sellopoulou tombs are dated LMIIIA1. The cemetery of Zapher Papoura, however, offers a different picture in that 11 tombs can be classified as warrior-graves out of the total of 100 graves that constitute this cemetery and which date from LMII-IIIA. The Zapher Papoura warrior-graves which can be dated are assigned to LMIIIA1-2. Other recorded warrior-graves are scattered around the Knossos valley and are not concentrated in any particular area and can be dated from the end of LMII to LMIIIA2. This diffusion of warrior-graves within the burial areas of Knossian society is also paralleled by the appearance of warrior-graves outside the immediate area of Knossos, i.e. at Archanes

²³ The term "warrior-grave" was first used by Hood to describe these burials. See Hood & de Jong 1951: 256-61; Hood 1956: 81-99; Catling & Popham 1974: 195-217 for detailed publications of Mycenaean burials on Crete. I do not confine this term to burials with swords and dirks, contra Driessen & MacDonald 1984: 49-74, but I include those with spears, which were an instrument of war as shown by an entry in the Linear B archive, KN R 1815, and by numerous representations in art. See also the papers by Niemeier and Popham in Evely, Hughes-Brock & Momligiano 1994 and Matthäus 1984; 203-15 for a thorough discussion of what constitutes a warrior-grave.

²⁴ Owens 1994: 22-8 for a discussion of chariots and warrior-graves at Archanes. ²⁵ Popham & al. 1984. See Alexiou 1967 for the 7 tombs from Katsamba that should also be considered as they have not produced a warrior-grave but do include finds (kylikes, amphoroid vase with depictions of a boar's tusk helmet and figure-of-eight shield) suggestive of a Mycenaean presence at Katsamba in the LMII-IIIA period. It is of note that the Mycenaean tombs of Katsambas are located towards Knossos, whereas the LMI Minoan tombs of neighbouring Poros are located closer to the sea.

Fourni and Phaistos "Tomba dei Nobili", and by burials with bronzes from Archanes and Khania.²⁶

The occupants of the LMII-IIIA warrior-graves/burials with bronzes were buried in a manner previously unknown on Crete. At Knossos in LMII warriors were buried apart from the non-warrior burials, but by the LMIIIA1 period, e.g. at Zapher Papoura, warrior-graves are found alongside non-warrior burials. This assimilation into Minoan society in the greater Knossos area of warriors buried in a Mycenaean manner can also be paralleled in LMIIIA1 by similar burials at Archanes, Phaistos, and Khania.

This assimilation may indicate a role for Mycenaeans at Knossos which was more than that of mercenaries.²⁷ As this change is evident by LMIIIA1 and if the owners of the warrior-graves are to be identified as the same military class as the Mycenaean chariôteers recorded in the Sc series of the RCT, then LMIIIA1 would also suggest itself as a better date for the Linear B of the RCT.

None of the arguments put forward so far are convincing on their own to demonstrate an LMIIIA1 date for RCT. Likewise, or even less convincing, are the indications that the RCT be dated to LMII. It is necessary to summarize what has been discussed so far concerning the respective historical merits of the LMII and LMIIIA1 periods as the epoch from which the Linear B of the RCT dates before tentative historical conclusions can be put forward.

Archaeologically, the RCT was dated according to a comparison with an LMIII ivory carving and to a number of sealings, the majority of which can be dated to LMIIIA1. Epigraphically, the RCT used a syllabary of signs considerably closer to the Linear B of LMIIIA2 than to the Linear A of LMIB, and the language of the RCT is of course Mycenaean Greek and not Minoan. Textually, the RCT tablets record armed charioteers who can be better assigned to the LMIIIA1 rather than to the LMII period, in view of the warrior-graves from Knossos and elsewhere in Crete. The RCT charioteers of the Sc series and the warrior-graves constitute the militaristic aspect of the last phase preceding the main destruction. Historically, therefore, in all likelihood the RCT can be dated to LMIIIA1 (c. 1390-1370/60 BC) rather than to LMII (c. 1425-1390 BC).²⁸

²⁶ Hood & Smyth 1981; Sapouna-Sakellaraki & Sakellarakis 1991; and Catling & Popham 1974 for a discussion of these burials.

²⁷ Driessen & MacDonald 1984 and Driessen 1992 for a discussion of a Mycenaean military class at Late Minoan Knossos.

²⁸ The dates used are those of Warren & Hankey 1989, based on the tripartite relative dating system of Evans, modified by Popham and others, and correlated with chronologies of Egypt and the Near East. It is important to think of the history of Knossos in terms of generations and not just as a relative pottery sequence. Both the

The "Intermediate Period" (LMII-IIIA1) was the term used by Hallager to describe the period between the Minoan PolyPalatial (LMIB) and the Mycenaean MonoPalatial (LMIIIA2) periods, in which both Minoan and Mycenaean features were apparent but in which the Minoan elements still prevailed.²⁹ The "Intermediate Period", neither purely Minoan nor Mycenaean in character and falling between Linear A and Linear B can now be shortened.

Driessen has convincingly demonstrated that the RCT should be dated earlier than LMIIIA2. It has been argued above that the Linear B of the RCT is better suited to an LMIIIA1 than LMII date. Consequently the LMIIIA1 RCT Linear B, the language of which is Mycenaean Greek, can now be excluded from the "Intermediate Period" of mixed Minoan and Mycenaean character. The RCT contains a very high proportion of clearly Greek names and comes from a period when warriors at Knossos were being buried according to Mycenaean customs, but within Knossian burial-grounds, alongside non-warriors. So LMIIIA1 falls within the overtly Mycenaean phase of Knossos by virtue of Linear B, Greek names of warriors, and warrior-graves/burials with bronzes at Knossos and elsewhere. It is indeed justifiable to talk of an "Intermediate Period", but this should be limited to the post-Linear A and Pre-Linear B period, i.e. LMII.

It was within this period that the change took place from LMIB records written in Linear A conveying the Minoan language to LMIIIA1 records written in Linear B conveying the Mycenaean Greek language. If, as now seems likely, the RCT pre-dates the LMIIIA2 archive and should be dated within the LMIIIA1 period, then the change from Linear A to Linear B and from Minoan to Mycenaean occurred in LMII. By LMIIIA1 the rulers of Knossos were Mycenaean Greeks. In LMIB the rulers spoke the Minoan language. How is this change to be explained?

Tentative historical conclusions

In order to justify the suggestions which have been made above, it is necessary to offer a hypothesis to attempt to explain two events in the history of Late Minoan Knossos. If the RCT is dated to LMIIIA1, then how did the Mycenaeans come to power at the end of the preceding LMII

²⁹ Hallager 1978: 17-33. Hallager's excavations at Khania have demonstrated that the LMIII period in Crete was probably not MonoPalatial.

LMII and LMIIIA1 period were approximately a generation in length, which is adequate time for the hypothesized changes and developments to have taken place.

period? If the end of LMIB did not mark the Mycenaean seizure of power at Knossos, as commonly believed, then who caused the Cretan-wide destructions at the end of LMIB which are usually attributed to the arrival of the Mycenaeans, and who was the ruler of LMII Knossos—a Minoan or Mycenaean?

Some see the Mycenaeans in power at Knossos, following the Cretanwide destructions which characterized the end of LMIB and which preserved the Linear A archives, while others prefer to reserve judgement. Diessen 1990: 125 stated: "The present reconstruction of Cretan settlement history accepts a break in the occupation of most sites after the widespread LMIB destructions, and the writer believes that a Mycenaean ruling class established itself at Knossos after these destructions—which it may have caused itself—from where gradually larger parts of the island became occupied." There are two separate questions to be considered here. Did the Mycenaeans cause the widespread LMIB destructions? And did they establish themselves at Knossos in the LMII period as the ruling class?

The following scenario is offered in the hope that future discussion will further illuminate the sequence of events in Late Minoan Crete. This discussion does not claim to provide the final answer, but rather to analyse and test some previously accepted theories that have been repeated uncritically as fact.

Following the destructions at most Minoan sites on Crete at the end of LMIB, with the exception for the most part of Knossos, there was a general break in settlement. In the following LMII period, there is evidence for settlement at a few places, and the first warrior-graves appeared in the Knossos area. From the following LMIIIA1 period came the RCT records conveying the Greek language of the new Mycenaean rulers of Knossos. The LMII period is the time during which Knossos changes from a Minoan to a Mycenaean administrative centre. The major events that ended LMII at Knossos, following the increasing number of warrior-graves (in separate burial grounds from the Minoan population), were the localized destructions in the West Wing of the

³⁰ See references in note 6 above and Niemeier 1994: 71-88 for an up to date survey of this question. See also Doxey 1987: 301-24 for an interesting and thorough discussion of Late Minoan Knossos.

³¹ Popham 1975; 372-4; Popham 1980; 163-7; Kanta 1980; and Bennet 1985; 231-49.

³² Palaima 1987: 301-5.

Palace and along the Royal Road.³³ Could it be this that indicates a change from Minoan to Mycenaean control of Knossos?

Before LMII Knossos functioned as a Minoan palace, using Linear A and co-existing with other Minoan palaces, villas and towns. In LMIIIA1 Knossos had become a palace controlled by a Mycenaean bureaucracy and c. 150 fully-armed charioteers with Greek names, keeping records in Greek. The change from Minoan to Mycenaean, from Linear A to Linear B, took place within LMII. It is suggested here that the military phenomena (charioteers and warrior-graves) are connected with the change from Minoan to Mycenaean. After the LMII destructions, in the very areas of Knossos where Mycenaean influence or presence is visible, control of the palace of Knossos and West and Central Crete was in the hands of the Mycenaeans. Popham said that the evidence hinted at the possibility of deliberate destructions in LMII, something which has now been borne out by subsequent excavations and recently also claimed by Driessen.34 It is now clearer that LMII marks the period after which the Mycenaeans controlled Knossos. Therefore, is it valid to ask whether the LMII destructions could mark the Mycenaean bid for power?

The area in which these LMII destructions occurred are located in one area of Knossos, i.e. along the Royal Road. The buildings along here show a Mycenaean presence in LMII, and have strong links with weapons and warfare (the Arsenal and the bronze-working of the Mansion), the very factor that may have brought Mycenaeans to Knossos in the first place. In the LMII period there were warriors at Knossos, buried in their own burial-grounds, with weapons that were being manufactured in the Minoan Unexplored Mansion, a substantial building that while outwardly Minoan in appearance, seems to be most un-Minoan in function in LMII.³⁵

A hypothesis that may explain the localized destructions along the Royal Road at the end of LMII, and the subsequent Mycenaean control in LMIIIA1 following these destructions, is to see them as connected events and to interpret the end of LMII as a Mycenaean coup d'etat from

³³ Popham 1970; Hood's reports of excavations along the Royal Road in Archaeology in Greece in *Journal of Hellenic Studies/Archaeological Reports* 1959, 1960 and 1962; Popham & al. 1984; and Warren's SME excavations in *Journal of Hellenic Studies/Archaeological Reports* 1983 for excavations along the line of the Royal Road. See most recently Popham 1994: 89-102, esp. fig. 2 for "The Town and its Environs at Knossos".

³⁴ Popham 1970 and Driessen 1990.

³⁵ For evidence of metal-working in the Mansion, see Popham & al. 1984; Catling & Popham 1974; and Driessen & MacDonald 1984. The weapons from the warrior-graves suggest the existence of a weapons workshop at Knossos whose trademark was an intricate spiral design.

their area west of the palace, along the Royal Road, and into the palace itself where they established control by force of arms.

This hypothesis raises the question of the status of Mycenaean warriors at Knossos in the LMII period. Initially they were soldiers housed and buried apart from the Minoan community. This implies that they had recently come into the Knossos area and were still socially a separate group. As they were at Knossos in their capacity of warriors in LMII, then perhaps their arrival can be connected with events that brought the preceding LMIB period to a close. The burnt layers which coincidentally preserved LMIB Linear A clay archival documents from Khania, Tylissos, Haghia Triada, Archanes, and Zakros testify to a wave of destructions across the length and breadth of Crete. The exception of Knossos (and its lack of a preserved Linear A archive) to these other complete destructions is notable, as is its LMH period of continued palatial settlement and militaristic features. In the LMII period can be seen an increasing number of Mycenaean traits, as exemplified by the local production of Mycenaean type vases, e.g. kylikes, from the very beginning of LMII, but the transition from LMIB to LMII at Knossos was a purely Minoan matter. In view of Knossos' prosperity in LMII, and as it alone on Crete escaped complete destruction, the possibility exists that Knossos was responsible for the LMIB destructions elsewhere on Crete. The palace of Knossos exerted its power to gain control over a large part of the island. If this was the case, then it could easily have been achieved with assistance from warriors who probably originated from the Argolid and were buried in Mycenaean warrior-graves. If the occupants of the tombs at Agios Ioannis and the New Hospital Site were buried in the early years of LMII, then they may well have been active at the end of the preceding LMIB period. The evidence for a Mycenaean military presence at Knossos before the LMIB destructions is not yet conclusive, but it is suggestive and it is growing. There is no certain evidence that this was the case, but Knossos' supremacy in LMII may have been achieved as a result of the LMIB destructions, which the ruler of Knossos, supported by warriors from the mainland, would have been in a position to have carried out. Equally there is no evidence to suggest that Mycenaean administration was imposed in LMII. On the other hand, there is evidence for Mycenaean control in LMIIIA1, as shown by a Linear B archive recording Mycenaean Greek, and warrior-graves assimilated into existing burial-grounds. The possibility is raised that Knossos exerted its control over a sizeable part of Crete with the aid of Mycenaean warriors at the end of LMIB and that the administration in LMII was centralized at Knossos but was still recorded in Linear A and in the Minoan language.

Why Knossos should destroy Minoan sites, which it later controlled,

at the end of LMIB is not completely understood. Did Knossos, in effect, destroy its own agricultural support system, i.e. the villas and regional administrative centres? Or did it destroy these sites in order to take away their local autonomy, so that as a result all administrative activity was centralized in the palace of Knossos? It is hard to explain satisfactorily all of the archaeological evidence at the end of LMIB. How is the limited destruction at LMIB Knossos to be explained? There are still many unanswered questions regarding 15th century BC Knossos as to the precise sequence of events and the destruction evidence that is clear at the end of LMIB (but consider the former Yugoslavia and former Soviet Union—how logical and easily understood are 'civil' wars?).

It has of course been suggested that the Mycenaeans controlled Crete immediately following the disasters at the end of LMIB, or that destructions at Knossos in LMII (Minoan Unexplored Mansion and Stratigraphical Museum Extension etc.) were due to an uprising against the Mycenaean occupation, after which the Mycenaeans imposed firmer control. Evidence of LMII destruction at Malia Maison E has also been noted and Popham considered this deposit to be "practically identical (....)" with the LMII material from the Minoan Unexplored Mansion, and he makes the "obvious assumption that the two deposits are the result of more or less contemporary events".38 The Malia LMII destruction may represent part of the Mycenaean coup d'etat at a strategic coastal site where their occupation is being increasingly demonstrated as a result of continued excavation; or it may represent the crushing of Minoan resistance at Malia to the Mycenaean seizure of power at Knossos. This one act of coercion at the end of LMII may have been sufficient to have deterred other Minoan sites from thinking about attempting to claim their LMIB independence and prosperity.

It should also be borne in mind that the cause of the main destruction at Knossos in LMIIIA2 has not been clarified, but whether by earthquake or by hand of man, it co-incided with the rise of inter-group hostility in the mainland, and with the Argive Mycenaean export drive to Cyprus, the

38 Popham 1970 and Popham 1975: 373.

³⁶Nikolidaki-Owens & Owens, forthe, for a discussion of Minoan villas and their relation to Knossos. Also see Hägg & Marinatos 1994.

³⁷ Niemeier (1994: 88) asked a pertinent question: "if a Mycenaean conquest is responsible for the LMIB destruction horizon, why did the invaders spare the most important place on the island?". To draw another analogy with conquistadors in Mexico (see note 21 above) perhaps both the Mycenaeans and conquistadors on a comparable strategic level acquired control of a centralized kingdom by capturing its capital. See Bennet 1990: 193-211 for an interesting discussion of how Crete has been governed by both on-shore and off-shore powers during the Minoan, Hellenistic, Roman and Venetian periods.

Eastern Mediterranean, and an interesting contact with Egypt late in the reign of Amenophis III and early Amenophis IV (= Akhenaten).

Firstly, there is no evidence for Mycenaean control over Knossos in LMII, following the destructions at the end of LMIB. In view of the lack of LMII documents from Knossos, it is more justifiable to consider a Minoan ruler to have continued to rule as in LMIB, although maybe now with Mycenaean military support, rather than to hypothesize an LMII Mycenaean administration when the earliest Mycenaean text is LMIIIA1. There is evidence for a Mycenaean presence at Knossos in LMII, but no more than that, and definitely not control.

Secondly, the cause of the localized destructions is more likely to be connected with the hypothesized Mycenaean coup d'etat that resulted in the LMIIIA1 RCT Linear B archive, and which was carried out by the same social group as those being interred in warrior graves, i.e. Mycenaean soldiers. There is little point in having an LMII Minoan uprising when the ruler of Knossos was still a Minoan. Still another possibility is that Minoans from other sites in Crete rebelled against Knossos which had imposed its control over them at the end of LMIB. Perhaps after an LMII Cretan uprising, the Mycenaean warriors at Knossos followed their suppression of this uprising by also taking control of Knossos itself as well as its outlying territory, thus establishing their own dynasty and administration in LMIIIA1.

It should be stressed, however, that the exact sequence of events is still unclear and it is hoped that future excavations at Knossos and elsewhere will clarify the situation. There are still many questions to be answered, and some have been raised here. This piece of research has not arrived at a definite explanation of events at Late Minoan Knossos, but by questioning previously held theories in the light of new evidence, it is hoped to contribute something to the continuing discussion. That in itself is a worthy tribute to Evans, that Knossos is still being so keenly discussed, 100 years after his first visit to Crete.

Warrior Grave	weapons	publication
Knossos (23)		
Aghios Ioannis 1	1 sw, 2 s-h, 1 sm s-h	BSA 47
Aghios Ioannis 2	1 sw, 2 da, 4 s-h, 2 sm s-h	BSA 51
New Hospital Site I	1 sm s-h	BSA 47
New Hospital Site II	1 sw, 1 s-h	BSA 47
New Hospital Site III	1 da, 1 s-h, arrows, staples	BSA 47
New Hospital Site V	1 sw, helmet	BSA 47
Sellopoulou 3	arrows, bronze vessels	BSA 69
Sellopoulou 4	2 sw, 1 da, 2 s-h	BSA 69
Zapher Papoura 14	1 da, 1 s-h	Evans 1906
Zapher Papoura 36	2 sw, 2 s-h	Evans 1906
Zapher Papoura 42	1 sw	Evans 1906
Zapher Papoura 43	1 sw	Evans 1906
Zapher Papoura 44	2 sw	Evans 1906
Zapher Papoura 55	1 sw, 1 s-h, boar's tusk plates	Evans 1906
Zapher Papoura 62	1 da	Evans 1906
Zapher Papoura 75	s-h	Evans 1906
Zapher Papoura 86	1 da	Evans 1906
Zapher Papoura 95	I da	Evans 1906
Zapher Papoura 98	1 sw	Evans 1906
Siver Cup Tomb	1 sw, stone-corselet-jar	BSA 51
Mavrospelio XVIII	1 sw, 1 da, 1 s-h	BSA 28
Acropolis Tomb	1 sw, 3 s-h	PoM IV
Isopata Tomb	2 sw, 1 s-h, 1 sm s-h, 1 s-butt	Arch. 65
Crete (4)		
Phaistos TdNobili	1 sw, 1 strip of metal armour	MA 14
Archanes Fourni	1 sw, 1 s-h	PAE 1966
Archanes Fourni	burial with bronzes	AAA V
Khania (Total = 27)	burial with bronzes	Forsch.

Table I. Warrior graves on Crete (sw = sword, da = dagger, s-h = spearhead, sm = small).

Period	Tomb	
LMII	Aghios Ioannis 2	
	Aghios Ioannis 1	
	New Hospital Site I, II, IV, Acropolis Tomb	
LMII-IIIAI	Silver Cup Tomb	
LMIIIA1	New Hospital Site II, Sellopoulou 3, 4, Zapher Papoura 44	
LMIIIA1/2	Zapher Papoura 42, 43, 55, 75, 98, Archanes Fourni, Phaistos TdNobili, Khania	
LMIIIA2	Zapher Papoura 14, 36	

Table II. Relative chronology of the 21 dateable "warrior-graves/burials" with bronzes of Knossos and Crete.

BIBLIOGRAPHY

Alexiou, St.

1967 Υστερομινωικοι ταφοι λιμενος Κνωσου (Κατσαμπα). Εν Αθηναις.

Bennet, J.

1985 The Structure of the Linear B Administration at Knossos. American Journal of Archaeology 89. Pp. 231-249.

1990 Knossos in Context, Comparative Perspectives on the Linear B Administration of LMII-III Crete. American Journal of Archaeology 94. Pp. 193-211.

Catling, H., & Popham, M.

1974 Sellopoulou Tombs 3 and 4. British School at Athens 69. Pp. 195-217.

Chadwick, J.

1968 The Organization of the Mycenaean Archives. Studia Mycenaea, Proceedings of the Mycenaean Symposium, Brno April 1966, ed., Bartoněk, A. Pp. 11-21. Brno: Universita J.E. Parkyně.

1973 Relations between Knossos and the rest of Crete at the time of the Linear B Tablets, Proceedings of the Third Cretological Congress 1971.

1987 Linear B and Related Scripts.

London: Trustees of the British Museum.

Doxey, D.

1987 Causes and Effects of the Fall of Knossos in 1375 B.C. Oxford Journal of Archaeology 6, 3. Pp. 301-324.

Driessen, J.

1988 The Scribes of the "Room of the Chariot Tablets". Studies Bennett. Pp. 123-166.

1990 An Early Destruction in the Mycenaean Palace at Knossos: A New Interpretation of the Excavation Field-Notes of the South-East Area of the West Wing. Acta Archaeologica Lovaniensia Monographiae 2. Leuven: Katholieke Universiteit Leuven.

1991 The Room of the Chariot Tablets Reconsidered. Proceedings of the 6th Cretological Congress 1986. Pp. 267-275.

1992 "Collector's Items" Observations sûr l'Élite Mycenienne de Cnossos. Mykenaika, Bulletin de Correspondance Hellénique, Supplement 25. Pp. 197-214.

forthc. Le Palais de Cnossos au LMII-III: Combien de destructions? Le Crete Mycenienne, Bulletin de Correspondance Hellénique, Supplement.

Driessen, J., & MacDonald, C.

1984 Some Military Aspects of the Aegean in the Late Fifteenth and Early Fourteenth Centuries B.C. British School at Athens 79. Pp. 49-74.

Duhoux, Y.

1989 Le linéaire A: problèmes de déchiffrement. Problems in Decipherment, eds.Duhoux, Y., Palaima, Th. G., & Bennet, J. Pp. 59-119.
Louvain-la-Neuve: Peeters.

Evans, A.

1921- Palace of Minos at Knossos. Vols. I-IV.

1935 London: MacMillan & Co.

Evely, D., Hughes-Brock, H., & Momligiano, N.

1994 "Knossos: A Labyrinth of History". Papers in Honour of Sinclair Hood. Godart, L.

1984 Du Lineaire A au Lineaire B. Hommage à Henri van Effenterre. Pp. 121-128.

Godart, L., & Olivier, J.-P.

1985 Recueil des inscriptions en linéaire A. Vol. 5 Addenda, corrigenda, concordances, index et planches des signes.

Paris: Librairie orientaliste Paul Geuthner.

Hägg, R., & Marinatos, N.

1994 The Function of the Minoan Villa.

Hallager, E.

1977 The Mycenaean Palace at Knossos, Evidence for Final Destruction in the LM III B Period.

Stockholm: Pontus Hellström.

1978 The History of the Palace at Knossos in the Late Minoan Period. Studi Micenei ed Egeo-Anatolici 19. Pp. 17-33.

Hallager, E., Vlasakis, M., & Hallager, B.P.

1992 New Linear B Tablets from Khania. Kadmos 31. Pp. 61-87.

Hood, S.

1956 Another Warrior-Grave at Agios Ioannis. British School at Athens 51, Pp. 81-99.

Hood, S., & Jong, P. de

1951 Late Minoan Warrior-Graves from Agios Ioannis and New Hospital Site at Knossos. British School at Athens 47. Pp. 256-261.

Hood, S., & Smyth, D.

1981 An Archaeological survey of the Knossos Area. British School at Athens, Supplement 14.

Hooker, J.T.

1980 Linear B: An Introduction. Bristol: Bristol Classical Press.

Kanta, A.

1980 The Late Minoan III Period in Crete, A survey of Sites, Pottery and their Distribution. Studies in Mediterranean Archaeology 58. Göteborg: Paul Åströms Förlag.

Killen, J.

1964 The Wool Industry of Crete in the Late Bronze Age. British School at Athens 59, Pp. 1-15.

1985 The Linear B Tablets and the Mycenaean Economy. Linear B. Pp. 241-305.

Killen, J.T., & Olivier, J.-P.

1989 The Knossos Tablets (5th edition). Suplementos a Minos 11. Salamanca: Ediciones Universidad de Salamanca.

Lejeune, M.

1960 Doublets et complexes. Proceedings of the Cambridge Colloquium on Mycenaean Studies. Pp. 135-149.

Cambridge: At the University Press.

MacArthur, J.

1993 Place-Names in the Knossos Tablets, Identification and Location. Suplementos a Minos 9.

Salamanca: Ediciones Universidad de Salamanca.

Matthäus, H.

1984 Minoische Kriegergräber. In: Minoan Society, Proceedings of the Cambridge Colloquium 1981, eds. Krzyszkowska, O., & Nixon, L. Pp. 203-215. Bristol: Bristol Classical Press.

Melena, J.L., Owens, G., & Serrano, M.

1992 51 Raccords dans les tablettes de Cnossos post KT5. Minos 25-26. Pp. 413-417.

Niemeier, W.-D.

1982 Mycenaean Knossos and the Age of Linear B. Studi Micenei ed Egeo-Anatolici 23. Pp. 219-287.

1994 Knossos in the New Palace Period (MMIII-LMIB). In: Evely, Hughes-Brock & Momligiano 1994.

Nikolidaki-Owens, K., & Owens, G.

forthc. The Provincial Sites of Knossos. Cretan Studies 6.

Olivier. J.-P.

1967 Les scribes de Cnossos, Essai de classement des archives d'un palais Mycénien. Incunabula Graeca 17. Roma: Edizioni dell'Ateneo.

1975 "Lire" le linéaire A. Le Monde Grec. Pp. 441-449.

1986 Cretan Writing in the 2nd Millennium B.C. World Archaeology 17, 3. Pp. 377-389.

1993 "KN115=KH1-15" Un même scribe à Knossos et à La Canée au MRIIIB: du soupçon à la certitude. Bulletin de Correspondance Hellénique 117, 1. Pp. 19-33

Owens, G.

1991-3 The Untransliterated Syllabograms of Linear B—40 Years On. Ventris Memorial Mycenaean Seminar 1992. Summary: Bulletin of the Institute of Classical Studies 39 (1994). Pp. 265-266.

1994 Was se-to-i-ja at Archanes? Kadmos 33. Pp. 22-28.

Palaima, T.

1987 Preliminary Comparative Textual Evidence for the Palatial Control of Economic Activity in Minoan and Mycenaean Crete. In: The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at The Swedish Institute in Athens, 10-16 June, 1984, eds. Hägg, R., & Marinatos, N. Pp. 301-305.

Stockholm: Paul Aströms Förlag.

Popham, M.R.

1970 Destruction Pottery of Knossos. Études Crétoises XVI.

1979 Late Minoan Crete. American Journal of Archaeology 79. Pp. 372-374.

1980 Cretan Sites Occupied Between 1450 and 1400 B.C. British School at Athens 75. Pp. 163-167.

1988 The Historical Implications of the Linear B Archive at Knossos dating to either c. 1400 or 1200 B.C. Cretan Studies 1. Pp. 217-227.

1994 Late Minoan II to the End of the Bronze Age. În: Evely, Hughes-Brock & Momligiano 1994.

Popham, M.R., & al.

1984 The Minoan Unexplored Mansion. British School at Athens, Supplement 17. Sapouna-Sakellaraki, E., & Sakellarakis, J.

1990 Archanes à l'époque mycenienne. Bulletin de Correspondance Hellénique 114. Pp. 67-102.

1991 Archanes.

Warren, P.

1992 Review Driessen 1990. The Classical Review 42. Pp. 137-139.

Warren, P., & Hankey, V.

1989 Aegean Bronze Age Chronology. Bristol: Bristol Classical Press. Weingarten, J.

1988 The Sealing Structures of Minoan Crete: MMII Phaistos to the Destruction of the Palace of Knossos. Part II: The Evidence from Knossos until the Destruction of the Palace. Oxford Journal of Archaeology 7. Pp. 1-25.

Woodard, R.

1986 Dialectal Differences at Knossos. Kadmos 25. Pp. 49-74.