Appendix D.1

Linear B - Mycenaean Greek

The earliest Greek "alphabet" (strictly, a syllabary) of which we know is that called **Linear B**, used by the **Mycenaeans**. The Mycenaean culture developed during the Bronze Age on the Greek mainland, with large fortified citadels at Mycenae, Tiryns, and other sites. The Mycenaeans came into contact with the **Minoans** of Crete, who used a script called **Linear A**. Archaeologists designated the scripts as Linear because the words were written in a line, instead of groups within boxes (as were used for Egyptian hieroglyphics and Mesopotamian cuneiform.). The Mycenaeans took the ideas of Linear A, and developed a script for their own language, ca. 1,450 BC, which is what we now call Linear B.
Linear A has not yet been deciphered, and the language of the Minoans has not been identified.

After the decline of the Minoan civilization, the Mycenaeans became the dominant culture in the Aegean. Their adventures were the basis for the legends of Troy and the Trojans.
However, during the time of disturbances generally called the Dorian Invasion, or the Greek Dark Ages, ca. 1,200-1,000 BC, it appears that civilization was so disrupted that people forgot how to read and write in Linear B. Eventually the developing Greek culture began to read and write again - but with an early form of the Greek alphabet which we know today. Linear B was forgotten, and when archaeologists first encountered inscriptions in Linear B they could not read them, and did not know what language they were.

Decipherment of Linear B was complicated by the fact that the characters were scratched on clay tablets, and there were variations in the shapes of characters which probably represented variations in the ways in which individual scribes wrote them. Linear B appears to have been in use for several centuries, from ca.1,450 BC till ca. 1,180 BC, in several different places, so there is naturally a great variety in writing styles.
There seemed to be about 200 discrete characters, indicating that the set of characters probably represented a syllabary, rather than an abjad or an alphabet. Most languages which use an alphabet can be expressed by a set of 20-40 different characters, whereas a syllabary (in which there is a character for each syllable, rather than each sound) needs a set of 50-100 or more characters.
Decipherment was further complicated by the fact that such Linear B inscriptions as we have are mainly lists of supplies or personal names - literacy had not progressed to the stage of written prose or poetry. There were no extended pieces of literature which would illustrate how the language was used in day-to-day life.

In 1952 Linear B was deciphered by Michael Ventris and Owen Chadwick. Ventris was an architect who was also an amateur linguist, and Chadwick was a Greek scholar at Cambridge University. Together, they were able to show that Linear B represented a very early form of the Greek language.

The characters proved to be a set of about 87 characters for open syllables (consonant + vowel, CV), and more than a hundred ideograms which signify types of objects or units of measure, but which do not have phonetic values. They occur in conjunction with numbers, and appear to function as identifiers for what is being counted. This is similar to the use of signs such as $ and £ in English. The numbers belong to a base-10 system.

The Mycenaeans and the Minoans apparently spoke different languages. Linear A was probably invented by the Minoans for use with their specific language. The Mycenaean language (early Greek) had different phonemes, so they had to adapt the Minoan characters, and use one character for several similar sounds.

- “j-” signs may have been pronounced with a y- sound
- “k-” signs might be used for k-, kh-, or g- sounds
- “p-” signs might be used for p-, ph-, or b- sounds
- “q-” signs might be used for kw- or gw- sounds
- “r-” signs might be used for r- or l- sounds
- “t-” signs might be used for t- or th- sounds
- “z-“ signs may have been pronounced with a dz- sound

A further problem which the Mycenaeans encountered in using Linear B characters (open syllables, CV) was the use of consonant clusters (e.g. CCV), final consonants (e.g. CVC) and diphthongs (e.g. VV) in their language.

For consonant clusters, e.g. khr-, they wrote the leading consonants as CV signs with the same vowel as the syllable. Final liquid consonants (l, m, n, r, and s) were sometimes not written; other final consonants would be written as a CV syllable. Diphthongs ending in -i often dropped the -i, other diphthongs might use a vowel-only or some other sign.

We do not know if the Mycenaeans learned the signs in some particular order, the way we learn the alphabet. The Mycenaean pronunciation of some of the syllables is doubtful and still a matter of debate. Because the originals were written by hand in moist clay there are variations for each character, but there is now sufficient agreement among scholars for Unicode fonts to be developed to represent the syllabic and other signs of Linear B. These are usually shown as a grid, with initial consonants to the left, and vowels across the top.

	A	E	I	O	U
	a	e	i	o	u
D	da	de	di	do	du
J/Y	ja	je	-	jo	ju
K/Kh/G	ka	ke	ki	ko	ku
M	ma	me	mi	mo	mu
N	na	ne	ni	no	nu
P/Ph/B	pa	pe	pi	po	pu
Q/Kw/Gw	qa	qe	qi	qo	-
R/L	ra	re	ri	ro	ru
S	sa	se	si	so	su
T/Th	ta	te	ti	to	tu
W	wa	we	wi	wo	-
Z	za	ze	-	zo	-

Besides the basic syllabary, Linear B uses many extra signs. Some of them appear to be for diphthongs or other clusters.

ai (a3)	au	ha (a2)
dwe	dwo	
nwa	phu (pu2)	pte
rai (ra3)	rya (ra2)	ryo (ro2)
swa	swi	
tya (ta2)	twe	two

In addition to the signs which carry phonetic values, there are logograms - signs which indicate types of people, animals, objects, etc. These seem to be used in conjunction with numbers, and may be used as a quick indication of what is being counted. Some of the signs which are used for syllables are also used as logograms, probably reflecting their phonetic values in the Minoan, rather than the Mycenaean language. The sex of an animal may be shown by adding lines to the basic logogram - two short horizontal lines indicate a male, a vertical line indicates a female.

man woman horse stallion mare foal

sheep ram ewe billy-goat nanny-goat deer

ox bull cow pig boar sow

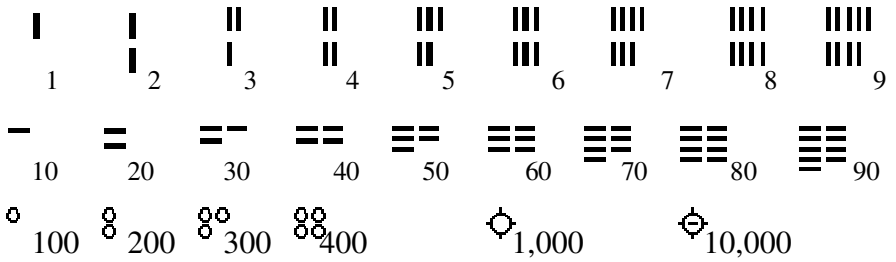
wheat barley figs wine olive oil

wool flax cloth

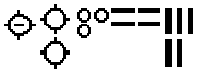
bronze gold wheel jar

armor sword spear arrow chariot

Linear B uses a decimal system of numbering



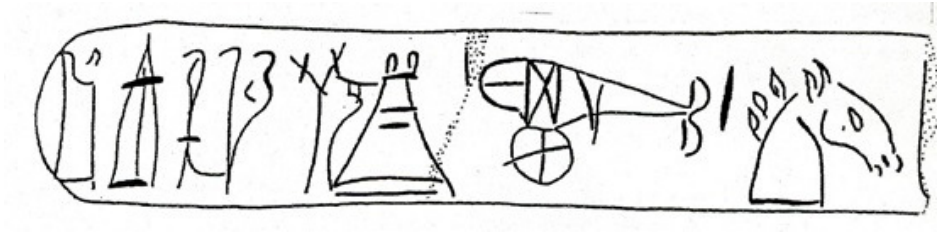
e.g. 12,345 = 10,000 + 2,000 + 300 + 40 + 5 =



The sum or total of something was indicated by the word  (to-sos = τοσουτος), that many.
A deficit was indicated by  (o-phe-los = ὀφειλος), debt; or just by the letter (o)

Linear B texts
When dealing with Linear B texts it is usual to write them in a Roman transcription rather than in the original characters; ideograms may be written out as the equivalent English or Latin word, and numbers in Arabic numerals.

Example - Linear B tablet KN Sc 230, a "chariot tablet" found in the palace of Knossos.
The KN indicates that it is from Knossos, the Sc indicates the part of the palace where the tablet was found.



o -	pi-ri -	mi -	ni -jo	TUN	1	BIG	1	EQU
(man's name)				tunica	1	biga	1	equus
				(tunic - corselet)		(biga = 2-wheeled chariot)		(equus = horse)

(the tablet is broken - the number of horses is missing)

Transcription : o-pi-ri-mi-ni-jo TUN 1 BIG 1 EQU

