# The Greek Age of Bronze

## Swords/Daggers

In contrast to Anatolia and Near East, the earliest stages in the development of Mediterranean metallurgy appear only after about 5500 BC. During the late Neolithic of Aegean (ca. 5500-4500 BC) pins of copper turn up at *Dikili Tash*, *Paradeissos*, and *Kitsos Cave*, while two small daggers have been recovered from *Aya Marina* in Phocis. It was only during the following, Final Neolithic period (ca. 4500-3700 BC) however that Aegean metallurgy began to flourish. Copper, Gold, silver and lead artifacts have been recovered at least twelve different sites of this period, including large assemblages of metal finds at sites such as *Zas Cave* on Naxos and copper daggers from *Dimini* and *Sesklo*. The early swords of the Aegean Bronze Age are some of the most striking artefacts from this epoch in terms of craftsmanship and opulence. Their perceived role has at various times ranged from their being ritual objects, to being restricted in terms of modes and environments of use, to their being perfectly serviceable tools of war. The early swords evolving out of the dagger. Before bronze, stone was used as primary material for cutting edged tools and weapons. Stone is however very fragile, and therefore not practical to be used as swords. With the introduction of copper, and eventually bronze the daggers could be made longer, and evolved into swords. The earliest Aegean/Anatolian swords were found at *Arslantepe*, Turkey, dating to ca. 3300 BC. Sword finds are however very rare until around 2300 BC. In general, the evolution of blade weapons in the Aegean Bronze Age is from the dagger or knife in the Early Bronze Age to the earliest narrow bladed "rapier" swords optimized for thrusting from the Middle Bronze Age to the typical leaf-shape blades in the Late Bronze Age.

**SWORDS**

One of the earliest sword attested in the Aegean area is this copper specimen from *Naxos* dated around 2800-2300 BC. Its design is similar to the early type of Aegean dagger. The length of this sword is 35.6 cm

Cycladic copper sword from *Amorgos*. The length of this sword is 59 cm.

Very interesting bronze leaf-shaped sword dated **EC II** (about 2800-2300 BC) from the Cycladic island of Amorgos. On this very primitive bronze manufacture some traces of tin are still visible on the balde.

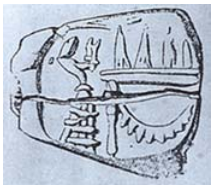
Cycladic copper sword from *Naxos* dated around 2500 BC. The length of this sword is 35 cm.

Typical Cycladic copper sword dated around 2300 BC

These kind of early leaf-shaped swords or daggers were attached to a baldric as attested from this marble statue of an hunter/warrior dated around 2300 BC from the Cyclad island of Naxos. Very interesting the incised ornamentation of the baldric.

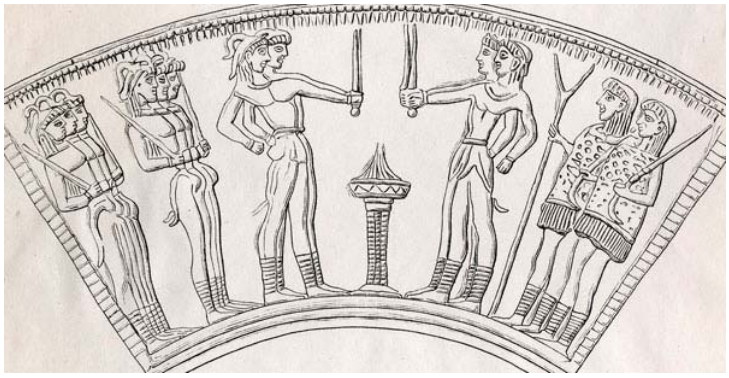
Group of Minoan bronze short swords from *Iraklion* and *Ziba*. The general design of these weapons clearly evolved from the early leaf-shaped Aegean daggers

Another interesting example of bronze short sword from *Aghia Triada* crete dated around 1600 BC. These kind of short swords can be also interpreted as daggers



One of the early possible representation of Minoan short swords is on a seal from *Haghia Triada* Crete dated around **MM III- LM I** (about 1600 BC). In this cult scene some swords and dagger blades seems to be placed with points upward on the altar.

Some medium size early minoan swords are also represented on a cup dated around 1700-1550 BC.



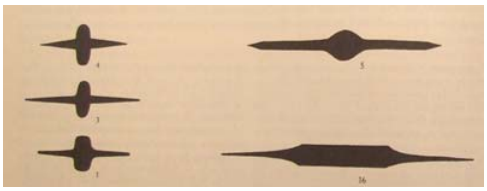
One of the most interesting inventions of the Aegean Bronze Age was the great sword. The weapons which appeared towards the middle of the second millennium BC in Crete and mainland Greece differ from all the previously swords in the combination of length of blade, strength of midrib and, in one type, the use of flanges for hafting, on tang or shoulder. The analysis of some specimens shows that the material is an alloy of copper and tin or arsenic for making the bronze. When the percentage of copper or tin content is high the bronze blades have a reddish or silver color respectively. Whether this was made intentionally to imitate costly metals like gold and silver and to give these swords or daggers a better and more valuable appearance, or was simply the result of mis-calculation of the right quantities of alloy it is not possible to guess.The Bronze Age swords findings in Greece occurred in the last years and the most recent publications have confirmed the evolutionary process and the swords classification introduced by **Sandars**. The **Sandars**'s classification catalogue the various type of Greek Bronze Age swords in eight main groups identified from the letter **A** to **H**.

A link between the Minoan triangular small swords or daggers and the long **A Type** sword can be represented by the specimen found in *Mallia* Crete dated around 1700 BC. This sword shows a large and long blade with a large and flat midrib. On its rounded upper part four rivet holes are used to attach the blade to its decorated hilt and two rivets holes are present on the tang.
The awesome part of this sword is represented by its hilt which was covered with a gold engraved plate and on its extremity a marvellous crystal rock was installed.

A sword with a similar blade with large flat midrib is probably the one represented in the egyptian fresco in the tomb of Rekhmire in *Thebes* where Cretan tribute-bearers are shown.

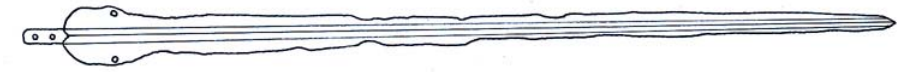
Other examples of Cretan long bronze swords, which could be interpreted as ancestors of the **A Type** and **B Type** swords, are attested from the palace of *Zakros.*

Similar long early thrusting swords are also attested from *Arkalochori*.



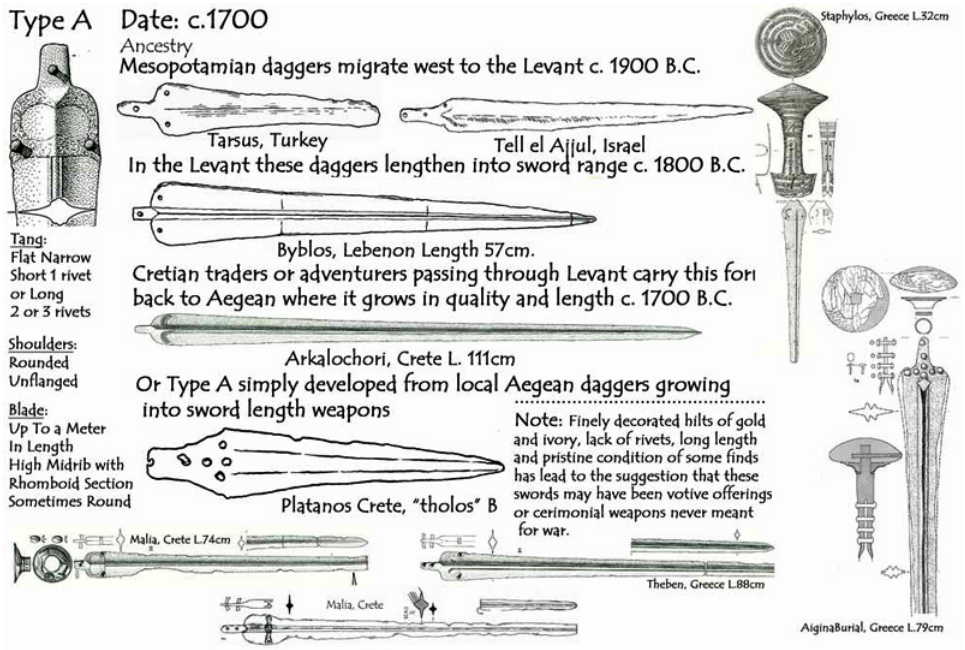
Some typical cross section of Cycladic and Minoan sword:
1) Sword from *Amorgos*, 3) sword from *Amorgos*, 4) Sword from *Mesaria*, 5) Sword from *Apeiranthos*, 16) Sword from *Mallia*

**A Type**

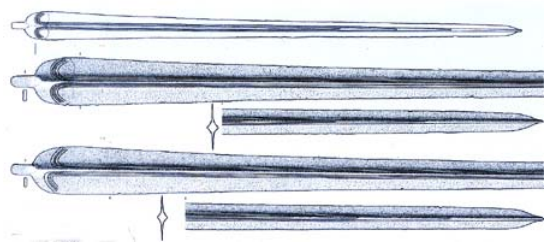


The earliest of the Aegean long swords come from the palace of *Mallia* in Crete, and the shaft-graves of *Mycenae* (*1). Furthermore specimens of the **Type A** swords are also attested in the Cycladic islands, in the Ionian islands and in Central Europe. These swords are sometimes a metre long; they have flat narrow tangs, either very short with one rivet hole, or longer with two or three. The shoulder is rounded and un-flanged, and two rivets are placed in the upper part of the blade about 3 cm under the shoulder. There is a high midrib usually of rhomboid section, but occasionally rounded, always abrupt, except in some cases when it carries an elaborate decoration.

The grip of these swords was made of wood or ivory sometimes decorated with gold applications. The hand-grip was completed by a knob which also in this case could have been made of wood, ivory, amber or gold. It was worked separately and than applied on the dedicated extension of the tang. The swords **A type** are dated from the **MM II-III** (about 1700-1600 BC) to the **LM/LH I-II** (about 1600-1500) and the most recent specimens to the **LH IIIA** (about 1400 BC)

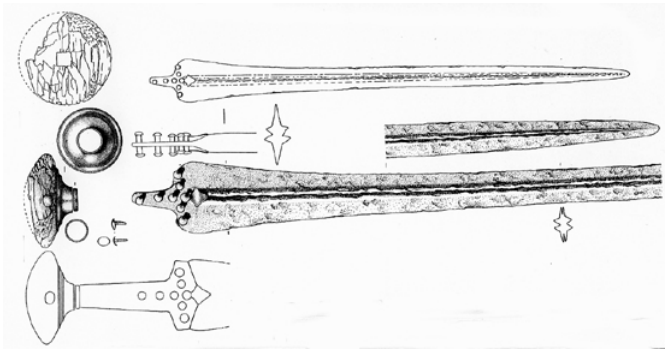



A very usefull summary table of the Achaean **A Type** swords has been made by Professor Kirk Spencer from the Sword Forum International



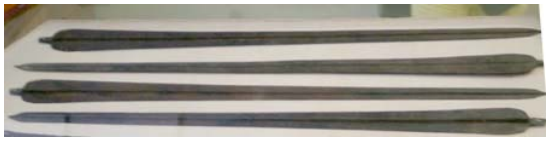
Some of the earliest **A type** bronze swords dated about 1700 BC from *Arkalochori* Crete. The length of these sword is respectively 111 cm and 105.5 cm

One of the earliest **A type** bronze swords dated about 1700 BC is attested from *Aegina* island. In This interesting specimen the tang and the shoulders show eight rivets for the fixation of the hand-grip and one rivet on the top of the tang used for the upper knob. This sword is 79.1 cm long.



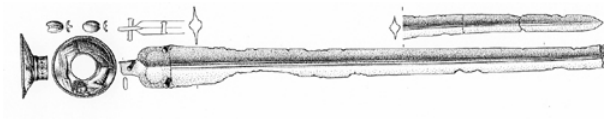
Other early examples of **A type** sword are attested in Crete like this bronze sword from *Mallia* dated around 1700 BC. In the same excavation an Ivory knob was also found.

Other very well preserved examples of Cretan **A type** bronze swords from the palace of *Zakros*.

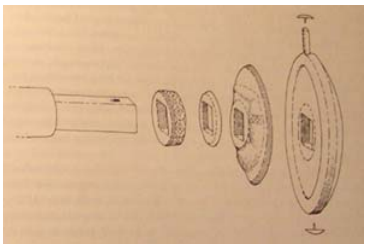


From the same palace of *Zakros* several specimen of **A type** swords dated around 1700-1600 BC are attested.

**A type** sword from *Thebes* dated around **MH III- LH I** (about 1600 BC.). The length of this sword is 87.7 cm

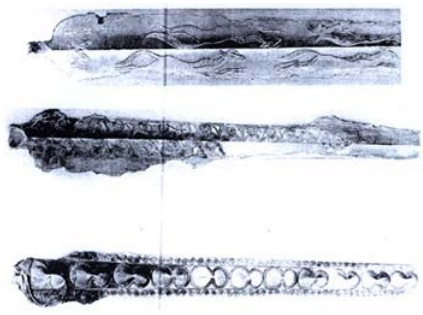


**A type** swords from *Mallia* with a gold decorated knob. This specimen is 74.1 cm long



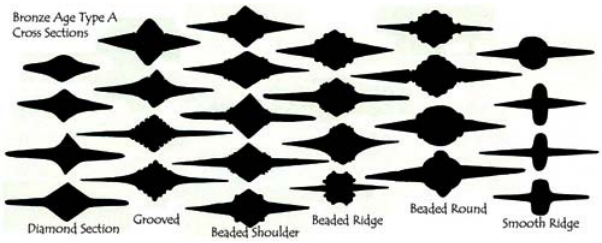
General assembly of the elements composing the knob of the above mentioned **A type** swords from *Mallia*

**A type** swords are also attested from the shaft graves of the cirle B from *Mycenae* dated around 1600 BC.



Several **A Type** bronze swords are also attested from the shaft-graves of the circle A in *Mycenae* dated **LH I-LHII** (about 1550-1500 BC). Some of these swords found by Henry Schliemann in the graves IV and V show very beautiful blade decorations representing running horses, shields in figure of eight and spirales.

A table showing the **A Type** blade cross section was also made by Professor Kirk Spencer




In the shaft-grave *Delta* of the circle B from *Mycenae* dated around 1600 BC it was found a gold decorated hilt belongs to an **A type** sword. This splendid spirals engraved golded handle also ended in a lions or dragons' head. The pomel of this sword was probably a rock cristal.

Some **A type** swords were also equipped with a ":horned" hand-guard which covered the sword's rounded shoulder like this interesting specimen from the shaft-grave V from *Mycenae* dated around 1500 BC

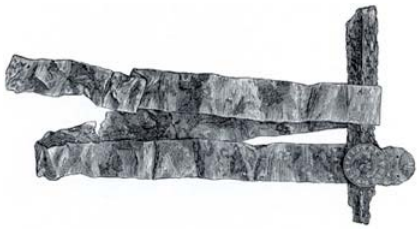
In the shaft-graves from *Mycenae* several gold and ivory elements have been found together the **A type** and other eraly type of Achaean swords. These elements have been clearly identified as parts of the swords' hand-grips and upper knobs.

An **A Type** sword with gold hilt and pommel revetment decorated with repousse spirals and concentric circles was found from a large rectangular stone-built tomb at cape *Staphylos* , in south east Skopelos island. The site is named Staphylos from a mythical founder of the island's first settlement, who originally came from Crete. The opulent grave gifts show that this tomb belonged to a Mycenaean warrior of the 16th-15th. cent. Bc.

In the shaft-graves from *Mycenae* several **A type** sword have been found partially covered with tubular thin gold plates. These parts were decorative elements applied over the swords' wood scabbards. Very beautiful examples of these scabard's decorative parts are the ones found in the shaft-grave V dated around 1500 BC. On the last sword of this image the gold plate is part of the weapons covering its upper rounded shoulder.

One of the probably **A Type** sword found inside the shaft-grave V still had wood remains of its scabbard which was covered by a very rich ornamentation. It was adorned in its entire length, on both sides, with a series of large golden buttoms with a magnificent intaglio work of spirals. The sheath was also adorned with the above mentioned tubular golden plate. The upper sword of the above image was also found with its sacabbard remains and decorations. It is a **B type** which is descibed in the dedicated section.

In the same shaft-grave a gold fringed tassel was found. This decorative element was attached on the lower end of the sword's scabbard.



In the same sepulchre, near a bronze sword, a golded shoulder-belt was also found . It was about 130 cm (4 ft.) long and about 3 cm (1 3/4 in.) broad. In the extremity of the shoulder-belt are two perforations; at the other end there has probably been a clasp, because no perforations are present. Near this shoulder-belt a gold decorated disk similar to the ones covering the sword's scabbard was also found. This golden belt was the covering decorative element of a leather baldric used for the sword's scabbard suspension.

Based on the above mentioned elements a reconstruction of a Mycenaean **A Type** sword with its scabbard can be reasonably made. The bronze sword has a decorated blade and gold covered shoulder, grip and knob. Its wood scabbard is decorated with the large golden buttoms and the tubular golden plates, it has the gold fringed tassel and it is suspended with a leather belt covered with a golden sheet decoration.

A very Intersting reconstruction of an Achaean **A type** bronze sword is displayed at the *Mycenae* archaeological museum. The sword has been represented with a wood "horned" hand-guard and an amber knob

This type of early long sword was more likely used by the warriors depicted in the *Akrotiri* fresco dated around 1600 BC. Behind the warriors the lower part of a long scabbard is clearly visible. It ended with a fringed knob.

More likely a **A type** sword is represented in this seal from *Haghia Triada* Crete dated **MM III- LM I** ( about 1600-1550 BC). The warrior is using its long and narrow sword in a thrusting action.

In this seal from the shaft-grave III from *Mycenae* dated **LH I** (about 1550 BC) the warrior on the right side is thrusting his enemy with an **A Type** sword represented the typic "horned" flange.

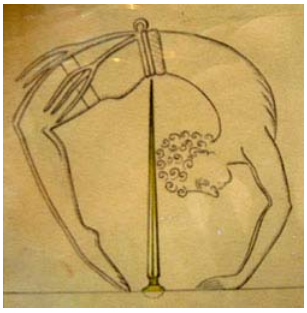
Also in this seal coming from the same shaft-grave an **A Type** sword is more likely represented. It is used in a thrusting action by the warrior on the left side. behing him the scabbard of the sword is also visible. It seems decorated with four small bands (or two ridged plates) and a lower tassel with fringed elements.

In this gold ring from the shaft-grave IV of *Mycenae* the warriors fighting in central position seem equipped respectively with an **A Type** sword (the warrior on the right side) and a **B type** sword (the warrior on the left side).

On this seal from *Knossos* dated **LM IA** (ABOUT 1500 BC) the goddess is represented with a long sword with "horned" shoulder and a knob. Because of its general design and the seal datation it is probably an **A type** sword.

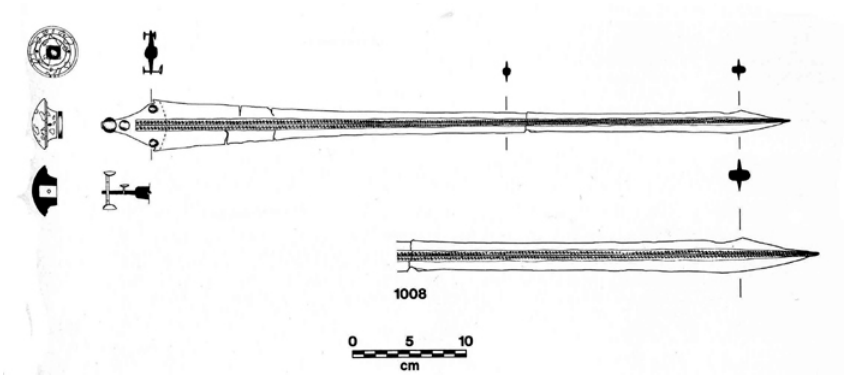
An **A Type** sword is probably also handled by this warrior represented in the "Chieftain cup" from *Haghia Triada* Crete dated **LM I** (about 1550 BC).

Also the two long swords used by the two warriors in the lions hunting scene represented in this gold ring from *Salonicos* dated **LH II** seem to be **A type** swords



An **A type** is probably also the one represented in this seal from *Mallia* showing an athletic performance.

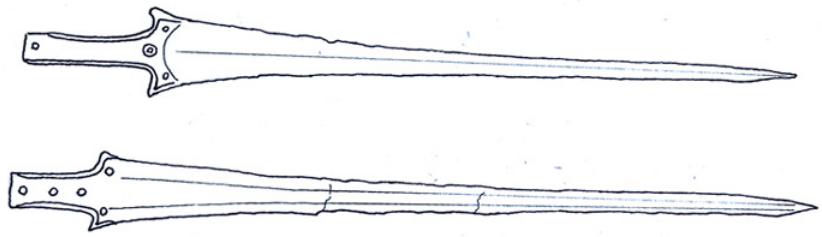
Some swords with the typic **A type** design survived untill the **LH III** period (about 1400 BC) as attested by this example found in Corfù



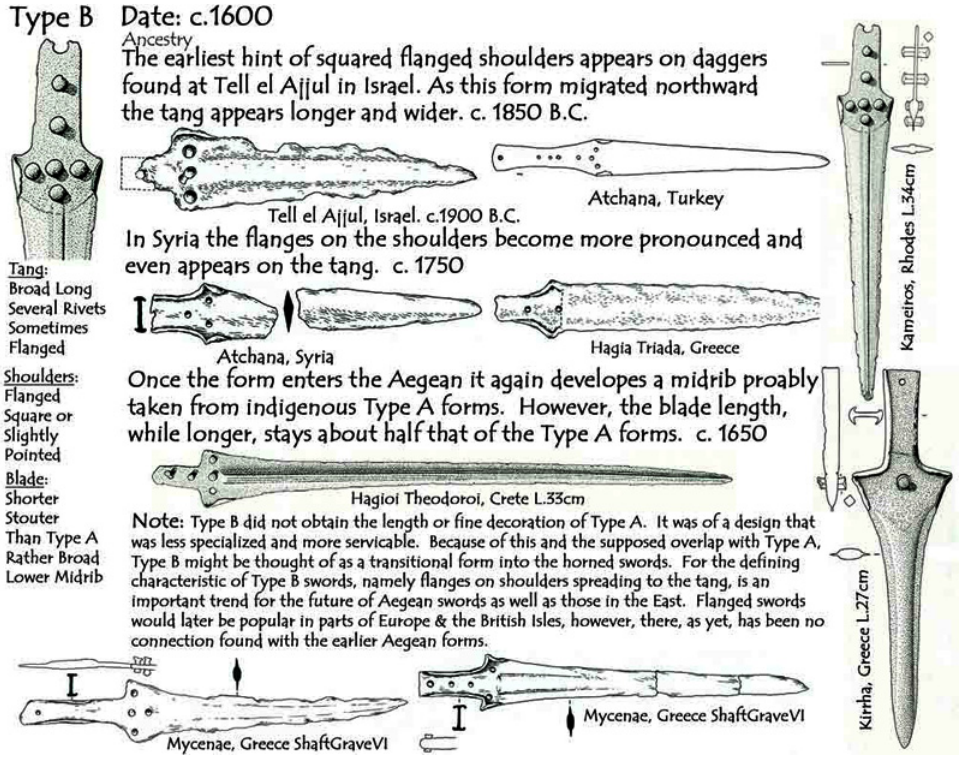

A very interesting bronze sword has been found in a tholos tomb in *Nichoria* (Messenia). This specimen dated around **LH IIIA** (about 1400 BC) because its unusual shape does not fit neatly into any of the categories. Indeed it shows some similitudes both with the **Type A** and **Type B** swords. The total length of the sword can be extimated in 69 cm with a blade length 60.5 cm. Traces of ivory have been found on hilt. A pomel of lapis lacedaemonius and gold plated rivest also survived. The midgrib is decorated with double line of running spirals decreasing in size from hilt to tip, a feature especially popular on **Type Ci** and **Type Di** swords from the *Zafer Papoura* Cemetery.

Outside the Greek mainland and Crete the **A type** swords are in fact attested in the Cycladic islands, in the Ionian islands and also in Central Europe, like this interesting specimen found in Transilvania.

**B Type**



The **B Type** swords are shorter and stouter with rather broad, long tangs, with several rivet holes in the tang, which is sometimes also flanged. They have square or slightly pointed flanged shoulders, and rivets placed horizontally across just below the top of the blade, with sometimes an additional river below the central one. The rib is usually abrupt as on the **A Type** sword but always larger and higher. This kind of sword is attested in the Argolid, mainly in *Mycenae*, and in the Dodecanese. The **B Type** swords measured 40 to 60 cm and are dated from **LH I** to the **LH II/IIIA-B**.



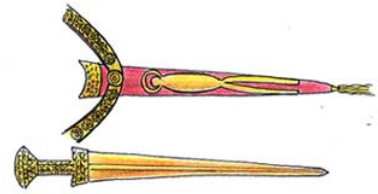

A very usefull summary table of the Achaean **B Type** swords has been made by Professor Kirk Spencer from the Sword Forum International

The **B Type** swords are well attested in the shaft graves of both cirle B and A from Mycenae dated around 1600-1500 BC. In some cases also these sword have been found complete with gold nails, gold hilts and part of the scabbards.

In one of the shaft-grave of the circle B from *Mycenae* dated about 1600 BC a very beautiful example of **B Type** sword was found. It has a richly decorated golden hilt, a round knob also made of decorated golden elements.

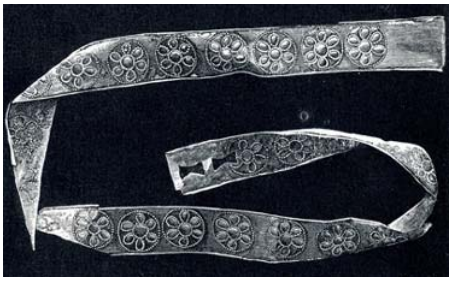
In the shaft-grave V from *Mycenae* dated about 1500 BC a very interesting example of **B Type** sword was found. It has a richly decorated golden hilt, a large conical knob also made of decorated golden sheets and a golden cover which was the upper part of the scabbard.

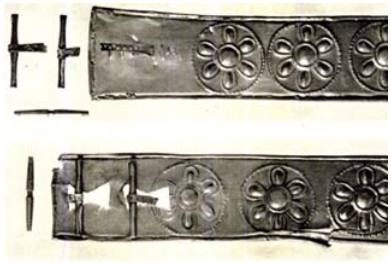
In the same sepulchre a **B Type** sword was found together wood remains of the sheath, which was ornamented with a long plate with a ring and much resembling the shape of a man. The sheath must have been further adorned with the golden button, with engraved concentric circles, which was found close to the blade and the wood remains.



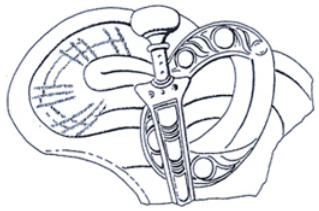
Based on the above mentioned elements a reconstruction of a Mycenaean **B Type** sword with its scabbard can be reasonably made. The bronze sword has a gold covered shoulder, grip and knob. Its wood scabbard is decorated with the golden buttoms and the golden plate much resembling the shape of a man, it has the gold fringed tassel and it is suspended with a leather belt covered with a golden sheet decoration.

Evidence of a golden decoration bands of some baldrics are also attested from the shaft-grave IV where three gold shoulder belts have been found. One was broad without any ornamentation, the other two had on either side a small border produced by the turning down of the gold plate, and were ornamented with an uninterrupted row of rosettes. These "*Telamon*" were about 140 cm (4 1/2 ft.) in length and 4 to 5.5 cm (1 7/8 to 2 1/3 in.) broad. Of course these kind of shoulder belts could also have been used for the shields suspension (see also the page dedicated to the body shields). Splendid baldrics are also attested in the Iliad (*2)





These thin gold bands have to be intended as the decorative elements of some thicker leather baldric. At one extremity of these belts there are two apertures in form of keyholes, which served to fasten the clasp which was attached to the other extremity, as is shown by two small cuts and a small hole. Of course as attested in other findings this fastening system was also used for the belts or in some other "*telamon*".
A sword *telamon* is also attested from the palace in *Pylos* (*2a)



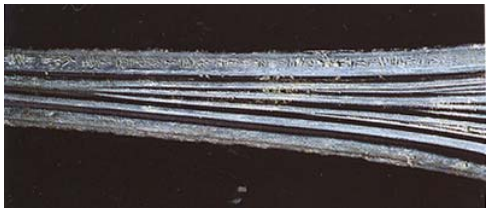
A **B Type** sword with large knob, relevant scabbard and decorated baldric it is probably the one represented in this stone relief from *Phaistos* Crete, dated 16th century BC

On a gravestone from the royal Shaft-grave V in Mycenae dated **LH II** (about 1500 BC) there is one of the earliest depiction of the chariot in Achaean art. This sculpture shows a single man driving a two-wheeled small box chariot. The man on the chariot holds in his left hand a sword which is still in the sheath. Because its general shape this sword is more likely a **B Type** sword.

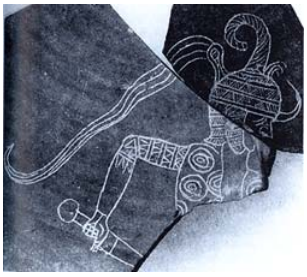
In this gold ring from the shaft-grave IV of *Mycenae* the warriors fighting in central position seem equipped respectively with an **A Type** sword (the warrior on the right side) and a **B type** sword (the warrior on the left side).

On a questionable seal stone from Creta dated around LM II (about 1500 BC) the warrior on the left is using in a thrusting action a sword which could be inerpreted as a **B Type** sword.

It has been suggested that this inscribed bronze sword dated around 1370 BC found at *Hattušas* Anatolian, is a Mycenaean **B Type** sword. The present independent investigation of the sword indicates that it may well be a variant of an Aegean **B type** sword, but might reflect Achaean influence rather than outright manufacture.



The inscription on the blade is dedicated to the god of the storm by the Hittite king **Tuthalia II** after the conquest of the *Assuwa* land (*3). A variety of evidence suggests that the sword must be interpreted in the light of events occurring some two hundred years prior the Homeric Trojan war. As recorded in contemporary Hittite documents It is possible that Ahhiyawa (Achaean) involvement in the *Assuwa* rebellion in 1400-1375 BC (see also the page dedicated to the Trojan war).

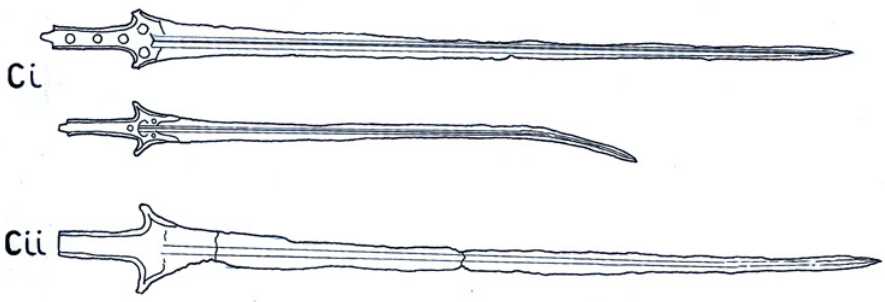


On this Hittite fragment of clay vessel from *Bogazkoy* dated around 1350 BC. there is a warrior, who because of his general outfit has been inerpreted by the scholars as one of the **Ahhiyawa** (Achaeans) warlord mentioned on several Hittite tablets (see also the page dedicated to the Trojan war) who has a long swords with upper knob on grip which could be identify as a possible Aegean **B Type** sword.

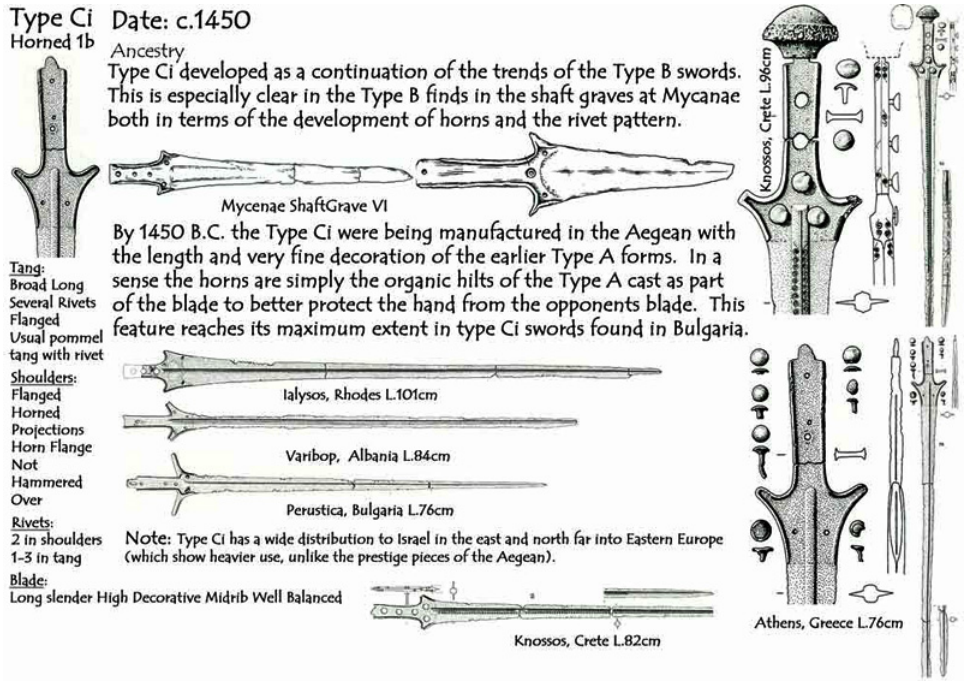
Long swords with upper knob on grip are also used by two warriors In this achaean krater from *Pyla-kokkinokremos* Cyprus dated **LH IIIB** Because their length and being the **B type** sword still attested in the Dodecanese area during this period, some scholars identify the swords represented in this vase as possible **B Type**. This crater also attested as in some cases (more likely in non-combat situation) the swords were also carried on the back.

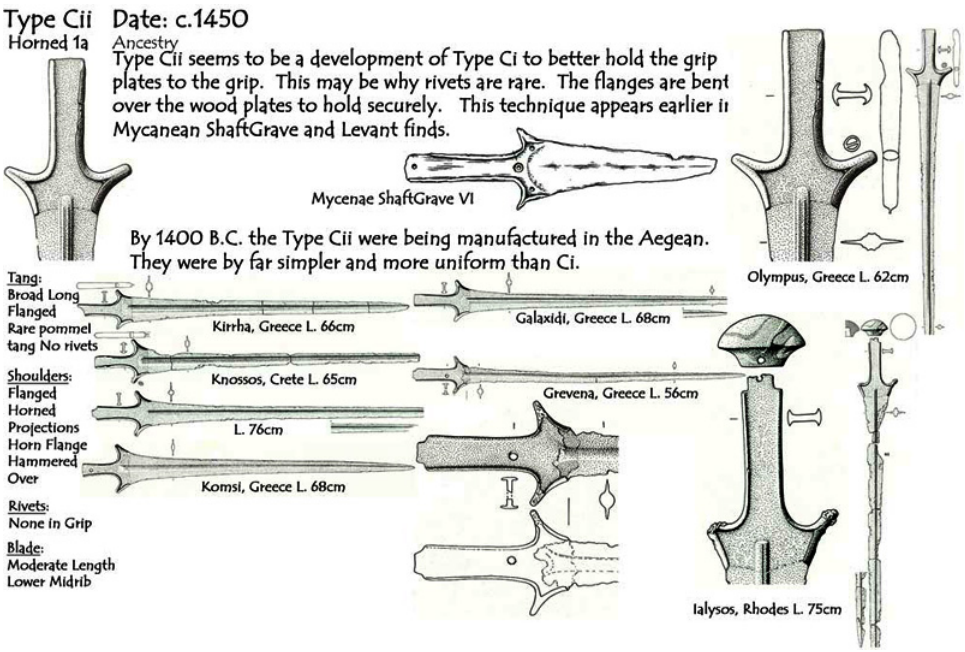
Outside the Greek mainland, Aegean islands and Anatolian some long swords similar in design to the **B Type** seem handled by the " Sea Peoples" **Shardana** as well represented in the "Sea battle" relief from *Medinet Habu* dated about 1180 BC. (see also the page edicated to the Sea Peoples).

**C Type**



The **C Type** swords are an improvement evolution of the **A Type** and **B Type**. These swords have a thin blade with an abrupt rib and long flanged lateral "horned" hand-guard turned upward. The **C Type** swords are subdivided in two groups **Ci** and **Cii** very similar and used in the same period. These swords are attested both in Greece mainland, Crete and Aegean islands, furthermore similar specimens have been also found in Central Europe. The **C Type** sword measured 60 to 90 cm (**Ci**) and 60 to 70 cm (**Cii**) and are dated from **LM/LH II** (about 1500 BC) to **LM/LH IIIA** (about 1350 BC).
A common misinterpretation of these swords is that they are suitable only for thrusting.Functional test conducted with replicas of the **C** and **D type** swords have instead demonstrate that these sword were designed and were effective to make lethal thrusts as well as cuts (*3a).

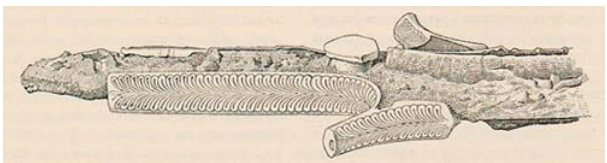



A very usefull summary tables of the Achaean **Ci** and **Cii Type** swords has been made by Professor Kirk Spencer from the Sword Forum International

A **Ci Type** sword dated **LH IIB** has been found in the *Phaistos* Crete " Tombe dei Nobili". This sword is 43 cm long.

The hilt and the horns of the above mentioned sword from *Phaistos* are decorated with an engraved gold lamina. A gold application is still present on one of the bronze rivets of the handgrip.

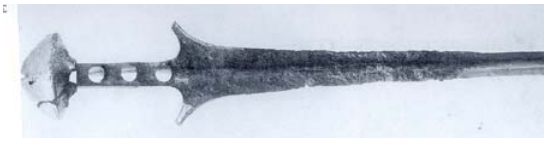


A well preserved **Ci Type** sword dated around 1400 BC is attested from the funeray building 3 in *Archanes* Crete.

Another beautiful specimen of **Cii Type** sword from Crete with the relevant ivory upper knob.

**Ci Type** sword with gold rivets dated around 1350 BC from the palace of *Knossos* Crete.

**Ci Type** sword from *Knossos* detail of the grip with the gold rivets and the upper knob also fixed with a small gold nail



**Ci Type** sword from *Dendra* dated around 1400 BC with gold-plated bronze nails and ivory upper knob.

**Ci Type** sword from tomb 46 in *Kydonia* Crete dated **LM IIIA1** this specimen is 83 cm long.

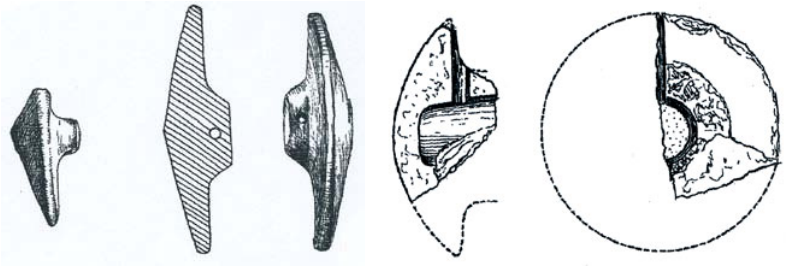
**Ci Type** sword from tomb 46 in *Kydonia* detail of the grip with gold rivets and rind and the upper ivory pommel.

Together the above mentioned sword some remains of a leather scabbard have been also found. Based on some very schematic pottery representations a fringed leather sheath can be reasonably supposed.

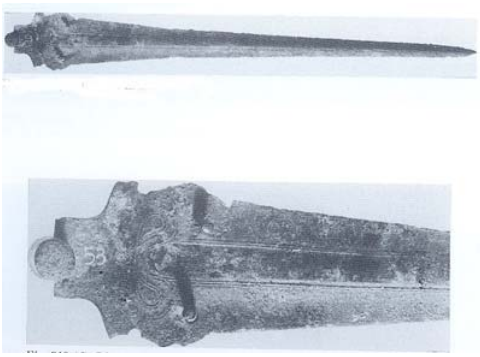
Another interesting **Ci Type** sword from *Athens* dated around 1400 BC.

Very beautiful example of Achaean swords' pommels dated around 15 Century BC. These specimens are made of Marble (94,95); Ivory (96, 96a); and Lapis Lacedaemonius (97).

Other examples of Achaean swords' pommels in Ivory and marble have been also found in the Late Helladic palace of Athens on the Acropolis.

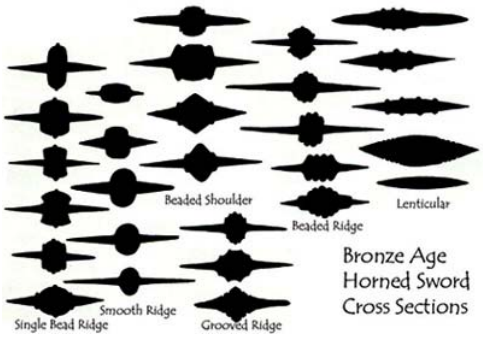


**Cii Type** sword from *Achaea* dated **LH IIIA-B** (about 1350 BC) . The mounting os its hilt was fastened by three rivets, one on each side of the midgrib low down in the blade, and one near the middle of the grip.



Another **Cii Type** sword from *Achaea* also dated around 1350 BC. This specimen is incomplete having the tang and "horns" broken. The tang of this sword is slightly flanged and has one large rivet, while two rivets are placed low down in the blade and two rivet holes are visible at the base of horns. Its narrow, flattish midgrib is decorated with two pairs of finely incised lines down the blade's length, and forming a delicate knot-like design in the space between the four rivets of the handguard.

**Cii Type** sword from *Mount Olympos* dated **LH IIB- LHIIIA** (about 1450-1300 BC)



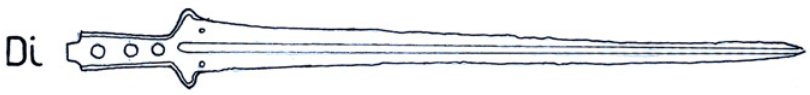

A table showing the **C Type** blade cross section was also made by Professor Kirk Spencer.

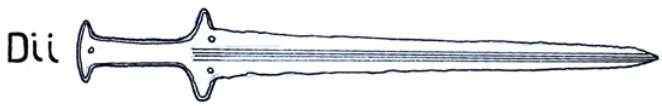
**C Type** swords are more likely attested in this seal from *Athens* dated **LH II-LHIII** (about 1450-1300 BC). It seems that this is the first representation of achaean warrior fighting both with the same type of weapons.

A **C Type** swords (blade up) is more likely also attested in this seal from *Naxos* dated **LHIII C** (about 1200 BC). Probably this is one of the latest representation of a **C Type** swords.

Outside the Aegean area the swords with closer similarity with the **C Type** are also attested in the Balcanian area as Romania, Bulgaria and Albania, like for instance this specimen from Romania dated 14th Century BC.

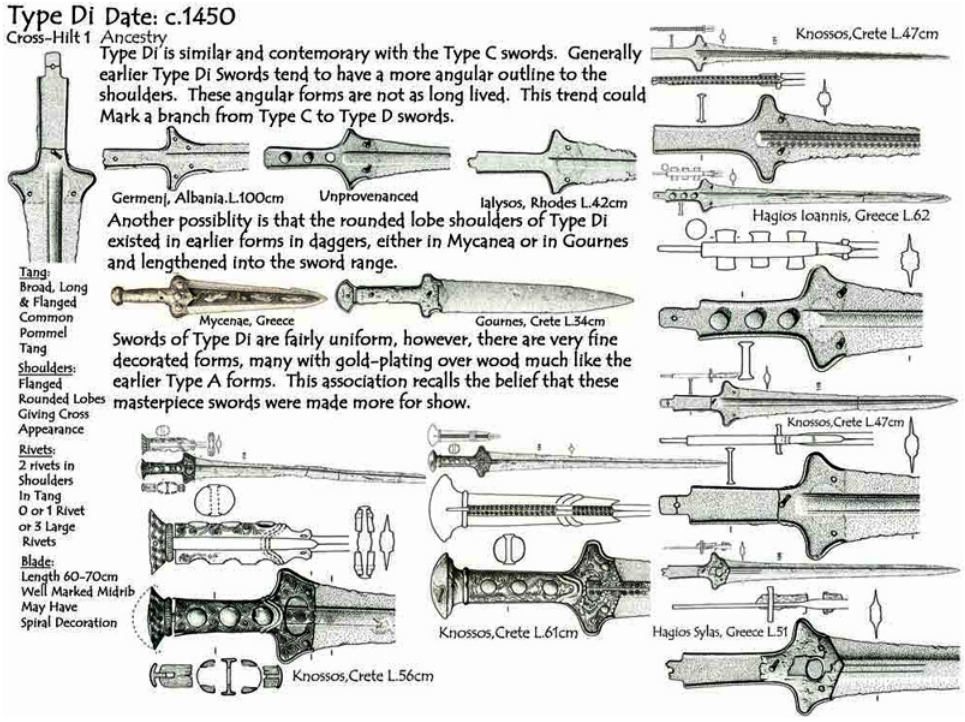
**D Type**

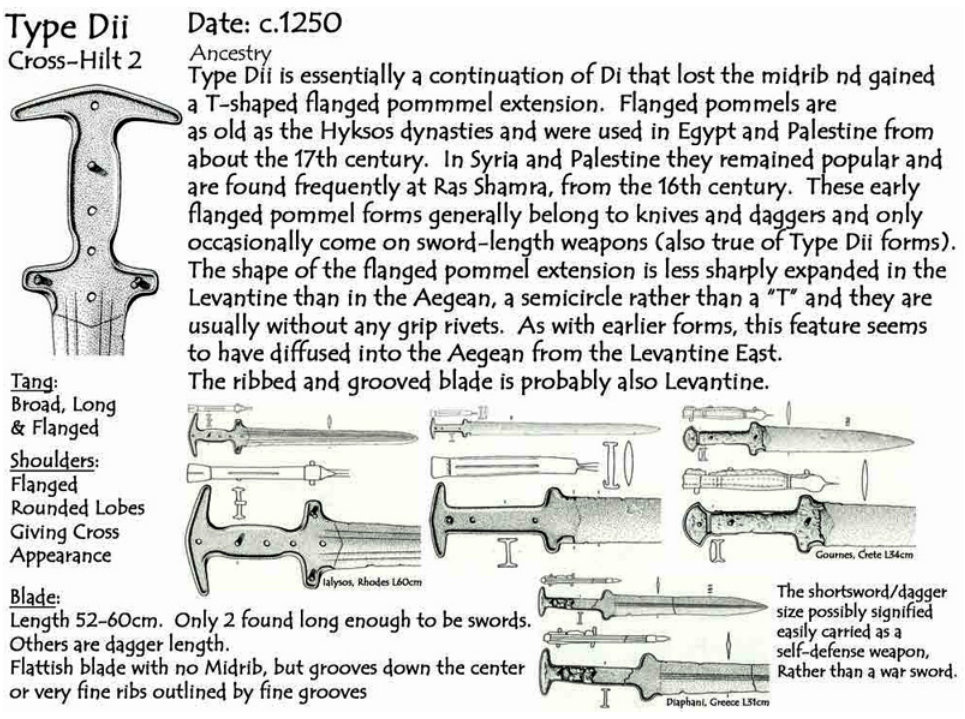


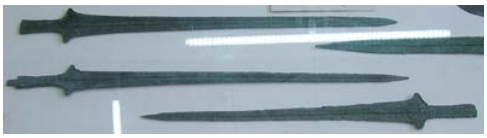
The **D Type** swords also known as "cross swords" have rounded lobe shoulder. Also the **D Type** swords are subdivided in two groups **Di** and **Dii**. The ones of the first group have a thin blade with a well raised round section rib. Both the shoulder and the tang are flanged. The tang extension for pommel fixation it is instead not flanged. The **Dii Type** is a continuation of the **Di** the central raised rib is replaced by thin grooves, these type of sword have a T-shaped flanged pommel extension. This part was normally integrated with ivory, bones or wood plates eve if gold decoration are also attested. The **D Type** swords are attested in Crete in the Greece mainland and in some Aegean islands like Cos and Rhodes.

The average length of these swords is 60-70 cm (**Di**) and 30-60 cm (**Dii**). The **Di Type** is dated from the same periods of the **C Type** thus from the beginning of the XV century BC till the beginning of the XIV century BC. The **Dii Type** are dated **LM/LH IIIA2** (about 1350 BC) to **LM/LH IIIB** (about 1300 BC).
Also in this case a common misinterpretation is that these swords were suitable only for thrusting. Functional test conducted with replicas of the **C** and **D type** swords have instead demonstrate that these sword were designed and were effective to make lethal thrusts as well as cuts (*3a).



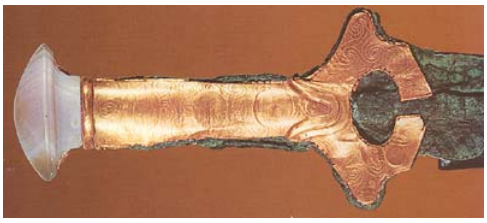




A very usefull summary tables of the Achaean **Di** and **Dii Type** swords has been made by Professor Kirk Spencer from the Sword Forum International



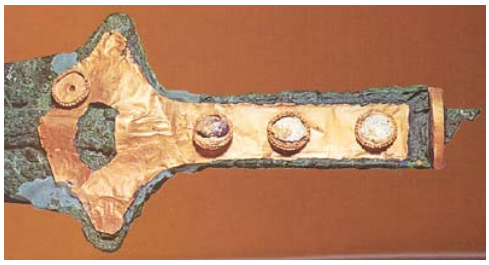
**Di Type** swords from the palace of *Knossos* Crete dated around IV century BC.

Interesting example of **Di Type** sword from *Thebes* with the golden nails still attached on the tang and a ring part of the upper knob. Swords with gold nails are also attested in the Iliad (*4)



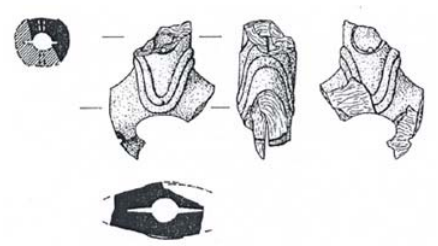
**Di Type** sword from *Mycenae* with gold dated around 1350 BC with a marvellous gold covered hand-grip.

Another very beautiful **Di Type** sword from *Mycenae* with tang and shoulders coverd by golden plate and silver nails.
Swords studded with silver nails are also attested in the Iliad (*5)



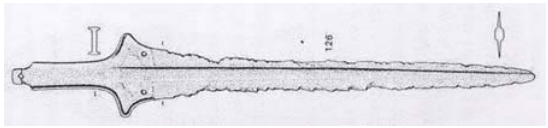
A very well preserved faience imitiation of a **Di Type** sword hilt with gold inlays, and fragment of the gold revetment of a sword hilt from *Mycenae* chamber tomb 102 dated around 1400-1350 BC .
Similar sword hilt is but in dark blue faience is also attested from the *Mycenae* acropolis. An exaustive article about these and other "glass" elements in the Achaean weaponry has been published by Dott. Georg Nightingale (*5b)

Coming from tomb 81 in *Mycenae* dated around 1400-1350 BC it is this Ornate agate sword hilt with inlayed gold disks. Also in this case its general shape remind the typic tang and shoulders of a **Di Type** sword.



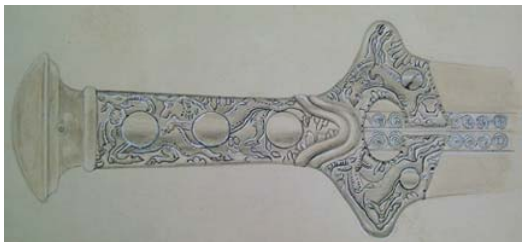
A fragment of a cruciform marble hilt was found at the Unterburg of *Tiryns* dated around **LH IIIB**. This fragment is very important as the preserved hole in the grip for the blade, with an oblique perforation for a rivet to fix the hilt to a blade, clearly demonstrates that this hilt was functional and was intended to be mounted on a blade.

A **Di Type** sword has been excavated from Tomb 6 or 7 in the cemetery at *Eleonora* Kos dated to **LH IIIB-LHIIIC**. The sword has a pommel-tag extension with a rivet hole and two further rivet holes in the shoulder area below the cross-piece of the hilt.



**Di type** sword dated around 1350 BC from *Aghios Jannis* Crete.

Decorated Hand-grip detail of a **Di type** sword from *Knossos* dated around 1350 BC.



**Di type** sword with golden hilt dated around 1350 BC from *Sanatorium* Crete. This sword has been found together a decorated ivory element part of the scabbard and a gold pin of the baldric fastening system.

Based on the above elements a decorated scabbard for a **Di Type** sword with ivory plate application can be reasonably hypotized.
An ivory sheath is also indicated by Homer according to which **Odysseus** received from a Phaecaean, as an atonement for a slighting word, a bronze sword with a sheath made of ivory (5a*)



Ivory elements probably upper part of sword's scabbard or hand guards of ivory votive swords.These two examples are from *Mycenae*

An Ivory votive sword similar to **Di Type** is attested in *Mycenae*.

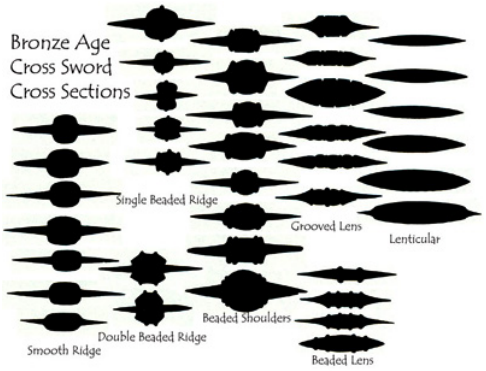
**Di type** sword with similar golden hilt dated around 1350 BC has been also attested in *Knossos*.

Well preserved example of **Dii type** dated around 1350 BC.

**Dii type** small sword from Crete dated around 1300 BC. Parts of the ivory hand-grip are still present on the grip.

Another example of **Dii type** small sword also dated around 1300. On the blade very fine ribs outlined by fine grooves are present.

A table showing the **D Type** blade cross section was also made by Professor Kirk Spencer.



On this seal from *Vafiò* dated **LH II** a warrior with a shield in figure of eight is fighting against a lion using a probable **Di Type** sword.

**Di type** sword is also represented in this seal from unknown provenance dated **LH II/III**. The shoulder shape of this sword not completelly rounded is similar to a **Di Type** sword from the chamber grave 78 from *Mycenae* and the one from *Mavrospilios* Crete.

A **Di Type** sword is more likely also represented on this seal dated **LH IIB**. In this seal a shield in figure of eight and a crested helmet are also well represented.

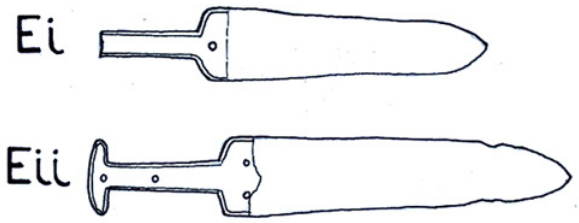
In this other lion hunting scene on a seal from *Mycenae* dated **LH II/III** a warrior is bearing a **Di type** sword. The relevant scabbard with fringed elements is also well represented.

Because of its short blade a **Dii Type** sword is more likely represented on this seal from Crete dated **LM II/III**.

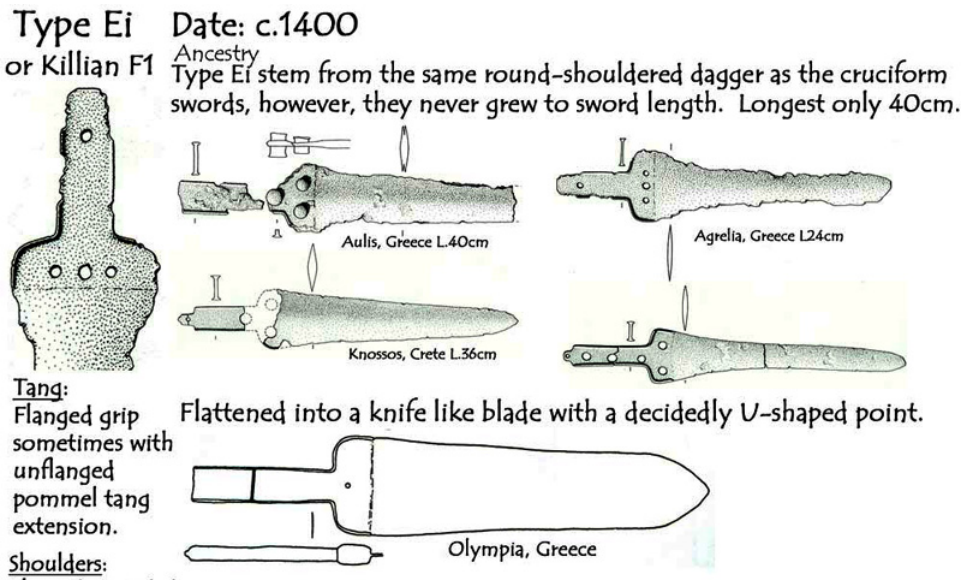
Another **Dii Type** sword is probably shown in this seal from *Mycenae* dated LH IIIA-B. The scene represent a goat sacrifice.

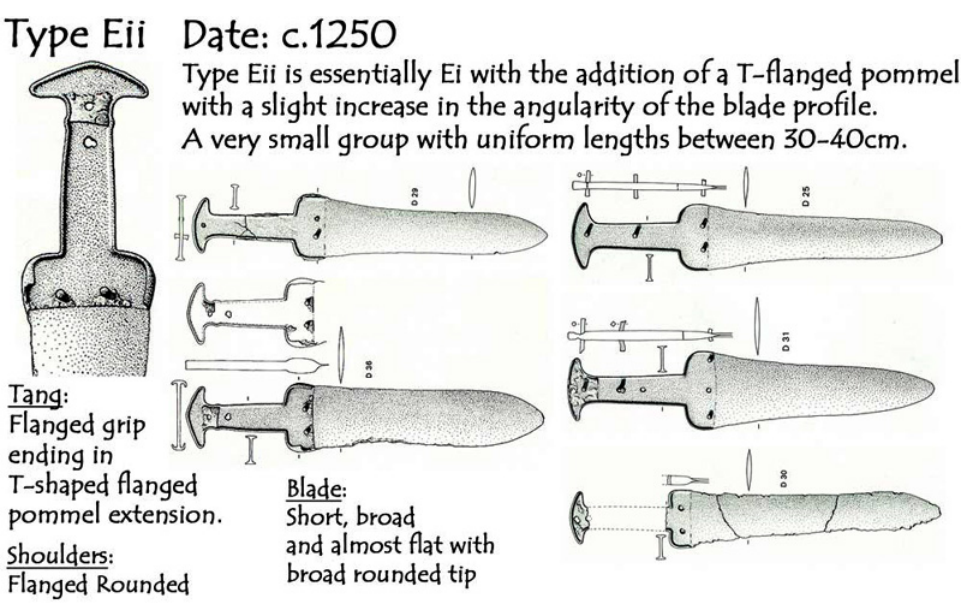
A **Dii Type** sword with a very anomalous length is well depicted in this fresco dated 1300-1250 BC representing a cult scene from the Cult Centre Room of *Mycenae* .

**E Type**




Also the **E type** swords are subdivided in two group the **Ei** and **Eii** both for type and chronology. These swords are short like a dagger with a large and flat blade. The shoulders are rounded as well as the point. In the group **Ei** the tang and the shoulders are flanged but without the pommel extension. The ones of the group **Eii** the tang ended with a T-shaped flanged pommel extension similar to the **Dii Type** swords. Both these swords are attested in Crete in Greece mainland and in the Dodecannese area, they measured about 30 cm (**Ei**) and 30-40 cm (**Eii**). The **Ei** swords are contemporary of the **C** and **D** swords while the **Eii** are attested in the same period of the **Dii** but is it not clear if these swords had been also used during the XIII century BC.




A very usefull summary tables of the Achaean **Ei** and **Eii Type** swords has been made by Professor Kirk Spencer from the Sword Forum International

A possible precursor of the **E Type** sword is this short bronze sword dated 1500-1450 found in *Kydonia-Chania* Crete

**Ei Type** sword from unknown area dated around 1300 BC this short bronze sword is long 24.3 cm.

Bronze sword from *Aghia Triada* also this specimen shows similarity with the Ei Type swords

**Ei Type** sword from *Mycenae* dated around 1300 BC

Achaean bronze **Ei Type** sword from a greave found in Thessaly dated around 1300 BC.

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Bronze sword with closer similarity to the **Ei Type** from *Knossos* dated around 14th century BC

.

Another **Ei Type** Bronze sword from *Knossos* also dated around 14th century BC

Gold revetment with engraved spiral decoration. From tomb 88 from *Mycenae* dated around 14th century BC. This handgrip was probably used on a **Ei Type** sword.

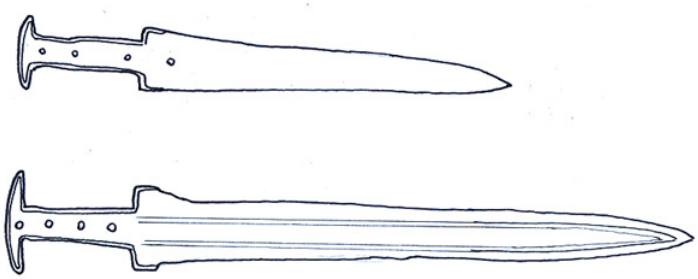
Two Achaean bronze **Ei Type** swords from the cemetery in *Asine* These specimens are dated around XIV Century BC.

Achaean bronze **Eii Type** sword from Crete dated around 1250 BC.

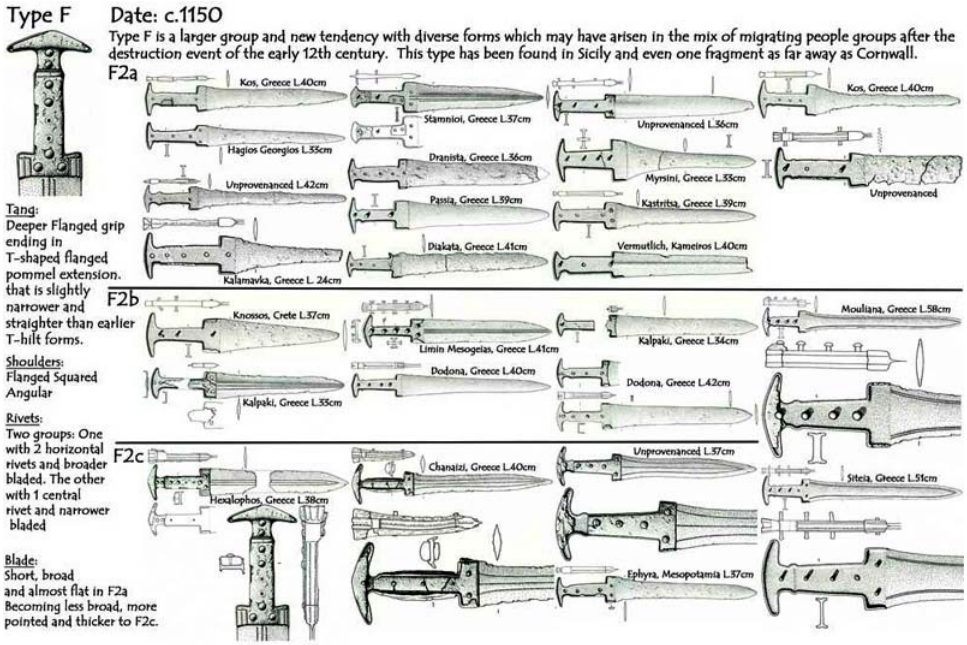
Bronze sword **Eii Type** 31 cm long from unknown area. Similar examples of sword are recorded from several Greek Late Bronze Age sites, ranging in date from **LH IIIA** to **LH IIIC.**

Achaean bronze **Eii Type** sword from *Phylos* dated around 14th century BC.

**F Type**



The **F Type** swords have square shoulders and flat blade, with longitudinal groves. The flanges are deeper and the T extension is more narrow and straight than the previous type of swords. The **F Type** is a large family with several different forms which can be subdivided into three main group based on their general design and shape the **F2a**, **F2b** and **F2c**. These kind of swords are attested in Crete, Greece mainland, Aegean islands, Sicily and even in Cornwall. The **F Type** have an average length of 30-40 cm even if also specimens up to 50-60 cm have been found. This sword are dated from the end of the 14th century BC till the XII century BC. During the final phase of the achaean period the standardization of the swords decreased and new hybrid form appeared. also the tendency to have shorter blade seem to be supersede as attested by the longer specimens of the **F Type**.




A very usefull summary tables of the Achaean **F Type** swords has been made by Professor Kirk Spencer from the Sword Forum International

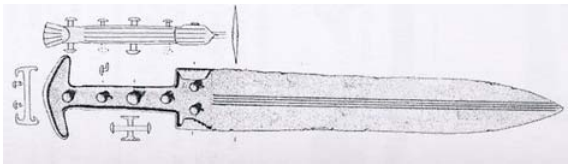
Two **F2a Type** swords from Crete dated around 1200 BC

well preserved **F2c Type** sword from the Tomb II of *Phatsi* Crete dated about 1200 BC. Partof the ivoty hand-grip are still present on the tang.

Bronze **F2b Type** sword from *Knossos* dated XIII-XII century BC

Similar **F2b Type** sword from always from Crete dated XIII-XII century BC

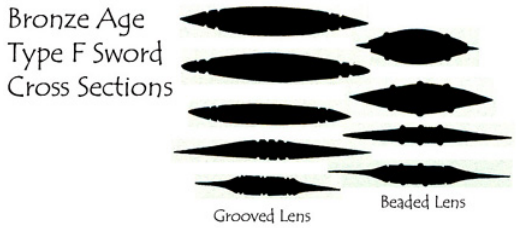
A specimen of **F2c Type** with a well preserved grooved lens has been found from a cemetery excavated In a warrior burial dated 13th-12th Century BC on *Liatovouni* hill, which rises from the *Konitsa* plain in north west of Greece mainland.



Example of **F2b Type** sword 40.6 cm long has been also found in the tomb 38 from *Perati* dated 13th-12th Century BC. It has a very deep plange and a narrow pomel, the blade has four narrow ribs running down the middle in place of the midrib. It has a characteristically T-shaped pommel and square shoulders. Two rivet holes are found on the shoulder area, while four others are located on the handle, two of which are decorative.

Beautiful examples of **F2c Type** swords has been found in the tomb 1 at *Kouvaras* near the town of *Amphilochia* dated **LH IIIC**. The sword still has some remains of ivory in the hilt. This specimen has been found together a **Naue II** sword with the hilt wrapped by a gold wire, a knife and a pair of greaves (see also the page dedicated to the greaves).

Beautiful reproduction of a **F2c Type** sword with wood hand-grip made by Peter Connolly (*6)



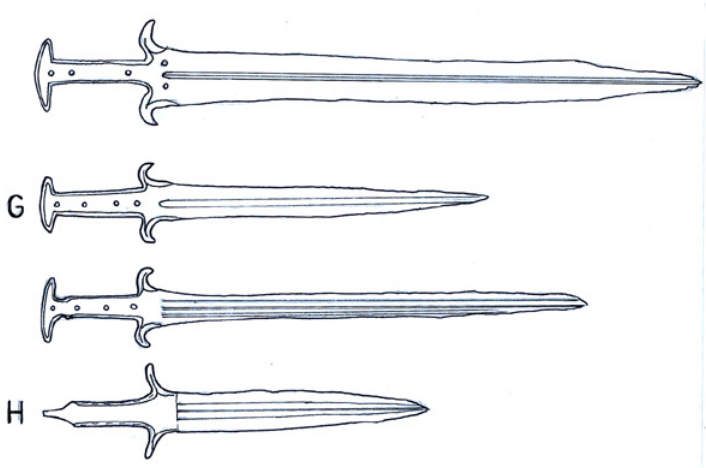

A table showing the F Type blade cross section was also made by Professor Kirk Spencer.

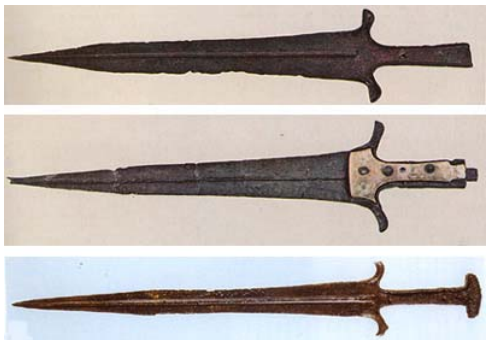
The short variants if **F Type** sword are probably handled by the warriors depicted on these three frescoes from *Phylos* dated around **LH IIIB** (about 1300 BC)

An horse mounted warrior, represented in this Achaean krater fragment from *Minet el Beida* Syria dated **LH IIIB2** (about 1250 BC), is probably armed with a **F Type** sword.

An Aegean **F Type** sword dated around 1300 BC is also attested in the Anatolian area of *Miletus*. Several archaeological finding attested the Achaean presence the settlement of *Miletus* as also confirmed by the Hittite diplomatic tables referring to the **Ahhiyawa** (see also the page dedicate to the Trojan war)

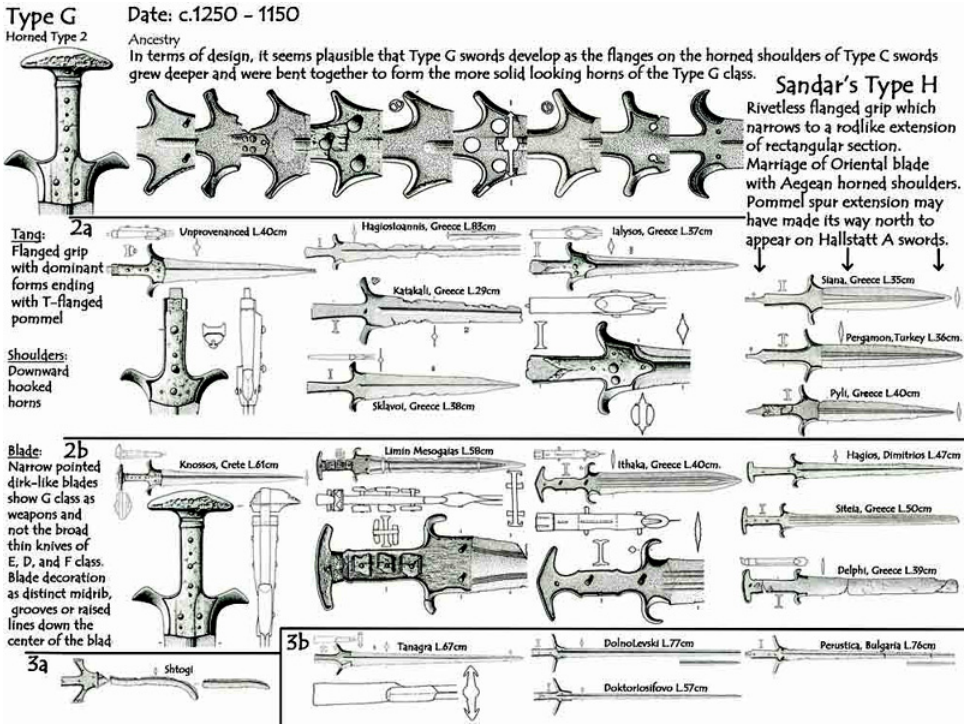
**G and H Type**



The **G Type** is also subdivided in two main group the **G2a** and the **G2b**. Both the variant have the shoulder ending in a downward curved horns. In the first variants these horns are thick and just slightly bended, in the later variant the horns are thinner but more curved. The blade in the **2a** variant has a rib while in the **2b** only some groves are present. In both the version the tang ended in a T flanged shape. These sword are attested in Crete and Greece mainland. The **G Type** swords measured from 40 to 60 cm (**2a**) and from 48 to 57 cm (**2b**). These kind of swords are normally from the same period of the **F Type** even if the **2a** can be dated during the **LH IIIA** and the **2b** during the **LH IIIB-C**.

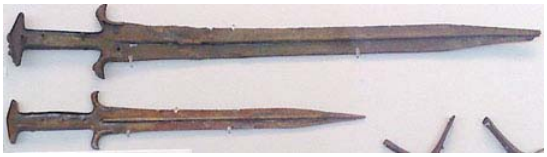
The **H Type** is a limited group of sword also known as "Siana Group" being one specimen found in *Siana* Rhodes island. These swords have an almost flat section blade with narrow groves. The shoulders have lateral horns and the tang is flanged with an upper extension for the knob. Specimens of this kind of sword have been also found in *Pergamos*, *Ras Shamra* and *Atchana*. The example found in *Siana* and *Pergamon* have a length of 34-35 cm while the specimes from *Ras Shamra* and *Atchana* are longer: 46-50 cm. The **H Type** swords can be considered the last with a typical Aegean features, in fact at the beginning of the 1200 BC a new type of long sword coming from the north/central Europe appeared the as called **Naue II** which will replace mostly of the local swords starting the development of the upcoming iron swords.




A very usefull summary tables of the Achaean **G Type** and **H Type** swords has been made by Professor Kirk Spencer from the Sword Forum International

Early example of **G2a Type** sword with large midrib on blade from Crete dated 1350 BC

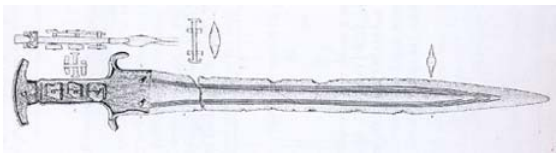
Well preserved specimen of **G2a Type** sword from *Knossos* Crete dated around 1300 BC. This specimen is 60.9 cm



Two beautiful specimens of **G2a Type** sword from *Mycenae* dated around 1200 BC

Other examples of **G2a** swords from *Syme* Crete also dated around 1200 BC. Parts of the wooden handgrip are still present on the tangs.

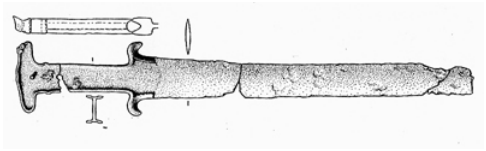
Bronze **G2a Type** sword from *Sanatorium* Crete dated XIII century BC. The ivory parts of the handgrip are sill well preserved.



Interesting late example of **G2b Type** sword 58.2 cm long from Tomb 12 in *Perati* dated XIII-XII century. Its T-shaped pommel has narrow base with traces of gold foil; the handle has fragments of three ivory plates on each side held together with four rivets. The blade is leaf-shaped with a curved back and decorated with triple bands running parallel with the sides of the blade, wihich narrows along the last third of its length.

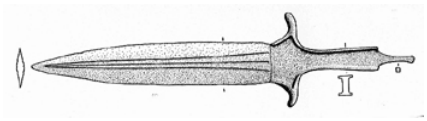
well preserved example of late **G2b Type** sword from *Ithaca* dated around 1200 BC.

Based on the above specimen Peter Connolly on his book (*6) made a fully reasonable choice giving to **Odysseus** a late **G2b Type** sword.



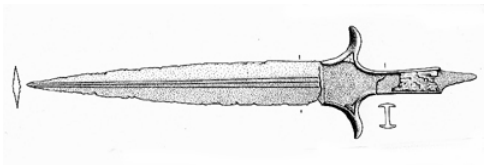
Unusual **G2b Type** sword with narrow and flat blade from *Delphi*. The remain of this sword is 38.6 cm long

Interesting reconstruction of a **G2a Type** sword with wooden hadgrip.

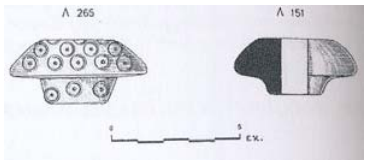


**H Type** sword from *Siana* Anatolia dated around 1200 BC. This example is 34.5 cm long.

**H Type** sword from *Pergamon* Anatolia dated around 1200 BC. This example is 35.8 cm long.



**H Type** sword from *Phyli* dated around 1200 BC. This specimen is 40.2 cm long.

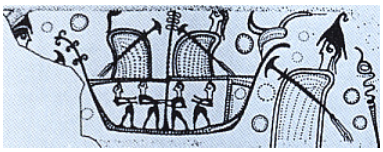



Two pommel fragments of unidentify swords have been also found in Tombs 165 and 137 from *Perati* dated **LH IIIC**. These were hemispherical in shape and made of a soft stone.

In this Achaean krater fragment from *Ras Shamra* Siria dated about 1350 BC two warriors are represented with two sword inserted in fringed scabbards. The sword on the left side has the "shoulders" oriented downward and it can be inerpreted as a **G2a** while the sword on the right with its "shoulders" oriented upward it is probably a **H Type** sword.

A **G Type** sword seems also depicted in this other krater fragment from *Enkomi* Cyprus also dated around 1350 BC. In this representation the sword's baldric is also visible.

**G2a Type** swords are represented in this scene on a pottery from *Ugarit* Siria dated around 1320 BC. Also in this case the swords are inserted in the relevant scabbards with fringes on the lower end.

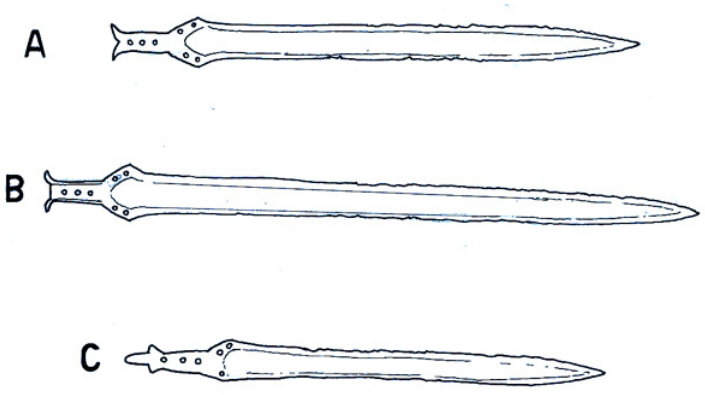


Also in this naval scene depicted on a pottery from *Enkomi* Cyprus dated 1300 BC both the **G2A Type** and **G2b Type** are probably depicted. Fringed scabbards are again attested.

An **H Type** seems also represented in this pottery from *Paleepaphos-Skales* Cyprus dated around 1000 BC.

Some scholars identify as **H Type** some of the short sword handled by the Sea Peoples in the land battle scene represented in the Egyptian relief at *Medinet Habu* dated around 1180 BC (see also the page dedicated to the Sea Peoples).

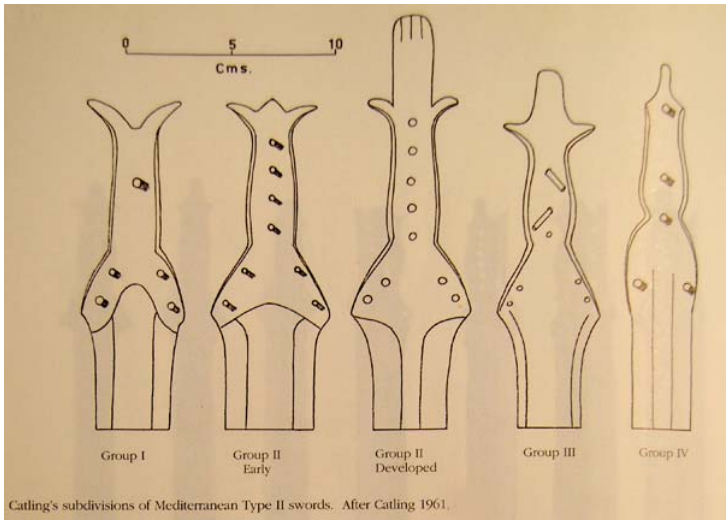
**Naue II Type**




The Naue II, also known as the grip-tongue sword, was one of the longest lasting of all sword types. First appearing in the late Bronze Age it lasted well into the Iron Age, a span of 500-700 years, and it was made both in bronze than in iron. As early as 1450 BC in northern Italy smiths came up with this early type of a sword now known as the Naue II. This was a sturdy sword of a style known as cut-and-thrust being suited for both, although the Naue II was more designed for delivering a powerful slash. It spread first into central Europe, Scandinavia and the British Isles. By 1200 BC it had spread to Greece, Crete, the Aegean Islands, the Levant, Palestine and Egypt. It was quite popular in Greece and the Aegean, but it is in Central Europe that the greatest number has been found. In all these areas it was the standard sword until the 7th C. BC with iron replacing bronze, but still the same basic design.

The Naue II ranges from 50-85 cm in length with many falling in the range of 60-70 cm. Most had straight sides until narrowing to the point, but a few in both bronze and iron swelled slightly towards the tip giving them a leaf-shape. Some had midribs, often consisting of most of the blade's width, others were lens-shaped and a few diamond in cross section. All were intended to have a good edge. The hilt (tang) was flanged and the hilt plates were set within the flanges and riveted. Held in place by both flanges and rivets. Three main group of Naue II can be identify the **Group A Group B Group C**. In the first one most of the blade's cross section was fairly thick, but it thinned considerably at the edges. It must be pointed out that blades with a lens-shaped or diamond cross section thinned gradually throughout their width and did not have such a dramatic transition. The I-beam above the hilt illustrates the flanges that helped to keep the hilt plates in place. Seven rivets were fairly common. However, some had as few as three and others as many as nine. The second group the transition throughout the blade's cross section is not as dramatic it being more lens-shaped. The fishtail or ears at the end of the hilt are also less dramatic. Eight rivets were generally used on this one to secure the hilt plates. The third group it also have a relatively thick cross section which thins hardly at all until the edges themselves. Normally Seven rivets were used to secure the hilt plates. The section projecting past the grip portion of the hilt (I'll call it a tab) must have been for a pommel. Since there is no rivet hole in the tab the pommel must have been secured in some other fashion.

On the basis of Cowen's study of European swords (Cowen 1955, 52ff), Catling devised the **Naue II** swords in four groups based on the criteria of the shape of the hilt, particularly the pommel, the placing of the rivets and the presence of "blood chanels" or ridges.
The **Group I** have a fish-tail hilt, five to eight rivets and "blood chanels" related to the "Nenzingen group" of European origin.
The **Group II** are consideed to be an Aegean version of the "Nenzingen group". They differ from Group I in that a spur was added to the centre of the pommel and in that they are larger and have ridges instead of "blood chanels".
**Group III** sword were consideed to represent a second wave of northern influence; smaller in size and with "blood chanels" instead of ridges, they partly overlap and continue later than swords of Group I.
The swords of **Group IV** developed out of Group III and they "lack homogeneity" and have no direct connection with the sword smiths of Europe.



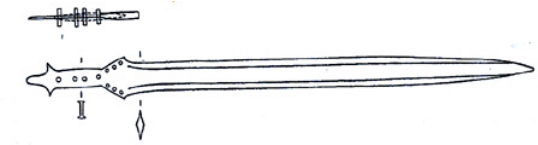
Catling's subdivisions of Mediterranean Type II swords. After Catling 1961.

In the Greece mainland the earliest securely datable element belong to a **Naue II** sword is this ivory hilt plates found in the cult centre at *Mycenae* dated around **LH IIIB** (about 1300 BC). The introduction of **Naue II** swords into the Achaean weaponry and their gradual prevalence must have marked a significant change in combat technique.

Achaean **Naue II Group A** and **Naue II Group B** bronze swords from *Kallithea* dated 1200 BC

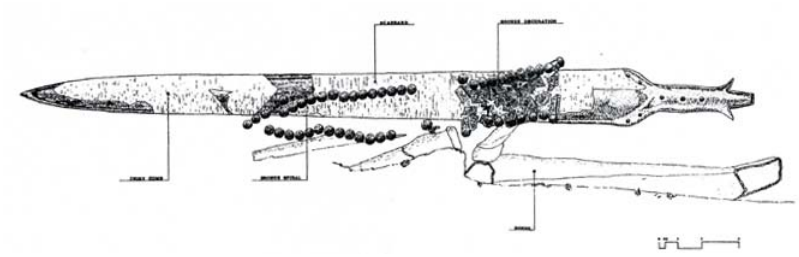
Well preserved specimen of Achaean **Naue II Group C** sword from *Mycenae* dated around 1200 BC

Beautiful examples of **Naue II** swords excavated in the tomb 1 at *Kouvaras* near the town of *Amphilochia* dated **LH IIIC**. The sword has a gold-wired wrapped around the hilt. This specimen attested as the swords decorated with precious ornaments were still use by sthe high rank warrior also during the final phase of the Late Helladic period.

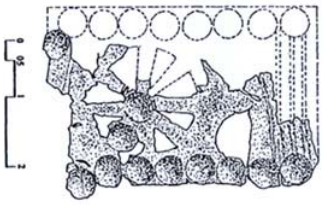


Bronze **Naue II Group C** sword from an Achaean tomb at *Palaiokastro* Arcadia dated **LH IIIC**.

Bronze **Naue II Group C** sword found in an Achaean warrior tomb at *Krini* near Patras dated **LH IIIC**.

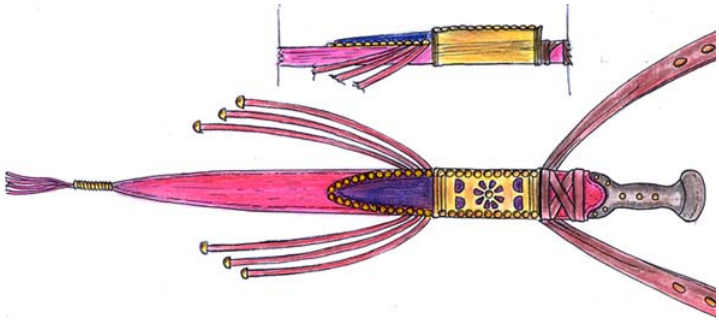


Together with this sword some bronze decorations belong to a small sheath attached to the upper part of the sword's scabbard have also been found. This scabbard was made of wood and covered with leather.



The small sheath was decorated with cut out thin bronze strips and studs. The decoration consists of an eight-spoked wheel made of bronze strips, cut out semicircles, and rectangular bronze pieces with repousse ridges. This sheath was probably used for a dagger or a knife.

A small bronze spiral was also found this was more likely part of the scabbard and it was probbably placed at the end of the shealt as ornament or for fringes retainer.

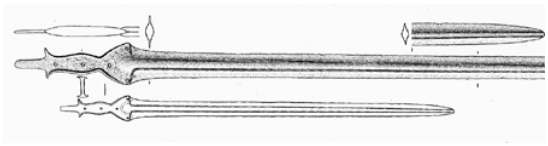


Based on the above mentioned elements the **Naue II** sword's scabbard of the *Krini* tomb can be reasonably reconstructed. The small sheath for the dagger was directelly attached in the upper frontal area of the scabbard. This system is also confirmed in the Iliad where **Agamemnon** brings his daggers attached to the sword's scabbard (*10). The scabbard was also decorated with fringes as well attested in several pictoral representations. The fringes ended with small bronze bosses similar to the ones found in some late Achaean warriors' graves.

Achaean **Naue II Group C** and **Naue II Group A** sword from Crete dated XIII- XII Century BC.

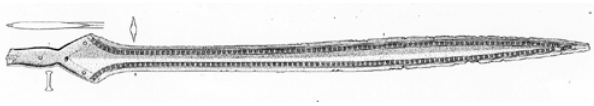
Achaean **Naue II** sword from *Sparti* dated 1200-1100 BC

Achaean **Naue II Group C** sword from dated XIII- XII Century BC. This sword is 77 cm long.



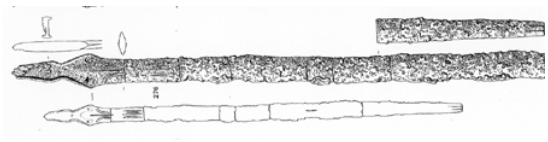
Similar **Naue II** sword from *Portes* dated 1200-1100 BC. This sword has been found together a pair of greaves, a "tiara like" helmet a spear point and a knive. (Moschos)

**Naue II** sword from unknow provenance dated 1200-1100 BC. This sword has the balde decorated with small spirals and it is 64.3 cm long



A short variant of Late Achaean iron **Naue II** sword is attested from *Tiryns* from a grave dated around 1050 BC. The sword is 31 cm long with a scabbard made of wood, large part of which are preserved.

Iron **Naue II** sword from *Athens* from dated around 1050 BC. The sword is 81.5 cm long.



Iron **Naue II** sword from Crete dated around 1000 BC

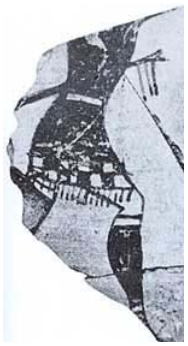
Other remains of iron **Naue II** swords always from Crete dated XI Century BC

Aegean iron **Naue II** swords are also attested in Cyprus, like these interesting specimens from dated around 1000-900 BC. These swords are 70 cm and 41 cm long.

Beautiful reconstruction of two **Naue II** swords. with wood handgrip. In the Iliad some swords are mentioned with black hadgrip (*7)

The warrior represented on this krater fragment from *Leukandi* dated LH IIIC is probably equipped with **Naue II** sword.

A **Naue II** sword is more likely also represented on this pottery fragment from *Kalapodi* also dated **LH IIIC**



Also the sword carried by the warrior represented on this krater fragment from *Lefkandi* dated **LH IIIC** can be identify as a **Naue II Group A** sword. The handgrip of this sword seems decorated with fringes.

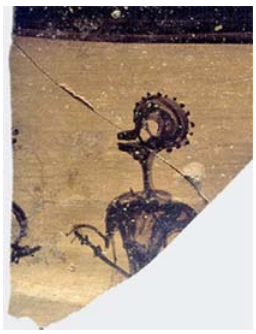
**Naue II** swords are also represented in two ivory mirror handles dated 12th Century BC respectively from *Kouklia* and *Enkomi* Cyprus. In these reliefs two warrior fighting against a lion and a gryphon were wearing a mix of Aegean and Oriental outfit.

A **Naue II** sword is probably also carried by the warrior represented on this krater fragment from *Voudeni* dated **LH IIIC** (about 1200-1100 BC). The sword handgrip and scabbard seem decorated this nails and the typic scabbard's fringes are also represented.

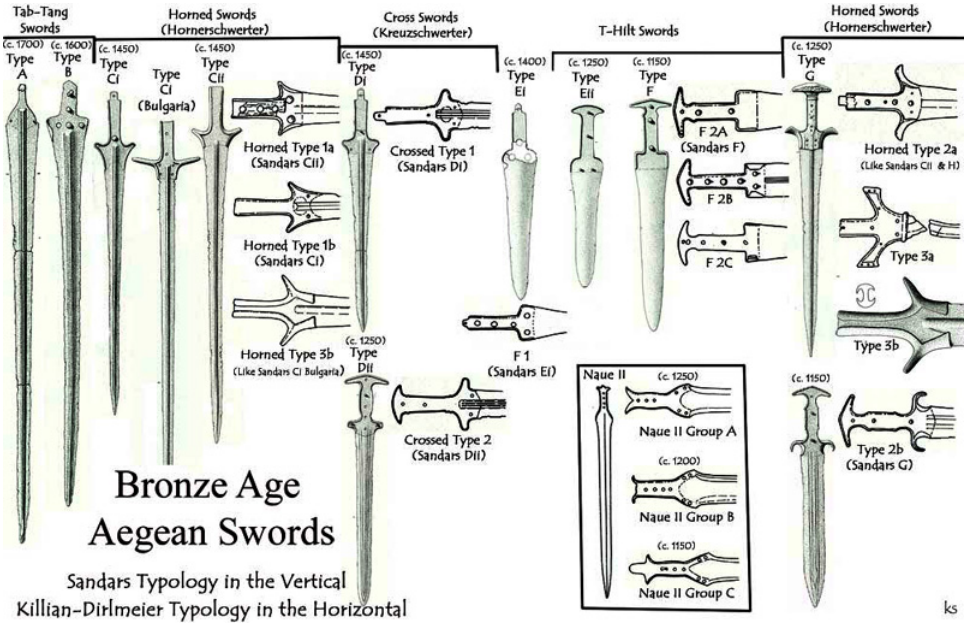
A fringed scabbard of a possible **Naue II** sword is represented on this krater fragment also from *Voudeni* dated **LH IIIC** (about 1200-1100 BC). The warrior has a medium size round shield and he was riding a for wheeled chariot.

Another fringed scabbard for a possible **Naue II** sword is also well depicted on this other krater fragment from *Voudeni* dated around the second half of the 11th Century BC. The warrior has a large square shield and his skirt shows the earliest so far attested representation of "*pteryges*".

The same krater also show a warrior with a possible **Naue II** sword with embossed shoulder belt carried on the back. The warrior is equipped with a medium size shield probably decorated with a bronze plate similar to the ones attested in the central/north Europe.

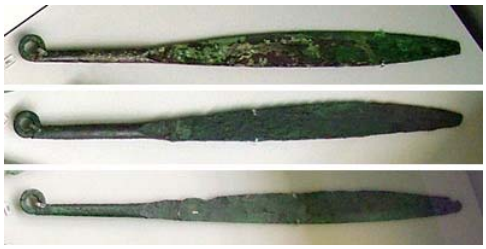


A warrior with a low profile helmet with small tufts and possible **Naue II** sword is represented on this other krater fragment from *Kalapodi* dated around 1130-1070 BC.




A very usefull summary tables of the various type of Achaean swords has been made by Professor Kirk Spencer from the Sword Forum International

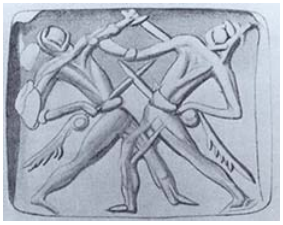
**OTHER SWORDS**



Several one-edge swords have been found in the shaft-grave of *Mycenae*. They consist of one solid piece of bronze , and measure from 66 cm (about 2 ft.) to 74 cm (about 2 ft. 3 in.) in length. The handle is too thick to have been covered with wood, and must have been used as it is: the end of it forms a ring, by which the sword was probably suspended to the shoulder-belt or to the girdle. Indeed this ring could have been also used to hold a some kind of fringed decoration. As these short one-edge swords are, properly speaking, nothing else than long knives (*8), and thus this weapons must primitively have been used chiefly for slaughtering animals, and , perhaps, also for killing in close fight. These sword are in fact also known as "Schlachtmesser" (Slaughter-knives)

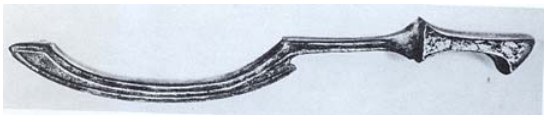
Similar kind of swords like this specimen from *Pylos* dated around 1400 BC have been also found in several Achaean settlements

These one-edge swords are probably represented in one greave stele from the tomb V of circle A (dated about 1500 BC) and one greave stele from the tomb *Gamma* from the circle B (dated about 1600 BC) both in *Mycenae*.



Another Possible representation of "Schlachtmesser" is on this seal from *Pylos* dated **LH IIIA-B**. The two warriors are fighting in a close combat using swords, which their general design remind the one-edge swords, ended in a large ring decorated with long fringes.

A curved sword is handled by this warrior represented in this bronze statuette from *Delos* dated **LH IIIA-B**. The general design of this sword is similar the "sickle sword" attested in the Late Bronze Age in several Middle East areas.



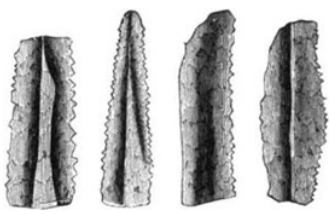
The powerful "sickle sword" are in fact well attested in Egypt, Israel, Syria, lebanon, and other Middle East areas both in art representation and finding like this specimen from *Ugarit* Syria dated 14th century BC.

A strange curved sword is well represented in this bronze statuette from an unknown area dated **LH IIIB-C**. Probably also in this case the sword has a Middle East origin.

A sword with a strange knob in shape of a spiral is depicted in this Aegean pottery fragment from *Ugarit* Syria dated around 1200 BC. Because of the geographical location of this pottery, the sword represented could had a Middle Eastern origin as well.

**DAGGERS**

At *Ayios Sostis* on Siphnos, a copper mine, which was in use from the Final Neolithic, has been investigated. The mining of local metal ore sources in Neolithic settlements confirm the in situ development of Aegean metallurgy, contradicting earlier theories that raw materials and objects were introduced from the East and/or the Balkans. The Aegean area was then one of the areas that received, in the framework of exchanges with the rest of the Neolithic world, the metallurgy know-how and developed it in situ. In the category of offensive weapons, triangular daggers, dated around 5500-4500 BC, have been unearthed (*Ayia Marina*- Phocis, *Alepotrypa*, *Ayios Dimitrios*-Triphylia) as well as elongate copper daggers date around 4800-3300 BC have been found in *Dimini* and *Sesklo*.
Of all the bronze daggers made during the Middle and Late Bronze Age in the Aegean area about two hundred have survived down to our times in a more or less good condition. Most of these daggers under study come from cemeteries, and only a small number from settlements or hoards. As the tombs containing daggers represent only a small percentage of the total number of tombs known from the Bronze Age periods, it might be suggested that this thrusting weapons was largely owned by few rich and high ranking people. There is always a difficult in distinguishing between short swords (dirks) and daggers, since most probably they served the same purpose. The main and criterion used by the scholars is the length of these weapons, but there is still no general agreement about the dividing line separating short swords from daggers. Because the arbitrary division of short swords (dirks) and daggers on the basis of their length produce anomalies and confusion, some scholars like Dr. Thanasis J. Papadopoulos have decided to take as daggers all those weapons whose general outline corresponds to the basic, standard type of daggers, paying less attention to their length, which however in no case exceed a maximum of 45 cm.



Flint daggers or knifes are attested in the Aegean area since the Neolithic period and the Early Bonze age, like this specimens from *Troy*.


Some of the early Aegean copper leaf-shaped dagger, dated about 5500-4800 BC, have been found in the settlements of *Aghia Marina* (Phocis), and *Aghios Dimitrios* (Triphylia).

Elongate copper daggers dated about 4800-3300 BC from *Dimini and Sesklo*

Very interesting copper leaf-shaped dagger dated **EC II** (about 2800-2300 BC) from the Cycladic island of Amorgos.

Another typic Cycladic leaf-shaped copper dagger dated around 2300 BC

These kind of early leaf-shaped daggers were attached to a baldric or a waist belt as attested from these marble statue of warrior dated respectively around 2300 BC (Cyclad island of Naxos). and 2000 BC (*Petsofà* Crete).


Very interesting ceramic (red polished) model of a dagger and its relevant decorated sheath from cemetery of *Vounous* Cyprus dated around 2200-2000 BC.

Another Similar ceramic (red polished) model of a dagger and its relevant decorated sheath is always from Cyprus dated around 2000 BC. These models may have been intended as votive or religious elements.

Bronze dagger from Cyprus dated around 2000 BC with reconstructed wooden handgrip based on the above ceramic specimens

Bronze Minoan daggers from pre-palatial period. The general design of these weapons clearly evolved from the early leaf-shaped Cycladic daggers

Other typic examples of short Minoan bronze daggers from *Haghia Triada*

Same type of short Minoan bronze daggers from *Kretes* with the relevant decorated gold hilt still well preserved.

Some other Minoan triangular daggers from the acheaological sites of *Vianno* and *Lassithi*. The first one on the left is made with silver. The usual Eraly Minoan triangular dagger had a narrow midrib, and this was passed on to the slenderer, longer daggers of the Middle Minoan period, which are best known from the collective tombs of the *Messara* in southern Crete.

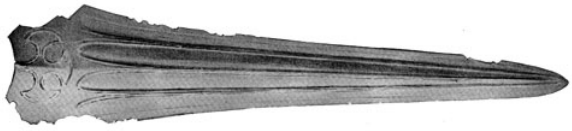
Other examples of bronze Minoan dagger from *Agnostos* Crete

Minoan bronze dagger from *Aghia Triada* dated around 18th Century BC

Another Minoan silver dagger from *Mesara* dated around **EM IIA/III** (about 2300-1900 BC)

Thick-stemmed bronze dagger from the *Psychro Cave* Crete dated around **MM IIIA** (about 1700 BC). This specimen is 16.5 cm long.

Very interesting long dagger from *Mocholos* Tomb II (**MM II**) with unusual "cross axes" simbol.



The Late Minoan and Helladic daggers show a relatively great variety, which is certainly due to the wide range of their provenance, the change in style during the time-span of the period and the personal taste of the maker and the owner. This classification is based on the work of Dr. Thanasis J. Papadopoulos (*8a) who classify the daggers in five main types according to major differences of form i.e. the outline shapes as well as the shape of the butt and the grip. Subdivisions of each type into variants are based on les important and secondary features, which do not alter the basic shape. Some of these daggers variants correspond to Sandars's Class **D**, **E** and **F** swords classification. A sixth type, rarely found in the Aegean, consists of daggers which owe their name not to their form but to the northeastern Italian site *Peschiera* where they are best represented. A final generic type is related to the daggers from the very Late Bronze Age/early Iron Age which their design shows similitude with the **NAUE II** swords.

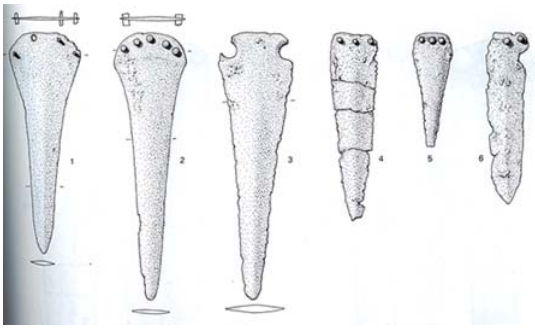
**TANGLESS DAGGERS**

**Type I**
This type is represented by some late Middle Bronze Age and early Late Bronze Age daggers, which are short, tapering or ogival, usually not much over 20 cm in length and about 5.5 cm in width. Their main and common characteristics are the absence of a tang (tangles) and the broad. Other basic features are the tapering or ogival blades with or without a midrib and beveled edges and massive, mostly gold-or silver- plated rivets, which range in number from two to four. According to their profile two main variants can be distinguished: **A** tangles flat or slightly thickened daggers (mostly tapering) and **B** tangles midrib daggers (mostly ogival).

***Variant A***

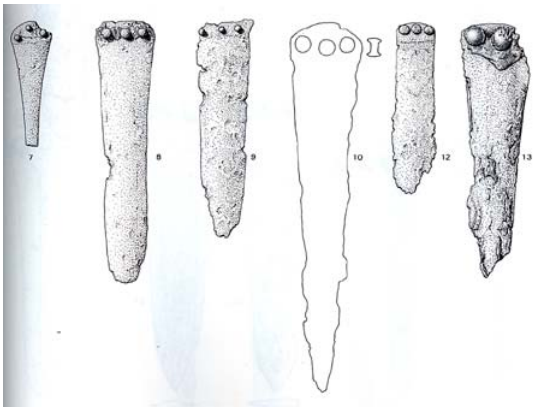
Minoan bronze dagger of **Type I variant A** from *Aghia Triada* also dated around 18th Century BC.

Another specimen of Minoan bronze dagger of **Type I variant A** from *Mallia* Crete dated 17th century BC. Some remains of the gold hilt are still visile



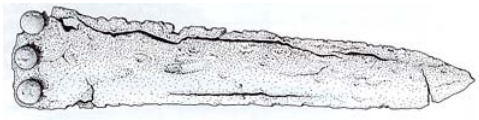
Achaean bronze daggers of **Type I variant A** respectively from: 1) *Babes* dated **MH III-LH I**, 2) *Prosymna* dated **MH III**, 3) *Mycenae* dated uncertain, 4) *Volimidhia* dated about **MH III**, 5) *Donoi* dated about **MH III**, 6) *Steno* dated about **MH II-MH III**

Bronze dagger of **Type I variant A** with massive silver rivets from *Kazarma* Tholos Tomb Pit III dated around **LH I-IIA**.



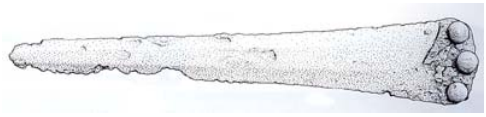
Achaean bronze daggers of **Type I variant A** respectively from: 7) *Sesklo* tomb 22 dated **MH II**, 8) *Sesklo* Tomb 25 dated **MH II**, 9) *Eleusis* Tomb 6 dated **MH III** 10) *Asine* dated about **MH III-LH I**, 12) *Ayios Stefanos* dated about **LH I**,
13) *Mycenae* Grave Circle A dated about **MH III-LH I**

Bronze dagger of **Type I variant A** with gold plated rivets from *Mycenae* Tomb 82 dated around **LH II-IIIA**.



Achaean bronze daggers of **Type I variant A** from *Dendra* Chamber Tomb 8 dated around **LH-IIA**. This dagger is 24.5 cm long and shows three massive silver plated rivets

Bronze dagger of **Type I variant A** 35 cm long with silver plated rivets from *Mycenae* Grave Circle A dated around **LH I**.



***Variant B***

Bronze dagger **Type I variant B** from *Kazarma* Tholos Tomb Pit III dated around **LH I-IIA**. This specimen is 17 cm long.

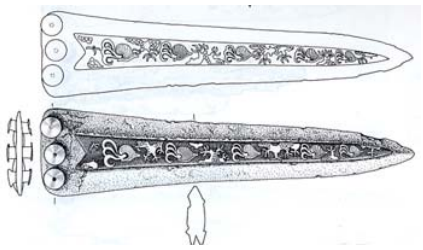
Bronze dagger **Type I variant B** from *Mycenae* Grave Circle B dated around **MH III**. The dagger has three massive silver plated rivet and on the balde remains of linen cloth, in which it was most probably wrapped. This dagger was found among the gold strips of the pushed aside the skeleton.

Other specimens of bronze daggers of **Type I variant B** from *Mycenae* Grave Circle B dated around **MH III**. On the blade of one of this specimen part of the wrapping linen cloth is still visible.

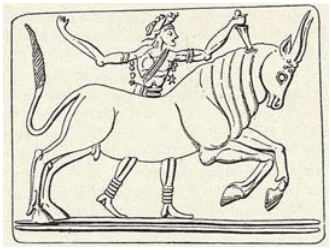
Two other achaean bronze daggers **Type I variant B** from *Prosymna* Chamber Tomb XIV and III dated around **LH II**. These daggers have gold, silver and black inlay decorations. These daggers have respectively gold and silver plated rivets and are 19.2 cm and 18.6 cm long.

Small bronze dagger of **Type I variant B** with dolphins decoration from *Katarraktis-Ayios* dated **LH II**. The decorations style of the Achaean daggers shows closer similarity with the contemporaneous Minoan art. This specimen is 16.2 cm long.

Bronze dager of **Type I variant B** from *Myrsinochorion* dated around **LH II**. This dagger has three massive gold-plated rivets in a very shallow arc in the straight butt. On both sides of the blade ornamental panels with inlaid figures in gold and silver.
Thirteen shell-shapped gold beads found nearby suggest that this dagger had a telamon for hanging (*8b)



As attested on this seal-stone from *Thisbe* part of the controversial "treasure of seals"(*9) dated around 1500 BC the dagger's scabbard was also attached on the waist belt.
This is probably the earliest representation of **Aedipos** against the Theban Sphinx.



On this other seal-stone always from *Thisbe* a dagger is used to kill a bull for a sacrifice. In this case the dagger sheath is slung over the man shoulders.

In the same Tomb in *Myrsinochorion* this other **Type I variant B** dagger has been also found. This specimen dated **LH II-LH IIIA** is preserved in fine condition with its handgrip covered by a thin sheet of gold with rich engraved decorations and small dots.

Bronze dager of **Type I variant B** from *Mycenae* Grave Circle A dated around **LH I**. This specimen 21 cm long has inlaid ornamental panels on both sides with galloping lions.

Another beautiful bronze decorated dagger of **Type I variant B** from the Circle A shaft grave V dated around 1500 BC. This dagger is 24.3 cm long

This 16.5 cm long bronze dagger of **Type I variant B** is decorated with flowers, leopards (or wild cats?) and birds. This specimen has been found in the shaft grave V dated around **LH I** from *Mycenae*

**Type II**

To the second type belong longer daggers, varying in length between 23.6 and 43 cm, most of them falling into the range 28-35 cm, with an average width of 6 cm. They are characterized by elongated triangular "winged" blades (usually having slightly flanged shoulders) with or without midrib and beveled edges. In the butt are four massive or small rivets either silver-or gold- plated or plain. Sometimes there are extra rivets and even a short tang to strengthen the handle-attachments. Two main variants can be distinguished according to the absence or presence of a tang: **A** tangles and **B** with a short tang.

***Variant A***

Beautiful specimen of Minoan bronze dagger from *Mallia* Crete dated 18th-17th century BC. This dagger is similar in design to the **Type II Variant A**, its interesting gold hilt is also well preserved.

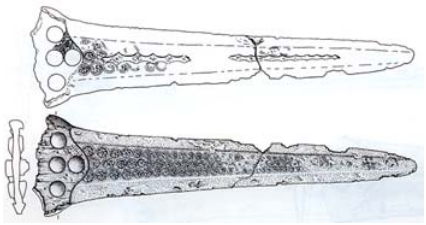
Detail of the gold hilt of the same Minoan dagger from *Mallia* which seems to be close related to the **Type II Variant A** daggers.

One of the famous daggers of **Type II variant A** from the Circle A shaft grave IV dated about 1550 BC. The black inlay decoration with, hunting and other scenes on Mycenaean bronze daggers has often been referred to in the literature as niello—a mixture of sulphides of copper, silver or lead—despite the absence of any systematic analysis of these precious metal artefacts. Indeed a semi-quantitative surface analyses of an example of black inlay on a Mycenaean dagger, using non-destructive X-ray fluorescence spectrometry, it has been established that, contrary to the traditionally-held view, the black inlay is a copper-gold alloy with some silver and possibly small amounts of tin.

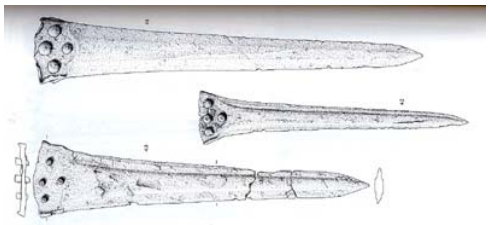
The other side of the above daggers shows a lion seizes a gazelle, while four other gazelles leap away.

Very beautiful reconstruction of the above achaean bronze daggers **Type II variant A** with its black inlay hunting scene decorations and gold or silver hilts.

Three example of achaean bronze daggers of **Type II variant A** from *Mycenae* shaft graves of Circle A dated around 1500 BC. Two of these daggers have gold rivets. These daggers measured respectively 30 cm, 30 cm and 23,6 cm.



Another specimen of Achaean bronze dagger of **Type II variant A** from the Grave Circle A in *Mycenae* dated around **LH I**. In the falged butt four massive gold plated rivets are present, to fasten the two ivory handle-plates, which were decorated with minute inlaid gold bars forming running spirals filled-in with rosettes.



Three example of achaean bronze daggers of **Type II variant A** from *Mycenae* shaft graves of Circle B dated around **MH III-LHI**. Some remain of wooden handle have been also found beneath these daggers.

***Variant B***

The decorated gold hilt is still present on this dagger of **Type II variant B** from the Circle A shaft grave V dated around 1500 BC from *Mycenae*.

Always in the shaft-grave V of the circle A from *Mycenae* dated about 1500 BC is attested this **Type II variant B** dagger with decorated blade. The specimen is 43 cm long.

Dagger of **Type II variant B** from the Circle B from *Mycenae* dated around **LH I**. The blade of this specimen must have been cast in very well preservated two piece mould.

**ODDITIES**

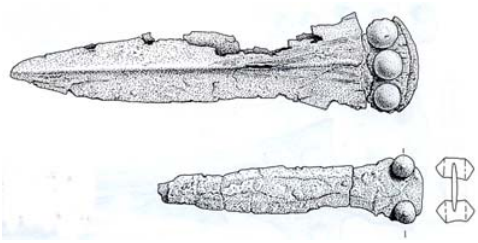
Under this heading can be assigned some daggers, which do not conform to either of the two preceding types. In particular five specimens differ from those belonging to **Type I** in the number and peculiar conical shape of the rivets; one in its size, which is well over that characterizing these daggers; one has a peculiar (apsidal) butt and arrangement of rivets differing from those of **Type II**; one is unique in having handle admirably and richly decorated; and one an unique narrow blade with a gold handgrip.

Bronze dagger 26.7 cm long from Shaft Grave IV of Circle A in *Mycenae* dated **MH III-LHI**. It has a flat triangular blade tapering to a very acute point. The short undecorated ivory handle is loosely secured to the short tang by a single and smaller similar fourth rivet.

Achaean Bronze Dagger from Shaft Grave VI of Circle A from *Mycenae* dated **MH III-LHI**. It has five rivets with conical and gold plated head which are set close together in a slightly curving line across the straight butt.

In the shaft-grave IV dated around 1550 BC it was also found a marvellous hilt part of a dagger with an extant length of blade of 25 cm. On the blade of this dagger remains of the sheath have been found it was made of organic material like wood and leather. This splendid engraved golded handle ended in a dragon's head is incrusted with a sort of mosaic of rock-crystal. The golded cylinder consists of four-leaved flowers united at the points of the leaves. Each of the latter shows in all its length a flat oval hollow incrusted with a piece of rock-crystal, which exact fits into it.

The longer of these two Achaean Bronze Daggers is attested from Grave Circle B in *Mycenae* dated around **MH III-LHI** it is long 22.5 cm.
The smaller one is from *Prosymna* Chamber Tomb III dated **LH II** and it is 14 cm long.



Achaean bronze dagger from Grave Circle B in *Mycenae* dated around **MH III-LHI** This weapon seems to have been made by hammering together two bronze sheets. This dagger differs from those belonging to **Type I** in its size (36.5 cm), which is well over that characterizing these daggers.

**TANGED DAGGERS**

Compared with the number of daggers of the other types, tanged daggers are attested in few specimens. They are sufficiently well preserved, their length varying between 15.4 and 31 cm and their width between 3.2 and 5.7 cm. There is little uniformity of shape, but all have a common and essential characteristic, the tongue-shaped or rectangular tang from which they take their name. Other characteristic features are the U-shaped or ogival or tapering towards the point blades, which are either flattish and plain or ribbed with straight or usually rounded butts. Two main variants can be distinguished according to the shape of blade: **A** U-shaped and **B** with tapering or ogival blade.

***Variant A***

Bronze tanged dagger of **Variant A** from *Mazaraki-Zitsas* dated **LH IIIB**. Of the two rivets, set in the short tang and the butt along the axial line of the blade to fasten the (wooden or bone?) handle, that in the tang is lost. This specimen is 15.4 cm long

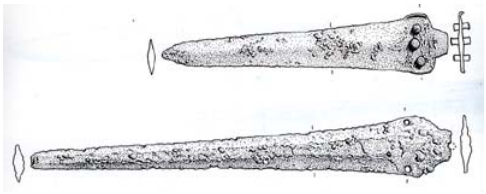
Bronze tanged dagger possibly included in the **Variant A** from *Mycenae* dated 1400-1350 BC. It shows a beautiful decorated gold hilt and thin flat blade.

***Variant B***

Possible early bronze tanged daggers of **Variant B** from *Haghios Onofrios* Crete dated about 18th Century BC.

Bronze tanged dagger of **Variant B** from *Prosymna* dated **LH I-II**. This specimen is 28.2 cm long

Achaean bronze tanged daggers of **Variant B** with gold nails from the tomb 82 in *Mycenae* dated about 1400-1350 BC.



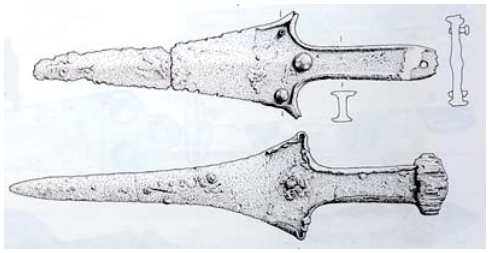
Bronze tanged daggers of **Variant B**. The upper dagger is from *Volimidhia* and it is dated **LH III A-B**. This specimen is 21.6 cm long. The lower dagger is from *Staphylos-Scopelos* it is dated **LH II** and its length is 31.7 cm.

**HORNED DAGGERS**

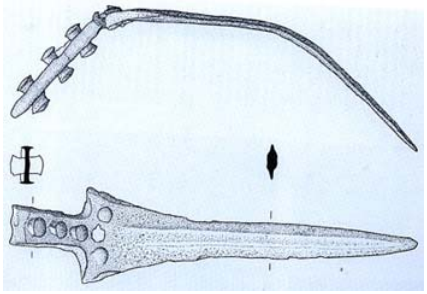
Horned daggers are, like tanged daggers, relatively rare, comprising very few specimens. All were so far found in tombs and more or less well preserved. Size vary considerably, their lengths ranging from 26.4 to 39.5 cm and their widths from 6.3 to 8 cm. They differ also in general outline, but what all have in common is the more or less up-drawn or horned flanged shoulders. Other essential characteristics are the relatively long and broad tang, usually with shallow or deep flanges, and the triangular blade with or without sharp distinct midribs. These daggers show similarity with the **Type Cii** swords (after Sandars). According to the shape of blade two main variants are distinguishable: **A** triangular and **B** elongate triangular.

***Variant A***

Bronze horned daggers of **Variant A** respectively from *Mycenae* Grave VI of Circle A dated **MH III-LHI**. This weapon was evidently snapped across the blade in antiquity and resharpened and pointed as a stubby dagger, the specimen is 26.4 cm long. The lower dagger is from *Kirrha* Tomb 59 also dated **MH III-LHI**. this dagger is 29 cm

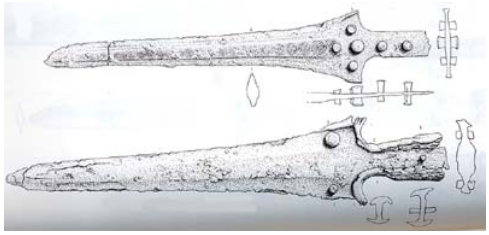


***Variant B***



Bronze horned dagger of **Variant B** with bent blade from Cyprus, length 30 cm. This object is dated around 1550 BC and may be considered the earliest Aegean weapon found in Late Bronze Age Cyprus.

Bronze horned daggers of **Variant B** from Grave circle B in *Mycenae* dated **MH III-LH I**. The first one has flat midrib decorated with a row of engraved and then silver plated running spirals, whose size diminished gradually towards the point, it is long 34.7 cm.
The lower dagger has a low flat plain midrib, lozenge-shaped section, it is 39.5 cm long. To this dagger belongs a hemispherical alabaster pommel



Bronze horned dagger of **Variant B** 25.5 cm long from the chamber tomb 518 in *Mycenae* dated around 1400 BC. Traces of the wooden handle plates, which were probably once covered with gold leaf, show that they ended on the shoulder with an kidney-shaped opening. This opening may have been originally filled with inlay.

**CRUCIFORM DAGGERS**

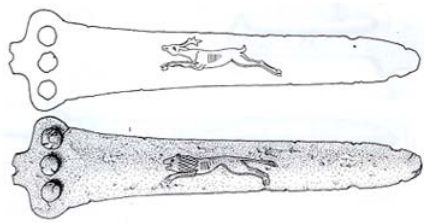
This type comprises relatively long specimens, averaging in length between 40-30 cm or even less and in breadth between 6-4 cm. Their technique and shape are fairly uniform, with only some minor variations. The common and basic characteristic to all these daggers, from which they are named " cruciform" , is the protruding shoulder, which is lobed, round or angular. Other essential features are the grip with or without a T-shaped pommel and the pointed, U-shaped or tapering towards the point blade. Pommel, grip and shoulder are generally flanged and the flange is carrier down towards the blade, which is usually flat or flattish and plain and only rarely ribbed or grooved. According to the above mentioned variants in shape of the shoulder, grip and blade these daggers can be divided in the variant **A** , **B**, **C** , **D** and **E**

***Variant A***

This variant is represented by specimens which mainly have a grip with a T-shaped flanged pommel, lobed shoulders and pointed flattish plain, ribbed grooved blade. This variant correspond to the **Type Dii,** swords even if some specimens (bellow evidenced) show slight different features.

Possible early "cruciform" dagger of **Variant A** from *Aghia Triada* Crete dated around 1600 BC

Bronze "cruciform" dagger of **Variant A** from unknown provenance dated **LH IIIB**. It has elongate ogival flattish blade without midrib and with slightly bevelled edges, elliptical section. This specime is 23.7 cm long.



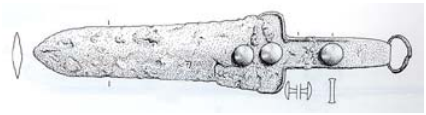
Bronze "cruciform" dagger of **Variant A** from unknown provenance dated **LH IIIB**. On either side, roughly in the cemtre, engraved decoration consisting of a single stag and lion. This specimen is 29.5 cm long.

***Variant B***

To this variant belong the specimens, which differ from **Variant A** in having round shoulders, an U-shaped, short broad and flattish blade and flanged grip, usually but not always with an unflanged pommel tang extension. The flange continues round the shoulder and down towards the blade. These variant of daggers correspond to correspond to the **Type Ei,** swords even if some specimens (bellow evidenced) show slight different features.

Possible early "cruciform" dagger of **Variant B** from *Aghia Triada* Crete dated around 1600 BC

Bronze "cruciform" dagger of **Variant B** from *Myrsinochorion* dated around **LH IIA**. In this specimen a thin gold ring decorated with cresent-shaped parallel lines in repoussè is attached to the end of the grip. The specimen is 26.4 cm long.



Bronze "cruciform" dagger of **Variant B** from *Eleusis* West Cemetery Tomb H dated **LH II**. This specime is 34.3 cm long

***Variant C***

This variant comprises the daggers which are similar to those of the preceding **Variant B** except for the T-shapaed flanged pommel and a slight increase in angularity in the blade's profile. This variant corresponds to the **Type Eii,** swords.

***Variant D***

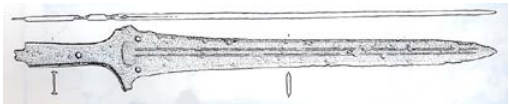
The daggers belong to this variant are characterized by square or even re-entrant shoulders, narrower and straighter T-shaped pommels and deeper flanges, but the blades are still flat, either broad and somewhat similar to those of the preceding variant, or narrow elongated pointed, sometimes ribbed or grooved, as on **Variant A**. These daggers correspond to the **Type F** swords.

***Variant E***

The daggers belong to this variant have angular shoulders with one or two rivet-holes and pointed-flattish plain or grooved blade. The last dagger has a small pommel-tang extension and oval opening on the shoulder. Grip and shoulders are flanged. Their length is over 36 cm. In a sense they are idiosyncratic and fall between the swords of **Type Di** and**Type Dii**

Bronze cruciform dagger of **Variant E** from *Kirrha* Tomb 18 dated around **LH I**. It has an elongate flattish plain blade without midrib, of elliptical section. The specime is 36 cm long.

Bronze cruciform dagger of **Variant E** also from *Kirrha* same tomb and datation. This specimen is 42.8 cm long.



Bronze cruciform dagger of **Variant E** from *Mazaraki-Zitsas* dated around **LH III B**. The outline of the (wooden or bone) hilt-plated with a triangular end can be still seen and there is an oval opening in the shoulder. The specime is 41.8 cm long.

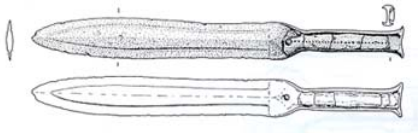
**DAGGERS OF PESCHIERA TYPE**

Daggers of Peschiera type which seem to their home in North-East Italy, are rare in the Aegean. The type is represented mainly in Crete, while very few example are known from the island of Melos and Naxos and from different site of the Greece mainland. They are mostly in the 20-25 cm range , all are relatively well preserved and are characterized by an elliptical leaf-shaped narrow blade with flat midgrip, sloping shoulders and narrow heavy-flanged grip with an almost invariable fish-tail end. There is always one large rivet at the base of blade to fasten the (ivory or wooden) handle. They are usually cast in a one-piece mould.

Achaean bronze Peschiera type dagger dated around 1200 BC. The T shaped ivory handle is fastened by one large rivet placed at its base. These kind of daggers were long about 25 cm They are of European origin and are so far attested mainly from Crete, Melos, Naxos and Argolid. Some scholars believed that these kind of daggers have been introduced direct to Crete by European warriors coming from Italy, and this seems to be the case also with Achaea area. This specimen is 23.7 cm long

Dagger of Peschiera Type from *Mycenae* dated **LH IIIB** This dagger has a large rivet-hole at the base of blade. The specimen is 21.3 cm long.

Dagger of Peschiera Type from *Nemea* dated **LH IIIB** . The specimen has an elliptical leaf-shaped blade with low, well marked broad midrib. it is 22.4 cm long.



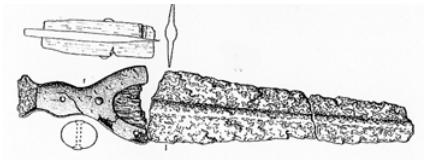
A strange narrow-bladed bronze daggers similar to the ones of Peschiera Type but without the shoulder is attested from *Kydonia*. This example is dated around 1300 BC

A narrow-bladed daggers is probably attested in this seal from *Mycenae* dated around 1300 BC representing an hunting scene between a man with his dog and a lion.

A short daggers is also attested in this seal from *Ialysos* Rhodes dated around **LH IIIA** representing an hunting scene.

**DAGGERS NAUE II TYPE**

During the very end period of the Late Helladic and Early Iron Age a new type of daggers appeared. The general shape and design of these daggers was similar to the **NAUE II** swords which were also very popular during the same period. Mostly these daggers were made of iron and are attested both in Greece mainland, Crete and Aegean islands.

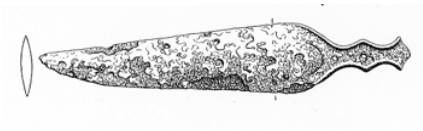


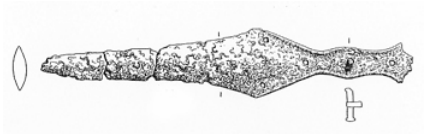
Example of iron dagger Naue II Type from *Knossos* dated around 1000 BC. This dagger is 17.5 cm long

Interesting example of iron dagger Naue II Type from *Praisos* dated around 1000 BC

Similar example of Aegean iron dagger also dated around 1000 BC

Iron dagger of Naue II Type from *Fortetsa<7i< dated around 1000 BC. This dagger is 28 cm long.*





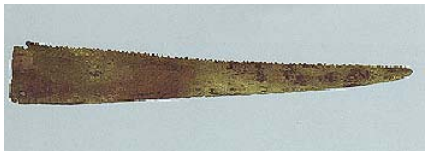
Iron dagger from *Arkades* dated around 1000-900 BC. This dagger is 23.5 cm long.

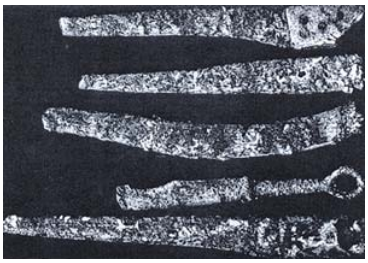
other example of Aegean iron dagger from Crete dated around 1000-900 BC. The general design this kind of early iron daggers clearly show similarity with the **Naue II** swords.

**KNIVES and RAZORS**

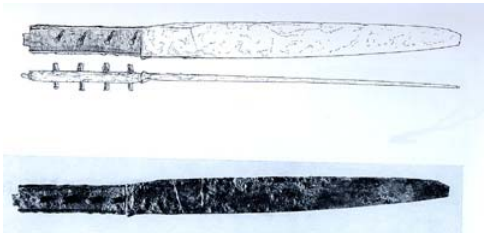
Flint and copper knives in diferent shape are attested in the Aegean area since the Neolithic period. This interesting curved copper knife dated around 2000 BC has been found in *Troy* together other objects like pins, nails, needles, cresents, and bracelet made of copper, ivory a silver

Bronze saw-edged knife dated around 2000 BC from *Prioni* near *Aghios Kirikos* in Ikaria





In the shaft-greave of *Myceane* several examples of general purpouse bronze knives have been found, like these specimens dated around 1600 BC



A single cutting edge knife has been found in the chamber tomb n. 12 of *Dendra* dated between LH II and LH IIB (1450-1400 BC). The inclusion of the bronze knife, among the offensive weapons, is justified by the possibility of its being used as a dagger. In the case of the "Dendra warrior" the use as a weapon is supported by the person in whose tomb the knife was placed. This knife is 33 cm long. the tang was covered by a wooden covering attached with four rivets.

Similar kind of knives have been attested in several Achaean settlements like this specimen from the tomb 529:25 in *Mycenae* dated around 1400 BC. The knife is 27 cm long and part of the wooden covering is still preserved.

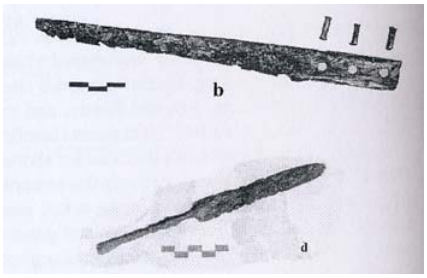
Similar type of general purpouse bronze knives from *Tyrins* dated around 1300 BC.

Other examples of bronze knives from *Sanatorium* Crete dated around XIII century BC

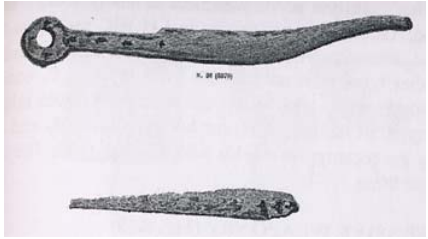
Similar very interesting examples of Achaen bronze knives with ivory handle dated around 1300-1200 BC

Personal objects that the deceased used during their lifetime were placed with them in the grave like this bronze knife with an ivory handle found together fish hooks, chisel and awl in a tomb at *Ialysos* Rhodes.

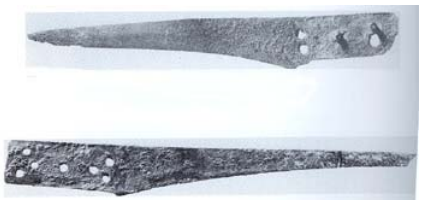
Other inteesting example of Achaean bronze knives with ivory handles from *Kolophon* Asian Minor dated around 1200 BC.



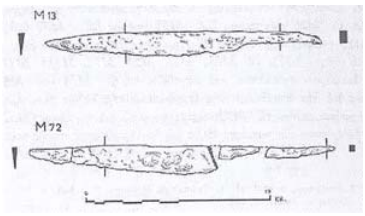

Two knives were recorded from Tomb 4 at *Pilona* Rhodes dated **LH IIIC**. The first is a one-edge knife of Sandars Ib Type. This example departs a little from the norm in that it has three rivet holes on the haft/handle area. Another in the same tomb is believed to be a toilet knife perhaps similar in function to the twisted-handle example from *Perati*. It has a leaf-shaped blade with two edges and a rounded point. The haft, which is cylindrical, was probably inserted into a wooded or ivory handle. It is believed to have accompained a female burial.



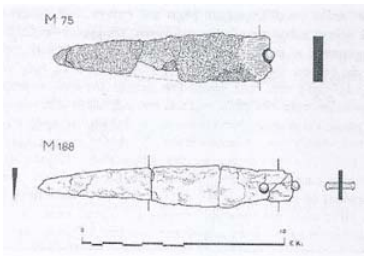
Two knives are also documented from tombs XV and XXXII in *Ialysos* Rhodes dated **LH IIIC** . The first is of Sandars 1b Type, with a convex curved blade and a wooded grip on the handle/haft area. An odd feature here is that the haft ends in a riveted ring. The other knife is a double edge knife of Sandars Type 1a.



Straight-backed with triangular blade bronze knives from *Athens* dated around XIII century BC. This is a very rare type of knifes and only one similar example from Crete is so far known.

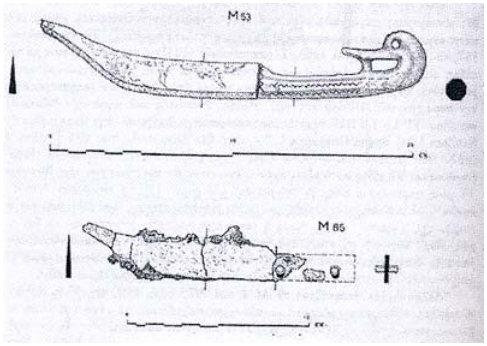



Bronze knives respectively from Tomb 1 and Tomb 21 in *Perati* dated 13th to 12th century BC.

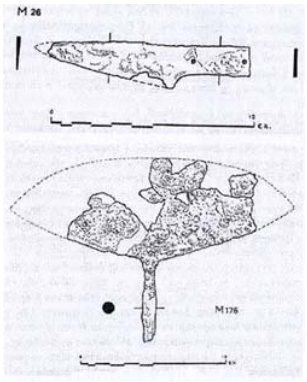



Other bronze knives also from *Perati* respectively from Tomb 28 and Tomb 137 dated 13th to 12th century BC.

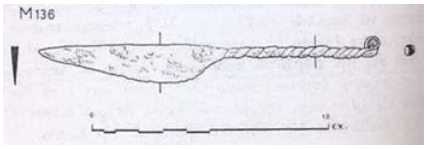
Interesting examples of curved blade iron knife from *Praisos* Crete dated around XI century BC. Iron knives are rare in the Achaean world. Example have been found also in Perati, Cyprus, Naxos, Lefkandi and Syria.



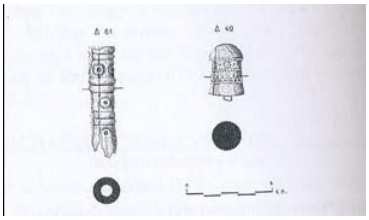

These interesting example of knives from *Perati* respectively Tomb 12 and Tomb 38 dated **LH IIIC** are believed to be imports from Syria. The first one is noteworthy for its bird-head handle and so too is the second one which is in iron with its sharp angled blade ending in a curve with the cutting-edge on the inside.




Other example of knives found in *Perati* dated **LH IIIC** probably based on foreign prototypes. The first one from Tomb Sigma 2 is considered to be Egyptian in form. The second one from Tomb Sigma 49 is clearly Eastern with similar examples found in Palestine, Egypt and Syria. Both these knives are believed to be utilitarian in purpose rather than offensive: used perhaps for cutting leather and textiles.




Another knife worth noting was found outside Tomb 89 dated **LH IIIC** always in *Perati*. It has a triangular curved blade an unusual twisted-rope handle, ending in a loop. A similar type to this comes from a hoard at *Mycenae* in 1890.



Two pommel fragments believed to be from knife were also found, one each in Tombs 13, 24, in *Perati* dated **LH IIIC**. The left one was made of ivory: slightly conical in shape, it carries circular and triangular zoned decoration . Similar examples are also from *Mycenae* and *Dendra*, but these are undecorated. The one on the right is cylindrical and made of bone.

Copper and bronze razors leaf-shaped with round blade used for general purpouse are attested in all the Aegean area since the Cycladic period.

Similar kind of bronze razors are also attested in the shaft-grave of *Mycenae* dated around 1600-1550 BC. The precise purpose and use of these bronze object is still controversial. They have sometimes been called daggers; this is of course possible, and in their manner of securing the handle they are indeed similar to an earlier family of weapons. However, the thinness, and the shape of blade, do not indicated that they were made for thrusting. The explanation first given by **Evans** and **Keramopoullos** that they were razors seems therefore more justifiable and well documented.

Leaf-shaped bronze razor from funerary building 3 in *Archanes* Crete dated around 1400 BC.

Similar kind of rounded razors have feen found in several Minoan and Achaean settlements. These razors could have been also used for sheeps shearing. As regards chronology there is no doubt that the leaf-shaped type of razors come first, ranging in date from **LH I** to **LH IIIA** (about 1600-1350) when they may have been replaced by the narrow-bladed type.

Bronze razors with massive silver rivets from *Kazarma* Tholos Tomb Pit III dated around **LH I-IIA**.

Bronze razors with narrow and curved blade are very common in the Late achaean settlements. These objects bear a certain resemblance to a modern razor and can be quite reasonably so intended. Although not absent in **LH IIIB** these razors are more frequently found in **LH IIIC** contexts, but it does not survive into post-Mycenaean time.

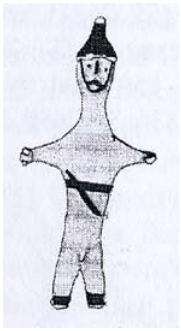
Similar kind of bronze razors in different shape and dimension have been found in several Minoan and Achaean settlements like this specimen from *Phylos* dated around XIII century BC.

Example of bronze cleaver from the palace of *Knossos* dated XIV century BC. The precise purpose of this tool is still controversial. The most probable explanation is that they were used for chopping meat. Wheter these could have been used for any heavier work (e.g. cutting or splitting wood) is rather improbable.

Interesting example of bronze cleaver with ivory handle from the palace of *Aghia Triada*. In shape this kind of object bear a close resemblance to razors, but are bigger (*11) and heavier and have triangular and much stronger blades. None of the Achaean cleavers seem to be earlier than **LH IIIA** when this type of instrument suddenly made its apperance in the Achaean world and replaced the so-called leaf-shaped razors.

Another bronze cleaver from Crete dated around XIII century BC. The cleavers were relatively small in size, varyng in length (including the tang) between 18,5 cm and 20,8 cm, while the width of blade does not exceed 7,2 cm. They have a straight or slightly concave back and riveted handles and are frequently found on the mainland and in the Dodecanese, less often in Crete.


Bronze sickles occur in hoards elsewhere on the Greek mainland and Crete where metal sickles are recorded from at least **MM I**, and Cyprus where they do not appear before the 12th century BC. This tool was also known in the Near East. The general shape of these objects is very simple a knife-like blade of curved profile without midrib. It has a short tang pierced for a single rivet. The tang is narrower than the blade joining it at an angle. Teeth-if it ever had any- must have been ground on the cutting edge, but in all the so far found examples all traces of them had vanished.

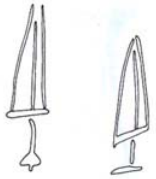


A terracotta figure from *Phylakopi* probably dated around **LH IIIA2** represent a man with conical cap long hair and a belt in which a knife or dagger is placed.

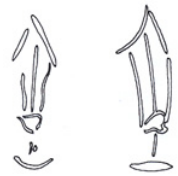
**SWORDS/DAGGERS IN LINEAR B**

The swords/daggers are present in the **Linear B** tablets with the ideograms *233, *236 of the Ra serie from *Knossos* and *232, *234 of the Ta serie from *Pylos*. The first one KN *233 which indicate different type of swords correspond to the sostantive **pa-ka-na** "daggers" also attested by Homer (*12). In every tablets the craftsmen who made the works are mentioned: **Ka-si-ko-no** "Helper" and **pi-ri-je-te** of which the meaning is not clear. The swords in the tablets are defined as **a-ra-ru-wo-a de-so-mo** a phrase which can be inerpreted as "swords with hadgrip" or "fitted to the handgrip" or "equipped with attachment". The ideogram *233 is divided in two or three category **a)**, **b)** and **c)**.

The *Knossos* ideogram KN *233 a) shows a triangular blade with a middle line extended on the handgrip which is completed with a trasversal line indicating the knob. Because the schematic style of the ideogram it is very difficult to identify it with a exact type of sword indeed some scholars hypotize it could represent an **F Type** sword.



**KN *233 a)**



The *Knossos* ideogram KN *233 b) is a variant with the blade represented by parallel lines with a triangular point. Also in this case the middle rib is represented by a line which extended on the handgrip with a trasversal or curved segment indicating the knob. Also in this case because the schematic style of the ideogram it is very difficult to identify it with a exact type of sword indeed some scholars hypotize it could represent an **E Type** sword

**KN *233 b)**

The *Knossos* ideogram KN *233 b) is a variant with the blade represented by parallel lines with a triangular point. In this case the shoulders are curved and the balde has the middle rib. The handgrip is represented by one or two lines ended with a trasversal or curved segment. In this case because of the curved shoulder some scholars identify this ideogram as a **D Type** sword.

**KN*233c)**

The ideogram KN *236 from *Knossos* is also related to a sword, the text of the tablets in which this ideograms appears talks about precious weapons bonded with ivory and horn. The type of the ideogram with a triangular blade and the central line and the curved segment are similar to the one of the KN *233 serie. Because its general design some scholar hypotize that also this ideogram could be related to a **F Type** sword.

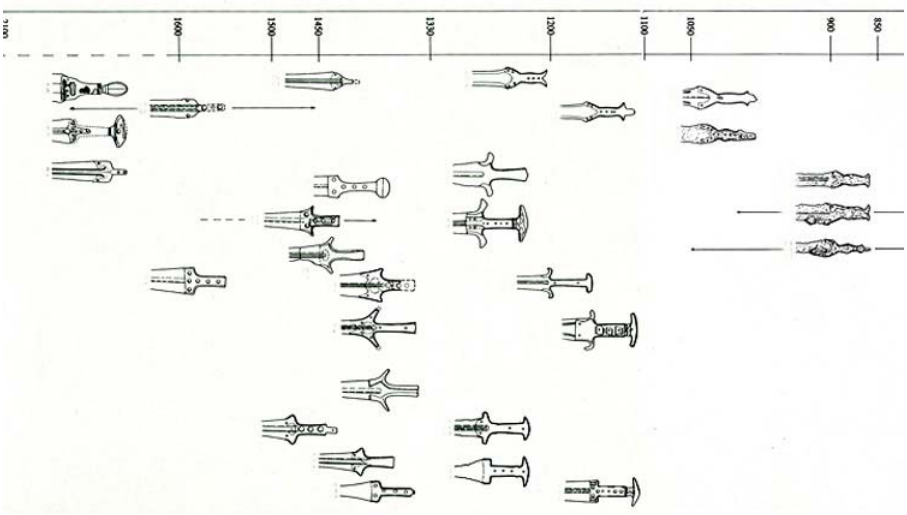
**KN*236**

The ideogram *234 from *Pylos* is only attested on one tablet (PY Ta 716) of which the text is not clear
**pa-sa-ro ku-ru-so to-ni-je wa-o 2**
**qi-si-pe-e 2**
The scholars agreed that **pa-sa-ro ku-ru-so** are gold nails or rivets, while **wa-o** (followed by the ideogram *232) could represent two axes or a type of horned sword. The ideogram *234 is normaly considered indicating a sword being followed by the word **qi-si-pe-e** (dual); it seem representing a one cut blade slightly bended. It could be related to a Slaughter-knife or to a Near East curved sword as well as some kind of curved dagger or sickle.

**PY *234**

**CONCLUSION**

Since the Cyladic and Minoan period large number of copper and bronze daggers and swords were placed in warrior burials or found in the settlements. some of these dagger and swords were simple examples in bronze and other with embelllishments such as sheet-gold hilts, marble or ivory pommels gold or silver nails and decorated blade. The early types of long sword (rapiers) were in use from the early Achaean times. The **A Type**, probably of Minoan origin, had rounded shoulders, a short tang and a mid-rib down the length of its narrow blade. The **B Type**, which perhaps originated in the Near East, was stronger weapon: it had a slightly shorther blade, square shoulders and a longer tang, thus attaching the blade more securely to the hilt. In the 14th century **A Type** seems evolved into the cruciform **D Type** and the **B Type** into one with horned shoulder **C Type** and the later **G-H Type**. The Achaeans would have used such rapiers for both cut and thrust fighting.
In the second half of the 14th century a new type of sword was introduced, probably from the Near East, the **E Type** had a shorter blade with no mid-rib and with a double cutting edge. An improvement of this short sword evolved in the **F Type** which was attested from the end of the 14th century till the XII century BC. During the final phase of the Achaean period the standardization of the swords decreased and new hybrid form appeared. also the tendency to have shorter blade seem to be supersided as attesded by the longer specimens of the **F Type**. With the introduction of these slashing weapon a new form of fighting was also developed. Warriors fighting each other with such swords are seen on frescoes from *Pylos*.
At the end of the Achaean perion a new much modern type of sword spread to Greece, Crete, the Aegean Islands, the Levant, Palestine and Egypt, probably coming from the Central part of Europe and Italy. This sword know as the **Naue II Type** with its three main group was used in the Aegean area from the late Bronze Age till well into the Iron Age. This was a sturdy sword of a style known as cut-and-thrust being suited for both, although the Naue II was more designed for delivering a powerful slash.



Aegean swords evolution/classification chronology starting from the early Minoan long sword, through the A, B, C, D, E, F, G, H Type, till the bronze and iron Naue II swords.

TOP

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(*1)For what concern the possible origin of this kind of sword, some scholars have searched possible comparison with Anatolian specimens, but more likely the **A type** sword takes its origin from the Minoan triangular daggers and short swords. Furthermore the length of the blade has some similarity with a Near Eastern example found in *Byblos* Lebanon

(*2) Iliad VII, 304 ...ἐϋτμήτῳ τελαμῶνι•

(*2a)M.L. LANG *The palace of Nestor at Pylos in western Messenia Vol II The Frescoes* 1969; 71 ff. pl. M

(*3)Based on the Hittite tablet description the *Assuwa* Land can be located in the near south from *Wilusa* -Ilios- (see also the page dedicated to the Trojan war.

(*3a)BARRY MOLLOY, Martial arts and materially: a combat archaeology perspective on Aegean swords of the fifteenth and fourteenth centuries BC. World Archaeology Vol. 40(1): 116-134

(*4) Iliad XI, 29-30…ξίφος· ἐν δέ οἱ ἧλοι χρύσειοι πάμφαινον,...

(*5) Iliad III, 334; VII, 303 ; XVI, 135
ξίφος ἀργυρόηλον,

**(*5a) Κολεόν νεοπριστου ἐλέφαντος (θ 404)**

(*5b) GEORG NIGHTINGALE*The Mycenaean glass warriors* ANNALES du 16°coungrès de l'association internationale pour l'Histoire du Verre. London 2003
(*6)PETER CONNOLLY *The leggend of Odysseus* OXFORD UNIVERSITY PRESS 1986.

(*7) Iliad XV, 713…φάσγανα καλὰ μελάνδετα κωπήεντα

(*8) These swords evidently represent the original meaning of the Homeric word **φάσγανον**, which is derived , by a euphonic transposition of the letters, from the same root as that of **σφάγη** and **σφάζω** (slaughter), and thus this weapon must primitively have been used chiefly for slaughtering animals, and, perhaps, also for killing in close fight; but the name gradually lost its original signification, and in Homer it is perfectly synonymous with **ξίφος** and **αορ**.

(*8a) THANASIS J. PAPADOPOULOS *The Late Bronze Age Daggers of the Aegean I The Greek Mainland* Franz Steiner Verlag Stuttgart 1998
(*8b) Antiquity 31, 1957, 99.
(*9) The autenticity of the seal-stones from Thisbe "treasure of seals" is actually questionable, nevertheless their iconography model are significative and more likely are based on true specimens.
(*10) **Iliad III, 271-272; XIX, 252-253**.
(*11) A clear and definitive demarcation between cleavers and razors is not always possible. So it seems preferable for the time being, for the convenience of cataloguing, to follow Iakovides's arbitrary demarcation and classify anything with a blade of triangular shape and wider than 4,5 cm with the cleavers, and all those with a curved blade narrower than 4,5 cm with the razors .

(*12) φάσγανα