

EARLY BRONZE AGE DAGGERS
IN CENTRAL ANATOLIA

A Master's Thesis

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ABSTRACT

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The rapid development of metal technologies in the Early Bronze Age had played an important part in the “urbanization” of Anatolia. Daggers were the first and the most common metallurgical products in this new chapter of human history. The morphology (typology), chronology and the distribution of the Early Bronze Age daggers will offer evidence for the regional and the interregional interactions of Central Anatolia. The cultural context of daggers and the associated material presented support the conclusion that Central Anatolia formed a cohesive cultural sphere which is reflected in dagger typologies.

Keywords: Daggers, Early Bronze Age, Central Anatolia.

ÖZET

ERKEN BRONZ ÇAĞI ORTA ANADOLU KAMALARI

Arcan, Burak

Yüksek Lisans, Arkeoloji Bölümü

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Erken Bronz Çağında hızlı bir gelişme gösteren metal teknolojisi Anadolu'nun şehirleşme sürecinde önemli bir rol oynamıştır. İnsanlık tarihinin bu yeni döneminde, metal biliminin ilk ve en yaygın kullanılan ürünlerini kamalar olmuştur. Erken Bronz Çağı kamalarının tipolojileri, kronolojileri ve Orta Anadolu'daki dağılımları, bölge içi ve de bölgeler arası etkileşimlerin tespitine yardımcı olacak niteliktedir. Kültürel bağlamda incelediğimiz kamalar ve ele aldığımız ilgili diğer materyaller Orta Anadolu'nun birbirine bağlı, kama tipolojileri içinde de yansımalarını bulan, bir kültürel yapılar bütününe oluşturduğunu ortaya koymuştur.

Anahtar kelimeler: Kamalar, Erken Bronz Çağı, OrtaAnadolu, Bronz silahlar.

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TABLE OF CONTENTS

ABSTRACT.....	iii
ÖZET.....	iv
ACKNOWLEDGEMENT.....	v
TABLE OF CONTENTS.....	vi
CHAPTER I: INTRODUCTION.....	1
1.1 Previous Studies.....	2
1.2 Geographical Scope.....	3
1.3 Chronological Limits.....	5
CHAPTER II: WHAT IS A DAGGER?.....	8
2.1 Definition.....	9
2.1 Morphological considerations.....	10
CHAPTER III: CHRONOLOGICAL CONSIDERATIONS.....	12
3.1 Chronological Limits of Early Bronze Age.....	13
3.2 Current Arguments.....	14
3.3 Old Assyrian Chronology.....	16
3.4 The Royal Tombs of Ur.....	17

3.5 Chronological Labels.....	18
CHAPTER IV: CULTURAL	
BACKGROUND.....	20
4.1 Concept of the “Hatti”	20
4.2 Key sites in Central Anatolia in Early Bronze Age.....	21
4.3 Interregional considerations.....	38
4.4 Synthesis.....	41
CHAPTER V: CENTRAL ANATOLIAN DAGGER TYPOLOGY.....	
5.1 Methodology.....	45
5.2 Type I.....	45
5.3 Type II.....	49
5.4 Type III.....	51
5.5 Type IV.....	52
5.6 Type V.....	53
5.7 Type VI.....	54
5.8 Type VII.....	55
CHAPTER VI: DISCUSSION ON DAGGER TYPOLOGIES IN THEIR	
REGIONAL AND INTERREGIONAL CONTEXT.....	56
6.1 Pontic Interactions.....	57
6.2 Regional and Interregional Typological Comparisons.....	58
6.3 “Universal” Typologies.....	72
6.3 Evidence from Caucasus.....	75
6.4 Further considerations.....	75

CHAPTER VI: CONCLUSION.....	78
SELECTED BIBLIOGRAPHY.....	82
APENDICES.....	89
A. Chronology Chart.....	90
B. Typology Table.....	91
C. Figures.....	96
D. Catalog of Central Anatolian daggers.....	101

CHAPTER I

INTRODUCTION

The beginning of the third millennium B.C. is one of the most eventful eras in human history. Early Bronze Age is also the birth of “urbanization”, not just in Anatolia but in whole of the Near East. The development of metal technologies might have played a very important role in the events taking place in the Early Bronze Age (Yalçın, 2008: 34). Therefore, the metallurgical studies have been one of the major interests of scholars for over a century now (Heskel, 1983: 362). When metallurgy developed beyond production of “trinkets”, the daggers came into the scene as one of the earliest forms of what can be considered true “metallurgy”¹. Daggers are one of the oldest and commonest metal forms in Anatolia (Stronach, 1957: 89). The study of the daggers and their distribution will not only enable us to track the development of

¹ Production of “trinkets”, such as beads and awls, from the native copper sources is not considered to be metallurgy. Only the application of extractive technologies can be considered as the birth of metallurgy.

metallurgy in Central Anatolia, but also guide us to construct regional and interregional interaction models. In addition to these, the dagger typologies can be a great aid in chronological studies.

1.1 Previous Studies

Although some of the early publications (Woolley, 1934), and later ones (Bilgi, 2001) had sections dedicated to dagger typologies but comprehensive studies discussing the development, distribution and metallurgical connections of daggers are very limited in number. One of the comprehensive studies of dagger typology and chronology is part of D. B. Stronach's 1957 study titled "The Development and Diffusion of Metal Types in Early Bronze Age Anatolia". Stronach's study is structured similar to an earlier study published by Rachael Maxwell-Hyslop in 1946 titled "Daggers and Swords in Western Asia: A Study from Prehistoric Times to 600 B.C." In both studies the material is divided on the basis of general form in to "types". These types are based on the variations in the method of hafting, the outline of the blade, and form of the shoulders. Other individual differences within the determined type necessitated the further division of "types" into "sub-types" (Maxwell-Hyslop, 1946: 1). While the study of Maxwell-Hyslop was concerned with only the dagger typologies, Stronach's study is based on complete assemblage of weapons: the daggers and swords; spearheads; shaft-hole axes and crescentic axes. The major difference between the two studies is that the work of Maxwell-Hyslop has a wide geographical and chronological framework, consisting of the whole known Old World from Mesopotamia to Egypt, including some discussion of typological influences in

Western Europe which covers a time span of more than 4000 years. The end result consists of fifty-six types of daggers and some 106 sub-types. Stronach's geographical and chronological framework, in turn, is much more restricted. His main concern is Anatolia and the EBA. The resulting work is much more compact, consisting of only nine major types of daggers.

Although both of the studies presented above are very extensive and widely cited, it has been over 50 years since the publication of them. As one might expect, the excavation techniques and the scope of the questions we try to answer had improved vastly in last 50 years. Although our knowledge and understanding of the Early Bronze Age has improved by introduction of new theories in numerous publications, studies conducted on dagger typologies lagged behind despite their essential importance. They are simply described by the excavators and no further comments are made.

1.2 Geographical Scope

One of the best regions for the study of the events taking place in the Early Bronze Age (EBA) is Central Anatolia due to its location which seems to best represent the cultural changes taking place in the Early Bronze Age. During the third millennium B.C., there are discernible cultural materials in Central Anatolia from the Balkans, Aegean, Caucasia and the Near East. Central Anatolia is often mentioned as a place where the east meets west, but it also plays an important role in the interaction between the north and the south. This does not mean, however, that the Central Anatolia was shaped through only diffusion of new cultures. The Central Anatolia was

an active player in shaping its own traditions and affecting others (Zimmermann, 2007: 72). It is important to have a balanced, objective view without preconceptions when discussing theories based on “diffusion” and “independent innovation”.

In this study, Central Anatolia is used as a geographical term which spills out, and retracts, from the boundaries of what is considered “Central Anatolia (İç Anadolu Bölgesi)” in the political maps of today. Yet, it is necessary to set limits on what we can consider Central Anatolia in the Early Bronze Age. The region is surrounded by mountains and has numerous rivers which allow access into the other regions of Anatolia. What I consider “Central Anatolia” can be discerned from the geological maps of the region. It is only reasonable to adhere to the current political boundaries along the west, which includes the Eskişehir Ovası. The sites in the Konya plain, however, do not seem to be an internal part of Central Anatolia (Özgürç, 1963: 12). Therefore, the south boundary of Central Anatolia does not exceed much below the bow created by the Halys River. In addition, the borders in the east and the north do not adhere to the depiction of what is considered to be Central Anatolia in today’s political maps. The borders in the northeast must be extended to include Çorum, Amasya and Tokat. Sivas periphery on the east, however, seems to be a very difficult territory to have convenient access into the Central Anatolian Plateau despite the Halys river valley. Therefore, “Yukarı Kızılırmak Bölümü”, and the political extension of the border to the Euphrates depicted on the political maps should be retracted to west of Ak Dağlar region.

There are a limited number of excavated sites which produced daggers in Central Anatolia but it should be proper to list the Early Bronze Age sites in Central Anatolia which will be discussed to present the cultural makeup of the region.

- a. Sites with EBA dagger finds: Ahlatlıbel, Alaca Höyük, Alişar, Asarcık Höyük/Ilıca, Çadırhöyük, Göller Mezarlığı, Hashöyük, Horoztepe Kalınkaya, Kayapınar, Kültepe, Mecitözü, Oymaağaç Mezarlığı, Polatlı, Resuloglu, Yazılıkaya, and Yenihayat.
- b. Sites without EBA dagger finds: Acemhöyük, Büyük Güllücek, Eskiyyapar, Etiyokuşu, Fraktin, Gordion, Hacibektaş, Ilıca, Karayavşan, Koçumbeli, Mercimektepe, Sultanhüyü and Yarikkaya.

The list represents the sites where excavations were conducted as there are many other sites which could have been included in the list. This short list, however, should give a clear picture of the limits of the geography which is outlined in this study as “Central Anatolia”. Naturally, other sites from Anatolia and outside of Anatolia will be briefly examined out of necessity since the development of dagger typologies cannot be regarded as an isolated event.

1.3 Chronological Limits

A sound chronological framework is essential in any archaeological inquiry. The backbone of the chronological studies is based on well documented local, regional and interregional material which is securely dated not just in well executed archaeological context but also by the aid of scientific aids such as tree-ring calibrated ^{14}C tests.

As a background of the developments in the Early Bronze Age, the Late Chalcolithic will be discussed briefly but the scope of the research on the typology and the chronology of daggers starts in the Early Bronze Age I (EB I, or alternatively the Late Chalcolithic, ca. 3200-3000 B.C.) and covers EB II and III, terminating with the appearance “intermediate” ware at the end of Early Bronze Age IIIb (ca. 2000-1950 B.C.). This also coincides with the appearance of the Karum-Kültepe (level II), Old Assyrian trade colonies in Anatolia along with the written records associated with it.

The greatest challenge one has to face concerning any study in the EBA Anatolia is the problematic chronological framework of Central Anatolia. There are several alternative theories and approaches of Low, Middle and High chronologies. One of the alternative theories is that some scholars suggest that the conventional Near Eastern oriented approach to the chronology of Anatolia might be partly responsible for the chronological problems we are facing today. As it will be presented, there are pottery sequences in Central Anatolia with some possible connections to Southeast European cultures and the Caucasus region. It seems that the Near Eastern influences were only visible in the late third millennium. Therefore, it is well worth exploring the possibility that Anatolia was at the fringes of the traditional Near East and the Bosphorus was not an impenetrable obstacle as apparently once thought. Although these issues will be further discussed in the chronology chapter, this study will utilize the more conventional approach of the Middle chronology as much as possible.

At the end of this study, the dagger typology and chronology of the third millennium B.C. will support the other types of evidence concerning the cultural makeup of Central Anatolia. The research shows that the dagger typologies and

chronology shows the existence of what we can call “Hatti” culture, possible regional interactions of this cultural sphere during its formation/development.

CHAPTER II

WHAT IS A DAGGER?

For most of us the term “dagger” might not need an explanation as we have a mental picture of a weapon which has a triangular blade with two cutting edges. Its primary purpose is accepted as a thrusting or a stabbing weapon. When we turn to military and archaeological literature, rather than popular opinion, there is still no clear consensus for the differentiation of bladed instruments (Zimmermann, 2007: 4). As Zimmermann points out, there is no concrete statement, both in lexical terms and monographic evidence, defining what a dagger is but rather there is a large number of variants of the dagger description (Zimmermann, 2007: 4). The main distinction between a knife and a dagger is that a knife has one cutting edge and its blade is not symmetrical.

2.1 Definition

Nevertheless, a simple internet search for a dagger, basically in any language, will also include large knives along with what is considered to be a dagger in this study. The reason behind this seems to be the cultural value of what is attached to daggers. The knives that are included in the "dagger" category are what we can consider "an intimidating weapon". The modern emphasis on the "weapon" quality of a dagger might be misleading since it is certain that the daggers in prehistoric times were an important tool not just for war but also for peaceful purposes. As a result, a dagger's weapon quality cannot be used as a sole qualifying contribution for defining it but, rather, its dual function as a utilitarian tool and a weapon should be accepted.

Even though, we can define a dagger as a pointed, symmetrical bladed weapon, size variation creates further classification issues which complicate what should be considered a razor, short sword or dagger. The scholarly opinion on the limits of the blade length which determines what can be considered a razor, a dagger or a short sword is varied. Since this issue is not resolved in scholarly literature, in most of the studies the distinctions between a razor, dagger or a sword based on its blade length is decided by the researcher (Zimmermann, 2007: 5-6). On this consideration it should be also noted that the continued use of a blade will cause the blade size to be reduced in length and, to some degree in thickness, by result of occasional re-sharpening processes (Zimmermann, 2007: 6).

There is a need to establish some guidelines for making a distinction between a razor, dagger and a short sword in this study. A dagger, considering its minimal length, should be able to serve a dual function: a tool that can serve a utilitarian

purpose as well as a weapon capable of causing at least a minimal injury for defensive or aggressive purposes. In this sense, we should consider a blade length of less than 5cm not as a dagger but a razor. On its maximum length, we should once again consider its dual purpose. A dagger should not be a weapon that can be solely used as a device to keep aggressors at a distance to have advantage in a fight, much like a spear or a sword. If this is accepted, any blade longer than 30cm has no utilitarian purpose other than being a fighting instrument. The threshold between a short sword and a sword is beyond the issues considered in this study.

2.2 Morphological considerations

The final argument to discuss for defining a dagger is related to its tang. Conventionally, blades with relatively a flat, wide tang (Fig. 2), blades with short tangs (Fig. 3), or blades without tangs (Fig. 4) are considered to be typologically a dagger. There is, however, an argument whether the blades with bent tangs (Fig. 5) should be considered a dagger. The argument is based on the presumption that any blade with what is called a “bent tang” is a spearhead. Admittedly, the presumption cannot be proven by the facts. The organic handles of daggers from the EBA do not generally survive. There is, however, a later example of a dagger blade from Late Bronze Age Canaanite context (Fig. 6) which clearly displays how a handle would have been attached to a bent tanged dagger (İpek-Zimmermann, 2007: 56-7). Although a late example of a dagger with a bent tang from Canaanite context may not prove with certainty this technique was also utilized in EBA Anatolia, the Canaanite dagger proves the morphological possibility of such technique.

It should be accepted, at least theoretically, that some of the proposed spearheads might, in actuality, be daggers. The practice of accepting any blade with a bent tang as a spearhead is not a sound practice. The whole morphology of the blade should be carefully considered. In such a case, the spearheads apply greater pressure to a surface and generally are built sturdier than the dagger blades. They are thicker (Fig. 7), yet penetrate with ease. The same blade used as a dagger would require great force to pierce an opponent. Also, a dagger blade would bend easily if it was used as a spearhead. Another indication of a blade being a spearhead is the metal imitation of the wooden shaft attachment, including other organic material such as the cord (Fig. 8). This argument especially applies to many of the so-called spearheads from İkiztepe which are already discussed in a publication, yet the general acceptance of many of the daggers as possibly having been misclassified as spearheads is lacking. I do believe that, in the near future, many of the blades which were thought to be spearheads will be reclassified as daggers.

CHAPTER III

CHRONOLOGICAL CONSIDERATIONS

As mentioned earlier, any archaeological inquiry must have a sound chronological framework. Since it is not the purpose of this study to reconsider the chronological framework of the EBA Anatolia, conventional chronology, especially the Middle chronology will be followed. In this more or less established framework, it is possible to place the typology and chronology of the daggers under study in temporal and spatial order. It should be stated, however, that in Central Anatolia, and Anatolia in general, the Early Bronze Age chronology is still debated. The purpose of this chapter is not to finalize these debates but, rather to outline the major arguments for the need of reconsidering the chronological framework of Central Anatolia.

3.1 Chronological Limits of Early Bronze Age

The Early Bronze Age (EBA) is dated between ca. 3200-3000 B.C. and ca. 2000-1950 B.C. The date given for the beginning of the EBA, as mentioned above, has two hundred years of uncertainty. At the same time, the end of the EBA, although it was mentioned earlier that the termination of the EBA era is marked by the appearance Assyrian merchant colonies, the absolute date for this transition is not clear as well. Moreover, the internal division dates of the EBA into EB I, II and III are a hotly debated issue in Anatolian archaeology.

Dating the beginning of the EBA is not an easy task since the date given will have its repercussions in the following centuries. The early date (3200 B.C.) suggested for the start of the EBA is based on interregional connections in Anatolia. Troy deserves our attention here since, essentially, Troy was the “touchstone” in chronological studies in Anatolia together with Tarsus. The longest studied site in Anatolia, Troy, had, however, its own problematic chronological interpretations fueling many debates amongst the scholars. While Mellink has argued that Troy I is contemporary with Tarsus EB II, which places the beginning of Troy I to ca. 2700 BC, Mellaart believed that Tarsus EB IIIa must start later than the beginning of Troy II, effectively correlating Troy I with Tarsus EB I, instead of with Tarsus EB III (Easton, 1976: 145). Mellaart also suggested that the Cilician EB I start before the end of the fourth millennium (Easton, 1976: 145). Therefore, although 3200 B.C. might be accepted as beginning of the EBA, its effects should be carefully considered.

3.2 Current Arguments

There seems to be a chronological abyss in the early first half of the third millennium B.C. One solution to this issue was to pull in many of the sites which were dated to the second half of the third millennium into the first half of the millennium. Which means, many of the sites which were dated to the EBA III were proposed to be re-dated to EB I and EB II (Bertram, 2008: 74; Yalçın 2010: 62). The traditional dates given for many of the Central Anatolian sites are disputed by some of the scholars, such as Thissen (1993), Bertram (2008) and Yalçın (2010). Thissen and Bertram based their suggestions on the framework of more traditional approach, such as pottery and metal typologies. Bertram's argument is based on correlating the pottery typologies of Ahlatlıbel, Etiyokuşu and Koçumbeli in the Ankara region, which all shared the same cultural and chronological characteristics, with of the EBA II pottery assemblages of Demirci Höyük in Western Anatolia. As a result of this correlation, Bertram concluded that Ahlatlıbel, Etiyokuşu and Koçumbeli should be dated to the first half of the third millennium B.C. rather than the second half. At the same time, he offered a caveat that correlating the cultural materials of sites separated by such distances, as Central Anatolia and Western Anatolia, may result in false chronological correlations (Bertram, 2008: 74). Another issue Bertram raised was the metallurgical connections between Ahlatlıbel and Alaca Höyük, based on spiral pins which were found in both sites. Interestingly, these pins were dated to the first half of the third millennium B.C. (Troy II, 2600-2300 B.C.) by Seton Lloyd (Bertram, 2008: 74). The same pins, however, are dated to the EB III at Alaca Höyük. According to Bertram, instead of reversing the dates at Alaca Höyük, the date of Ahlatlıbel strata was

accepted as belonging to the second half of the third millennium by most of the conservative scholars (Bertram, 2008: 74). Thissen in turn, concentrated on the pottery evidence from Dündar tepe; possible problematic stratigraphical interpretations based on the seemingly similar but distinct pottery sherds (the failure to identify white filled incised pottery sherds as an interior or an exterior decoration) and proposed possible ceramic connections between Dündar tepe and the Cernadova cultures in Southeast Europe (Thissen, 1993: 207-19). There are apparent connections between Central Anatolia and Southeastern Europe in the late Chalcolithic and the EBA and it is not disputed by most scholars. The main difficulty arises when we consider the nature of these connections. As Thissen stated, we do not find complete cultural materials, or exact parallels of South European materials in Anatolia (Thissen, 1993: 214). Therefore, it is rather difficult to make solid statements concerning the chronological ties between these two regions. Naturally, the evidence Thissen proposed, then, fails to go beyond supposition. The last advocate to consider in this study for converting formally the EB III dated Central Anatolian settlements to the EB II dates is Yalçın. He had already suspected that the Central Anatolian chronology is in need of reconsideration. One of the main arguments he presents for this endeavor is the radiocarbon dates he had acquired from Alaca Höyük. The ¹⁴C analysis of organic materials (wood) preserved in awls and hair pins found in Graves A, A' and S suggested that the graves should be dated to the first half of the third millennium B.C. (2850-2500 B.C.) (Yalçın, 2010: 62). As most scholars are aware, however, radiocarbon dating has many variables which may result in erroneous results.

Therefore, radiocarbon dates cannot be taken as a definite, unquestionable data without the aid of other chronological evidence.

3.3 Old Assyrian

Naturally, the chronological frame work of the third and the second millennia cannot be alienated from each other since they are interdependent (Reade, 2001: 11). The written records of the Near East at the very end of the third millennium, and in the second millennium, form the bases for the construction of the conventional Anatolian chronology. According to Reade (2001: 1), from about 1450 B.C. onwards, the written records of the literate societies with their interlocking king lists and synchronism form a dependable chronological reference. Reade also adds that the written record predating 1450 B.C., which are produced by interdependent cultures in Egypt and Western Asia, cannot be taken as solid evidence for absolute dating purposes in the previous 1000 years (Reade, 2001: 1).

Old Assyrian presence and activity in Kültepe, which flourished during the Karum-Kanesh levels II and Ib, however, offers a great aid in construction of a chronological frame work for the early second millennium B.C.

The discovery of “Kültepe Eponym List” and its correlation with “Mari Eponym List” confirm that 40 years given in Assyrian King List for Erisum I is correct. In addition, this correlation also proves that the so-called “Distanzangaben” in later Assyrian building inscriptions which states that there was a 199 years between the rule of Erisum I and the death of Samsi-Adad is also correct (Veenhof, 2008: 29).

If this is taken as a starting point, the Assyrian chronology can be linked with the Babylonian chronology since Samsi-Adad's death occurred in 1776 B.C., the 18th year of Hammurabi of Babylon, the 4th year of Ibal-pi-El II of Eshunna (Veenhof, 2008: 29). This formulation, therefore, places the accession of Erisum I to 1974 B.C. (Veenhof, 2008: 29).

Based on the current evidence, it is suggested that the Assyrian presence at Kanesh started during the reign of Erisum I. It is, however, probable that the well-organized trading ventures first started by Erisum I's father, Ilusuma (Veenhof, 2008: 32). Therefore, it is very reasonable to assign the years between 2000-1950 B.C. as a terminating point of EBA in Anatolia.

The contacts between Anatolia, North Syria and Mesopotamia do not start with Ilusuma but rather date to much earlier era. Kültepe, once again, plays an important role in the interpretation of these contacts by the finds which are contemporary with the Early Dynastic III, Akkadian and the post-Akkadian (Özgürç, 1986: 31). These materials, however, will be discussed in detail in the following chapter.

3.4 Royal Tombs of Ur

The chronological framework of the third millennium Ur, especially the Royal Graves/Tombs plays an important role in the conventional chronology of Anatolia in the third millennium B.C. The traditional date given for the end of Early Dynastic (ED) period is 2350 B.C., and the Royal Tombs of Ur are dated somewhere around 2500 B.C. (Reade, 2001: 14). This date given for the Royal Tombs of Ur fits well the long third millennium sequence from ED I-III through Akkadian (Reade, 2001: 14).

Although, the duration of the cemetery is more or less accepted as lasting from Ed III A to the beginning of Ur III period, the internal chronology of the cemetery is problematic due to its location on a refuse heap (Pollock, 1985: 129). Woolley, the early excavator of the site, devised a scheme of dating the graves by utilizing sequences of different superimposed graves. The result was a division of the graves as Predynastic, Second Dynasty, and Sargonid (Pollock, 1985: 129). Nissen, in turn, using the same technique, had divided the graves into seven phases (Pollock, 1985: 130). On the other hand, Pollock (1985) used a different technique, the seriation of ceramics by using “nonmetric multidimensional scaling”, and divided 241 graves into six temporal periods. The chronological information from these graves was used as a guide to date the rest of the graves (Pollock, 1985: 130.141). Pollock’s list of the graves dated by this method provides a useful tool in cross referencing Anatolian material which claimed to have cultural connections with Ur, or Mesopotamia.

3.4 Chronological Labels

For the last fifty years, most scholars choose between the main High, Middle, and Low chronologies (Reade, 2001: 9). There is 120 years difference between the traditional High and Low chronologies. Many of the studies and reports do not indicate what chronological framework was used, if the main purpose of the study is not resolving chronological arguments. Rather chronological labels are used or statements such as second half of the third millennium, last quarter of the third millennium are used. By this practice, cultural materials from different sites can be related without absolute dates.

The majority of the dagger finds in Central Anatolia, and the immediate surrounding area, are dated to the last half of the third millennium (EBA II-III), especially to the last quarter EBA III). These dates correlate with the Mesopotamian chronological labels of ED III A, ED III B and Akkad.

CHAPTER IV

CULTURAL BACKGROUND

4.1 Concept of “Hatti”

In Hittite times, a major portion of the Central Anatolian plateau was called the “Hatti land”. The culture of the “Hatti land”, naturally, predates the establishment of the Hittite empire. In the study of the dagger typologies, or any other kind of inquiry in Central Anatolian region, the understanding of this “Hatti” culture is essential. There are a total of sixteen sites in Central Anatolia where dagger blades dating to the third millennium were recovered. Out of the sixteen sites, eight of the sites, which can be considered the “key” sites in this study, are discussed below. In addition, there is a section on the subject of interregional issues related to the much debated origin of the “Hatti” which has taken much scholarly attention.

4.2 The Key Sites in Central Anatolia in Early Bronze Age

Ahlatlibel

In the study of the dagger typologies, Ahlatlibel is the first site to be considered. It is located 14 km southwest of Ankara. The discovery of a residential complex with agricultural storage facilities, as well as evidence of textile production, led to the suggestion that Ahlatlibel was a location for an elite ruler in EBA II/III (Yakar, 1985a: 33).

A survey conducted in the Ankara region shows that the Early Bronze Age (EBA) culture of Ahlatlibel has strong cultural affinities with other sites in the region, especially Etiyokuşu and Koçumbeli (Bertram, 2008: 64). The typology of the material from these three sites is very similar to each other and must be dated to the same era. It is, however, certain that the relationship of these sites was not only limited to such a restricted area. For example, terracotta idols from Ahlatlibel have (Ankara type) have their close parallels in Kültepe and Alişar III (Harmankaya-Erdoğu, 2002).

Our evidence for the metallurgy at Ahlatlibel comes to us from the 18 intramural burials of pithos and cist type graves. Seven out of the eight pithos graves were actually placed underneath the houses without regard to age or sex of the individual. Since these graves were located at the corners or the houses, they must be contemporary with the house. Many aspects of the graves follow the Early Bronze Age Central Anatolian burial customs. The body is placed in a grave in a flexed position, as is customary of EBA internments in Central Anatolia, and the body lies on an east-west axis. The legs point toward the east and the head towards the west. Another common practice in Anatolia was to bury the deceased with the items that

individual used in his or her daily life in addition to some grave offerings which were placed near the body. The metal finds recovered from the graves were composed of pins to attach the fabrics, as well as items which might be associated with gender of the deceased. This item group is personal accessories such as earrings, necklaces, bracelets, axes, daggers and fragments of cups. Although most burials were of a single individual, graves eight and nine each contained a male and a female placed together in the same burial (Harmankaya-Erdoğlu, 2002). Suggested by the finds from similar grave sites, such as Resuloglu and Alaca Höyük graves, these items would have been found *in situ* in proper locations, e.g., earrings would be found by the skull, bracelets on the arms, necklaces on the chest, and so forth. This is important for the discussion of the daggers as they were often found at the hip level of the individual. More essential to this discussion is that grave number ten contained female associated items such as a gold ring, copper neck ring, a bracelet in addition to a copper dagger and an ax which are usually associated with male burials. The daggers recovered were not rendered useless except one from grave number nine which was intentionally bent.

There were no remnants of furnaces or other metal working evidence such as molds, crucibles, ores or slugs recovered from Ahlatlıbel. This caused some scholars to suggest that the metal artifacts from Ahlatlıbel were obtained from somewhere else. Yakar suggests that the metalwork of Ahlatlıbel belongs to the Pontic region, particularly Çorum and Tokat. He comes to this conclusion based on typological grounds and chemical analysis. A shaft-hole axe, a mace -head and double-spiral and hammer-headed pins are shown as the evidence for the Pontic origin of the Ahlatlıbel metal artifacts (Yakar, 1985a: 34). As Yakar himself admits, however, the negative

evidence cannot be taken as a definite proof. Therefore, we cannot state as a fact that Ahlatlibel lacked its own metal industry. If indeed Ahlatlibel had its own metal industry, the supply of copper based metals would have come from Çorum and Tokat provinces (de Jesus, 1980: 125).

The date for the Ahlatlibel graves is part of the chronological debate as well. While Jack Yakar and some others place it to the EB III traditions, the excavators and others suggest that the graves belong to EB II.

Alaca Höyük

The next site to discuss which plays an important part in the study of dagger typologies is Alaca Höyük. Alaca Höyük is the most famous Central Anatolian site that belongs to the Early Bronze Age, mostly due to the discovery of the so called “royal graves”.

The first report of the 1935 excavations of “royal graves” was published in *Belleoten* in 1937. In 1938, the metal finds from the Alaca Höyük “royal graves” were seen as a product of “a contact zone”, where the Cycladic culture of the Aegean and the Kurgan Culture of South Russia met each other (Robinson, 1938: 293). Later studies expanded the cultural influx beyond the islands on the west coast of Anatolia and recognized the possible cultural influence in north Central Anatolia from the Balkans (Southern Europe).

The excavations conducted by Hamit Koşay and Mahmut Akok in the late 1930s revealed the existence of Chalcolithic, Early Bronze Age, Hittite and Phrygian layers (Koşay-Akok, 1947: 152). There are number of pottery shapes that are known

from the Chalcolithic layers of Alaca Höyük. Koşay and Akok states that: “Fruit stands and vessels with broad mouth and distinct base are very common, whereas a vessel, found in tomb with a concave body represents a rare type”; Often, the rims of the vessels are beveled and have nipples on the belly to serve as handles (Koşay-Akok, 1947: 153).

Koşay and Akok believed that the Early Bronze Age of Alaca Höyük was a continuation of the same culture which took some of the elements from the earlier era, Chalcolithic, and developed them further. The pottery of the Early Bronze Age in Alaca Höyük is divided into six categories by the excavators: (1) Burnished pottery which had red slip in both the exterior and the interior (Alaca Type I); (2) Relief decorated and black slipped pieces which were also found in Ahlatlibel and Kusura; (3) “Ahlatlibel” type with red interior and black exterior; (4) Gray ware; (5) sherds decorated with nail incisions; (6) painted ware which is rarely found (Koşay-Akok, 1947: 154-155).

The rich metal finds from Alaca, including the daggers, came from the 13 so-called “royal graves”. The graves were in use for more than one generation. The time span suggested by Özgürç and Akok suggested a time span of 100 years as the maximum, but possibly lower (Özgürç-Akok, 1957: 214). This meant that some of the graves were older or younger than others. The spatial relations between the graves, however, are not clear since the early excavators used the ground level as a stratum marker despite the fact that the ground where graves are located slopes (Özyar, 1999: 79-85). Nevertheless, it was suggested that the graves were built on top of an abandoned EBA II occupation layer. Due to this assumption, the “royal graves” were

dated to the second half of the third millennium B.C. The conventional date given for the “royal graves” is between 2400 and 2200 B.C. (Mellaart, 1957: 65-66).

The royal graves were built as low rooms with masonry sides and flat, wooden roofs. The floors were usually packed with dirt, but some had paved floors such as grave R.M. Akok proposed that the rooms were organized as if they were a bedroom (Akok, 1979: 109). The orientation of the room and the deceased is on an east-west axis, with the head of the individual pointed towards the west, and legs towards the east.

Most of the graves contained a single individual, but it was not unusual for a grave to contain two individuals. The deceased are buried in flexed position with many belongings, which may or may not have been considered valuable. Even the richest graves contained simple items such as pottery that might have been used in the individual’s daily life. The evidence indicated that the dead were buried with their clothes on and were perhaps wrapped in animal hide as it is evinced by grave H. The suggestion of the individual having been buried clothed comes from the *in situ* finds of pins to attach the fabrics, metal ornamentations for fabric, and jewelry and weapons worn as they would have been in daily life. Daggers, when present, are found at the hip level of the deceased (Harmankaya-Erdoğan, 2002). It appears that weapons were not exclusively found in male burials since some were recovered from a female burial. The presence of weapons belonging to a female burial led to suppositions that the individual was a high status individual, perhaps a “queen”. One should be aware, however, that the remains might belong to adolescent and mistakenly identified as a

grown woman. This miss identification, however, is unlikely since there are other examples of female burials with weapons, such as in Ahlatlibel.

Alişar

Alişar is located on the largest tributary of Halys River, Kanak Su, in the province of Yozgat. Alişar was first excavated between 1927 and 1932 by University of Chicago, under the leadership of Hans Henning Von der Osten. Alişar was one of the first sites excavated in Anatolia that provided a complete stratigraphic sequence with cultural layers from Chalcolithic through Byzantine times. Although the excavations were conducted by the highest standards of the time, as apparent in the excavation reports published in OIP (Oriental Institute of Publications), this was a difficult site to excavate due to settlement phases not been imposed right on top of each other. Stratigraphic confusion resulted in erroneous stratigraphic assignments. Although there was a realization of the existing problems in the 1930-32 season, and some adjustments were made, the early excavations contained problematic issues (Von der Osten, 1937: vii). Due to these facts, the investigations in Alişar were restarted in 1993 (Gorny, 1995: 52). The pre-Hittite occupation in Alişar is now divided into three periods as follows: Late Chalcolithic/EB 1 termed Alişar 0 (Levels 19M-15M) and Ia (14M-12M); Copper Age which corresponds to EB II - EB IIIa and termed Alişar Ib (11-7M) and 14-13T); EBA corresponding to EB IIb and intermediate period and defined as Alişar III (Yakar, 1985). Alişar III ware is also termed as “Cappadocian ware”. It is best to consider the original excavations reports of Von der Osten which enables the researches to reconsider Alişar material in comparative studies.

Hans Henning Von der Osten suggested that the Chalcolithic phase of Alişar should be dated to within the first half of the third millennium B.C or possibly the second half of the fourth millennium B.C. (Von der Osten, 1937: 30). The Chalcolithic levels did not reveal coherent architectural house plans, but it was determined that there were at least two building techniques: mud brick and wattle- and-daub construction. Children were buried under the houses while adult burials were located outside the houses (Von der Osten, 1937: 43). The bodies were placed in the grave in a flexed or contracted position, turned to the right side and the head towards the west while their feet pointed towards the east. The excavators recovered organic material from the graves suggesting that the deceased were wrapped in fabric and hide. There were four types of burials: simple earth burial, cist grave and body placed in a pot (pithos) or a wooden box (Von der Osten, 1937: 32.44).

Metal finds come from only the highest level of the Chalcolithic (Late Chalcolithic/EBA I) settlement. These finds include two fragments of dagger blades, an arrow point, a pair of earrings, two bracelets from a burial and a copper stamp seal. In addition to these copper objects, there was a pair of silver earrings, and a lead stamp (Von der Osten, 1937: 91).

The second cultural period known from Alişar is the Early Bronze Age settlement. The Early Bronze Age in Alişar starts out as a fully developed phase. Copper was used for production of small blades, tools and accessories. Bronze only appears at the end of the cultural phase. The cultural break from the Chalcolithic period is also evident from the pottery finds. The new pottery horizon is marked by red slipped ware. The vessel shapes, however, are more primitive and less varied than

the previous cultural layers. The Chalcolithic red ware was tempered with fine grit, unlike the Early Bronze Age red ware which had plant base tempering (Von der Osten, 1937: 110). Painted ware comes from the last two levels of the cultural deposits of the Early Bronze Age. Interestingly, the decoration techniques of the painted ware resemble the painted ware of the last two levels of the Chalcolithic period (Von der Osten, 1937: 155). There are also finely made fragments which might belong to depata of Troy II type (Von der Osten, 1937: 158). One of the sherds illustrated (fig. 165) in the 1930-32 Alişar season report has interior groove decorations which are found in other Anatolian sites.

In the first phase of the Early Bronze Age only the citadel was occupied, but during the later phases the settlement spread out to the terrace of site on virgin soil. There are a total of five cultural layers (7 to 11 M, 14 to 16 L) which compose the Early Bronze Age culture in Alişar. Level 7 M was dated to the Troy II phase according to the pottery finds. The end of the Early Bronze Age in Alişar was dated to the beginning of the second millennium B.C. (Von der Osten, 1937: 110-111).

The burials were located underneath the houses and were the same types as the Chalcolithic burials, but there seems to be no favored orientation to the graves, unlike the Chalcolithic burials. The deceased might have been buried with clothes on due to findings of large pins in situ, about the shoulder level of the individual (Von der Osten, 1937: 111). Of the 46 burials recovered from the Early Bronze Age deposits, 25 were pithos burials (Von der Osten, 1937: 134-135). Twenty of the burials had grave offerings. These offerings were composed of simple jars, earrings, bent pins, bracelets and, in one of the burials, a necklace (Von der Osten, 1937: 136).

Depata with red cross decoration first appear in level Ib. There are also parallels of depata with this type of decoration in Kültepe. Although the origin of the depas is considered to be Northwest Anatolia, the depata from Alişar and Kültepe are closely related to the cups from EB III Tarsus (Stronach, 1957: 65).

After the excavation reopened in 1993, the project diverted its attention the following year to other sites in the region, threatened by the Gelingüllü dam project (Gorny, 1995: 52). The work later resumed in Alişar. The most interesting, but coming as a no surprise to many, result of the reconsideration of the Chalcolithic pottery was its possible connection to Balkan cultures. These findings are paralleled in Güzelyurt and Kamankale Höyük in Anatolia and Precucutine phase of the Thracian Vinca culture (Gorny, 1995: 53).

Horoztepe

Horoztepe is the furthest site to the northeast to be considered for this study of regional dagger typologies. The cemetery of Horoztepe provided rich metal finds comparable to Alaca Höyük. As is the case in Alaca Höyük, the daggers recovered from Horoztepe come from burial contexts, rather than the settlement site.

The extramural cemetery of Horoztepe is located at the neighborhood of Erbaa, not too far from the ancient flat settlement of Horoztepe. The ancient cemetery of Horoztepe is serving the same purpose today as it was in EBA. Modern graves have caused wide destruction and looting at the site. The first the rich EBA graves came to the attention of scholars in 1954, but the first controlled excavations under T. Özgürç and M. Akok did not start until 1957. Özgürç reported that the burials were the same

type as the Alaca graves where a large hole was dug into the ground (8.5m x 2.5m). Similar to Alaca, the body was placed at the center of the grave and was surrounded by rich offerings such as weapons, sun-disks, sistra, metal cups and bowls. Many of the metal objects are known from Alaca Höyük. In addition, there were some previously unknown forms, as well as known forms which were modified according to local tastes. The construction technique of the grave might have been different as well since there were no traces of walls or timber remnants (Mellink, 1959: 75). It is, however, proposed that the grave was constructed entirely of wood which decayed without leaving any discernible evidence. Some differences are also apparent in the burial practices such as a lack of sacrificed animal remains that are commonly found in Alaca and other Central Anatolian sites (Harmankaya-Erdo, 2002).

The excavators of the graves, ozguc and Akok, believed that the Horoztepe cemetery was contemporary with the Alaca Höyük “royal graves”, but was in use longer. The proposed date for the establishment of the Horoztepe graves is the last centuries of the third millennium, ca. 2200-2100 B.C. The excavators also proposed that the date of the Horoztepe graves possibly be lowered based on the North Syrian parallels for the metal tools, especially the spearheads and gimbals, from Horoztepe and Dundar tepe. Therefore, the 2200-2100 B.C date would be the highest one possible for the Horoztepe Cemetery, according to ozguc-Akok, it has to be dated before the Kanish- Karum level IV (ozguc-Akok, 1957: 211-219).

The metal works recovered from the Horoztepe graves have their typological parallels in Alaca, Mahmatlar and Kalinkaya (Yakar, 1985: 31). The custom of

intentionally mutilating metal vessels is also observed in the Black Sea area (Özgürç, 1964: 1).

Kalinkaya

Kalinkaya is located approximately 3 km northeast of Alaca Höyük. The site was first investigated in the late 1940s by Raci Temizer, but the concentration of the excavation was focused on the Hellenistic/Roman tumulus located at Kalinkaya (Zimmermann, 2005: 271). In 1971, looting activities reported south of the tumulus, the area known as Topraştepe, resulted in rescue excavations which prevented the total loss of prehistoric domestic and funeral remains (Zimmermann, 2005: 276).

The excavations revealed occupation layers from the Chalcolithic to Early Bronze – Middle Bronze transition. The extramural cemetery of Kalinkaya offered 34 graves containing 72 burials (Angel-Bisel, 1986: 12). While most of the graves were simple earth graves, there were 13 pithos graves and a cist grave dating from 3100 B.C to 2300 B.C. The cemetery of Kalinkaya/Toptaştepe was also in use from the Chalcolithic through the Early Bronze Age (Zimmermann, 2005: 276). The Early Bronze Age burials provided a rich array of grave offerings, including 50 metal objects. Besides bronze pins, bracelets, rings, necklaces composed of bronze and crystal beads, and small cups, there were also two bull statuettes, a ceremonial standard, tools and weapons such as a mace head and four daggers (Zimmermann, 2005: 279-283).

The bull statuettes and the ceremonial standard strongly suggest that Kalinkaya belonged to the realm of the central Anatolian, especially north central Anatolian

metalworking realm which included Alaca Höyük, Horoztepe and Resuloğlu (Zimmermann, 2005: 286).

Kültepe

Kültepe is located 21 km northeast of Kayseri. The importance of the cuneiform tablets discovered in Kültepe was already mentioned in the previous chapter. Other material remains for this site also are well worth mentioning, in terms of cultural interactions and correlations.

The materials of Kültepe show that the site had wide reaching contacts, from Troy in Western Anatolia to Southern Mesopotamia (Özgürç, 1986: 38). The commercial links with North Syria and Mesopotamia during the Early Dynastic III (ED III) period, increased greatly during the Akkadian period, and continued during the Third Dynasty of Ur (Özgürç, 1986: 44).

The presence of imported materials, or local imitation of such material, well attests these connections. EB III is subdivided into three phases, level 13 through 12 (Özgürç, 1986: 31). A flask of alabastron shape was recovered from level 12. It was imported to Kültepe from North Syria or Cilicia. There were two other similar vessels in level 13. In addition, there was another vessel in level 11 with same typological qualities as the other vessels but the decoration techniques and two lug handles suggest that this vessel was a local imitation of a Syrian bottle of alabastron shape. These types of pots with the same shape, and made by the same technique, have been found at Tarsus EB III stratum and in the burials at Amarna (Özgürç, 1986: 35). The handled cups (depata) found in Kültepe EBIII levels are the indication of the trade

relations between Kültepe and Troy. Two handled cups at Kültepe levels 11 and 12 are in various types. Those from level 12 have red cross decorations which were also recovered from Alişar (Özgürç, 1986: 40).

To connections to Mesopotamia is well documented by small and precious objects which can be easily transported. An example would be a gold pendant of a Mesopotamian type found in a grave in level 13. The pendant has a parallel in the Royal Cemetery of Ur (ED III). In a pot grave of level 12 was a pair of spirally curled hair rings, which differ from Alaca Höyük example, have contemporary (Akkadian period, 2300-2200 B.C.) parallels in Tell Brak (Özgürç, 1986: 42).

Polatlı

Polatlı was first excavated in 1949 by Seton Lloyd and Nuri Gökçe. The site is located 65 km southwest of Ankara, on the main railway to Istanbul. The site came under attention due to the extensive damage caused by the modern inhabitants of Polatlı withdrawing dirt from the mound for the manufacture of mud brick. As a result, pottery and metal objects belonging to the EBA, in addition to the Hittite levels, were uncovered and eventually made their way to Ankara (Lloyd-Gökçe, 1951: 21).

Although no “amazing” discoveries of riches were made, the complete strata of 31 occupational levels provided a very informative picture of the pottery sequences in the region (Lloyd-Gökçe, 1951: 23). Lloyd and Gökçe divided the occupation layer of the site into four distinct phases: levels I-X and XI-XV represented the sub-periods of the Bronze Age, levels XVI-XXII represented the “Cappadocian” phase and levels

XXIII through XXXI represented the Middle and Late Bronze Age Hittite period (Lloyd-Gökçe, 1951: 21).

Phase I and Phase II are separated in level XI by the sudden disappearance of what is called “local ware”. Unlike what the name suggests, however, “local ware” in Polatlı was also recovered in Karaoğlan, Etiyokuşu and elsewhere, including Alaca Höyük and Alişar I (Lloyd-Gökçe, 1951: 55). The closest parallels, however, come from Ahlatlibel (Lloyd-Gökçe, 1951: 55).

In the later levels of Phase I, the firing techniques advances and the percentage of the black, coarse sherds become rare and the proportion of the burnished wares rises considerably (Lloyd-Gökçe, 1951: 45). The “*depas amphikypellon*” from the later levels of Phase I is the earliest wheel made vessel known from Polatlı (Lloyd-Gökçe, 1951: 46). As depata are known from many other sites, including Troy, they play a major role in assigning dates for the levels which they were found in. Exact parallels of the depata found in Polatlı occur in EBA Troy II and III, and therefore the date for the Phase I is correlated to those phases in Troy (Lloyd-Gökçe, 1951: 56).

The transition from the Phase I to Phase II is marked by two types of pottery. The first of these is the “multiple-crossed bowl”. The particular feature of these red painted vessels is the ornamentation of the interior with radiating lines, rather than decorating the exterior of the vessel. The second type of pottery is black burnished ware which has incisions filled with white paint. Curiously, one of the vessels found in the earliest levels of Phase II had the white paste filled incisions as a decoration in the interior of the vessel (Lloyd-Gökçe, 1951: 46).

Phase III in Polatlı is characterized by the appearance of what is called “Cappadocian ware” which we are also familiar with from many other sites in Central Anatolia, such as Alişar and Kültepe. Another familiar Central Anatolian pottery type found in Phase III in Polatlı is the “teapot spout” (Lloyd-Gökçe, 1951: 48). The famous beak-spouted type of vessels appears for the first time in the final levels of Phase III and continues into Phase IV (Lloyd-Gökçe, 1951: 49).

The final EBA levels in Polatlı belong to the Phase III and are dated to the very end of the third millennium and the beginning of the second millennium. As in many other Central Anatolian sites, it is characterized by the appearance of the painted “Cappadocian ware” and finalized by the appearance of “Alişar II” type which are dated to the time of the Kültepe Tablets (Lloyd-Gökçe, 1951: 54).

Last of all, the metal objects from Polatlı deserve mentioning. Although the majority of the well preserved metal objects come from the quarry operations conducted by the villagers, they were assigned to the EBA levels by the excavators. It is most likely that some or all of them are belongs to a tomb group (Lloyd-Gökçe, 1951: 60).

Resuloğlu

The EBA Resuloğlu cemetery and related settlement are located 900 meters of northwest the modern village of Resuloğlu in Uğurludağ district in Çorum (Yıldırım, 2010: 12).

The cemetery of Resuloğlu was first discovered during a survey in 1998 and the excavations started under the direction of Tayfun Yıldırım in 2003 (Yıldırım,

2010:11). Excavations between 2003 and 2010 revealed 276 graves belonging to three different levels. Based on the comparative chronology, a large number of the graves came from the Level III and Level II are dated to the second half of the third millennium B.C. The final level of the cemetery, Level I, is dated to the very beginning of the second millennium B.C. (Yıldırım, 2010: 11). Although there is a small number of a simple earthen grave, the majority of the graves are of pithos type, in addition to some cist graves. A very small number of intramural graves outside of the cemetery area are also found in the settlement area, but most of these burials underneath the houses belong to children (Yıldırım, 2010: 11).

The excavators of the cemetery state that the cemetery was divided according to the social status of the individual tomb owner. The higher status individuals were buried in stone lined cist graves on the northeast facing the slope of the cemetery (Yıldırım, 2010: 17). These graves, however, did not offer rich array of grave goods since they were heavily looted. These larger graves are placed in the second level of the cemetery.

The remaining grave offerings from the Resuloğlu cemetery are similar in character to those found in Alaca Höyük, Kalinkaya, Horoztepe, Mahmatlar, Yenihayat, Oymaağaç and Balıbağ (Yıldırım, 2010: 11). The major contribution of the site to our understanding of the EBA in Anatolia is the presence of a large number of graves belonging to what seems to be a “middle class” of the inhabitants along with the EBA settlement itself (Yıldırım, 2010: 11).

Resuloğlu’s apparent place in the central Anatolian cultural sphere is also evident from the burial rituals performed during, and/or after the burial had taken

place. This is most obvious by the sacrificial remains of bovines. The severed heads and heads of the bovines are placed by the grave in a manner similar to those found in Alaca Höyük. Also, just as in the Alaca Höyük graves, earthen cups were placed in the graves which were likely to contain liquids. This tradition of providing the deceased with food and liquids along with the deceased having been buried with their daily belongings, such as jewelry and weapons, indicates a religious belief that the person needed these items in afterlife (Yıldırım, 2010: 18).

The majority of the monochrome pottery recovered from the graves in Resuloğlu falls into the typology of the Yeşilırmak and Halys river region of the last quarter of the third millennium B.C. The black burnished vessels with grove and dot decorations which imitate metal forms are found in the region from Çorum to the Black Sea, especially as a grave offering (Yıldırım, 2010: 18). In addition to monochrome pottery, metal vessels recovered from the graves. The typology of the vessels fits well within the Çorum, Amasya, Tokat, Merzifon, and Amasya regions (Yıldırım, 2010: 19).

The metal weapons are another category of grave offerings found in the Resuloğlu graves. While some of the weapons are rendered useless by bending, some of the others were placed in the grave without any intentional damage. The weapon repertoire was composed of daggers, shafted axes and small number of mace heads. The typology of the shafted axes recovered from the Resuloğlu cemetery not only includes the Central Anatolian and Central Black Sea repertoire, but, in addition, there are some types of axes which have close parallels in the south Caucasian region.

Typologywise, most of the shafted axes from the Resuloglu cemetery are dated by Tayfun Yıldırım between 2300-2100 B.C. (Yıldırım, 2010: 19).

The evidence of textile remains, along with the in situ placement of pins, jewelry and weapons suggests that the deceased were buried fully clothed. This is also evident in the burials at Alaca Höyük, Tekeköy and İkiztepe (Yıldırım, 2010: 19).

Tayfun Yıldırım states that the jewelry from Resuloglu cemetery, especially the silver necklace beads and hair pins show close resemblance to Mesopotamian jewelry from the end of the Early Dynastic through the Akkadian period. This shows that the region had close cultural and commercial relationship with Mesopotamia/Syria sphere (Yıldırım, 2010: 20).

4.3 Interregional Considerations

The EBA is considered as one of the most eventful eras in Anatolia history due to the proposed appearance of new cultural groups whose origins cannot be traced back to earlier periods in Anatolia. This era also coincides with the development of metal technologies, including wide distribution of dagger typologies. Therefore, it is essential to understand the cultural changes taking place in Central Anatolia and related theories.

In addition to “new” cultural practices observed in Anatolia, the wide destruction of Chalcolithic settlements in the second half of the 4th millennium B.C. is seen as a supporting evidence for the theory of “mass migrations”, especially as the arrival of the first wave of Indo-Europeans along with their advanced metallurgical technologies (Chernykh, 1992: 25.304). In reality, there were limited number of sites

destroyed in Anatolia and none of the sites destroyed shows evidence of complete cultural replacement of the previous inhabitants. Rather, there are minute changes. One question coming into one's mind is how long a site might remain unoccupied by the natives of that settlement? It would be expected that if a site remains unoccupied as short as a generation or two, the new residents might get their clay from a different source which may result in a different paste. Simple changes, but the continuation of the culture should not be seen as an evidence of cultural replacement. Nowhere in Central Anatolia have we found a complete cultural assemblage from a foreign culture. Naturally, the proposal of the "mass migrations" to explain cultural change is heavily criticized as mass migrations are not the only possible explanation for cultural change. Acceptance of the "mass migrations" as a cause behind the cultural change in Anatolia oversimplifies the archaeological record. This theory is also difficult to be taken as a solution for cultural changes in Anatolia since the chronological position of the cultures, or cultural periods in question are not completely determined.

The exploitation of metal resources and technologies in the fourth and the third millennium B.C. can be taken as one of the greatest drives behind the social change in the Early Bronze Age (Tringham, 1974: 348). The interactions of sedentary and mixed farming populations within different regions will naturally result in cultural changes of differing intensity (Tringham, 1974: 348). It is a difficult concept to accept that metallurgical technologies that showed tremendous developmental qualities solely arrived into Anatolia due to migrations, rather than as a result of local developments in tune with the events in the neighboring regions. The metal working tradition in Anatolia does not start with the supposed arrival of the Indo-Europeans in the third

millennium. Even starting with the Late Chalcolithic, there were already settlements with evidence of metallurgical activities, such as the small settlement of Çamlıbel Tarlası, near Boğazköy. The copper smelting activities are evident at this small settlement, in some phases semi-permanent, by the presence of pits used for this purpose (Schoop, 2011). This evidence indicates that the metal resources in Anatolia were already being exploited by the local inhabitants in the late Chalcolithic. In the later era, the EBA, it is clear that Anatolia became an important center in the broad trade networks. Due to the position and the resources of Anatolia in the EBA, the social change was inevitable.

At the same time, we cannot disregard the possibility of population movements as a result of climatic, or the socio-cultural changes (e.g. formation of large chiefdoms, competition for metal resources) which might have caused demographic instability. If there were migrations, they are likely to be several waves of migration stretched out a long period rather than a single mass migration that can be given a specific date. We need to consider the already existing cultural ties of Anatolia and its own local culture before we can arrive to any conclusions to explain cultural changes in Anatolia. The complete demographical replacement of existing cultures in Anatolia is a very unlikely scenario.

Besides the regions mentioned in the previous sections, the cultural connections of Central Anatolia can be traced to two additional regions: Southeast Europe (Balkans) and Caucasia in the northeast.

Southeastern European cultural influences in Anatolia are most clearly discerned in Alişar, Samsun-Sinop, Amasya and Çorum districts as well as the pottery

of Yazır Höyük, Demirci Höyük IV and some pottery from Hanaytepe, Beşiktepe and Kumtepe (Yakar, 1979: 54). A possible connection between the metallurgy of Anatolia and Caucasia has long been a subject of study. Orthmann and Mansfeld took notice of the similarities between the zoomorphic artifacts from the Alaca Höyük “royal tombs” and those from the Kurgan burials in Georgia, Armenia and Dagestan, yet the chronology of the Caucasian region is not secure or well linked to the Anatolian evidence to make secure suggestions currently (Zimmermann, 2006: 66).

4.4 Synthesis

The key Central Anatolian sites, presented above, show a unified culture which shares common cultural practices. There are, without a doubt, local “tastes” and local “ways of doing things.” There are no independent cultures or periods in any of the sites in Central Anatolia (Özgürç, 1964: 2). In addition, wide reaching trade contacts of Central Anatolia played an important part in the cultural development of the region, not migrations (Özgürç, 1964: 6).

The realization that the land of “Hatti” had what we can consider a more or less a “unified” culture was foreseen by the early excavators of the region such as Raci Temizer who had stated that “rich tombs like those of Alaca Höyük which are found in the northern area in the transition from the steppes to forest, also will be possibly found in the region of Çorum-Amasya-Tokat” (Özgürç-Akok, 1957: 219). Although we might say that the metallurgical and artistic skills are not on par with the richness of the Alaca Höyük royal tombs, the burials at Horoztepe, Kalınkaya/Topraştepe,

Resuloğlu, Göller and Oymağaç mezarlıklar had provided metal finds similar to those from Alaca Höyük, thereby proving the early theory of Raci Temizer.

CHAPTER V

CENTRAL ANATOLIAN DAGGER TYPOLOGY

The majority of the daggers in Central Anatolia come to us from burial contexts. Metals were one of the most valuable commodities in the ancient world. While the metallurgical products which were interred survived considerably, it is very unlikely that any salvageable metal goods would be abandoned readily. Although there are settlements which did not provide us with dagger finds, this does not necessarily mean that they lacked such material.

As it was mentioned in a previous chapter, there are sixteen Central Anatolian sites where dagger finds were recorded. Although it would be possible to present dagger typologies according to a dagger's technological and typological qualities, this endeavor might be misleading. Certain types of daggers might have endured longer than others.

Not all of the drawings of the daggers from Central Anatolia are sufficient to make firm conclusions on their typology. One example would be a dagger from the Ankara collection (Cat. No: 43) which has a drawing suggesting a wide midrib in its cross section drawing, but the general drawing of the blade either suggests a line on the actual blade, or a center of the blade was indicated. There is another line at the shoulder level of the blade. Various drawing techniques create complications in the interpretation of the material.

Another issue to consider is the provenance of the daggers. A number of daggers presented in the catalog have questionable provenance. These collections of daggers are divided into two groups: Museum collection and Private collection. Some of the museum collection daggers are from what is called the “Ankara Collection”. The daggers (Cat. No: 40-44) from the Ankara collection are included in the discussion due to the reason that the collection, which was purchased in 1965 by Özgürç, contained other cultural artifacts allowing us to make an educated suggestion on the origin of the daggers. Another dagger which has an unclear provenance is the dagger find (Cat. No:14). This dagger was purchased in 1971 by Özgürç as well and included in discussions in this study. Many other daggers from looted graves came into the possession of museums. Collection of five daggers (Cat.No: 35-39) in Çorum Museum has their provenance recorded as Yenihayat. T. Yıldırım (2001) conducted a survey at the said location and was able to confirm the existence of an EBA III cemetery, contemporary with the daggers in Çorum Museum. A dagger in Haluk Perk Museum (Cat. No: 13) has its provenance recorded as Çadır Höyük. On the other hand, the private collection (Sadberk Hanım Museum) published by Çetin Anlağan

and Önder Bilgi (1989), does not contain any information on how the decision was made to attribute items as Central Anatolian in origin. Therefore, these daggers (Cat. No: 45-47) from the Sadberk Hanım collection are not included in the discussion. They are, however, part of the catalog to acknowledge their existence.

5.1 Methodology

It is most convenient to divide the dagger types in Central Anatolia based on the midrib technologies applied to the blade, or lack of it. The use of midrib was an essential technology which strengthens a blade and enables it to be used as an effective stabbing weapon. At the same time, a midrib allows a metal smith to produce robust, but light and functional weapon.

5.2 Type I

Type I daggers do not have midribs and, in general, have curved cross sections. These type of daggers came into the archaeological scene as early as the Chalcolithic period and remained in use as late as 2000 B.C. (Stronach, 1957: 90). They are subdivided in to five categories (a-f). Some of the Type I dagger were further divided, based on the tang and shoulder morphology.

Type Ia

Type I dagger from Alişar (Cat. No: 9) is the most basic, and the earliest stratified example. It has a long, triangular tang and round shoulders.

Type Ia₂

A dagger from Horoztepe (Cat. No: 22) is similar to Type Ia but its shoulders are sloping, unlike Type Ia daggers. The shoulders are bulgy and the edges of the blade are curving in. The peculiar morphology of the Horoztepe dagger is most likely the result of the repeated re-sharpening of the dagger blade. The areas closer to the handle, and underneath the handle, were protected, resulting in the bulbous shape below the shoulders. Another evidence of this sharpening process is the concave sides of the blade. The possible morphological change to a dagger blade due to re-sharpening is also suggested by Maxwell-Hyslop (Maxwell-Hyslop, 1946: 9).

Type Ib

Another dagger (Cat. No: 33) which can be included in Type I typology comes from Yazılıkaya. It looks very similar to the Type Ia daggers with its long tang, but its rhombic shape sets it apart from them. Although rhombic section might serve the purpose of a midrib, there is no midrib morphology to discern.

Type Ic

Another Type I dagger, Type Ic, in Central Anatolia has a triangular shaped tang but it is wider and stubbier than Type Ia and Type Ib. Çadır Höyük dagger (Cat. No: 13) and a dagger from Horoztepe (Cat. No: 18) have triangular tangs without rivets. As the other Type Ia₂ dagger from Horoztepe, Type Ic dagger from the same location shows evidence of reshaping. Both of the Type I daggers from Horoztepe were found along with the more advanced Type IV daggers, which showed no evidence of wear pattern (Tezcan, 1960: 42).

Type Ic₁

A dagger from the Ankara Collection (Cat. No: 40) is the only example of this type of dagger in Central Anatolia. The end of the tang in Type Ic₁ dagger ends in more rounded fashion than the other Type I daggers and have a single rivet hole at the end of the.

Type Ic₂

Another dagger from Ankara Collection (Cat. No: 42) has a wide, triangular tang which nearly merges with the shoulders of the blade. The short tang might have necessitated for its width for a stable attachment to the handle with a single rivet.

Type Id

The Type Id daggers' tang morphology is not as triangular as the other type I daggers. The tang is pierced with a single rivet. A dagger from Kayapınar (Cat. No: 25) has this basic morphology with its rounded shoulders and a medium length tang pierced with a single rivet.

Type Id₁

A dagger from Ahlatlıbel (Cat. No: 4) can be included in Type Id₁ category. With the shoulders dropping down in a straight line, however, the morphology of the blade might suggest that this blade has a flat midrib. The 1934 illustration is not clear enough to make definite statements.

Type Id₂

A dagger in Sadberk Hanım Museum has typological character of Type Id daggers but the shoulders of the dagger are rounded and bulging. The proportions of

the dagger, the ratio of the blade length to tang length, suggest that this dagger was sharpened repeatedly. It is not certain that this dagger had a second rivet although there is a depression at the end of the tang. This might be the result of extensive use, rather than a broken end piece.

Type Ie

This subtype of Type I dagger has a very short tang with no rivet attachment. An early example of this type of dagger is found in Yazılıkaya (Cat. No: 34). Due to its tiny tang, one might assume that the handle might have been extended to the blade portion of the dagger.

Type Ie₁

Another example of this Type Ie blade comes from a chronologically later site of Resuloglu (Cat. No: 31). The tang of this dagger is, however, wider and the shoulders are narrow and almost straight.

Type If

Type If daggers have rounded ends, or the tang is represented by a small bump, at the end of the blade. The handles are attached by at least three rivets. A basic example comes from Alişar Höyük. This dagger (Cat. No: 11) is called the “Alişar III” dagger in the literature. It has a rounded butt which was pierced by three rivets which form a triangle.

Type If₁

The Alaca Höyük dagger (Cat. No: 7) which employs three rivets, in the same manner as the Alişar dagger. The dagger’s blade is made out of iron and the handle

has a wooden core wrapped in electrum. The dagger was probably a status item rather than a functional weapon.

Type If₂

The final Type I dagger to discuss is also the most elaborate dagger found in Central Anatolia. It is made out of iron and has a crescentic pommel construction. The handle attached to the dagger with five rivets, first three in a triangular arrangement.

5.3 Type II

Without a doubt, the broad central flange (midrib) was one of the most common and technologically advanced methods to produce dagger blades in Central Anatolia. The wide central flange ensured the rigidity of the blade while keeping the blade relatively thin-profiled (Maxwell-Hyslop 1946:14). This technological innovation prevented the blade from buckling while allowing it to penetrate and be withdrawn easily. The advantage of a wide central flange was recognized even by the Hittites in the later era and became one of their favorite blade types (Maxwell-Hyslop, 1946: 14).

Type IIa

Type IIa daggers have flat midribs which are at the same width as the tang and the edge of the midrib runs parallel to the edges of the blade. The tang is pierced with a single rivet. These daggers are subdivided, based on the shoulder morphology. An Ahlatlibel dagger (Cat. No: 1) is a good representative of this type of daggers.

Type IIa₁

The shoulders of these daggers are wider and more angled than the Ahlatlıbel Type IIa dagger. The Yanihayat dagger (Cat. No: 39) has a midrib width same as its tang width. Same applies to the dagger (Cat. No: 45) from the Sadberk Hanım Museum. Same can be assumed for a dagger recovered from Kalinkaya (Cat. No: 24) but it is heavily corroded. The most unusual dagger of this type (Cat. No: 38) comes from Yenihayat as well. It has a very broad midrib and, as a result, very broad tang. The end of the tang is rounded and pierced by a single rivet.

Type IIb

The only example of this type of dagger comes from Ahlatlıbel (Cat. No: 3). The flat midrib of this dagger is very narrow and the lines of the midrib runs parallel to each other rather than the edges of the blade. The shoulders are round and the thin tang is pierced by a single rivet.

Type IIc

There are two examples of these daggers; one from Alaca Höyük (Catç No: 5), and another from Polatlı (Cat. No: 29). As in Type IIb, the lines of the midrib run parallel to each other rather than the edges of the blade, but are wider than Type IIb. There is no evidence of rivet use and the shoulders are round.

Type IId

The flat midrib's edges run parallel to the blade's edges but right before reaching the shoulders, the edges of the midrib turns out. This is most visible on a dagger from Ahlatlibel (Cat. No: 2). The tang morphology is the same as the Type IIc daggers.

Type IIId

The shoulders of the Ahlatlibel Type IIId dagger slop on straight line while the dagger from Mecitözü (Cat. No: 27) has round shoulders.

Type IIe

This type of dagger, from Horoztepe (Cat. No: 16), is very similar to Type IIb and Type IIc daggers but the tang morphology is similar to Type Ie daggers, especially Type Ie₁ dagger from Resuloglu.

5.4 Type III

A flat midrib technology was not the only way to construct a midrib in Central Anatolia. Another popular technique to strengthen a dagger blade was to use a “cylindroid” midrib technique. These daggers can be classified as Type III daggers.

Type IIIa

A dagger in Ankara Collection (Cat. No: 44), with its leaf shaped blade, is the simplest form of Type III daggers. The tang has a single rivet piercing preserved. The

end of the tang, however, is missing. The location of the low rivet may suggest that there was an additional rivet close to the end of the tang.

Type IIIa₁

The second blade in Type II a subcategory, from Resuloğlu (Cat. No: 32), has a very narrow tang which is the flattened continuation of the midrib. It is pierced by a single rivet. It should be noted that there were three additional rivets recovered with this dagger. Additional rivets must have been used for the organic handle. The shoulders, unlike the previous dagger, are straight and wide.

Type IIIb

The silver dagger from Alaca Höyük (Cat. No: 6) has a cylindroid midrib which continues until the shoulder level. The edges of the blade are beveled. The wide tang is pierced at its end by two parallel rivets, which is the hallmark of Type IIIb daggers. The shoulders are narrow and rounded.

Type IIIb₁

The cylindroid midrib of the Göller Mezarlığı dagger (cat. No: 14) continues pass the shoulder line of the blade, until the double parallel rivets at the end of the wide tang. The shoulders of the blade are wide and inclining at a low angle.

5.5 Type IV

There also a practice of combining the wide and flat midribs with the cylindroid midrib construction in Central Anatolia, exclusively in Horoztepe. Therefore, all three under this type, Type IVa (Cat. No: 17), Type IVa₁ (Cat. No: 19)

and Type IVb (Cat. No: 20), come from Horoztepe. The general morphology of this type dagger is an elongated blade with beveled edges and a wide tang. The shoulders are narrow.

Type IVa

This type of blade has a rivet arrangement of Type IIIb daggers. The shoulders are narrow and rounded.

Type IVa₁

The shoulders of this type are wider and are less angled than Type IVa dagger. The wide tang has a single rivet piercing.

Type IVb

The wide tang of this dagger is terminated in a round fashion and pierced by three rivets in a triangular arrangement. The rivets are located at the very far end of the tang, on the rounded section. The shoulders are narrow and flat.

5.6 Type V

All of the Type V daggers in Central Anatolia, so far, were found in Yenihayat (Cat. No: 35-37). These daggers have wide, rounded midribs. Unlike Type IV daggers, the morphology of the midrib of Type V is not the result of combination of a flat midrib technology with a cylindroid midrib. Type V daggers have flanges which are not seen in Type IV daggers. These daggers might have been hammered into shape rather than having been casted. None of the daggers have symmetric shoulders, flanges or tangs.

Type Va

This dagger has (Cat. No: 35) narrow, rounded shoulders. Compared to the other daggers in Type V category, the shoulders, flanges, and the tang is narrow. There is a single rivet piercing on the tang.

Type Vb

This subtype (Cat. No: 37) has a short tang and wide flanges. The shoulders are relatively wide and angled. There is no evidence of a rivet use on the tang.

Type Vb₁

This dagger is very similar to the Type Vb dagger. The midrib is, however, wider and the tang is pierced by a rivet.

5.7 Type VI

Type VI dagger morphology is composed of a midrib which runs from the tang length to midpoint of the blade. The remainder of the blade has a rhombic cross section. The only example of such a blade is found in Kalınkaya/Toptaştepe (Cat. No: 23). Although the blade itself is heavily worn due to egregious restoration efforts, it is possible to make out the midrib technology used to construct the dagger, even if the exact shape of the shoulders cannot be determined. The rivet hole at the end of the tang seems to be enlarged due to the acid treatment of the blade to clean off its patina.

5.8 Type VII

The only example of a dagger molded as one piece (Handle and blade are molded together) is found in Kültepe (Cat. No: 26). The crescentic pommel looks similar to the Alaca Höyük iron Dagger (Cat. No: 8).

The dagger typologies in Central Anatolia show some shared morphological unity. In addition, typology of daggers indicates the existence of local preferences. In the next chapter, these dagger typologies will be discussed in their regional and inter regional context.

CHAPTER VI

DISCUSSION ON DAGGER TYPOLOGIES IN THEIR REGIONAL AND INTERREGIONAL CONTEXT

The dagger typologies in Central Anatolia, as indicated in Chapter IV, show a certain cultural unity. The developments in dagger typologies, and the metallurgical advancements, cannot be seen as an isolated event. Therefore, the study of the Central Anatolian daggers and their distribution will not only enable us to track the development of dagger typologies in Central Anatolia, but also guide us to construct regional and interregional interaction models.

The discussion of the Anatolian chronology and the cultural context of Central Anatolia in the previous chapters showed the close relationship between the sites and interregional interactions of Central Anatolia.

6.1 Pontic Interactions

When the geographical limits of the region were outlined in the introduction chapter, however, the Central Black Sea region, north of Çorum district, was not included. Two important sites in the Central Black Sea region are very important for the cultural realm of Central Anatolia. İkiztepe and Dündartepe are so indispensable; they cannot be left out of any discussion concerning the EBA Central Anatolia, especially metallurgical realm. Both of these settlements show strong Central Anatolian cultural connections based on the pottery as well as metal forms. The Bafra plains importance (including Samsun) as a settlement site is the existence of the Halys River valley which served as a communication route between the Central Anatolia and the Black Sea region. The importance of this route is evident in the discussion of the dagger typologies. No one makes it clearer than Stronach when he states: “[the] oldest stratified type I dagger in Central Anatolia comes from Alişar. Similar ones also come from Dündartepe and Tekeköy” (Stronach, 1957: 90).

In the following discussion, it will be clear that the Central Anatolian dagger typologies reflects the interactions between the local sites as well as the far reaching trade network of Central Anatolia from Troy to Mesopotamia.

As it was stated, the organization of the dagger typologies into six main types did not indicate a certain developmental sequence or chronological framework. For example, Type IIIe dagger is not less developed nor placed in an earlier chronological frame than Type IVb dagger. The reason behind this approach is made clear by Maxwell-Hyslop when she stated that “...typological development must not be

confused with chronological appearance, and any attempt to date simply by typology must be much more hazardous with copper and bronze material than it is with, for instance, ornamented pottery” (Maxwell-Hyslop, 1946: 2). Therefore, it is important to consider each dagger within its own context whenever it is possible to do so. If a dagger has no secure archaeological context, there is no option but to compare it with the daggers recovered from well conducted excavations. More in-depth discussion of Central Anatolian daggers is necessary to arrive to any conclusions beyond any typological scheme. This should be done not in typological order, e.g Type I followed by Type II and so on, but in a way which can be taken as more objective. Therefore, it is more reasonable to consider the dagger finds in Anatolia by the place of find, considered in an alphabetical order. Only after this process, can a study on Central Anatolian dagger typology can significantly broaden our understanding of the third millennium B.C. in Anatolia and the greater region.

6.2 Regional and Interregional Typological Comparisons

The first Central Anatolian daggers to consider come to us from Ahlatlibel. The majority of them, if not all², belong to Type II daggers. The first dagger to be considered from Ahlatlibel (Cat. No: 1) has a broad central flange that starts at the tang. It is classified as Type IIa dagger in the typological frame worked offered in this study. We cannot see the terminating point of the flange since the tip of the blade is missing. It is likely, however, that the flange terminated before reaching the tip of the blade. The Central Anatolian parallel of this dagger is found in Yenihayat (Cat. No:

² Catalog No: 4 is highly likely to be a Type II dagger even though the illustration available does not indicate a midrib.

39). Yenihayat is not a formally excavated site but the surface survey indicated an EB III cemetery in at Yenihayat (Yıldırım 2001). The evidence in the cemetery pointed out to pithos burials with typical Central Anatolian grave gifts, including metal artifacts (Yıldırım 2001: 1-4). The knowledge of the looted artifacts was obtained from the villagers (Yıldırım 2001: 1). Both of the Type IIa daggers have parallels in İkiztepe (Fig. 9) and Karabayır in Southwest Anatolia (Fig. 10). The Karabayır dagger has a central flange running to the tang, round shoulders and a similar tang shape with evidence of a single rivet hole. Similar examples of daggers from Cilicia clearly do not belong with the same style, but are rather products of stylistic influence or an independent development (Fig. 11)³. The Cilicia examples have sharp shoulders and concave sides. Naturally, the re-sharpening of the blade will result in the morphological change of the blade, as mentioned: initially straight sides will transform into a concave line. This, however, is not the case with the daggers from Cilicia. The concave sides of Cilicia daggers are a product of technological innovation. The technological advantage of concave sides of daggers from Cilicia is made clear by Maxwell-Hyslop (1946). This type of dagger combines the advantage of a leaf-shaped dagger with a straight edged dagger. Unlike the leaf-shaped daggers, it penetrates and is withdrawn easily. At the same time, the concave sides cause greater injury to an opponent than a straight sided dagger (Maxwell-Hyslop, 1946: 9). Therefore, Cilician daggers must be thought as a separate type, or sub-type, from type II daggers with straight sides and wide central midrib in Central Anatolia.

³ As a general rule, midrib of a Central Anatolian dagger either follows the lines of the straight edge, or its width remains constant.

The second dagger from Ahlatlibel (Cat. No: 2) has its parallel in Mecitözü (Cat. No: 27) and Ovabayındır (Bayındırköy) (Fig. 12). All three daggers have a broad central flange which terminates at the shoulders before reaching the tang. The manner in which the edges of the central flange turn outwards right before reaching the shoulders is a peculiarity for the Ahlatlıbel and the Karabayır daggers. The Ahlatlıbel dagger, however, has more angular shoulders when compared to the Ovabayındır and Mecitözü daggers. Another dagger found at Ahlatlibel (Cat. No: 3) has a long and thin flat central flange that seems to continue to the tang. Yet, the tang with straight sides has exactly the same width of the central flange. The shoulders of the blade are round. There is a similar dagger (Cat.No.5) from the Royal Graves at Alaca Höyük. The flange and the tang of the Alaca example are broader, but the shape of the rivetless tang is very similar. The length (+/- 22.5cm vs. +/- 23cm) and the style of the Ahlatlıbel blade also closely resemble the unstratified dagger blade from Polatlı (Cat. No: 29). Badly corroded Mecitözü dagger (Cat. No: 28) might have had the same morphology. Three examples have what seems to be a well-developed style with central flanges, but all lack a rivet for the handle attachment (the tang of the Mecitözü dagger is not preserved). The unusually long tangs might be related to the attachment technique of the organic handle. Since there is no rivet for the attachment, a paste might have been used and the extra-long tang would have provided better cohesion between the tang and the long handle. Evidence for the use of a paste for the attachment of the handle to the tang of the blade was found in what thought to be dagger handle from TM grave at Alaca Höyük.

A shaft-hole axe hammer; a mace head, the hammer-headed and double-spiral headed pins present in the archaeological record there indicate that the metallurgy of Ahlatlibel belonged to the Pontic sphere, which includes the major part of our Central Anatolia in our discussion (Yakar, 1985: 34). Some of the daggers discussed above, as noted, have their parallels in Alaca Höyük, Polatlı and İkiztepe; some of the other daggers have their parallels in the west, especially in Ovabayındır. The typological similarity of the dagger from Ahlatlibel (Cat. No: 2) to a dagger in Ovabayındır (Fig. 12) might suggest contacts between these two sites. Another dagger (Cat. No: 1) in Ahlatlibel, which has a close parallel in Karabayır, might support this suggestion. The stylistic similarity of an Ahlatlibel dagger to a dagger from Karabayır does not necessarily indicate a direct contact, but rather reinforces the idea of a land trade route from the Yortan province to the Elmalı plain, as it was suggested by Stronach by the distribution of his Type III daggers and the Yortan type wares (Stronach, 1957: 97). Therefore, it is likely that the Karabayır type dagger might have reached Ahlatlibel through Ovabayındır, reinforcing an idea of contact between Ovabayındır and Ahlatlibel. This does not mean, however, that the Ovabayındır dagger and the Karabayır dagger were exported from Central Anatolia nor the dagger typology arrived to Central Anatolia from the southwest.

Alaca Höyük is an important site for the establishment of dagger typologies in Central Anatolia. The daggers recovered from the royal graves are well known, yet the repertoire of publications about these daggers is very limited in scope. There are unique daggers, such as the iron examples, in addition to more familiar forms and materials.

The more familiar forms have their parallels in other immediate Anatolian sites. Type II dagger recovered from grave S (Cat. No: 5), has parallels in Polatlı (Cat. No: 29), Ovabayındır (Fig. 13) and Ahlatlıbel (Cat.No.1). This dagger is most closely related to the surface find in Polatlı (Cat. No: 29). Both examples have a wide central flange; rounded shoulders and rivetless tangs. The lack of a rivet hole on the tang of the dagger sets it apart from the exact parallels in Ovabayındır. The similar dagger in Ahlatlıbel (Cat. No: 2) shares the common characteristics of the grave S dagger, but as Stronach states it might belong to a later development phase with its angular shoulders instead of the rounded ones (Stronach, 1957:99).

The dagger from Tomb K (Cat. No: 6) is a silver dagger with two gold rivets on its tang (Stronach, 1957:99). The chemical makeup of the dagger is not available. The closest example of such dagger is found in Ovabayındır (Özgürç, 1980: 470). This dagger from Ovabayındır (Fig. 14) is unusual due to its surface having been painted by lead, probably by a soldering technique (Stronach 1957: 99)⁴. Unlike the Alaca Höyük dagger, a chemical analysis of this dagger was given by Stronach (1957: 99). The blade itself is arsenical copper (Cu: 92.39, Sn: -, Pb: -, As: 7.58, Sb: -, Ni: -, Bi: < 0.005, Fe: < 0.008, Zn: -, Ag: 0.0092). The Alaca Höyük dagger and the lead painted dagger from Ovabayındır are both classified as “Type IVa dagger” by Stronach. In the typology offered in this study, it would also be reasonable to place them into the same category as Type IIIb. This type of dagger has a cylindroid midrib down the center of the blade, extending to the tang; the sides of the blade have narrow, beveled edges; there are two parallel rivet holes on the top of the wide tang. The only other example

⁴ The analysis technique concerning the “lead paint” is not provided by Stronach (1957). There are no other examples of such a treatment technique applied to any other Anatolian dagger. Therefore, the conclusion reached by Stronach on the surface treatment of this dagger may be erroneous.

of such a dagger in the Central Anatolian region comes from Göller Mezarlığı (Cat. No: 13). Özgürç (1980) compared the technical skill and the execution of the Göller Mezarlığı dagger with the silver dagger from tomb K in Alaca Höyük (Özgürç, 1980: 470-71). Unfortunately, the Göller Mezarlığı dagger was purchased from a private dealer in 1971. It is generally agreed that it was either looted from Göller Mezarlığı or Oymaağac Mezarlığı where similar objects are found (Özgürç, 1980: 468). Göller Mezarlığı dagger is dated to the late third millennium B.C based on stylistic grounds (Mellink, 1969-70: 11). Since the Göller dagger has no solid provenance or context, it is difficult to make a solid statement with regard to its origin. The technology of a wide tang with double rivets is also found at Troy, although, these daggers in Troy have rhombic cross section. Stronach suggests (1957:99) that the silver Alaca dagger might have been imported as an exotic weapon from Western Anatolia is reasonable, yet cannot be proven with certainty. It would be an anthropologically possible theory that the silver dagger from Tomb K might have been part of a gift exchange between the elites of Alaca and Ovabayındır region in Western Anatolia to forge alliance. In addition, if in fact the dagger from Ovabayındır is lead treated, this might suggest that the dagger from Ovabayındır (Fig. 14) shows an attempt to imitate a prestigious silver dagger like the one found in Alaca Höyük.

There are two Type I (f) daggers from Alaca Höyük and both are made out of Iron (Cat. No: 7 and 8). They are proposed to be produced in Alaca Höyük based on the three iron artifacts found below an EB III mineral melting furnace (Çınaroglu-Celik, 2009: 92-93). Although both of these daggers might be local production, Stronach states that “both weapons appear to be descended from forms that evolved in

Mesopotamia” (Stronach, 1957: 101). There are possible parallels to this dagger (Cat. No: 7) in the Royal Cemetery of Ur (Fig. 15). The rivet arrangement of the dagger, however, grouped closer as the Cilician examples (Fig. 16). Unfortunately, the tang of the iron dagger is not illustrated. The morphology of the tang would enable a researcher to compare the tang morphology between this dagger and the examples from Cilicia and Ur. On the other hand, the second iron dagger, with a crescent-shaped pommel (Cat. No: 8), has stylistic connection to Ur (Fig. 17). The Kültepe dagger (Cat.No: 26) also falls into this stylistic category, as well as a dagger from İkiztepe (Fig. 18). Nevertheless, the origin of the crescentic pommel is likely to be from Mesopotamia as suggested. The construction techniques employed in all of the four daggers differ from each other. While the daggers from Horoztepe, İkiztepe and Ur have cast pommels, the Alaca Höyük dagger has a separate, elaborate handle and pommel construction which was then attached to the blade with five rivets. The first three rivets are fashioned as the first iron dagger (in a triangular style), but has two additional rivets further below, parallel to each other. The handle of the blade has a very complicated construction scheme composed of five gold/electrum parts. The pommel is lightly constructed with a thin sheet of electrum wrapped around a wooden core. It is attached to the handle under “a loop of gold which was riveted to the butt” (Stronach, 1957: 103). Some rivet use is also visible in the Ur dagger but they seem not to be structural but rather to attach decorative pieces. These considerations of manufacture technique and the evidence of iron working in Alaca Höyük suggest that this dagger was produced in Alaca Höyük by the local metal smiths. Both of the iron

daggers were, without a question, exotic items due to the use of the very unusual material for the era, iron, and expensive material, gold.

Next site to consider is Alişar an important site for the Anatolian chronological studies. The oldest stratified example of a dagger Type I dagger (Cat. No: 9) in Central Anatolia, which was published in *OIP* (Oriental Institute Publications XXVIII, fig.96, c 419), comes from the latest “Chalcolithic” (Late Chalcolithic/EBA I) level of Alişar⁵ (Stronach, 1957: 90). Although this dagger is not preserved in its complete form, a long thing tang that is typical of the early Central Anatolian daggers is discernible. A dagger from Horoztepe (Cat. No: 18) and Yazılıkaya (Cat. No: 33) have this type of tang as well. This type of Central Anatolian daggers are dated to ca. 2500 B.C. (Stronach, 1957: 90). Morphologically similar daggers from İkiztepe (Fig.19), however, are dated to EB III.

Another fragment of a dagger (Cat. No: 10) recovered from the Late Chalcolithic/EBA I level of Alisar seems to be more advanced form with its wide tang with a single rivet hole. It is classified as Type Ic. It is difficult to make further typological assessments due to the fragmentary state of the artifact. There is a possibility that this blade might be an intrusion into the Chalcolithic layer from an upper stratum, suggested by the presence of an arrow head of a developed type which was found in the same context as the dagger fragment (von der Osten, 1937: 91). Nevertheless, the dagger seems to have a primitive form apparent in its round, bulging shoulders.

⁵ The level which is designated to be Chalcolithic, from which the daggers is recovered, by the excavators should correctly to be identified as Late Chalcolithic or Early Bronze Age I. This dagger's typology does not conform to any known Chalcolithic dagger in Anatolia nor to any Chalcolithic site in the surrounding region. Might possibly be an intrusion from an upper level.

It is also proper to discuss the last Type If dagger in the Typology catalog (Cat. No: 11) which is also known as an “Alişar III dagger”. The three riveted dagger belongs to the late third millennium level III of Alişar (Schmidt, 1932: ill.270). The Alişar III dagger (Cat. No: 11) is similar to the Alaca Höyük iron dagger (Cat.No.7), but is made out of bronze as are its Cilician parallels (fig. 16). The Alişar III dagger was believed to have evolved from the northwest Anatolian daggers with round heels, but Stronach places them with the Cilician daggers (Stronach, 1957). This suggestion is well qualified, being based on the northwest Anatolian round heel examples, such as the one from Ovabayındır (Fig. 19). The Ovabayındır dagger has a squat shape unlike the examples from Cilicia which have elongated shapes. This conclusion is also arrived at by Jakar when he stated that some imports from Cilicia met some of the demand for tools and weapons in Alişar (Yakar, 1985 :34). The ties of Alişar with the southeast region of Anatolia might have been through Kültepe. The close relationship between Kültepe and the southeast early on in its history is well known. The decorated depas of the Cilician type appears at both Alişar (Alişar Ib) and Kültepe at the same time, proving trade between two sites (Stronach, 1958: 65). Therefore, the Cilician type dagger which was found at Alişar III comes as no surprise. In addition, there is currently no evidence for metalworking recovered in Alişar which makes it difficult to conclude if Alisar had its own metal industry or if it relied on outside sources, such as itinerant smiths (Yakar, 1985: 65). It must be also stated, however, that Alişar’s metal shops might have been located in some distance from the settlement and are not yet located.

Some of the Yenihayat daggers' midribs (Cat.No: 35-37) have a peculiar morphology when compared to other daggers from Central Anatolia. The most common midrib technology in Central Anatolia seems to be flat, broad midrib, followed by cylindroid midribs and the combination of two. The Yenihayat daggers, on the other hand, have very broad rounded midribs. These type of midribs also found in some of İkiztepe blades (Fig. 20) which are classified as spearheads.

The combination of the flat broad midrib and the cylindroid midrib technology is found only in Horoztepe along with Type I and Type II daggers. The first dagger group I would like to consider from Horoztepe is the group of four daggers published by Tezcan in 1960. The first dagger in the group (Cat. No: 15) has a broad midrib which is very similar to the Polatlı dagger (Cat. No: 29), and to daggers from Ahlatlibel (Cat. No: 1), Alaca Höyük (Cat. No: 5), Yenihayat (Cat.No: 39). The Horoztepe dagger is peculiar in the way the blade attaches to the handle. It does so with a very short tang and without a rivet. In this sense, the attachment method of the blade to a handle must be similar to the Yazılıkaya (Cat. No: 34) and the Resuloğlu (Cat. No: 31) daggers. The date of the Yazılıkaya dagger seems stylistically might be earlier (dated to 2750 to 2500 B.C. by Stronach) with its rather squat shape (shorter and wider) as compared to the Horoztepe dagger and the Resuloğlu dagger. In fact, the style of the way the blade sections into the tang, with a slant reduction, is very similar between the Resuloğlu dagger and the Horoztepe dagger.

The second dagger (Cat. No: 16) in the Horoztepe/Deremahallesi group is a part of Type IV dagger category with its use of combining a cylindroid mid rib construction with that of a wide mid rib found in Type II daggers. It is difficult to

determine from the illustration available (Tezcan, 1960: 42 Plate XXX/ 1) if this dagger has a combination of broad midrib and cylindroid flange or a rhombic cross section. Stronach, however, confirms that such a midrib technology, the combination of the cylindroid midribs and wide midribs are practiced in Anatolia in the Early Bronze Age (Stronach, 1957: 98). Double-parallel rivet use on the tang is very similar to a Type IIa dagger from Alaca Höyük. The general morphology of the Horoztepe dagger, in terms of the elongated shape and beveled edges, is also very similar to the Alaca Höyük silver dagger. Both of the daggers, one from Horoztepe and Alaca Höyük, are closely related to the similar daggers in Bayındırköy.

Another dagger (Cat. No: 19) from Horoztepe has some similar characteristics, but also possesses some peculiarities. The principle behind the construction of the blade is the same as the earlier blade presented above, such as the wide midrib and beveled edges. The shoulders of this blade are more angular and the tang progressively narrows. This narrowing tang is pierced with a single rivet hole. The blade itself is an advanced form and has parallels in the region, yet all others of this type of blade use more than one rivet to attach the handle to the tang.

Other metalwork of Horoztepe is similar to the contemporary regional centers such as Alaca Höyük, Mahmatlar and Kayapınar (Yakar, 1985: 31). The Horoztepe graves provided the same kind of material as the Alaca graves, but the sundisks, sistra and bull statues are all executed slightly differently as shown by Özgüç and Akok (Özgüç-Akok 1957: 216). This different manner of execution of the known metal types, adding slightly different variances to the known forms is evident. This kind of variance is also found in the daggers present in Horoztepe. One of the examples of a

regional variance in the production of a dagger is the example with triple rivet holes on its tang (Cat. No: 20). The shoulders are narrow and straight, and the tang is wide and ends in a round fashion with three rivets, which are arranged in a triangular scheme. As it was mentioned earlier, triangular rivet use was proposed to have spread from Cilicia and North Syria. The Horoztepe dagger handle attachment with the three rivets is different than the other blades in Cilicia and Central Anatolia. Cilician examples have two rivets on the shoulders and one near the end of the tang, forming a triangle. The Horoztepe dagger has all three rivets grouped at the far end of the tang, away from the shoulders of the blade. There are no other contemporary examples available from the region where this type of blade utilizes rivets in this fashion. The shoulders of the dagger are very straight and have a sharp angle where they meet the blade.

These two blades presented above were clearly regional variations, likely to have been produced at Horoztepe. Two daggers (Cat.No:18, 22) published by Özgür-Akok in 1957 (Özgür-Akok, 1957:216) are older types of daggers, providing examples of earlier dagger types in Horoztepe. The dagger with round shoulders and a wide tang (Cat. No: 18) has its parallels İkiztepe (Fig. 21), Tekeköy (Fig. 22), and in Ovabayındır (Fig. 23). The shoulders of the Horoztepe one slightly stick out, forming bulges. This is not seen in the İkiztepe and Ovabayındır examples. The peculiar morphology of the Horoztepe dagger is most likely the result of the repeated re-sharpening of the dagger blade. The areas closer to the handle, and underneath the handle, were protected, resulting in the bulbous shape below the shoulders. Another evidence of this sharpening process is the concave sides of the blade. The possible

morphological change to a dagger blade due to re-sharpening is also suggested by Maxwell-Hyslop (Maxwell-Hyslop, 1946: 9). The second older type of dagger (Cat. No: 22) has its tang morphology paralleled in Çadır Höyük (Cat. No: 13). Both daggers have very long and thin tangs, narrowing to a blunt point with no rivet hole. These two older daggers (compared to other daggers from the same graves) from Horoztepe (Cat.No: 17, 21) have primitive forms, yet are found in same context with technologically and morphologically more advanced weapons (Tezcan, 1960: 42). It is, therefore, very likely that they were used for a period of time, perhaps as short as a generation, before their interment into the graves. This would explain the need to re-sharpen these blades.

There are a total of four daggers recovered from the cemetery of Kalinkaya/Toprastepe. Two of these daggers (Cat.No:23, 24) can be assigned to the pithos inhumations of M-08-71 and M-02-71 (Zimmermann, 2005: 284).

Although only the illustrations of two of the daggers from the pithos burials are currently available, all four daggers are described by Zimmermann (2005). The first blade (Inv.-No.57-71), without an illustration, described comes from the outside of square b/4 of the Kalinkaya/Toptaştepe excavation in 1971. The blade is described as having a rhombic section and a flat tang with a central rivet hole, and a possible second rivet hole at the edge of the tang (Zimmermann, 2005: 292). If this blade had two rivet holes on top of each other, it would have been a rather unusual practice since there is only one other example (Cat. No: 44) in the region which used such an attachment method. The beveled edges of the blade fit well with the blades recovered from Ahlatlıbel, Alaca Höyük, Horoztepe and Ovabayındır. The second blade (Inv.-

No.71-71), without an illustration, was reported to have a shallow broad midrib and a rectangular tang with a central piercing. The edges are badly worn and, therefore, it is not easy to discern if it had beveling of some sort (Zimmermann, 2005: 292). The shallow midrib and a rectangular tang with a single rivet piercing is a common type of dagger construction in the Central Anatolian region. The first blade with an illustration available (Cat. No: 24) has a shallow broad-midrib and the edges seems to be beveled. The tang is broken, but it seems to have a single rivet hole where the tang broke. The poorly preserved state of the dagger prevents us from discerning the details of the dagger. Nevertheless, this dagger, as the other two daggers from Kalinkaya/Toptaştepe listed above, can be placed in with the regional dagger types from Ahlatlıbel, Alaca Höyük, Horoztepe and Ovabayındır. The last dagger to be discussed (Cat.No:23), however, stands out from the other three daggers typologically, as it is the only dagger in Central Anatolia so far listed as Type VI in this study. The way the midrib is constructed (a triangular broad flat midrib extending to about 1/3 of the blade before becoming a sharp midrib) has its only parallel in Yortan/Gelembé (Fig. 24). The heavy corrosion of the Kalinkaya blade prevents us from determining the angle of the shoulders where they meet the blade.

There is only one dagger recovered from Kayapınar which is classified as Type Id dagger (Cat.No: 24). The Kayapınar dagger provides an opportunity to demonstrate that the typologically simple dagger does not translate into inferior metallurgical practices or an early date. The other metal finds from Kayapınar show a high level of metallurgical skills. This is most evident from one of the three metal vessels recovered from looters. One of the vessels, a spouted teapot, has movable

attachment places for handles on both sides. There were rods inserted into these to function as bucket handles. Those attachment points were soldered and they are suggested to be cast as well as the body (Temizer, 1954: 326). The technology applied in the vessel makes it clear that the dagger of a simple type found at Kayapınar does not mean that the site was bereft of developed metallurgical products, or highly developed types of daggers. Unfortunately, this is one of the EBA sites which were targets of extensive looting activities. Therefore, we do not know if other weapons, which might have had more sophisticated morphology, were recovered from the site by illicit excavations. It is also possible that daggers or other weapons were not commonly used as grave offerings in Kayapınar.

6.3 “Universal” Typologies

Some of the daggers in the EBA age seem to have a “universal” morphology. The spatial and temporal distribution of these daggers makes it almost impossible to track their origin. Two of the daggers types in Central Anatolia, a dagger from Horoztepe (Cat.No:18) and another one from The Ankara Collection (Cat. No: 40), are good examples to demonstrate this difficulty. Similar daggers are found in İkiztepe (Fig.25), Karaz (Fig.26), Karkamış (Fig.27), Hassek Höyük (Fig.28), Ur (Fig.29) and in the cultural realm of Ezero (Fig.30).

There are clear metallurgical connections between İkiztepe and Central Anatolian in almost all the dagger typologies. As it was mentioned earlier, the Halys River Valley was a convenient trade route between the Central Anatolian and the

Black Sea region. It is not a controversial suggestion that this route was utilized during the EBA era.

Karaz is an important site for the interactions between the Central Anatolia and the Transcaucasia in the EBA. The importance of the Caucasus as a metallurgical center was recognized by Frankfort early in the 20th century, but the lack of evidence for the Caucasian copper ores caused difficulty in the general acceptance of this theory (Maxwell-Hyslop, 1946:4). The metallurgical materials recovered from the Caucasus region has dramatically change this opinion and the importance of Caucasus in the development of metallurgical technologies was realized (Maxwell-Hyslop, 1946:4).

The first Transcaucasian cultural horizon to be considered in the discussion of the Anatolian EBA is the Kura-Araxes culture, which was located between the Kura, and Araxes (Araks) rivers. The morphology of the Kura-Araxes metalwork, as well as the chemical analysis of the artifacts, is similar in character to those found in the southwestern region of the CMP (Circumpontic Metallurgical Province), including Anatolia (Chernykh, 1992: 66). Although the northeastern borders of the culture are located in the mountainous regions of Dagestan and part of the Checheno-Ingushetia region, the southern border is not yet fully defined (Chernykh, 1992:57). The Kura-Araxes (Kura-Araks) cultural material, however, has been found at sites in the eastern half of Anatolia, such as Karaz and Pulur, and as far as the upper reaches of the Tigris and Euphrates (Lamb, 1954: 28). The date bracket for the Kura-Araxes culture is proposed to be between 3500 and 2500 B.C. by Chernykh (Chernykh, 1992: 57). Although the date bracket given for Kura-Araxes culture seems too early for most of the dagger finds in Anatolia, it is not too early for constructing a metallurgical

pedigree. Therefore, it is possible that the Kura-Araxes culture indeed played an important role in the distribution of certain early dagger typologies in the Eastern Anatolia in the upper reaches of Tigris and Euphrates to Mesopotamia.

The cultural interactions between Mesopotamia and Central Anatolia in the EB III period are clear. The artistic and the cultural influences of Mesopotamia cannot be denied. Yet, the crescentic pommel daggers are the only solid evidence for the stylistic influence of Ur on the Central Anatolian dagger types. The Mesopotamian daggers, in general, show great variety in form and many of the dagger types are not found in Anatolia (Fig. 31).

We are aware of the interactions between Troy, Central Anatolia and Cilicia in the EBA, especially in EBA III. An important cultural horizon to consider for the study of dagger is the Ezerovo-Sozopol group which was developed in the Bulgarian Black Sea coast (Mazura, 1999: 207). The Northwestern Anatolian contacts with the Ezero culture is evident in the early 4th millennium (Nikolova, 1999: 249). These interactions continued into the later phases and based on the common ceramic elements between Troy I-II and the Ezero 10-5 (Nikolova, 1999: 344).

The daggers illustrated from Central Anatolian sites, İkiztepe, Karaz, Karkamış, Ur and Ezoro are very similar to each other yet we cannot determine if these daggers are result of indigenous development or these cultural interactions.

6.3 Evidence from Caucasus

There is a Type II dagger, which is very similar to an Alaca Höyük dagger (Cat. No: 5), found in a grave belonging to Sachere culture (Fig.32). Both of the

blades have wide midrib; sloping shoulders and long, rivet-less tang. The tang of the Alaca Höyük dagger ends angular while the Sachkhere dagger terminated blunt, but not angular. An elongated blade shape is similar in both daggers as well. In addition, the tools types of Sachere are found as far as Armenia and Çoruh Valley in Turkey (Chernykh, 1992: 107). The large portion of the Sachere grave offerings, however, are composed of ornaments. The most unusual type of ornament found in the Sachere graves is the “T” shaped or hammer-shaped pins. Similar pins made of bone, bronze or gold had a wide distribution in Transcaucasia, the northern Caucasus, the northern Black Sea region and the central Anatolia (Alaca Höyük) (Chernykh, 1992: 107). Also various medallions and pendants in Alaca Höyük graves H, F and S (Koşay 1951: pl. CXXXV.2; CLXIX.2; CCIV.2; CCVI) which have their parallels in Transcaucasia (Chernykh, 1992: fig. 34.8-9, 11, 14, 16) (Chernykh, 1992: 110).

There is possibly a metallurgical connection between the Caucasian region and central Anatolia. The Caucasian cultural interaction with Central Anatolia is a sensitive topic due to unproven Indo-European migrations into Anatolia from Caucasia. The main evidence for this migration theory is the kurgan burials, which show some the construction parallels with the Alaca Höyük burials. The main evidence against the migration theory, in turn, is the lack of ceramic evidence and chronological correlations between Central Anatolia and Caucasia.

6.4 Further considerations

There is no need to choose between migration, diffusion or local development of cultures as more than likely the truth lies between these three options. As far as the

metallurgical connections concerned, it should be remembered that the finished metallurgical products were a valuable amenity in the EBA. They were relatively easy to transport and exchanged for other valuable goods such as other precious metals and gems or other exotic goods. It would not be difficult to imagine these goods travelling hundreds of kilometers in relatively short amount of time, perhaps not direct transportation by a single group but rather from community to community. When these relatively valuable and prestigious items appear, they also are likely to be imitated for its social value. Trade items, or morphological influences, may arrive to a region before any individual from the producing culture may. The nature of cultural interactions must be investigated but placing too much importance of a valuable items, or morphological influences, appearing in a grave of an elite individual is a dangerous practice.

There is not even a single mold for casting daggers were recovered in Central Anatolia, nor in the immediate neighboring regions. Some of the daggers might have been forged but, more complicated forms would certainly need closed molds. The negative evidence, however, do not indicate the absence of molding practices. For example, *cire perdue* with sans molds instead of clay might have been practiced (Bilgi, 1984: 170).

Presence of molds, especially of a known dagger type, would indicate that the item was produced locally. Yet, even without this evidence, it is clear that the major settlements in Central Anatolia had advanced metallurgical skills. Arsenical copper was used almost 99% of the larger artifacts in Central Anatolia and its immediate neighbor Central Black Sea region (Bilgi 1984: 171).

With the advancement of archaeometallurgical studies, it will be possible to pinpoint the metallurgical resources exploited as well as the origin of some of the metal artifacts, and their distribution in a region. Until then, it is only possible to make suggestions, based on the frequency of occurrence and context, if a dagger is a local type rather than an import. This is best demonstrated by the connection between the Alaca Höyük and Ovabayındır cylindroid midrib daggers. It is certainly a possibility that the daggers found in Ovabayındır were imports from Central Anatolia, and were produced exclusively as votive grave offering. The only evidence we have for the possible northwest Anatolian connection of these daggers in Ovabayındır and Alaca Höyük is the wide tangs with parallel double rivet use, which is attested at Troy.

CHAPTER VII

CONCLUSION

Typological studies can be tedious work, but they are extremely informative. The study of dagger typologies shows us the movement of technologies as well as trade relations and the actual cultural connections. For thousands of years different ethnic groups are identified by the weapons they possessed. The introductory quote used by Maxwell-Hyslop in her study of dagger typologies (1946) is well chosen to affirm the cultural connection between the people and their weapons:

“During the purification of Delos by Athens in this war all the graves in the island were taken up, and it was found that above half their inmates were Carians: they were identified by the fashion of the arms buried with them, and the method of interment, which was the same as the Carians still follow” (Thucydides I. 8, tr. Cravley).

Similarly, there are cultural connections suggested by the dagger typologies present in Central Anatolia. This metallurgical cohesion is supported by other cultural evidence, such as pottery types and burial practices. There are three tiers of cultural connections in Central Anatolia: (1) within Central Anatolia; (2) with its immediate neighbors; (3) and with the greater region in the sense of E.N. Chernykh's "Cultural Province". Naturally, evidence of interaction is stronger in tier 1 and lessens towards the tier 3 interaction sphere. In addition, these interactions are not always at the same intensity throughout time.

It should be also remembered that we do not find a completely uniform cultural material in EBA Central Anatolia. These EBA settlements enough common cultural characteristics to form a cultural group but some local variations. This is the reason that there are statements such as "Alaca Höyük type burial". These graves have possess some similar characteristics, such as the size of the graves, the inclusion of sun-disks, bull standards, remnants of sacrificed animals (Legs and the heads), metal cups, orientation of the body, dressing of the corpse in clothes and accessorizing the body with jewelry and weapons. The graves in Horoztepe and Alaca Höyük have similar grave style and material such as bull standards and rich offerings but there is no evidence of animal sacrifice in Horoztepe graves. In Resuloglu the bodies are buried in a similar fashion as Alaca, including the evidence of sacrificial remains, but the graves are either composed of pithos, cist and pit type. All the graves in Central Anatolia, however, have some common characteristics to show cultural coherence.

The chronology of the daggers in Central Anatolia, naturally, depends on their context. The result of the ongoing chronological arguments will clarify the dates

which should be assigned to the daggers presented in this study. At the meantime, majority of the daggers in Central Anatolia are conservatively dated to EB III. As it was stated earlier, using a dagger typology as a chronological marker is a dangerous practice. Nevertheless, it is possible to make some suggestions based on available evidence such as the probability that the type I daggers recovered in Horoztepe, based on wear patterns, were in use longer than the type II daggers recovered from the same context. This is also supported by their close typological similarity to daggers from earlier contexts, such as from Yazılıkaya. The appearance of certain dagger typologies, such as the arrival of “Cilician” daggers, ca. 2200 B.C., to Central Anatolia, along with culturally associated material allows us to make chronological suggestions.

Maturing of the archaeometallurgical studies will certainly deepen our understanding of the role daggers played in the EBA Anatolia. Another issue which is not considered in this study is the social significance of daggers in EBA societies. It is true that we cannot completely understand the significance of a dagger to the wearer in the EBA. It is clear, however, that the place daggers hold in the human history is beyond the role of a simple utilitarian tool. The cultural and ritual connotations of daggers in the history of Anatolia are clearly evident from the impressive snake motif handled Çatalhöyük lithic dagger, through the relief of Yazılıkaya (Nergal relief) near Boğazköz, to Ottoman jewel encrusted daggers.

Finally, experimental archaeology can play a role in our understanding of the manufacturing techniques of the daggers in Central Anatolia during the EBA. As it was mentioned earlier, there is lack of molds, yet many of them were certainly cast.

Another benefit of experimental archaeology would be calculating resources (human and material) need to manufacture a dagger, through ore preparation, to smelting and the final product. These processes may also be helpful in metallurgical studies since the manufacturing process may change the chemical composition of the original ore sources used.

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APPENDIX A

CHRONOLOGY CHART

The chart illustrates the chronological sequence of Early Bronze Age (EBA) periods across several archaeological sites in Anatolia and Mesopotamia. The timeline is marked by vertical lines and horizontal arrows indicating the relationship between different periods at each site.

	Troy	Polatlı	Asarcık	Ahlatlıbel Etiyokuşu	Karaoglan	Alaca Höyük	Kültepe	Alişar	Tarsus	Mesopotamia
EBA IIIb	IV	X IX		Stray Finds	IV		11a 11b	6	EB IIIb	Ur III Akkadian Burnt layer
EBA IIIa	III	VIII VII VI V IV III		"Local Ware"	V	5 6 7 8	12 13 14 15 16 17	7 8 9 10 11	EB IIIa I?	IIIa II Early Dynasty Period
EBA IIb	II Troy a			Küçük Kaymaz	Va Vb				EB II	IIIb H
EBA IIa	I g f e d b a j i h g			?	Vc	9 10 11 12		12 13 14	EB I	II G Jendet Nasr
EBA I		f e d c b a		Yazılı Höyük? Kumtepe						Late Chalcolithic

Timeline markers on the right side of the chart:

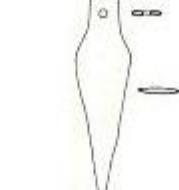
- 2000 B.C. (top)
- EBA III (vertical line)
- 2500 B.C. (middle)
- EBA II (vertical line)
- EBA I (vertical line)
- 2900 B.C. (bottom)

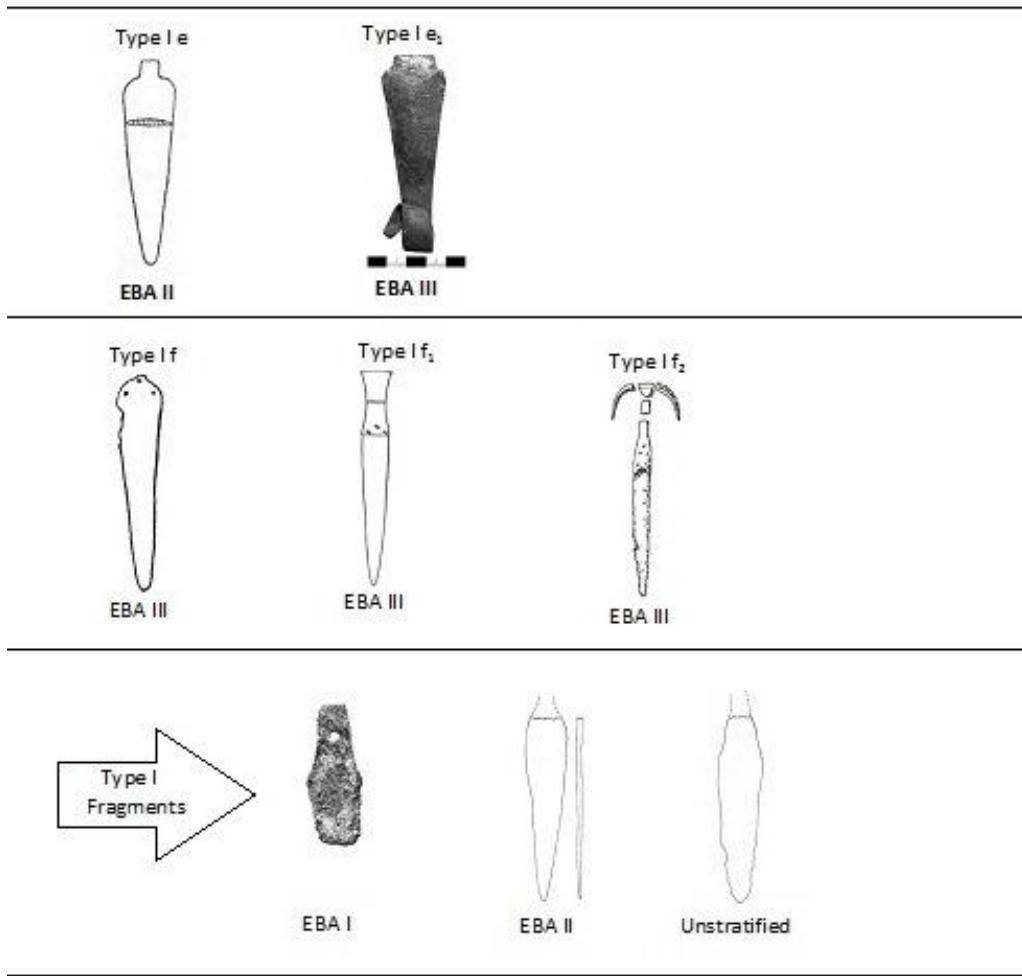
Adapted from T. Efe, 1983: 117.

APENDIX B

TYPOLOGY TABLE

TYPE I

Type Ia	Type Ia	Type Ia ₂
		
<hr/>		
Type Ib		
		
<hr/>		
Type Ic	Type Ic	Type Ic ₂
		
<hr/>		
Type Id	Type Id ₂	Type Id ₂
		
<hr/>		



TYPE II

Type II a



EBA III

Type II a₁



EBA III

Type II a₂



Unstratified

Type II a₃



EBA III

Type II a₄



EBA III

Type II b



EBA III

Type II c



EBA III

Type II c



Unstratified

Type II d

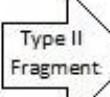


EBA III

Type II d₂



EBA III



Type II
Fragment



EBA III

TYPE III

Type III a



Unstratified

Type III a₁



EBA III

Type III b



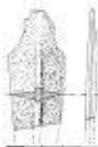
EBA III

Type III b



EBA III

Type III
Fragments



TYPE IV

Type IV a



EBA III

Type IV a₁



EBA III

Type IV b



EBA III

TYPE V

Type V a



EBA III

Type V b



EBA III

Type V b₁



EBA III

TYPE VI



EBA III

TYPE VII

APPENDIX C

FIGURES

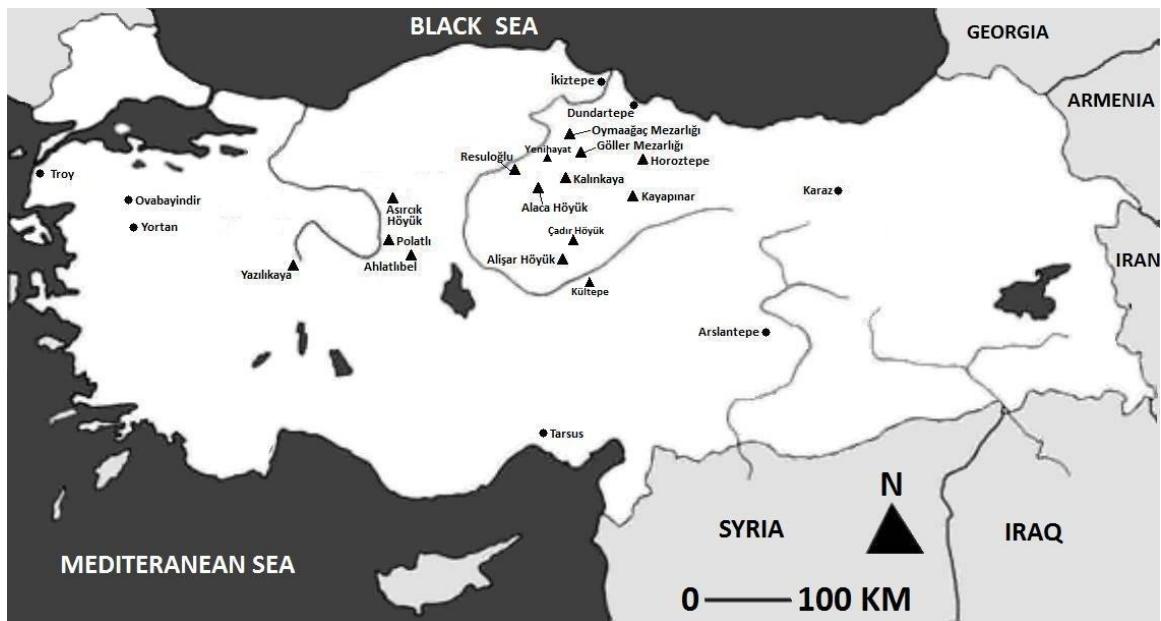
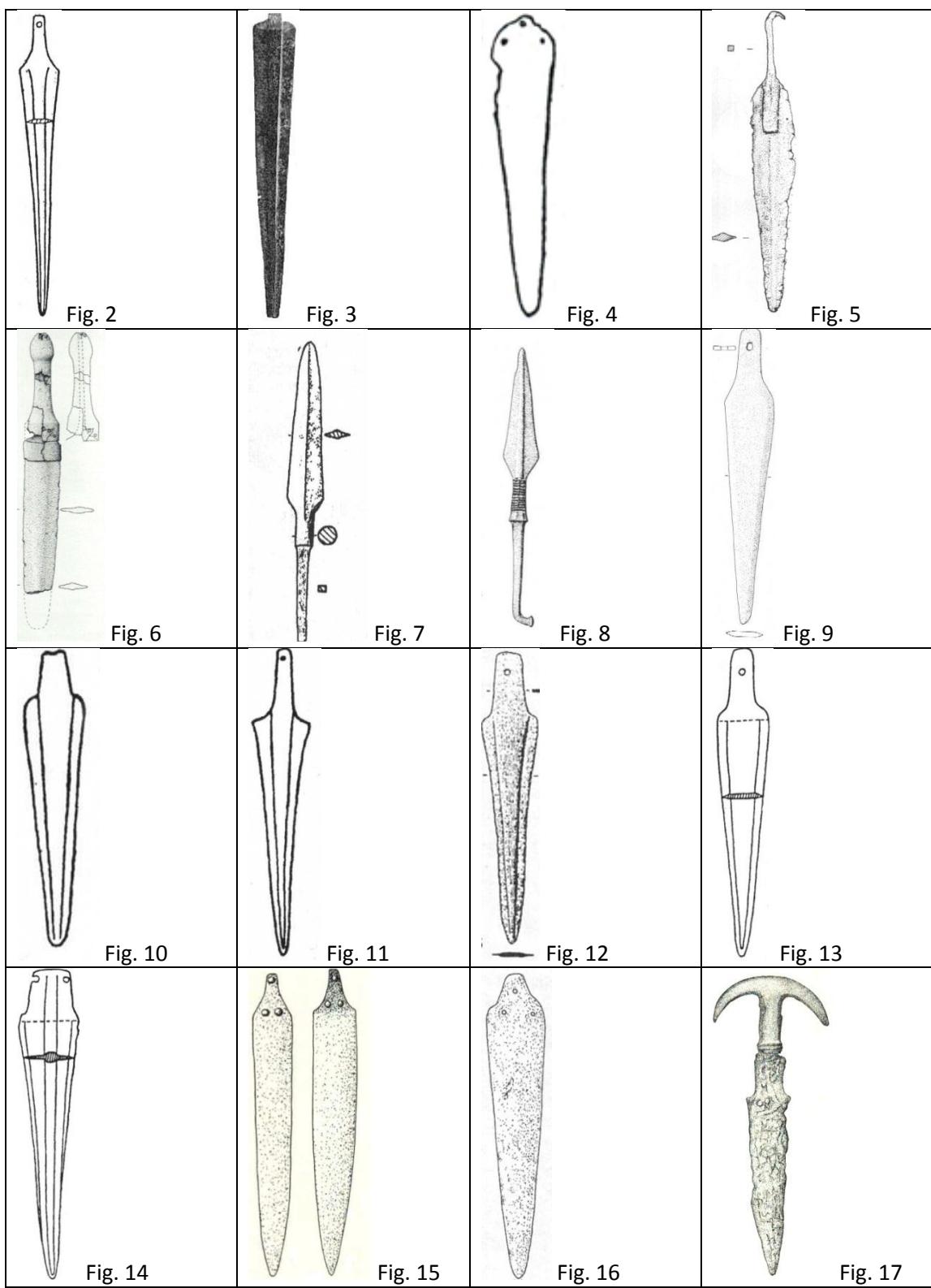
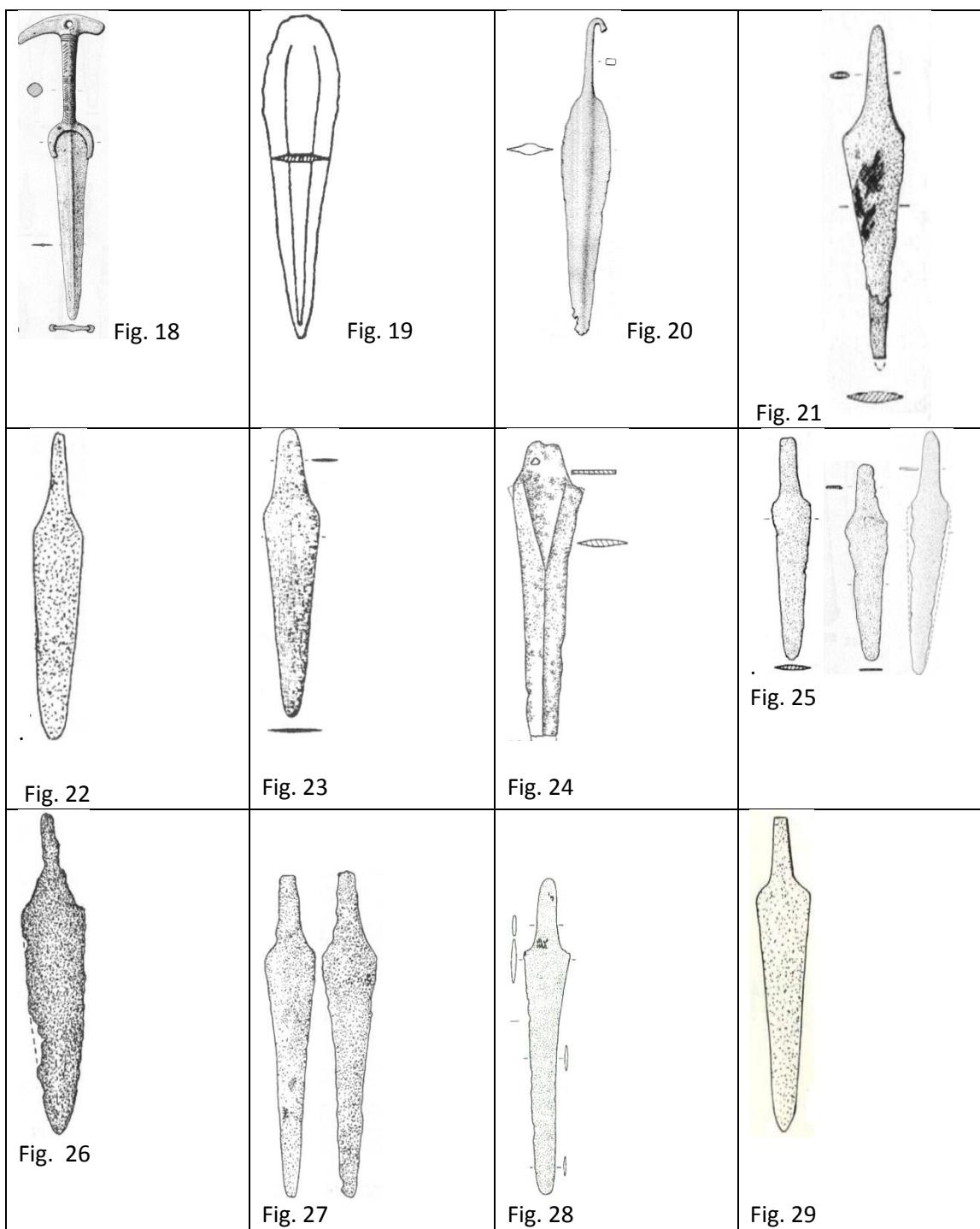


Fig. 1





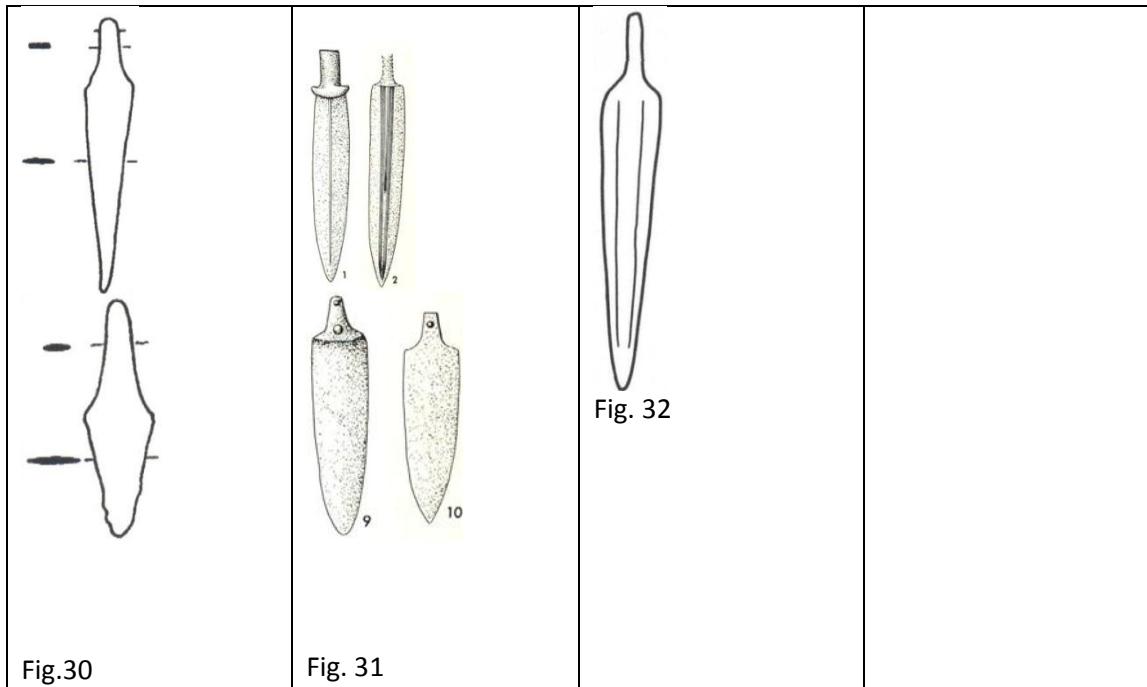


Figure References

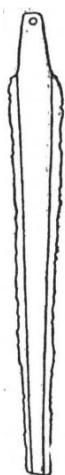
1. Map.
2. Stronach 1957: 94, fig.2/2.
3. Tezcan 1960: 42, Plate XXX/4.
4. Stronach 1957: 95, fig.3/2.
5. Bilgi 1984: 86, fig. 9/14.
6. İpek- Zimmermann 2007:56, fig.7/d.
7. Stronach 1957: fig. 9/4.
8. Müller-Karpe 1974: taf.291/B-7.
9. Bilgi 1984: 90, fig. 13/51.
10. Stronach 1957:93, fig. 2/10.

- 11.** Stronach 1957:93, fig. 2/7.
- 12.** Schiek-Fisher 1965: fig.11.
- 13.** Stronach 1957:91, fig. 1/3.
- 14.** Stronach 1957:91, fig. 1/14.
- 15.** Müller-Karpe 1974: Taf. 171/5.11.
- 16.** Müller-Karpe 1974: Taf. 290/17.
- 17.** Müller-Karpe 1974: Taf. 179/9.
- 18.** Bilgi 1990: 213, fig. 14/183.
- 19.** Stronach 1957:91, fig.1/18.
- 20.** Bilgi 1984: 85, fig.8/8.
- 21.** Bilgi 1990: 214, fig.15/195.
- 22.** Özgüç 1948: lev.I/2.
- 23.** Schiek-Fisher 1965: fig.15.
- 24.** Harmankaya 1973: fig.40/4.
- 25.** Bilgi 1984: 90, fig. 13/58.
- 26.** Koşay-Turfan 1959: fig. 409.
- 27.** Woolley 1952: fig. 60/a.c.
- 28.** Müller-Karpe 1994: Taf. 89/d/6.
- 29.** Müller-Karpe 1974: Taf.171/12.
- 30.** Nikolova 1999:305, fig.10-11.
- 31.** Müller-Karpe 1974: Taf. 171/1-2.9-10.
- 32.** Chernykh 1992:108, Fig. 34/6.

APENDIX D

CATALOG

AHLATLIBEL: Ankara district.



Cat. No: 1

Funerary context. Bronze dagger with broad central flange. Length: 28cm. Round shoulders with a single rivet on tang. Tentative date: ca. 2400 B.C. (Stronach 1957).

Stronach 1957:93, fig. 3/2.
Yakar 1985:34.

Type II a

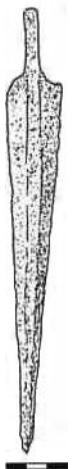


Cat. No: 2

Funerary context. Bronze dagger, broad flange in the center of the blade, single rivet on tang, sloping shoulders. $\frac{1}{2}$ scale. Tentative date: ca.2400 B.C. (Stronach 1957).

Stronach 1957: 95, fig. 3/3.

Type IIId

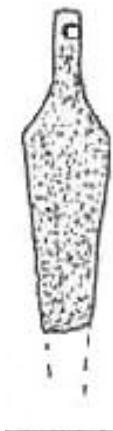


Cat. No: 3

Funerary context. Bronze, thin central flange. Length: 22.5cm.
Tentative Date: Early Bronze Age II.

Koşay 1934: 92/AB. 363

Type II b



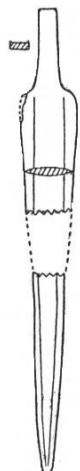
Cat. No:4

Funerary context. Dagger with sloping shoulders, single rivet hole on tang. Fragment length: 8.75cm. Tentative date: Early Bronze Age II.

Koşay 1934: 93/AB. 585

Cat. No: 4

ALACA HÖYÜK: Black Sea Region, Çorum district.



Cat. No: 4

From the Royal Graves at Alaca Höyük. Broad central flange, no rivet placement on tang. These rich graves contained other metal finds such as sun-disks various types, sistrums, jewelry and metal paraphernalia related to clothing. The beaked pottery in graves is common.

Stronach 1957: 95, fig.2/3.

Mellaart 1957:66.

Orthmann 1985:30.

Type Ic



Cat. No: 6

Funerary context. Bronze, cylindroid midrib, wide tang with two rivets, angular shoulders. $\frac{1}{2}$ scale. The Royal Graves at Alaca Höyük contained other rich grave offerings such as copper alloy sun disks, sistrums, jewelry and metal paraphernalia related to clothing. The beaked pottery is common find in graves as well.

Stronach 1957: 95 fig. 3/4.

Mellaart 1957:66.

Orthmann 1985:30.

Cat.
No: 6

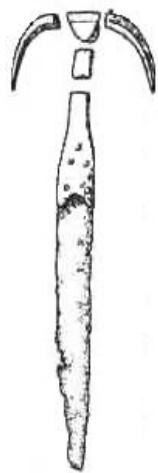


Cat. No: 7

Funerary context, Alaca Höyük “Royal “graves. Iron dagger with triple rivet system, gold plated handle.

Koşay 1951.
Stronach 1957: 95 fig. 3/4.

Type I f₁



Cat. No: 8

Alaca Höyük “Royal Graves.” Iron blade with gold hilt. Tri-rivet system is used with additional two rivets on the lower portion. This dagger is found along with other rich grave offerings such as sun disks and metal vessels.

Koşay 1951: Lev. CLXXXII/4.

Type I F₂

ALISHAR HÖYÜK: Yozgat



Type I a

Cat. No: 9

Fragment of a dagger with a long, thin tang. Late Chalcolithic (EBA I) settlement context.



Type I

Cat. No: 10

Fragment of a dagger with a wide tang pierced with a single rivet. Recovered from Late Chalcolithic (EBA I) context. Might be an intrusion from a higher level.



Type I f

Cat. No: 11

Intra-mural burial context. Bronze, triangular rivet alignment. Stronach type 6 dagger. Alishar III, c.2100 B.C.

Schmidt 1932: ill. 270.

Stronach 1957: 95, fig. 3/4.

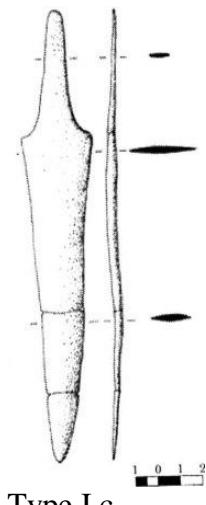
ASARCIK HÖYÜK / ILICA: Ankara province.

No Illustration Available

Cat. No: 12

Small, triangular shaped blade, sharp shoulders, with a rivet on the tang had been published.

Cadır Höyük

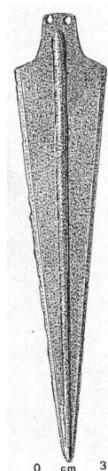


Type I c

Cat. No: 13

Part of the Haluk Perk Museum collection. Provenance is based on museum records. EBA II (2700-2300 B.C.)

Dönmez, 2008: 410



Type III b

Cat. No: 14

Unconfirmed providence, purchased in 1971 from a private dealer. Generally agreed that it was looted from Goller mezarlığı or Oymaağac mezarlığı. The dagger has cylindroid midsection; sharp angles on the shoulders; flat tang has two rivet holes. Length: 20.1 cm. Third millennium B.C.

Mellink 1969-70:11.

Özgür 1980:468.470.475.

HASHÖYÜK: Kırşehir province

No Illustration Available

Cat. No: 15

Dagger, Stonach type 2, reported from site.

Stonach 1957:92.

HOROZTEPE: Tokat province



Type II f

Cat. No: 16

Bronze dagger. Broad midrib; round shoulders; small, square tang.

Tezcan 1960:42.Plate XXX/4.



Type IV a

Cat. No: 17

Bronze dagger. Raised midrib; Sloping shoulders; flanged sides; two river holes at the end of the tang.

Tezcan 1960:42.Plate XXX/1.



Cat. No: 18

Round shoulders; long triangular shaped tang, no rivet holes.

Özgür-Akok 1957:216.
Tezcan 1960:42.Plate XXX/5.

Type I c

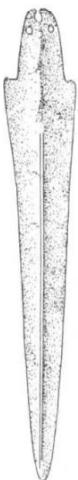


Cat. No: 19

Bronze dagger. Broad tang; central midrib running to the end of the tang terminating at a rivet hole; straight shoulders. Unsecured context.

Tezcan 1960:42.Plate XXX/2.

Type IV a₁

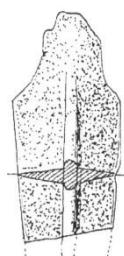


Cat. No: 20

Bronze dagger. Straight shoulders; long and rounded tang with triangular rivet alignment.

Tezcan 1960: Plate XXX, Ils.3.

Type IVb



Cat. No: 22

Fragment of a double edged weapon. Raised midrib, probably no rivet holes on tang.

Özgür-Akok 1958:il.27.
Type III



Cat. No: 22

Wide rib with narrow sides; long, flat slim tang.

Özgür-Akok 1957:216.

Type I a₂

KALINKAYA: Black Sea Region, Çorum district.



Cat. No: 23

Kalinkaya necropolis, burial M-08-71. Wide, triangular shaped mid rib extends to tang; single rivet whole on tang. The burial also contained two metal pins.

Mellink 1972:170.

Mellink 1973:173.

Zimmerman 2007:6.

Type VI



Cat. No: 24

Kalinkaya necropolis, burial M-02-71. Dagger with sloping shoulders, no rivet hole present. The burial also contained other metal finds: two pins and three bracelets.

Mellink 1972:170.

Mellink 1973:173.

Zimmerman 2007:6.

Type II a₁

KAYAPINAR: Tokat province.



Cat. No: 25

Possibly from funerary context. Triangular shaped dagger; broad tang with rivet hole. Length: 19.5cm.

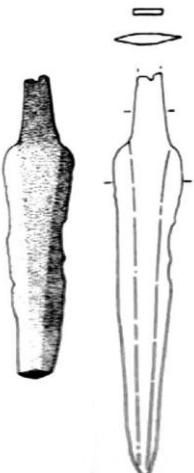
Temizer 1954:il.17.

Type I d

KÜLTEPE: Kayseri province.

No Illustration Available	Cat. No: 26
Type VII	Cast in one piece, including the handle. Crescent shaped pommel. EBA III

MECİTOZÜ: Çorum District.

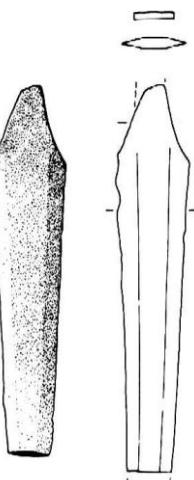


Cat. No: 27

Recorded provenance of Mecitözü, Çorum. Flat broad midrib.
Possibly broken tang with a single rivet piercing.

Müller-Karpe, 1994: taf.96

Type II d₂



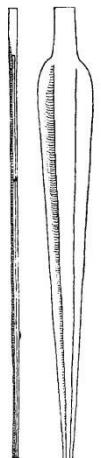
Cat.No: 28

Recorded provenance of Mecitözü, Çorum. Flat broad midribAnd a
rivetless wide tang.

Müller-Karpe, 1994: taf.96

Type II

POLATLI: Ankara province.

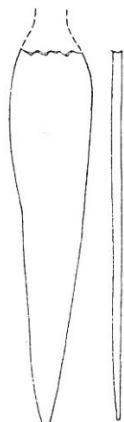


Type II c

Cat. No: 29

Wide central flange; sloping shoulders; rectangular tang with no visible rivet hole. Surface find. Length: 23cm. Dated by the excavators to the Early Bronze Age, unstratified.

Lloyd-Gokce 1951:ill.14/12.



Type I

Cat. No: 30

Dagger. Sloping shoulders, missing tang. Length: Approx 18cm. Polatli level XV.

Lloyd-Gokce 1951:ill.14/1.

RESULOĞLU CEMETERY: Çorum Province



Cat. No: 31

Funerary context. Bent intentionally before the placement in to the grave. EBA III.

Yıldırım 2006:10, fig. 15a.

Type Ie₁



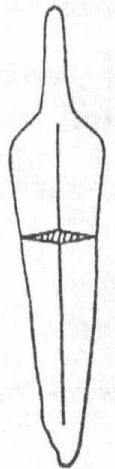
Cat. No: 32

Funerary context. Intentionally damaged before the placement in to the grave.

Yıldırım 2006:10, fig. 15c.

Type III a₁

YAZILIKAYA: Afyon province.

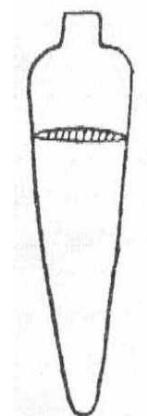


Type I b

Cat. No: 33

Dagger with rhombic section; sloping shoulders; long, slim tang; no rivet hole. 2500-2300 B.C.

Stronach 1957:91.Ils:1/19.



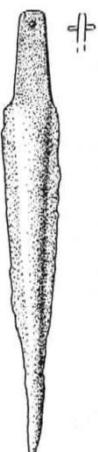
Type Ie

Cat. No: 34

Dagger with curved section; short and square shaped tang; no rivet hole. 2750-2500B.C.

Stronach 1957:91.Ils:1/21.

YENİHAYAT: Çorum Province.



Cat. No: 35

Çorum Arkeoloji Müzesi. The museum records indicate the provenance as the Yenihayat cemetery. Wide, rounded midrib. Flat tang with a single rivet. EBA III context.

Muller-Karpe, 1994: Taf.92
Yıldırım, 2001: 1-8.

Type V a

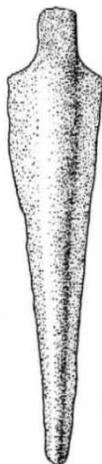


Cat. No: 36

Çorum Arkeoloji Müzesi. The museum records indicate the provenance as the Yenihayat cemetery. Wide, rounded midrib. Flat, triangular tang with a single rivet. EBA III context.

Muller-Karpe, 1994: Taf.92
Yıldırım, 2001: 1-8.

Type V b₁

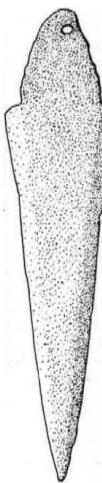


Cat. No: 37

Çorum Arkeoloji Müzesi. The museum records indicate the provenance as the Yenihayat cemetery. Wide, rounded midrib. No evidence of a rivet. EBA III context.

Muller-Karpe, 1994: Taf.92
Yıldırım, 2001: 1-8.

Type V b

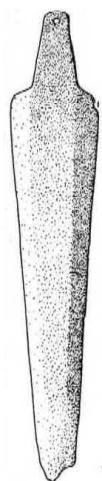


Cat. No: 38

Çorum Arkeoloji Müzesi. The museum records indicate the provenance as the Yenihayat cemetery. Flat wide midrib. Wide, triangular tang with a single rivet hole. EBA III context.

Muller-Karpe, 1994: Taf.92
Yıldırım, 2001: 1-8.

Type II a₂



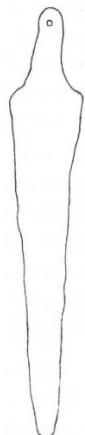
Cat. No: 39

Çorum Arkeoloji Müzesi. The museum records indicate the provenance as the Yenihayat cemetery. Flat wide midrib. Tang with a single rivet piercing. EBA III context.

Muller-Karpe, 1994: Taf.92
Yıldırım, 2001: 1-8.

Type II a₁

UNCONFIRMED PROVENANCE (Ankara Collection): Çorum –Tokat-Amasya Region.



Cat. No: 40

Unconfirmed provenance, purchased in 1965 from a private dealer in Ankara. Length: 18cm.

Özgürç 1978: 91.
Özgürç 1978: 92.fig.77.

Type I c₁



Cat. No: 41

Unconfirmed provenance, purchased in 1965 from a private dealer in Ankara. Length: 11.8 cm.

Özgürç 1978: 91.
Özgürç 1978: 92.fig.78.

Type I

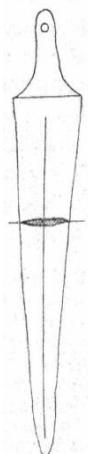


Cat. No: 42

Unconfirmed provenance, purchased in 1965 from a private dealer in Ankara. Length: 12 cm.

Özgürç 1978: 91.
Özgürç 1978: 92.fig.79

Type I c₂



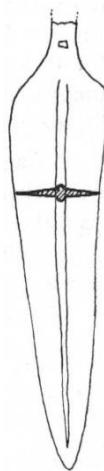
Cat. No: 42

Unconfirmed provenance, purchased in 1965 from a private dealer in Ankara. Length: 18cm.

Özgürç 1978: 91.

Özgürç 1978: 95.fig.95.

Type ?



Cat. No: 44

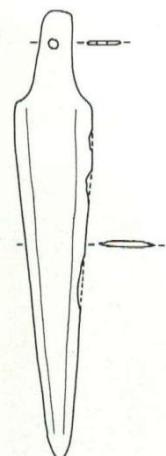
Published with the “Ankara Collection” as a “dagger from the Amasya Museum”. Length: 11.8cm.

Özgürç 1978: 91.

Özgürç 1978: 92.fig.80.

Type III a

UNCONFIRMED PROVENANCE (Private Collection): Central Anatolian region.



Cat. No: 45

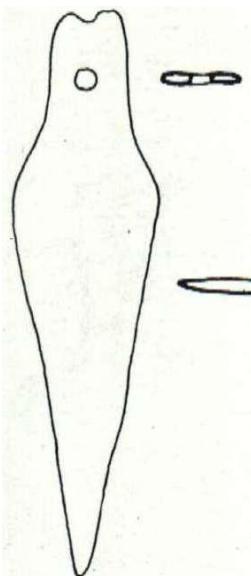
Sadberk Hanım Museum. Wide-midrib blade with a single riveted tang. Copper-Arsenic alloy (Cu: 89.8, As: 6.71)

Length: 18.5cm

Width: 3cm

Anlağan-Bilgi 1989: 33.

Type II a₂



Cat. No: 46

Sadberk Hanım Museum. The proportions of the blade suggest length reduction due to re-sharpening of the blade. Single rivet hole on the tang. Copper-Arsenic alloy (Cu: 90.3, As: 4.99)

Length: 7.3cm

Width: 2cm

Anlağan-Bilgi 1989: 34.

Type I



Cat. No: 47

Sadberk Hanım Museum. This blade is classified by Anlağan-İpek as a spearhead. It is more likely to be a dagger rather than a spearhead. Copper-Arsenic (Cu: 92.8, As: 0.94).

Length: 18cm

Width: 3.5cm

Anlağan-Bilgi 1989: 17

Type I a