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Pig Domestication and Human-Mediated Dispersal in Western Eurasia Revealed through Ancient DNA and Geometric Morphometrics

Claudio Ottoni,[†,1,2,3] Linus Girdland Flink,[†,4,5,6] Allowen Evin,[7,8] Christina Geörg,[9,10] Bea De Cupere,[11] Wim Van Neer,[1,11] László Bartosiewicz,[12] Anna Linderholm,[4] Ross Barnett,[4] Joris Peters,[13] Ronny Decorte,[2,3] Marc Waelkens,[14] Nancy Vanderheyden,[2] François-Xavier Ricaut,[15] Canan Çakırlar,[11,16] Özlem Çevik,[17] A. Rus Hoelzel,[5] Marjan Mashkour,[8] Azadeh Fatemeh Mohaseb Karimlu,[8] Shiva Sheikhi Seno,[8] Julie Daujat,[7,8] Fiona Brock,[18] Ron Pinhasi,[19] Hitomi Hongo,[20] Miguel Perez-Enciso,[21] Morten Rasmussen,[22] Laurent Frantz,[23] Hendrik-Jan Megens,[23] Richard Crooijmans,[23] Martien Groenen,[23] Benjamin Arbuckle,[24] Nobert Benecke,[10] Una Strand Vidarsdottir,[25] Joachim Burger,[9] Thomas Cucchi,[7,8] Keith Dobney,[7] and Greger Larson*[,4]

[1]Center for Archaeological Sciences, Department of Earth and Environmental Sciences, University of Leuven, Leuven, Belgium

[2]Laboratory of Forensic Genetics and Molecular Archaeology, Department of Forensic Medicine, UZ Leuven, Belgium

[3]Department of Imaging & Pathology, University of Leuven, Leuven, Belgium

[4]Durham Evolution and Ancient DNA, Department of Archaeology, Durham University, Durham, United Kingdom

[5]School of Biological and Biomedical Sciences, Durham University, Durham, United Kingdom

[6]Earth Sciences Department, Natural History Museum, London, United Kingdom

[7]Department of Archaeology, University of Aberdeen, Aberdeen, Scotland, United Kingdom

[8]UMR 7209 CNRS/Muséum National d'Histoire Naturelle, Paris, France

[9]Institute of Anthropology, Johannes Gutenberg University Mainz, Mainz, Germany

[10]German Archaeological Institute, Eurasian Division, Berlin, Germany

[11]Royal Belgian Institute of Natural Sciences, Brussels, Belgium

[12]Institute of Archaeological Sciences, Department of Archaeometry and Archaeological Method, Loránd Eötvös University, Budapest, Hungary

[13]Department of Veterinary Sciences, Institute of Palaeoanatomy, Domestication Research and the History of Veterinary Medicine, Ludwig Maximilian University Munich, Munich, Germany

[14]Sagalassos Archaeological Project, University of Leuven, Leuven, Belgium

[15]CNRS FRE 2960, Laboratoire AMIS d'Anthropologie Moléculaire et Imagerie de Synthèse, Université de Toulouse, Toulouse, France

[16]Institute of Archaeology, University of Groningen, Groningen, The Netherlands

[17]Faculty of Letters, Department of Archaeology, University of Thrace, Edirne, Turkey

[18]Oxford Radiocarbon Accelerator Unit, Research Laboratory for Archaeology, University of Oxford, Oxford, United Kingdom

[19]Molecular Population Genetics, Smurfit Institute of Genetics, Trinity College Dublin, Dublin, Ireland

[20]Department of Evolutionary Studies of Biosystems, Graduate University for Advanced Studies, Hayama, Kanagawa, Japan

[21]Institució Catalana de Recerca i Estudis Avançats (ICREA), Centre for Research in Agricultural Genomics (CRAG) and Facultat de Veterinaria, Department of Animal Science, Universitat Autonoma Barcelona, Bellaterra, Spain

[22]Centre for GeoGenetics, Copenhagen, Denmark

[23]Wageningen University, Animal Breeding and Genomics Centre, Wageningen, The Netherlands

[24]Department of Anthropology, Baylor University

[25]Department of Anthropology, Durham University, Durham, United Kingdom

[†]These authors contributed equally to this work.

***Corresponding author:** E-mail: greger.larson@durham.ac.uk.

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Abstract

Zooarcheological evidence suggests that pigs were domesticated in Southwest Asia ~8,500 BC. They then spread across the Middle and Near East and westward into Europe alongside early agriculturalists. European pigs were either domesticated independently or more likely appeared so as a result of admixture between introduced pigs and European wild boar. As a result, European wild boar mtDNA lineages replaced Near Eastern/Anatolian mtDNA signatures in Europe and subsequently replaced indigenous domestic pig lineages in Anatolia. The specific details of these processes, however, remain unknown. To address questions related to early pig domestication, dispersal, and turnover in the Near East, we analyzed ancient mitochondrial DNA and dental geometric morphometric variation in 393 ancient pig specimens representing 48 archeological sites (from the Pre-Pottery Neolithic to the Medieval period) from Armenia, Cyprus, Georgia, Iran, Syria, and Turkey. Our results reveal the first genetic signatures of early domestic pigs in the Near Eastern Neolithic core zone. We also demonstrate that these early pigs differed genetically from those in western Anatolia that were introduced to Europe during the Neolithic expansion. In addition, we present a significantly more refined chronology for the introduction of European domestic pigs into Asia Minor that took place during the Bronze Age, at least 900 years earlier than previously detected. By the 5th century AD, European signatures completely replaced the endemic lineages possibly coinciding with the widespread demographic and societal changes that occurred during the Anatolian Bronze and Iron Ages.

Key words: pig domestication, wild boar, Neolithic, phylogeography.

Introduction

The transition from hunting and gathering to agriculture is one of the most important biocultural processes in human history (Diamond and Bellwood 2003). Though this transition took place in numerous locations across the globe (Purugganan and Fuller 2009), the earliest stages of animal domestication in western Eurasia are recorded in the northern Fertile Crescent in the 9th millennium BC (Zeder 2008, 2011). Recent evidence suggests that the establishment of food production was followed by rapid population growth (Bocquet-Appel 2011) and agropastoral economies often spread through demic diffusion (Gignoux et al. 2011). This was certainly the case for Southwest Asia where, following the development of agricultural economies, farmers migrated into Europe during the Neolithic bringing with them domestic crops and livestock (Bramanti et al. 2009).

The increased resolving power of new genetic and morphometric techniques has allowed for the identification of fine-scale population differences across wide temporal and geographic contexts and the capability of tracking these differences through time and space. For example, DNA derived from modern animal (Naderi et al. 2008; Chessa et al. 2009) and plant (Myles et al. 2011; van Heerwaarden et al. 2011) domesticates have been used to unravel geographic origins and dispersal patterns. The use of modern data alone, however, can be problematic. Past domestic populations often underwent dramatic bottlenecks, demographic fluctuations (including complete replacement), and admixture with wild relatives, thus obscuring the genetic signatures of earlier populations (Larson, Albarella, et al. 2007; Larson et al. 2012).

Analyses of ancient DNA (aDNA) have overcome this issue by typing (pre)historic populations and allowing for the direct observation of genetic signatures through time. This approach has generated new insights related to past genetic diversity (Fernandez et al. 2006), wild–domestic hybridization (Bollongino et al. 2008), and human migration (Larson, Albarella, et al. 2007; Larson, Cucchi, et al. 2007). Similarly, novel morphometric methods, including geometric morphometrics (GMM), have been successfully applied to document changes between wild and domestic animals (Larson, Cucchi, et al. 2007) and plants (Terral et al. 2010) and to track the phenotypic evolution of past populations (Cucchi et al. 2009).

Zooarcheological evidence demonstrates that wild boar were domesticated independently in the Near East by at least 8,500 BC (Conolly et al. 2011; Ervynck et al. 2001). By examining pig bones recovered from the Pre-Pottery Neolithic layers at Cayonu Tepesi (10,000–6,300 BC, Erim-Özdoğan 2011) in southeastern Anatolia, Ervynck et al. (2001) identified a disproportionate decrease in molar tooth size over two millennia. They interpreted this pattern to be the result of a long-term in situ domestication process that led to the emergence of morphologically domestic pigs by 6,800 BC (early Pottery Neolithic). Similar, though contentious, claims for human controlled pig breeding between 8,200 and 7,500 BC have been made at Cafer Höyük (Helmer 2008) and Nevali Çori (Peters et al. 2005) in southeastern Anatolia. The introduction of wild boar to Cyprus by at least 9,700–9,400 BC, however, indicates that humans were actively manipulating wild boar populations for millennia before the emergence of domestic pigs (Vigne et al. 2011; Vigne et al. 2009).

Though the zooarcheological evidence demonstrates that pigs were first domesticated in Southwest Asia, virtually all modern domestic pigs from western Eurasia possess mitochondrial signatures similar (or identical) to European wild boar (Larson et al. 2005). Ancient DNA extracted from early Neolithic domestic pigs in Europe resolved this paradox by demonstrating that early domestic pigs in the Balkans and central Europe shared haplotypes with modern Near Eastern wild boar (Larson, Albarella, et al. 2007). The absence of Near Eastern haplotypes in pre-Neolithic European wild boar suggested that early domestic pigs in Europe must have been introduced from Anatolia by the mid 6th millennium BC before spreading to the Paris basin by the early 4th millennium BC (Larson, Albarella, et al. 2007).

By 3,900 BC, however, virtually all domestic pigs in Europe possessed haplotypes originally only found in European wild boar. This genetic turnover may have resulted from the accumulated introgression of local female wild boar into imported domestic stocks or from an indigenous European domestication process (Larson, Albarella, et al. 2007). After the genetic turnover had taken place in Europe, aDNA from Armenian pigs indicated that European domestic pigs were present in the Near East by the 7th century BC at the end of the Iron Age where they replaced indigenous Near Eastern domestic mtDNA lineages (Larson, Albarella, et al. 2007). Crucially, the archeological record attests to rapid demographic and societal changes during the Late Bronze Age (1,600–1,200 BC) and Iron Age (1,200–600 BC), including large-scale migrations and the expansion of trade and exchange networks across the Mediterranean and the Black Sea region (Sagona and Zimansky 2009).

To establish a more precise geographic and temporal framework of mitochondrial *Sus* haplotypes in Anatolia and to address questions related to the mitochondrial turnover in Armenia at the end of the Iron Age, we obtained mitochondrial sequences from 39 modern wild boar and 393 archeological wild and domestic pigs from 48 Near Eastern sites spanning the Pottery Neolithic (~7,000 BC) to the 15th century AD from western Turkey to southwestern Iran (fig. 1, supplementary fig. S1*a* and table S1, Supplementary Material online). We analyzed our novel data alongside previously published ancient and modern sequences (supplementary table S2, Supplementary Material online). In addition, we performed a dental morphological assessment of 46 archeological specimens (with known genetic haplotypes) using traditional osteometric and GMM methods to assess the correlation between genetic and morphometric variation (fig. 2).

Results and Discussion

Genetic Signatures of Early Anatolian Domestic Pigs

Remains of the earliest domestic livestock are found in Southwest Asia ~9,000–8,000 BC (Zeder 2008). Unlike sheep, goats, and cattle that likely became domesticated through a prey pathway, pigs (like dogs and cats) probably followed a commensal pathway that began with an initial habituation phase before proceeding to a partnership that ended in controlled breeding (Ervynck et al. 2001; Zeder 2012). The protracted time over which pig domestication took place likely included a predomestic management phase that may have been widespread across the region (Vigne 2011).

We first tested the geographic correspondence between archeological and genetic evidence for pig domestication by mapping the geographic distribution of genetic signatures derived from modern wild boar in Anatolia and the Near East (fig. 2). A phylogenetic tree, based on 661 bp (base pairs) of the mitochondrial DNA (mtDNA) control region, revealed a previously observed topology (Larson, Albarella, et al. 2007) that included three well-supported phylogeographic clades: two clades with pigs found exclusively in the Near East (NE1 and NE2) and a European clade. Of the 192 novel ancient sequences (supplementary table S4, Supplementary Material online), all those that possessed one of three Anatolian/Near Eastern mtDNA lineages (Arm1T, Y1, or Y2) (Larson, Albarella, et al. 2007) belonged to the NE2 clade (supplementary fig. S2*a*, Supplementary Material online). In modern animals, the NE1 clade has been identified only in Near Eastern wild boar (supplementary table S2, Supplementary Material online) and is yet to be found in any modern or ancient domestic pigs. The geographic distributions of the NE1 and NE2 clades overlap only in Iran, Iraq, and in the Caucasus (fig. 2 and supplementary fig. S2*b*, Supplementary Material online). Given the absence of NE1 boar in Anatolia, and the complete lack of NE1 signatures in modern or ancient domestic pigs, it is plausible that the first domestic pigs in Anatolia belonged to the NE2 clade.

To establish the specific mtDNA lineage of one of the earliest domestic pig populations, we successfully extracted and sequenced DNA from one specimen excavated from an early Pottery Neolithic layer (~6,800–6,500 BC) at Çayönü Tepesi, representing the final stages of the proposed in situ domestication process (Hongo and Meadow 1998; Ervynck et al. 2001). This specimen possessed the Arm1T haplotype that (along with the Y1 haplotype) is the dominant signature in other Neolithic and Bronze Age Anatolian *Sus* remains (fig. 1).

We then contrasted the frequencies of NE2 lineages across Southwest Asia (fig. 1). Like numerous other pig clades distributed across the Old World (Larson et al. 2005), the distributions of Y1 and Arm1T are geographically partitioned. Y1 is significantly more frequent in western Anatolia (Fisher's exact test; $P < 0.001$), whereas Arm1T has a much wider distribution and dominates in southeastern Anatolia, Armenia, Syria, Georgia, and Iran (Fisher's exact test; $P < 0.001$) (fig. 1). Despite the limited sample size, the combined zooarcheological and genetic data suggest that at least the Arm1T lineage was present in the first domestic pigs in western Eurasia.

Anatolian Origins of European Neolithic Pigs

A previous DNA study of modern and ancient, wild and domestic pigs demonstrated that the earliest domestic pigs in Europe possessed one of two NE2 clade haplotypes: Y1 or Y2. Because both of these haplotypes clustered with others found in modern Anatolian and Near Eastern wild boar, the authors concluded that Y1 and Y2 lineages were indigenous to Anatolia and were later transported into Europe by migrating farmers at the onset of the European Neolithic. The lack of ancient Anatolian samples, however, precluded a direct demonstration of that assertion (Larson, Albarella, et al. 2007).

The ancient Anatolian data presented here reveal that both morphologically wild and domestic Neolithic pigs (distinguished using logarithmically indexed linear osteometrics) possessed Y1 haplotypes (fig. 1, supplementary fig. S3*a* and table S5, Supplementary Material online) and were present at three archeological sites in western Anatolia: Bademağacı (6,400–6,100 BC) (De Cupere et al. 2008), Ulucak Höyük (6,400–5,900 BC) (Çakırlar 2012), and Menteşe Höyük (~6,000 BC). The presence of these lineages corroborates

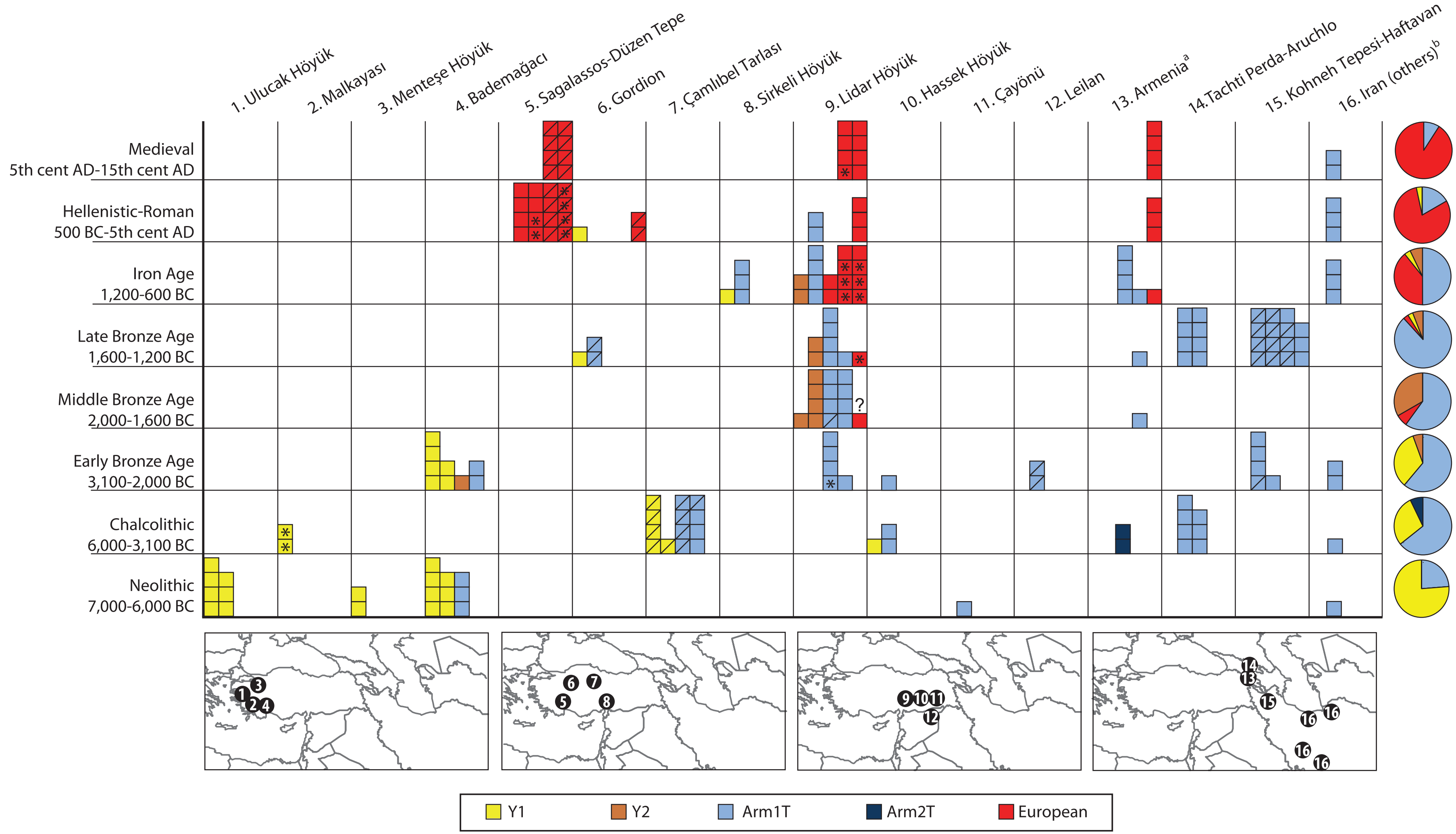

Fig. 1. A spatiotemporal depiction of ancient pig haplotypes. Rows represent eight chronological periods, and columns pertain to sites organized along a longitudinal axis from west to east. Approximate locations of the archeological sites from which the samples are derived are shown as numbered circles on maps beneath the horizontal axis. Asterisks indicate directly AMS-dated samples. The question mark signifies not enough material was available for AMS dating. Slashed boxes indicate samples on which GMM analyses were performed. Pie charts to the right of each row summarize the haplotype frequencies for each chronological period across all sites. Columns pertain to one or two sites except for two columns that consist of several sites: Armenia (Sevkar-4, Areni-1, Khatunarkh, Shengevit, Lchashen, Tmbatir, Pilorpat, Beniamin, and Tsakaektsi) and Iran (Qaleh Rostam, Qare Doyub, Qelīch Qōīneq, Dasht Qal'eh, Doshan Tepe, Malyan, Mehr Ali, Chogha Gavaneh, and Gohar Tepe).

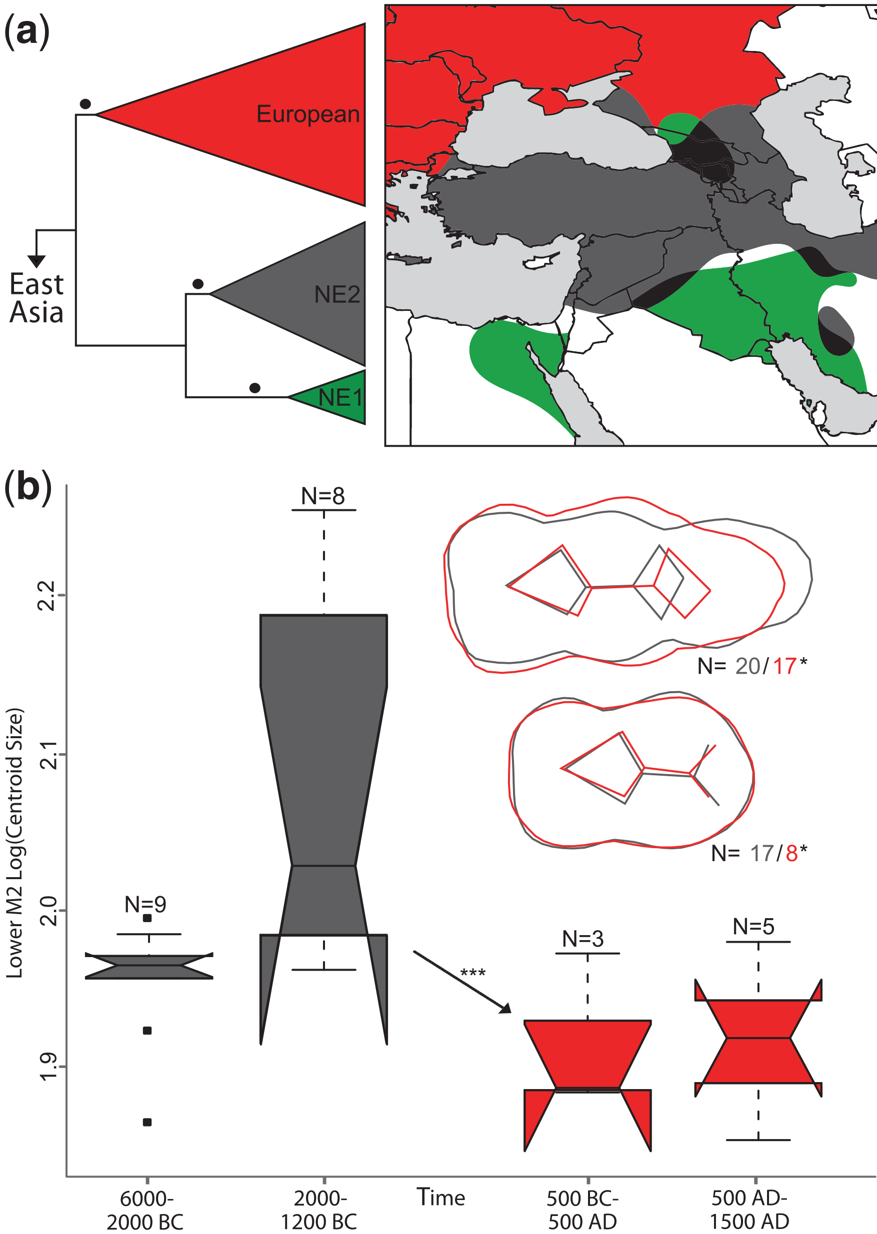

Fig. 2. Panel (*a*) depicts a schematic phylogenetic tree derived from an alignment of 267 modern wild boar from western Eurasia. Red, green, and gray triangles refer to the well-supported European, Near Eastern 1 (NE1), and Near Eastern 2 (NE2) clades, respectively. Branches supported by $P > 0.99$ are indicated by a black circle. A more detailed representation of the tree including support values is presented in supplementary figure S2*a*, Supplementary Material online. The NE2 clade includes all ancient Near Eastern haplotypes depicted in figure 1. Panel (*a*) also shows the approximate geographic distribution of modern wild boar belonging to these clades. Areas with overlapping distributions are represented in dark. A more detailed depiction is presented in supplementary figure S2*b*, Supplementary Material online. Panel (*b*) presents molar size (M_2) and shape (M_2 and M_3) differences between ancient pigs assigned to European (red) and Near Eastern (gray) mtDNA clades. Differences in shape calculated along linear discriminant analysis (LDA) axes are displayed in overlapping shapes in the upper right. The arrow indicates a statistically significant size reduction in the M_2 between European and Near Eastern pigs. Numbers following "*N*=" represent sample sizes, and single and triple asterisks represent significance to the $P < 0.05$ and $P < 0.01$ levels.

the supposition that the earliest domestic pigs in Europe originated from populations originally domesticated in the Near East, conclusively linking the Neolithization of Europe with Neolithic cultures of western Anatolia (Larson, Albarella, et al. 2007; Özdoğan 2005).

The Y1 haplotype does not appear to be associated with either wild boar or early domestic pigs in eastern parts of Anatolia, and it is completely absent in Iranian and Caucasian pigs where the Arm1T lineage dominates. Intriguingly, though Arm1T is present in early domestic pigs in eastern Turkey, this lineage has yet to be identified in either ancient or modern European pigs. This temporal and geographic pattern (fig. 1) could be the result of two different processes. First, it is possible that genetically differentiated wild boar populations in eastern and western Anatolia were domesticated independently. More likely, however, is a scenario in which southeastern Anatolian wild boar were initially domesticated and subsequently transported west out of the Neolithic "core zone" (Özdoğan 2011). Then, following admixture with female wild boar indigenous to western Turkey, they acquired the local Y1 lineage that prevailed over the Arm1T lineage in this area.

The route along which domestic pigs traveled to arrive in western Anatolia remains unknown. The presence of morphologically domestic pig remains by the 7th millennium BC (Pottery Neolithic layers) at the site of Yumuktepe, in south-central Turkey (Buitenhuis and Caneva 1998), and at the early 7th millennium BC layers of Ulucak (Çakırlar 2012; Çilingiroğlu 2012) near the eastern Aegean coast, contrasted with the general dearth of pigs during the same period in central Anatolia (Conolly et al. 2011), however, suggest that one of the possible routes was along the Mediterranean coast.

Timing and Nature of the Anatolian Pig Turnover

A previous study (Larson, Albarella, et al. 2007) demonstrated that domestic pigs with mitochondrial haplotypes predominantly found in Europe replaced mitochondrial lineages in Armenia that possibly originated from the early domestic swine herds in the Neolithic core zone by 700 BC. Because that study did not include ancient pigs from central or western Anatolia, the scale and timing of this proposed eastward dispersal and replacement by European domestic pigs remained unresolved.

The temporal and geographic distribution of genetic haplotypes presented in our study demonstrates that the first AMS radiocarbon-dated pig with European ancestry (haplotype A) appeared almost 1,000 years earlier than the Armenian samples, in a Late Bronze Age context (~1,600–1,440 BC) at Lidar Höyük (fig. 1). An apparently even earlier Middle Bronze Age specimen from the same site also possessed a European signature, but a direct radiocarbon date for this specimen could not be obtained.

Our data also show that European pigs are unlikely to have arrived in Anatolia before 2,000 BC since the Early Bronze Age layers at Bademağacı and Lidar Höyük (in southwestern and southeastern Anatolia, respectively) only possess indigenous Near Eastern pig lineages. The frequency of pigs with European ancestry increased rapidly from the 12th century BC onwards, and by the 5th century AD, domestic pigs possessing a Near Eastern genetic signature had all but disappeared across Anatolia and the southern Caucasus. Though we did not detect European signatures in the ancient Iranian samples (fig. 1), the eastward spread of European lineages may have continued into Iran later than the Iron Age, since European lineages have been found in wild caught modern Iranian samples (Larson, Albarella, et al. 2007).

If European pig haplotypes were present in Anatolia at $<$5% before the Middle Bronze Age, our sample size (binomial distribution, $n = 73$, confidence interval = 95%) would not have allowed us to detect them. To assess the possibility that haplotypes so far found exclusively in Europe were indigenous to Anatolia and the Near East, we analyzed the morphometric differentiation in molar size and shape between archeological samples that possessed European and Anatolian/Near Eastern genetic signatures. Single interbreeding populations have been shown to possess deeply divergent mitochondrial haplotypes (e.g., yaks [Guo et al. 2006]) demonstrating that maternal genetic differentiation alone is not sufficient to infer geographic separation. Statistically significant phenotypic differences between pigs possessing Anatolian/Near Eastern and European haplotypes, however, would indicate that the two populations had been evolving in isolation from one another and that pigs with a European genetic signature were not present in Anatolia before being introduced by people.

A GMM analysis of 46 pigs with known genetic signatures revealed significant differences in both molar size ($P < 0.01$) and shape ($P < 0.05$) between European and Anatolian/Near Eastern pigs (fig. 2 and supplementary table S6, Supplementary Material online). European pigs possessed overall smaller teeth and proportionally shorter and laterally widened third molars. The concordance between genetic and GMM signatures strongly suggests that pigs possessing European and Anatolian/Near Eastern mtDNA lineages are morphologically different and that European pigs were, therefore, introduced to Anatolia. The DNA evidence suggests that this process may have taken place (at the latest) during the Middle to Late Bronze Age, at least 900 years earlier than previously inferred.

Establishing a more precise temporal and geographic pattern for the initial introduction and subsequent dominance of European pigs allows for the turnover to be assessed in its cultural context, though the limited archeological coverage of pigs in western Anatolia precludes a definitive identification of an entrance route. Minoans and Mycenaeans may have initially introduced pigs during the Bronze Age when they colonized the western Anatolian coast from the 16th to 12th centuries BC. Alternatively, pigs may have been imported by the Hittites (Seeher 2011) whose kingdom extended from central Anatolia to the northern Levant from the 17th to 13th centuries BC (Bryce 2005). The lack of pigs possessing European signatures in Bronze Age contexts from sites in Georgia suggests that pigs did not arrive via the Caucasus (fig. 1). Regardless of the exact routes of their arrival, European domestic pigs were deliberately introduced into Anatolia. Within two millennia, European mitochondrial lineages had replaced their Near Eastern domestic counterparts that were present, and grew in frequency in the early domestic herds of the Near East over the previous 6,000 years.

Conclusions

This study addresses questions regarding the origins and dispersal of domestic pigs in Southwest Asia by combining genetic and morphometric analyses often on the same archeological samples. The data presented here add to the growing body of evidence suggesting that pig domestication was a complex, nonlinear process that took place over several millennia and involved multiple Southwest Asian wild boar populations (Ervynck et al. 2001; Peters et al. 2005; Vigne et al. 2009).

More specifically, our data suggest a narrative that begins with the domestication of pigs in Southwest Asia, at Upper Tigris sites including Çayönü Tepesi (Ervynck et al. 2001) and possibly Upper Euphrates sites including Cafer Höyük (Helmer 2008) and Nevali Çori (Peters et al. 2005). Early domestic pigs likely possessed at least the Arm1T haplotype (indigenous to Southwest Asia) and dispersed with humans as the Neolithic expanded away from these centers. Once introduced to western Anatolia, domestic swineherds acquired a mitochondrial signature (Y1) associated with the local wild boar most likely through admixture. The eastern Anatolian mitochondrial lineage (Arm1T) became less frequent likely as a result of this admixture process, small population sizes, and genetic drift.

This same turnover pattern was evident after pigs possessing domestic Y1 lineages were subsequently transported west into Europe as far as the Paris Basin (Larson, Albarella, et al. 2007). Once domestic pigs orientating from southeastern Anatolia but possessing the western Anatolian Y1 haplotype arrived in Europe, they acquired European wild boar genetic signatures and lost the Y1 haplotype through introgression of resident wild boar mitochondria into the imported domestic pig population. From at least the beginning of the Late Bronze Age, and possibly several centuries before, domestic pigs of European wild boar origin now all carrying European wild boar mtDNA lineages were introduced to Anatolia. On this occasion, however, swineherds did not take on the genetic characteristics of the local populations. Instead, by the 5th century AD, European domestic pig haplotypes had completely replaced the endemic Y1 and Arm1T lineages.

The movement of domestic pigs from western Anatolia into Europe is consistent with recent aDNA studies of human remains that support a demic diffusion model of the initial Central European Neolithic (Bramanti et al. 2009). Whether the back migration of European pigs into Anatolia reflects human migration or trade and exchange remains unclear. Addressing these and other questions can be accomplished by incorporating both mitochondrial and nuclear markers in combination with large-scale morphological analyses.

Material and Methods

Ancient Samples

We analyzed 393 ancient pig bone and tooth specimens excavated from 48 Anatolian archeological sites (supplementary fig. S1*a* and table S1, Supplementary Material online). All dates are reported in calibrated radiocarbon years BC. The ages of the archeological remains ranged from the 10th millennium BC to the medieval era and were determined using direct accelerator mass spectrometry (AMS) radiocarbon dating (Beta Analytic Inc. and University of Oxford), stratigraphic associations with AMS dates, and contextual archeological evidence. Samples dated at Oxford were treated using standard protocols as described by Brock et al. (2010).

Genetic Analyses

Analyses were carried out in aDNA facilities in three separate institutions: the Forensic Genetics and Molecular Archeology department in Leuven (Belgium), the Department of Archaeology at Durham University (United Kingdom), and the Institute of Anthropology in Mainz (Germany) using standard contamination precautions (Gilbert et al. 2005). Two ~120 bp fragments of the control region of the mitochondrial genome were amplified (Larson, Albarella, et al. 2007) and sequenced. Some fragments were cloned (supplementary table S3, Supplementary Material online). Larger control region fragments (up to ~800 bp) were generated from DNA extracts of 39 modern wild boar from the greater geographic region (supplementary table S2, Supplementary Material online). Modern sequences were generated at the Department of Animal Sciences, Universitat Autònoma de Barcelona (Spain). A maximum likelihood (ML) tree was created from an alignment of 661 bp of the control region of 267 modern wild boar using PhyML (Guindon and Gascuel 2003) in Geneious 5.5 (Drummond et al. 2011) (supplementary text, Supplementary Material online). Variations in substitution model and analytical framework did not affect the topology of the main clades. Details regarding methods, contamination avoidance procedures, authentication, and phylogenetic analyses are described in the supplementary text, Supplementary Material online.

Reproducible aDNA sequences were obtained from 192 of 393 specimens (48.9%, supplementary table S4, Supplementary Material online). As expected for ancient samples (Smith et al. 2003), we observed an inverse correlation between aDNA success frequency and sample age in nine time bins (Spearman's rank correlation $r^2 = 0.87$, $P < 0.001$; supplementary fig. S1*b*, Supplementary Material online). All sequences have been deposited in GenBank (JX893958–JX894188). Variable positions of the two concatenated ANC1 and ANC2 fragments are presented in supplementary table S4, Supplementary Material online. As shown in the ML tree (supplementary fig. S2*a*, Supplementary Material online), the majority of the diagnostic variation is present in the ANC1 fragment (Larson, Albarella, et al. 2007). Given the greater resolving power of this fragment, the relatively low variation within the ANC2 fragment, and to be consistent with the terminology developed by Larson et al. (Larson, Albarella, et al. 2007), haplotype assignments for each specimen were based on the ANC1 terminology. Additional information regarding haplotype assignment and terminology is present in the supplementary text, Supplementary Material online. The haplotype distribution across Southwest Asia was tested using a Fisher's exact test. Western Anatolia included sites from Ulucak Höyük to Çamlibel Tarlası and eastern Anatolia included sites from Sirkeli Höyük to Çayönü.

Morphometric Analyses

A total of 62 mandibular molars (25 M_2 and 37 M_3) from 46 ancient specimens were analyzed using traditional biometrical and GMM approaches from standardized photographs taken from the occlusal view (supplementary fig. S3*b*, Supplementary Material online). For the traditional metrical approach, we measured maximum length and width metrics (two for the M_2 and three for the M_3, supplementary fig. S3*b*, Supplementary Material online). Two-dimensional GMM methods (based on coordinates) were used to separately analyze size and shape variables. In total, we analyzed 7 landmarks (homologous points) for the M_2, 8 for the M_3, 68 sliding semilandmarks (points along the outline of the tooth) for the M_2, and 91 for the M_3 (Cucchi et al. 2011; Evin et al. forthcoming) (supplementary fig. S3*b*, Supplementary Material online).

Differences between ancient pigs assigned to Near Eastern mtDNA clade NE2 and European mtDNA clades were tested using traditional metric and GMM approaches that analyzed both shape and log-transformed centroid size. Traditional measurements were analyzed using a log-shape ratio (LSR) approach (Mosimann and James 1979) that allowed a separation of shape and isometric size. Differences between clades were tested with Kruskal–Wallis tests for size indices (centroid and isometric) paired with boxplots and multivariate analyses of variance for shape measures (from GMM and LSR) coupled with linear discriminant analyses paired with leave-one-out cross-validation percentages. Details are described in the supplementary text, Supplementary Material online.

Supplementary Material

Supplementary text, figures S1–S3, and tables S1–S6 are available at *Molecular Biology and Evolution* online (http://mbe.oxfordjournals.org/).

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Pig domestication and human-mediated dispersal in western Eurasia revealed through ancient DNA and geometric morphometrics

Supplementary text

The DNA analyses reported in this study were carried out in three ancient DNA facilities: Durham University (UK), Mainz University (Germany), and Leuven University (Belgium). Specific details about the analytical procedures carried out in each lab are described below.

1.0 Ancient DNA procedures and sample preparation

Leuven. Genetic analyses were performed in the aDNA facilities of the Laboratory of Forensic Genetics and Molecular Archaeology in Leuven (Department of Human Genetics, University of Leuven, Belgium). Pre- and post-PCR procedures were carried out in physically separated laboratories. Access to the pre-PCR laboratory was restricted to only two people (CO and NV) and only after wearing clean overalls, gloves, over-shoes, surgical facemasks, plastic spectacles, and following an irreversible sequence of work steps to avoid contamination. Entry was not permitted if PCR products had been handled the same day.

The aDNA facilities were routinely cleaned with bleach and RNAse Away (Molecular BioProducts, San Diego, CA, USA). Dedicated equipment was used in the pre-PCR laboratory, laboratory plastic-ware was irradiated in a cross-linker (four hours with ultraviolet (UV) light at 254nm, 5cm distance), and every item entering the room was extensively washed with bleach or RNAse Away and subsequently UV-irradiated. Various reagents including nuclease-free water (Promega, Fitchburg, WI, USA), dNTPs (Promega), and PCR Gold Buffer (Applied Biosystems, Foster City, CA, USA), were filtered through 100 kDa Centricon micro-concentrators (Millipore, Billerica, MA, USA) and stored in small volume aliquots. Extractions were performed in a UV-irradiated workstation while preparation of amplification reactions was carried out in a UV-irradiated laminar flow cabinet (Esco, Breukelen, Netherlands).

For each ancient individual at least two extractions were undertaken at different time points. At least three amplifications for each extraction were performed and both strands of the DNA were sequenced in order to assess the reproducibility of the results. When possible, independent extractions of each individual were carried out from anatomically distant samples. To detect potential contamination by exogenous modern DNA, extraction and amplification blanks were used as negative controls.

To extract DNA from teeth and bone, one sample was prepared at a time. Samples were subjected to the following decontamination procedures. The outer surface of bone and teeth samples was removed through sterile blades or by sanding with a Dremel drill (Dremel, Racine, WI, USA). Additionally, the surfaces of the teeth were gently wiped with 10% bleach and rinsed with bi-distilled water. Bone and teeth samples were then UV-irradiated (254nm wavelength, 12W and 5cm distance) in a cross-linker on each side for 60 minutes and subsequently ground into a fine powder in a 6750 Freezer Mill (SPEX CertiPrep, Metuchen, NJ, USA) and stored at 4°C. Grinding vials were decontaminated using RNAse Away (Molecular BioProducts, San Diego, CA, USA) and subsequent UV-irradiation (254nm in cross-liker). To test for potential cross contamination in the grinding vials, hydroxyapatite powder was used as blank control in each grinding batch.

Durham. DNA extraction was performed in a dedicated ancient DNA laboratory in the Archaeology department at Durham University following strict laboratory procedures as according to commonly applied guidelines (Cooper and Poinar 2000; Gilbert et al. 2005). All equipment and work surfaces were cleaned before and after each use with a dilute solution of bleach (5-10%)

followed by ethanol (99%). Pipettes and plastic racks were subsequently UV-irradiated in a dedicated cross-linker (254 nm wavelength) prior to and after use. Pre- and post-PCR laboratories are physically isolated and access to the pre-PCR laboratories is restricted to Ancient DNA lab users only; access is also prohibited if the lab user had entered post-PCR areas the same day. Ancient DNA lab users wear clean lab coats, double set of gloves (nitrile and latex) and over-shoes in order to avoid introducing contamination from post-PCR areas.

The ancient pig remains were prepared for DNA extraction by removing an approximately two-millimeter layer of the outer bone surface by abrasion using a Dremel drill with clean cut-off wheels (Dremel no 409), targeting compact cortical bone or dental dentine. The bone was then pulverized in a Micro-dismembrator (Sartorious-Stedim Biotech), followed by collection in 15ml Grainer tubes. Milling containers and grinding balls were subsequently suspended and cleaned in 1% virkon and rinsed in absolute ethanol.

Mainz. The samples were analyzed in the facilities of the Institute of Anthropology (AG Palaeogenetics) in a laboratory dedicated for ancient DNA-work (free of molecular work). Laboratory rooms for Pre- and Post-PCR-work were strictly separated and persons were not allowed to enter the Pre-PCR-laboratory after working in the Post-PCR-rooms (including offices) the same day. All samples were subjected to the same procedures for ancient DNA analysis. The work was carried out while wearing clean overalls, disposable facemasks, face shields, gloves and over-shoes. All benches and rooms were routinely treated with soap and bleach or DNA-Exitus® (AppliChem) and UV-irradiated overnight. Additionally, the majority of the steps were carried out in special UV-irradiated work stations. The surface of all equipment entering the clean rooms was intensively washed and UV-irradiated (10h). The HPLC-water (Acros Organics) used for extraction and PCR was also UV-irradiated for at least 15h with a special waterproof UV-bulb. To detect contamination, extraction and amplification blanks were routinely used as negative controls.

The ancient specimens were prepared for DNA extraction as follows. Every sample was UV-irradiated for at least 1h (30min each side) before the outer surface was removed with sand blasting equipment (Harnisch and Rieth) and the samples were cut into pieces with a diamond drill (Dremel). The small pieces were UV-irradiated again and finally ground to a fine powder using a mixer mill (Retsch).

1.1 Assessing the authenticity of ancient DNA data

We can exclude contamination and demonstrate the authenticity of mtDNA results on the following grounds:

1. The analyses were undertaken in dedicated aDNA laboratories under strictly controlled conditions. A selection of samples (supplementary table S1) was processed in two independent laboratories (Leuven and Durham) and those samples generated identical haplotypes.

2. The molecular behavior of the PCR amplifications agrees with what we expect from the analysis of ancient samples. Younger samples were more likely to produce a greater proportion of successful amplifications (supplementary fig. S1b) while all DNA amplifications failed in the oldest samples (Aceramic Neolithic). Interestingly, despite variation in success rates of recovery between sites (supplementary table S1, supplementary fig. S1a) the recovery rate is nearly linear through time (supplementary fig. S1b). It is worth mentioning that the slight increase in success rate in Late Bronze Age (BA) layers compared to the Iron Age (IA) layers could be the result of mistaken contextual dating at Lidar Höyük, the site from which the majority of samples in this temporal bin come from. The re-assignments from LBA to IA of nearly all directly radiocarbon-dated samples from this site/time bin (supplementary table S1) support this observation.

Furthermore, in all instances, sequences were reproduced in multiple experiments, at least in two (and up to three) independent PCR experiments from up to two independent extracts. In some instances, particularly in the oldest samples, several amplification attempts (up to seven) were necessary to reproduce sequences. When this was the case, data were reproduced in a third extraction.

3. Results of the cloning experiments in six specimens (Leuven) confirmed the haplotypes determined through direct sequencing of the PCR products, with consistency of mutations ranging from 78% (Bad86) to 100% (supplementary table S3). The pattern of variation of the cloned sequences showed single substitutions (mostly C→T and G→A transitions) that were interpreted as artifacts due to misincorporations during the amplification or miscoding lesions. The latter is likely the result of *post-mortem* hydrolytic deamination that is common and characteristic in ancient samples (Hofreiter et al. 2001; Briggs et al. 2007; Gilbert et al. 2007). Average rate of C→T and G→A transitions ranges from 1% to 8%. Significantly, consistency of artifacts was higher in the oldest samples (e.g. Bad47 and Bad52, dated to Early Neolithic), compatible with a higher level of damage of nucleic acids and a lower number of template molecules initiating the amplification reaction.

A similar pattern was observed in a subset of the available 'sub-clonal' data set from Durham (supplementary table S3). Out of ~450-1000 randomly drawn ANC1 sequences (first 45bp forward read) from four specimens (LG281, LG459, LG477 and LG495) a total of 59 haplotypes were observed (N=12, 12, 10 & 25 respectively, supplementary table S3). C→T/G→A transitions (Type 2 transitions) are more common than other types of substitutions, including Type 1 transitions (83% and 17% respectively), and are interpreted to mainly represent post-mortem damage-derived miscoding lesions (C→U deamination). The other types of substitutions, including Type 1 transitions, are sporadic and most likely derive from nucleotide misincorporations or sequencing errors. In support for this argument is the lack of consistency of other types of substitutions in between clones as compared to Type 2 transitions (supplementary table S3). The average rate of Type 2 transitions, calculated as the total number of transitions over C/G bases in the total extracted sequences (not accounting for identical haplotypes that might be derived from a single template molecule) ranged in between 1% to 14% with an average of ~5%.

4. The phylogenetic consistency between sequences produced independently in three different laboratories, and the phylogeographic consistency observed in the total data set (temporal and geographic), again consistent in all three laboratories, strongly indicate that the observed data are authentic.

These findings together with the above-mentioned laboratory procedures make it highly unlikely that the haplotypes observed in our samples arose from contamination or post-mortem damage, and lend credibility to the molecular results obtained in this study.

2. Molecular analyses

Leuven. Aliquots of 0.3-0.4 g powder were incubated overnight in a water bath at 56°C, followed by 24h at 37°C in a digestion solution of 0.5 M EDTA pH 8 (Invitrogen, Carlsbad, CA, USA), 0.5% SDS (USB Affymetrix, Santa Clara, CA, USA) and 0.1mg/mL Proteinase K (Roche, Penzberg, Germany). DNA was extracted through silica-based spin columns (Yang et al. 1998) and re-suspended in 100µL TE. Each independent extraction batch contained not more than eight samples, including two blank controls and one hydroxyapatite control.

Amplifications of the first and the second ~120bp fragments in the mtDNA control region (ANC1 and ANC2, (Larson et al. 2007a; Larson et al. 2007b)) were performed in a final volume of 50µL, containing 1x PCR Gold Buffer (Applied Biosystems), 2.5mM $MgCl_2$ (Applied Biosystems), 0.2mM dNTPs mix (Promega), 0.1µM each primer (Eurogentec, Seraing, Belgium – IDT, Leuven, Belgium), 0.05% BSA (Sigma Aldrich, St. Louis, MO, USA), 2.5 U AmpliTaq Gold® DNA polymerase (Applied Biosystems), 5-10µL of aDNA extract. The following cycle conditions were used: 94°C for 10 min, 45 cycles of 94°C for 45 sec, 56°C for 1 min, 72°C for 1 min, and a final step of 72°C for 5 min.

All the amplification reactions were carried out on a GeneAmp PCR System (Applied Biosystems). The amplification products were visualized on a microchip electrophoresis system (MCE-202 MultiNA, Shimadzu Biotech).

Positive amplification products were purified with Microcon filter concentrators (Millipore) or through ExoSAP-IT (USB Affymetrix), according to manufacturer's specifications. The purified amplicons were directly sequenced by means of ABI Prism BigDye Terminator Cycle Sequencing Kit (ver3.1, Applied Biosystems) according to the manufacturer's specifications. Dyed products were ethanol precipitated and sequence reactions were performed on each strand by using 5'-tailed sequencing primer (Binladen et al. 2007a). The products were detected by capillary electrophoresis on ABI PRISM™ 3130XL Genetic Analyzer (Applied Biosystems). The two ~120bp fragments in the control region of the mtDNA were successfully amplified in 93 out of the 153 specimens from Anatolia, except for one (Bad4) in which the second fragment could not be amplified.

Cloning of the ANC1 products was carried out in six individuals (Bad17, Bad47, Bad52, Bad86, M46, M96) using the TOPO TA Cloning kit (Invitrogen), according to the manufacturer's instructions. Up to 10 colonies from amplification products of two independent extracts were picked into 25μL nuclease free water (Promega), of which 1μL was used for PCR amplifications in a 25 uL volume of 1x PCR Master Mix (Qiagen, Hilden, Germany), 0.5μM each of vector M13R and M13F primers. Amplification products were purified and sequenced as previously described and the sequences were aligned, analyzed for artefacts induced by *post-mortem* miscoding lesions and the presence of contaminant DNA sequences (supplementary table S3). Sequences from independent experiments were aligned by using BioEdit v5.0.9 (Hall 1999).

Overall, 21 out of total 927 blank controls produced positive amplification (2.3%). After sequencing, the positive blank controls always revealed a European haplotype, and in one instance an East Asian haplotype. To determine whether the PCR success rate of the archeological samples is significantly different from the amplification rate due to potential contaminants in the reagents (Leonard et al. 2007; Champlot et al. 2010), and to ensure authenticity of the sample amplification with a 95% confidence level, we used the Fisher's exact test (Champlot et al. 2010). Blank control data obtained over many experiments with a given reagent batch were pooled, and after Bonferroni correction, only sequences with a 95% confidence interval were validated and considered authentic. Of the 153 samples analyzed, 60 resulted in unsuccessful genetic analyses (39% of the total individuals), 56 of which did not produce any amplification products after multiple attempts, whereas four gave low success rate which turned out to be non-significant to the Fisher's exact test, likely because of poor DNA preservation.

Durham. Bone powder (100-400mg) was digested in 0.425 M EDTA, 0.05% SDS, 0.05 M Tris-HCI and 0.333 mg/mL proteinase K and incubated overnight (18-24 hours) on a rotator at 50°C, or until fully dissolved. The digestion buffer, excluding proteinase K, was UV-irradiated (254 nm wavelength) for an hour in a dedicated cross-linker prior to use. 2mL of extract solution was then concentrated in a Millipore Amicon Ultra-4 30 KDa MWCO (Millipore) to a final volume of 100μL. The concentrated extract was purified using silica spin-columns (QIAquick PCR

Purification Kit, Qiagen) following manufacturers recommendations, except that the final elution step was performed twice to produce a final volume of 100µL. One in five or one in ten negative extraction controls were performed alongside the ancient bone samples. All extraction blank controls were negative when screened for the ANC1 fragment.

PCRs were setup in 25µL reactions using 1.25U Taq GOLD (Applied Biosystems), 1x Gold buffer (Applied Biosystems), 2.5mM $MgCl_2$, 0.5µg/µL BSA (Bovine Serum Albumine), 200µM of each dNTP, 0.8µM of each forward and reverse primers, and 2µL of aDNA extract. We used PCR primers ANC1 (Larson et al. 2007a), and the two primer pairs:

- U15697 (5'-CATATYATTATTGATCGTACATAGCACA-3')
- L15787 (5'-AAGAGGGATCCCTGCCAAG-3'), and
- U15775 (5'-AAYTACCATGCCGCGTGAAA)
- L15864 (5'GGTGAGATGGYCCTGAAGTAAGAAC-3') (Geörg, this study),

that target two fragments overlapping the ANC2 fragment amplified in Leuven. One PCR negative control was included for every 5-8 aDNA template PCRs. PCR cycling conditions were 95°C for 5min, 50 cycles of 94°C for 45 sec, 54°C for 45 sec and 72°C for 45 sec, followed by 72°C for 10 min. PCR products were stored at -20°C.

An initial PCR using the ANC1 primers was performed in order to screen the extracts for preserved DNA. Successful amplifications were Sanger sequenced on the Applied Biosystems 3730 DNA Analyser at the DNA sequencing service in the School of Biological and Biomedical Sciences at Durham University. Once preserved samples were identified we used 5bp 5'-tagged PCR primers (Binladen et al. 2007b) to re-amplify the ANC1 fragment and, in addition, the fragment corresponding to ANC2. In both instances PCR products were visualized on agarose gel and stained with GelRed, and then pooled by eye into approximately equimolar concentrations using a reference series of PCR products previously quantified on the Qubit fluorometer; approximately 12µg/µL of each PCR product was used for the final pool. The pooled 5' tagged PCR products were then concentrated using an Amicon Ultra-4 30KDa MWCO filter column to a final volume of 100µL. The concentrated amplicon pool was subsequently purified using the QIAquick PCR Purification Kit following manufacturers recommendations, except that the final elute volume was 80µL. The concentrated PCR amplicon pool was then built into a paired-end library (Paired-End DNA Sample Prep Kit, Illumina) following manufacturers guidelines and subsequently sequenced on the Illumina GAII platform at the Department of Biology at Copenhagen University.

Illumina's Genome Analyzer Sequencing Control Software (SCS) v2.4 was used for base calling. A custom written PERL script (Rasmussen, M., University of Copenhagen) was used to filter out sequences containing the 5' tag label and to mate paired-end reads into single lines containing both forward and reverse 5' tag label information. A second custom written PERL script (Frantz, L., Wageningen University) was used to write a single fasta file for each tag label/amplicon. The resulting fasta files were assembled into contigs against a reference sequence (EU333163) in Geneious Pro 5.4.3 (Drummond et al. 2011). Assembly was performed using total quality score to call the best base (any base with a quality <20, equivalent to PHRED scores, was called as N and subsequently excluded from further analysis). All resulting haplotypes corresponded to the ANC1 fragment previously sequenced using Sanger sequencing at Durham University and we observed consistency in the extended ANC2 haplotype with sequences produced in Leuven and Mainz. At least one hundred sub-clones per sample were obtained for each re-sequenced PCR product, although we reached an average of several thousand copies per PCR amplicon. Nucleotide positions that could not be resolved despite the deep coverage were discarded from further analysis and called according the IUPAC nucleotide code.

Mainz. For each specimen two independent extractions were carried out. Aliquots of 0.3-1g of bone powder were incubated in a decalcifying and digestive solution containing 0.5M EDTA (pH 8.3, Applied Biosystems), 30-60µL Proteinase K (Roche) and 1/10 volume of 0.5M N-lauryl sarcosine (Merck) on a rotary mixer over night at 37°C. DNA was extracted using phenol / chloroform-isoamylalcohol (Roth). The supernatant was transferred to an Amicon Ultra-15 filter unit (50kDa, Millipore) and washed with at least 5ml of UV-irradiated water before concentrated to a final volume of 100-200µL. Extracts were stored at -20°C. Each extraction contained at least two blank controls to detect contamination. PCR was performed in a final volume of 50µL containing 2.5U AmpliTaq Gold® DNA Polymerase (Applied Biosystems), 1x Gold Buffer (Applied Biosystems), 2.5mM $MgCl_2$ (Applied Biosystems), 20µg BSA (Roche), 0.2mM dNTP-Mix (Quiagen), 0.2µM of each primer (Biospring) and 2-8µL of bone or teeth aDNA extract. The PCR thermal cycling conditions were 94°C for 6min and 50 cycles of 94°C for 30sec, 57°C for 30sec and 72°C for 40sec. The products were stored at -20°C. All PCR reactions were carried out on a Mastercycler (Eppendorf). The primers used overlapped the ANC1 and ANC2 fragments amplified in Leuven and Durham: U15516/L15620 and U15697/L15787 (Geörg, this study, see primer sequences above). At least one negative control was included for every 10-15 amplified templates.

Positive PCR products were visualized on an agarose gel (Ultra Pure™, Invitrogen) stained with bromophenol blue (Fermentas). Purification of the amplified products were done with MSB Spin PCRapace Kit (Invitrogen) according to manufacturer´s specification or trough enzymatic digesting using 0.5U SAP and 2U EXO (30min incubation at 37°C followed by 15min of denaturation at 80°C). The purified fragments were directly sequenced using ABI Prism® Big DyeTM Terminator Cycle Sequencing Kit (vers. 3.1, Applied Biosystems) on a ABI Prism® 3130 Genetic Analyzer (Applied Biosystems) with dye products purified using Sephadex G50-fine (GE Healthcare) on Multiscreen-plates (Millipore) following manufacturer´s instructions.

None of the blank controls produced a positive amplification. In 25 of 43 samples it was possible to reproduce at least four sequences out of two independent extractions for every fragment analyzed.

One sample from Ulucak (Ulu28) failed in one part of the 80bp fragment. The resulting sequences were edited using Lasergene software (DNASTAR Lasergene, Version 7.1, GATC Biotech AG).

Modern sequences. Modern wild boar mtDNA sequences were processed at the Department of Animal Sciences and Aliments, University of Barcelona (Spain). We used previously described methods (Alves et al. 2009) except for the use of a reverse primer (5'-GTAACCATTGACTGAATAGCACCT-3') to avoid amplifying NUMTs.

There are few published reports on *Sus* NUMTs (Fang et al. 2011) and no database readily available for screening putative NUMT sequences (if not undertaking NUMT identification through previously published pig nuclear genomic sequences). By applying the strict authentication criteria described in section 1.1 we have minimized the confounding effect of co-amplifying NUMTs.

3. Phylogeographic analyses

Haplotype assignment for each specimen was based on the ANC1 variation using the same terminology proposed in Larson et al. (Larson et al. 2007a). It is worth noting that we have defined the variable site diagnostic for haplotype Arm1T as an insertion (15567.1T in ANC1), which is a more parsimonious phylogenetic marker. Fragment ANC2 is less variable and possesses less discriminating power because of some recurrent mutations (e.g. np 15714) (supplementary table S4).

All the ANC1 sequences in this study matched haplotypes previously described in Larson et al. (Larson et al. 2007a). Only three novel ANC1 sequences were observed (Bad9, M123 and M56), but they were only one mutation distant from the motif of Arm1T (Bad9 and M123) and A (M56), and were therefore assigned to these haplotypes. Overall, 141 specimens possessed Near Eastern ancestry (haplotypes Arm1T, Y1, Y2, Yellow star) and 51 possessed European ancestry (haplotypes A, C, LDomBritSaddle01 and LDomGermanyAngler).

We constructed a Maximum-Likelihood tree based on 661 bp sequences of the mtDNA control region of 267 modern wild boar (present study, (Larson et al. 2005; Larson et al. 2007a) from Near-Middle East, Europe, and East Asia (supplementary fig. S2a) using PhyML (Guindon and Gascuel 2003) in Geneious (Drummond et al. 2011). The same topology was obtained using different substitution models (GTR, HKY85) and support values were calculated using a chi-squared test. The same topology of the main clades was obtained in three Bayesian trees run for up to 5,000,000 iterations using MrBayes (Ronquist and Huelsenbeck 2003) in Geneious. The general topology of the tree confirmed the clades that were observed in previous phylogeographic analyses (Larson et al. 2007a). Within the large European clade (fig. 2a) two main sub-clades were observed including the Italian-specific sub-clade (supplementary fig. S2a). The Near Eastern sequences are structured in two main sub-clades that we termed NE1 and NE2. Genetic variation contained in the fragment ANC1 allowed for the assignment of all the ancient Near Eastern haplotypes observed in this study to the NE2 clade. Crucially, the topology of the tree within clade NE2 shows that the mutations 15567.1T and 15592 contained in the ANC1 provide strong phylogenetic support to the definition of the two main Near Eastern ancient haplotypes that we encountered in our study, Arm1T and Y1 (supplementary fig. S2a, supplementary table S4).

To assess the phylogeography of the mtDNA clades, the place of origin and genetic signature of the modern wild boar used in this study (supplementary table S2) were plotted on a map (supplementary fig. S2b). The geographic distribution of mtDNA clades NE1 and NE2 in the Near East shown in figure 2b was designed after calculating the spatial distribution of their absolute frequencies in modern wild boar mtDNA haplotypes (as in supplementary fig. S2b) with Surfer 6 (http://www.goldensoftware.com/) using the Kriging method. Regions that were not sampled (*e.g.* the Arabian peninsula) were removed from the analysis.

4. Morphometric analyses

We used 2D landmarks and sliding-semi-landmarks based GMM approaches to describe the molar size and shape variation. Photographs were taken using a reflex camera (Nikon D90) coupled with a 60mm micro-length (AF-S Nikkor) to obtain images of the teeth in their occlusal view. Images were standardized for position and parallax. Two-dimensional coordinates of landmarks within the occlusal surface and sliding-landmarks along the outline of the teeth were recorded (Cucchi et al. 2011), as well as traditional measurements (maximum length and widths) using TpsDig (http://life.bio.sunysb.edu/morph/, (Rohlf 2010b). We recorded 9 landmarks and 66 sliding semi-landmarks for the lower M2 and 12 landmarks and 87 sliding semi-landmarks for the lower M3 (supplementary fig. S3b). The coordinates of the semi-landmarks were recorded using the "Draw background curves" tool of TpDIG that allows for the positioning of equidistant points. The outline of the lower M2 was divided into two anterior and posterior curves composed of 28 and 38 points respectively plus two landmarks in between.

The outline of the lower M3 was divided into four curves (anterior (28 points), posterior (28 points), labial (18 points), lingual (13 points) plus 4 landmarks in between). We used TpsRelw (http://life.bio.sunysb.edu/morph/ (Rohlf 2010a) to slide the semi-landmarks along their respective curves with the Procustes distance minimization criteria (Bookstein et al. 2002). The aligned coordinates and the centroid size, as well as the traditional measurements, were then analyzed using R v2.13.1 (R Development Core Team 2011) and the "Rmorph" library (Baylac 2012). The first components of the Principal Component Analysis (PCA) realized on the coordinates after superimposition were analyzed instead of the original dataset to minimize the number of variables compared to the number of specimens. Before discriminant analyses were carried out, a dimensionality reduction was applied on the scores of the PCA with the Baylac & Friess procedure (Baylac and Friess 2005) that selects the N firsts components that maximize the variability between the groups. Traditional measurements of maximum lengths and widths (supplementary fig. S3b) were analyzed using the isometric size and shape parameters calculated following the Mosimann log shape ratio approach (Mosimann 1970; Mosimann and James 1979).

It is worth noting that using traditional metrics, the only significant result that was obtained was the difference in the isometric size of the lower M3 between the pigs with European and Near Eastern mtDNA lineages (supplementary table S6, fig. 2b). In this analysis, the pigs with European mtDNAs show smaller lower M3 than the pigs with Near-Eastern lineages.

5. Brief descriptions of key archeological sites

Ancient pig specimens analyzed in this study were excavated from 48 archeological sites in modern day Armenia, Cyprus, Georgia, Iran, Syria and Turkey (supplementary fig. S1a). Supplementary tables S1 and S4 list additional details and statistics regarding the results of the genetic analyses in each archeological site. Below we provide background information for key sites mentioned in the main text.

Turkish sites

Bademağacı Höyük is located in the south of the Lake District (Pisidia), southwest Anatolia, about 50 Km north of Antalya. The mound lies at an altitude of 780m above sea level (asl) just north of the pass (ancient Klimax) in the Taurus Mountains, which links this region with the coastal plain of Pamphylia. The site was excavated from 1993 until 2010 (Duru and Umurtak 2011) and a study of the faunal material was published (De Cupere et al. 2008). A total of 41 ancient pig specimens were genetically analyzed dated to the Early Neolithic and the Early Bronze Age on the basis of AMS dates or the associated archeological context from which the bones were unearthed. Fourteen specimens were identified as wild boars on the basis of metric analyses. Radiocarbon dating previously carried out on animal bones unearthed from the levels 3 and 4A of the Early Neolithic, in which some of the pig specimens of this study were also found (supplementary table S1), provided an age ranging in 6,450-6,240 BC (De Cupere et al. 2008). Of the 41 analyzed specimens, 19 yielded reproducible amplifications.

Lidar Höyük & Hassek Höyük. Hassek Höyük and Lidar Höyük are located in the Karababa Basin in the Urfa and Adiyaman provinces respectively (southeastern Anatolia). Altitudes range between 400 and 600m asl. Studies of the faunal material has been published (Kussinger 1988; Stahl 1989; Boessneck 1992). Based upon stratigraphical sequencing of the sites and AMS radiocarbon dating, pig samples from Hassek Höyük were dated to the Calcholithic and Early Bronze Age, and those from Lidar Höyük to a large time frame spanning the Early Bronze Age to the Middle Ages. Nine specimens from Lidar Höyük were directly AMS dated (supplementary table S1). In two instances (M51 and M76) the AMS dates did not support the chronological assignment based on stratigraphy, whereas in the other samples a total or partial agreement within the range of two-sigma calibrated results was observed. A total of 25 specimens from Hassek Höyük were analyzed, of which four yielded positive and reproducible amplifications of DNA. Sequences from 57 out of 77 specimens from Lidar Höyük were successfully generated.

Sagalassos & **Düzen Tepe**. The antique site of Sagalassos is located 7km north of the small city of Ağlasun on a steep, south-facing slope of the Ağlasun Dağları (Western Taurus range, Southwest Turkey) at an altitude of 1,450 to 1,650m asl. In Imperial times it was the main city of ancient Pisidia, and was continuously inhabited from the 5th century BC until the earlier 13th century. On a lower plateau, ~1.8km southwest of Sagalassos, lies the Classical/Hellenistic proto-urban site of Düzen Tepe (5th-later 2nd century BC). Excavations of both sites are ongoing (e.g. www.sagalassos.be (Degryse and Waelkens 2009; Vanhaverbeke et al. 2010; Vyncke 2012) and the fauna is being studied (De Cupere 2001). Based upon AMS dating and stratigraphical sequencing of the site, pig specimens from Sagalassos and Düzen Tepe range from the 5th century BC to the 12th century AD (Ricaut and Waelkens 2008; Ottoni et al. 2011). A total of 24 ancient specimens were analyzed in this study all of which generated reproducible results.

Gordion was the capital of the Kingdom of the Phrygians (10th-early 7th century BC), located along the Sakarya River, on a mound (700m asl) known as Yassıhüyük, ca 80km west-southwest of Ankara. The mound was rebuilt and refortified several times and contained mainly ‘megara’ used as audience halls, shrines and storage buildings. The mound is surrounded by dozens of tumuli. The major periods represented here are the Bronze Age (~2500–1200 BCE) and the Early Iron Age (~1200–550 BC), when, at the latest from the 10th century BC, it became the capital of the Phrygian kingdom, but from the early 7th century BC onward was subjected first to the kingdom of the Lydians, and subsequently to that of the Achaemenid Persians (or "Late Phrygian") period (546-333 BC). After its conquest by Alexander the Great (333 BC), the site declined becoming a village during the Hellenistic period (3rd century to 25 BC), the Roman Imperial (25 BC – mid 6th century AD), the Byzantine (mid 6th century – early 15th century), and the Ottoman period (early 15th century– 1923). At the time of the formation of the Republic of Turkey in 1923, the mound was no longer inhabited. Genetic analyses were successful in six out of seven ancient pigs, recovered in layers associated to the Late Bronze Age, the Late Phrygian and the Late Hellenistic period.

Çamlıbel Tarlası is located on the Anatolian Plateau, approximately 1,000m asl. It is located on a ridge overlooking a river in what was once a heavily forested area. Excavations focused on a rural Late Chalcolithic settlement dated to 3,590-3,470 BC (Schoop 2009). The faunal material of this site was studied and pigs are found in much greater frequency than goats and sheep (Bartosiewicz and Gillis 2011). Genetic analyses were carried out on 15 pig specimens, 13 of which were successful.

Çayönü Tepesi is an Early Neolithic site located in the upper Tigris valley, in Southeast Turkey, dated to 10,000-6,500 BC. It has been considered one of the oldest pig domestication sites in Western Asia and possesses evidence that the *Sus* population around Çayönü lived in an intermediary relationship with humans between 'wild' and 'domestic' (Ervynck et al. 2001). A total of 14 pigs were genetically analyzed though only one was successfully amplified and sequenced.

Ulucak Höyük Ulucak Höyük is favorably situated along one of the main arteries between the Aegean coast and inland Anatolia in the Izmir province. This settlement mound covers about 3 ha and rises about 6m above the plain. Well-preserved Neolithic deposits represent a material culture akin both with the Lake District and the Greek Neolithic (Çilingiroğlu 2012). Altogether 19 specimens were analyzed, 17 of which associated with levels IV and V that date from 6,400-5,900 BC (Çakırlar 2012). Six of these samples, all identified as domestic pigs, were successfully analyzed.

Malkayası. This cave, discovered in 2001, is located upon the northern fringe of the Beşparmak Mountain (ancient Latmos) in Ionia on the coast of Western Anatolia. In prehistoric times, Mount Latmos was a holy place. The Malkayası cave and several other sites in that area show similarity to the Hacilar-culture (Plain of Burdur, territory of classical Sagalassos) and were therefore dated to the Chalcolithic period. AMS-dates of two wild boar analyzed in this study support this classification (5,000-4,500 BC). These two specimens provided successful amplification of their DNA though five others did not.

Menteşe. This tell is located in the northern part of Western Anatolia next to the dried-out lake Yenişehir, about 25km south of the archeological site of Ilıpınar. The mound is four meters in height and has a diameter of ~150m. It encompasses three different strata. The youngest layer is associated with the Roman Imperial period, the other two date to the Bronze Age and the Chalcolithic. The oldest stratum of this latest phase was dated to 6,400 BC and is older than Ilıpınar. The three analyzed specimens, all identified as domestic pig on the basis of bone traditional metrics, were recovered from the Chalcolitic layer and date around 6,000 BC. Two samples yielded reproducible products.

Sirkeli Höyük. This is one of the biggest settlement mounds in Cilicia at the interface between Syria, Cyprus and Anatolia. The site is located approximately 40km east of the modern city of Adana, close to the Ceyhan River, which represented a trade route between Syria and the Central Anatolian Plateau. The site was occupied from the Chalcolithic throughout the Bronze and Iron Ages but was abandoned in Hellenistic times. A total of 12 Iron Age individuals were genetically analyzed, four of which generated reproducible data.

Göbekli Tepe and Gürcütepe. The Early Neolithic site of Göbekli Tepe is located on a limestone ridge overlooking the Harran plain, northeast of the town of Sanhurfa, in Southeastern Turkey (Schmidt 1995,2000), at an altitude of 770 m above sea level (asl). Twelve specimens dating back to the 10th millennium BC (Aceramic Neolithic), of which at least four were identified as wild boar, were analyzed in the present study, resulting in unsuccessful DNA amplification. Gürcütepe is located south to Göbekli Tepe, in the Harran plain (Schmidt 1995), at the altitude of about 450 m asl. A total of 9 pig specimens from Gürcütepe, dated to the 8th millennium BC, were analysed in the present study, providing no successful amplification of DNA.

Syrian sites

Samples from four archeological sites were analyzed (see supplementary table S1). DNA sequences were obtained from **Tell Leilan** located in Northeast Syria in the Khabur River Basin at an altitude of ~390-400m asl. It is one of the largest archeological sites in Syria and was one of the most important cities in Northern Mesopotamia during the second and third millennia BC (http://leilan.yale.edu/index.html). A total of eight ancient pig specimens were genetically analyzed. Samples were collected from two different areas: the Acropolis Northwest and the Lower Town South dated to 2,600-2,200 BC when the settlement was abandoned following an abrupt aridification. Two out of eight samples were successfully analyzed.

Armenian sites

Samples from six archeological sites were analyzed (supplementary table S1) and we obtained aDNA from four of these (Areni-1, Tsakaektsi, Sevkar-4, Lchashen-2).

Areni 1 (Wilkinson et al. 2012) is a cave located in south-central Armenia in the Vayots Dzor district (the Arpa River valley), on the border with Nakhijevan (Azerbaijan). The main focus of the excavations in 2007 were the Late Chalcolithic layers dating to the late 5th - Mid 4th Millennium BC, though later medieval intrusions were also present. The only pig that yielded DNA from Areni 1 (supplementary tables S1 and S4) has an uncertain date (Pinhasi et al. 2010).

Tsakaektsi is a settlement located in north-east Armenia in the Tavush district, 5 km east from the Sarigyugh village (the Aghstev River valley). The main focus of the excavations in 1983-1985 (Yesayan 1992) were the medieval constructions dating to 12 - 13th centuries AD (High Medieval period).

Sevkar 4 (Surb Nahatak) is a fortified settlement located in north-east Armenia in the Tavush district, south from the Sarigyugh village (the Aghstev River valley). The main focus of the excavations between 1960-1972 were the Iron Age structures dating to VII - VI centuries BC (Yesayan 1976).

Lchashen is a village close to Lake Sevan in the Gegharkunik Province (supplementary fig. S1a). A large, 55-hectare complex of archeological remains possesses dates ranging over several millennia with the oldest belonging to the Neolithic, is located close to the village (Smith et al. 2009). We successfully extracted DNA from one specimen belonging to the Bronze Age.

Shengavit settlement is located in south-central Armenia (in the northern proximity of Ararat valley in the Ayrarat province) and the inhabited phase is dated to between the 4th millennium BC to the 2nd century BC. The town covered approximately six hectares and was probably the commercial and cultural center for a number of satellite settlements in the region. Through cultural objects including ritual obelisks in particular, the town of **Mokhrablur** is closely connected to Shengavit (http://www2.widener.edu/~msrothma/shengavitweb2.html).

Georgian sites

Aruchlo is located ~50km southwest of the town Tiflis, the capital city of Georgia, and close to the small village Nachiduri. The rivers Chrami and Masavera converge in sight of the mound. The Neolithic tell is 6m high and is made up of several phases of later occupations and has been assigned to the “Sulaveri-Somutepe” group of settlements typical for the region. The AMS dates for the Neolithic layers provide an age ranging from 6,000-5,300 BC. The nine analyzed samples date to ~5,600-5,300 BC, a time frame associated with the Early Neolithic in Caucasia. Seven domesticated animals from this site were successfully analyzed.

Tachti Perda. The multilayered site of Tachti Perda lies in a settlement chamber in the centre of the southern Caucasus and is surrounded by the Great and Small Caucasus Mountain ranges. This area functions as an important travel route connecting the Eurasian steppe with Asia Minor and Central Asia. The mound is ~20m in height and encompasses several layers dated to the Iron and Bronze Age. Eight domestic pigs dating back to the Late Bronze Age (1,400-1,200 BC) were analyzed and all yielded reproducible products.

Iranian sites

Haftavan Tepe was excavated in the 1970s by Charles Burney. It is one of the largest sites in the Province of Azerbaijan and was occupied from the Late Bronze Age (Trans Caucasian) to the Early Islamic period. The site is located north of Lake Urmia. The fauna of this site has been recently studied as part of a PhD Thesis (Mohaseb Karimlu 2012). The six AMS dates were performed on animal bones and range between 2,000 cal BC and 730 AD.

Kohneh Tepesi. The site, near the city of Khomarlu in the Arax River Basin, is a large mound (77m by 44m, 7m high) with multiple occupation layers from the Bronze Age to the Iron Age. The site was excavated as part of an archeological program related to the construction of the Khoda Afarin Dam in the province of Eastern Azerbaijan. Kohneh Tepesi is located in a forested area limited in the south by the Arax River Basin and in the north by the Arasbaran Mountains. Archeological investigations have revealed cultural interactions and important ties with the Caucasus and Eastern Anatolia.

The Gorgan Wall sites. The recent joint Iranian and British archeological expedition along the Gorgān Wall, a historical wall extending over 195km in the north-east of Iran shed light into poorly understood periods in Iranian archeology including the Sassanian era (AD 235-7th century). The sites of **Qelīch Qōīneq**, **Dasht Qal'eh** and **Qareh Dōyūb** belong to the Achaemenid (the first) and to the Sasanian period (the two last sites). An extensive zooarcheological study revealed insights into the subsistence economies of various type of sites (urban, rural, military) along this wall (Omrani Rekavandi et al. 2007; Mashkour 2012).

The other samples belong Neolithic and Chalcolthic sites along the Zagros Mountains. **Ganj Dareh**, **Tepe Guran**, and **Qaleh Rostam** are the oldest Iranian sites that were analyzed and only the latter has provided a single sequence. **Qaleh Rostam** is located in the Central Zagros and is dated to the mid-Neolithic period. **Chogha Gavaneh** is a Chalcolithic/Bronze Age site in the Central Zagros excavated by Kamyar Abdi (Abdi 1999). The fauna report is being prepared for publication. **Tepe Mehr Ali** is a Chalcolithic site in the Fars Province excavated by A. Sardari as a rescue excavation necessitated by the construction of a dam. The site is located at a high altitude and has a high pastoral component. **Malyan** is also in the Fars Province and belongs to the subsequent Bronze /Iron Age periods. The fauna was studied by Melinda Zeder (Zeder 1985,1991). **Doshan Tepe** is another Bronze Age/ Iron Age site in the northern part of the central plateau near Tehran and was excavated between 2000 and 2002 by Youssef Madjidzadeh within the Ozbaki archeological Zone Project. The abundant animal bones of the site are very well preserved and suitable for genetic studies (Mashkour and Mohaseb Karimlu 2011).

Cypriot sites

Shillourokambos. We attempted to extract DNA from a single bone from this PPNB (pre-pottery Neolithic B) site located six kilometers east of Limassol in southern Cyprus. This site is one of the largest and most important PPN sites in the region. The site is key for understanding the chronology of animal domestication and human management during the early domestication process (Vigne et al. 2011).

Supplementary Table Descriptions

Supplementary table S1. List of all the ancient specimens from Middle and Near East analysed in the present study. In the AMS indirect dating, upper and lower bounds determined from AMS dating carried out on associated bones from the same stratigraphic layer is reported. The status (wild versus domestic) of some of the specimens was provided following identification based on traditional metrics. Specimens for which status identification was not possible are left blank. Because traditional metrical methods for determining status are not necessarily conclusive (Evin et al. submitted), some of the status calls reported here may be subject to revision.

Supplementary table S2. List of modern wild boars mapped in supplementary figure S2. Each specimen was assigned to a mtDNA clade (Larson et al. 2007a) on the basis of genetic variation in long stretches of the mtDNA control region (380-661bp).

Supplementary table S3. Variable positions in ANC1 clone sequences from 10 ancient pig specimens obtained with Topo-TA Cloning kit (Invitrogen) and Illumina GAII platform. Cloned sequences (in grey) are aligned to the consensus of each specimen. In Topo-TA cloned sequences, direct sequences from PCR products are shown in white and used to create a consensus sequence. A frequent occurrence of some artifacts appeared in the oldest samples (BAD47, BAD52), most likely due to a low initial number of template molecules. Names for the sequenced clones are given as follow: SAMPLE NAME_EXTRACTION_PCR FRAGMENT_# CLONE. Positions are numbered according to Ursing and Arnason (Ursing and Arnason 1998).

Supplementary table S4. Polymorphic sites and associated haplotypes detected in the fragments ANC1 and ANC2 of the mtDNA control region in ancient pig specimens from the Near East. Alignment was done with a reference sequence, in bold (AJ002189, (Ursing and Arnason 1998)). Colors of mtDNA haplotypes and clades (NE2, Near Eastern clade 2; E, European) mimic those in figures 1 and 2. Positions are numbered according to Ursing and Arnason (Ursing and Arnason 1998). Haplotype assignment is based on Larson et al. (Larson et al. 2007a). The status (wild versus domestic) of some of the specimens was provided following identification based on traditional metrics. Specimens for which status identification was not possible are left blank. Because traditional metrical methods for determining status are not necessarily conclusive (Evin et al. submitted), some of the status calls reported here may be subject to revision.

Supplementary table S5. Ancient pig specimens analyzed in the timeframe 6,500-3,000 BC depicted in supplementary figure S3. An asterisk indicated dates based upon direct AMS dating of pig samples unearthed from the same layer.

Supplementary table S6. Differences between pigs with Near Eastern and European lineages in size (Kruskall-Wallis test) and shape (MANOVA) based on geometric and traditional morphometrics. Significant results are in bold for lower M2 and M3 with sample size in parentheses (EU: European lineages, NE: Near East lineages).

Supplementary Figures Legends

Supplementary fig. S1. Panel a) pie charts indicate approximate locations of the archeological sites investigated in the present study. Size of the pie charts is proportional to the number of specimens analyzed from each site. Colors indicate the fraction of haplotypes encountered (as in figure 1) and the rate of unsuccessful samples (in white). Sites are numbered on the map as follows: 1, Ulucak Höyük; 2, Malkayası; 3, Menteşe; 4, Bademağacı; 5, Sagalassos; 6, Gordion; 7, Çamlıbel Tarlası; 8, Düzen Tepe; 9, Lidar Höyük; 10, Hassek Höyük; 11, Sirkeli Höyük; 12, Göbekli Tepe; 13, Gürcütepe; 14, Nevali Çori; 15, Çayönü Tepesi; 16, Halan Çemi; 17, Tell Leilan; 18, Atij; 19, Mashnaqua; 20, Umm Qseir; 21, Tachti-Perda; 22, Aruchlo; 23, Shengavit; 24, Mokhrablur; 25, Tsakaektsi; 26, Sevkar 4; 27, Lchashen 2; 28, Areni-1; 29, Kohneh Tepesi; 30, Haftavan Tepe; 31, Kalanan Sirlan Bijar; 32, Doshan Tepe; 33, Gohar Tappeh; 34, Dasht Qaleh; 35, Qareh Doyub; 36, Qelīch Qōīneq; 37, Chishko; 38, Choga Gavaneh; 39, Ghar-i-Khar; 40, Ganj Dareh; 41, Guran Tepe; 42, Cham Quleh; 43, Qaleh Rostam; 44, Malyan; 45, Mushki; 46, Mehr Ali; 47, Tol-e-Spid; 48, Shillourokambos. Panel b) yields of successful genetic analyses of the ancient samples plotted against the chronological age of the specimen. The fraction of successful specimens in each chronological period is reported.

Supplementary fig. S2. Panel a) Maximum-Likelihood tree based on 661bp sequences of the mtDNA control region of 267 modern wild boar (including novel sequences and those from previous studies (Larson et al. 2005; Larson et al. 2007a)) from Europe, the western Eurasia and East Asia, the latter of which were used to root the tree . Diagnostic SNPs in the ANC1 fragment that define the main clades are shown on the tree. SNPs are numbered to a reference sequence (AJ002189 (Ursing and Arnason 1998), indicated as 'REF' in the tree and are all transitions unless specified. Recurrent mutations are underlined. It worth noting that mutations 15567.1T and 15592 discriminate halotypes Arm1T and Y1. Statistical support (chi-squared p-values) is indicated in the branches of the main clades. The same topology of the main clades of the tree was obtained in Bayesian trees. Posterior probabilities are indicated in bold in correspondence of the nodes separating the main clades. Panel b) geographic distribution within the west Eurasian continent of modern wild boar mtDNA haplotypes from literature and the present study (supplementary table

S2). In total, 150 specimens are displayed, and colors designate the clade affiliation, as reported in legend. Specifically for the specimens with Near Eastern ancestry, the color designate to one of the two Near Eastern clades (NE1 and NE2, in green and grey) detected by sequencing 661 bp of the D-Loop region. All the ancient pigs possessing one of three Near Eastern mtDNA lineages (Arm1T, Y1 or Y2) (Larson et al. 2007a) belonged to the NE2 clade.

Supplementary fig. S3. Panel a) Geographic distribution and frequency of ancient pig ANC1-haplotypes in the time frame 6,500-3,000 BC analyzed in the present study and in literature (Larson et al. 2007a). A total of 78 pig specimens are included in the map (supplementary table S5). Pie size is proportional to the number of specimens genetically analyzed in each region. Asterisks indicate the fraction of wild specimens. ANC1-haplotypes are represented by different colors as follows (clade assignation is also reported): yellow, Y1 (Near Eastern); light blue, Arm1T (Near Eastern); brown, Y2 (Near Eastern); brown, Arm2T (Near Eastern); red, A and C (European); orange, Italian specific haplotype (Italian). Dates are reported on the map in the areas where Y1 is present. An inset illustrating the geographic distribution of ANC1-haplotype in Europe in the time frame 3,000 BC-1,500 AD, as from Larson et al. (Larson et al. 2007a), has been included on top right. Dots in the inset indicate exclusively the presence of the haplotypes and not the frequency. Panel b) Traditional measurement (maximum tooth lengths and widths) and location of the 2D landmarks (in grey), connected by lines to emphasize their relative positions, and sliding semi-landmarks (in white) along the outlines of the second (left) and third (right) lower molars of *Sus scrofa*.

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Table S1. List of all the ancient specimens from Middle and Near East analysed in the present study. In the AMS indirect dating, upper and lower bounds determined from AMS dating carried out on associated bones from the same stratigraphic layer is reported. The status (wild versus domestic) of some of the specimens was provided following identification based on traditional metrics. Specimens for which status identification was not possible are left blank. Because traditional metrical methods for determining status are not necessarily conclusive (Evin et al. 2013), some of the status calls reported here may be subject to revision.

ID sample	Ref. ID / Find ID / Context	Site	Country	Period (Stratigraphy evidence)	Period (cal BC)	AMS dating cal BC (*indirect dating)	Period (AMS dating)	Period in fig.1	Element	Status	Lab	ANC1 Haplogroup	ANC 1	ANC 2	Cloning	Ext. replication	GMM Lower M2	GMM Lower M3	Reference-Source
LG005	MM-CHKH N106	Chiskho	Russia (Adygeya)	Chalcolithic	6,000-3,100 BC						Durham								Mashkour, M
LG006	MM-CHKH N107	Chiskho	Russia (Adygeya)	Chalcolithic	6,000-3,100 BC						Durham								Mashkour, M
LG007	MM-MSK05 N99	Mushki	Iran	Neolithic	7th millennium BC?						Durham								Mashkour, M
LG008	MM-MSK06 N100	Mushki	Iran	Neolithic	7th millennium BC?						Durham								Mashkour, M
LG009	MM-MSK07 N101	Mushki	Iran	Neolithic	7th millennium BC?						Durham								Mashkour, M
LG010	MM-GT01 N102	Gohar Tappeh	Iran	Bronze Age	~3,000BC						Durham								Mashkour, M
LG011	MM-GT01 N103	Gohar Tappeh	Iran	Bronze Age	~3,000 BC			Early Bronze Age			Durham	Arm1T							Mashkour, M
LG012	MM-GT01 N104	Gohar Tappeh	Iran	Bronze Age	~3,000BC						Durham								Mashkour, M
LG013	MM-GKH01 N105	Ghar Khar	Iran	Palaeolithic/Epipale olithic	n/a						Durham								Mashkour, M
LG014	JD-QR09 N108	Qaleh Rostam	Iran	Neolithic	7th millennium BC?						Durham								Daujat and Mashkour In prep Proceedings of 10th ASWA
LG015	JD_QR10 N109	Qaleh Rostam	Iran	Neolithic	7th millennium BC?						Durham								Daujat and Mashkour In prep Proceedings of 10th ASWA
LG016	JD-QR11 N110	Qaleh Rostam	Iran	Neolithic	7th millennium BC?						Durham								Daujat and Mashkour In prep Proceedings of 10th ASWA
LG017	JD-QR12 N111	Qaleh Rostam	Iran	Neolithic	7th millennium BC?			Neolithic			Durham	Arm1T							Daujat and Mashkour In prep Proceedings of 10th ASWA
LG059	EEL968	Ulucak Höyük	Turkey	Late Neolithic	~6,000 BC				Radius		Durham								Çakırlar, C. 2008, 2009
LG060	EEL969	Ulucak Höyük	Turkey	Late Neolithic	~6,000 BC				Mandible with teeth		Durham								Çakırlar, C. 2008, 2009
LG061	EMR573	Ulucak Höyük	Turkey	Late Neolithic	~6,000 BC				Mandible with teeth		Durham								Çakırlar, C. 2008, 2009
LG064	L: 3185 R:19	Tol e Spid	Iran	Chalcolithic	6,000-3,100 BC						Durham								Mashkour, M
LG065	L:3178 R:35	Tol e Spid	Iran	Chalcolithic	6,000-3,100 BC						Durham								Mashkour, M
LG066	L:3177 R:10	Tol e Spid	Iran	Chalcolithic	6,000-3,100 BC						Durham								Mashkour, M
LG067	Exc No: 33030	Qareh Doyub	Iran	Historical	5th -7th Century AD			Medieval			Durham	Arm1T							Mashkour, M
LG068	SF No: 45	Qelīch Qōīneq	Iran	Achemenid	8th -5th Centuries BC						Durham								Mashkour, M
LG069	SF No: 166	Qelīch Qōīneq	Iran	Achemenid	8th -5th Centuries BC			Hellenistic-Roman			Durham	Arm1T							Mashkour, M
LG070	SF No: 166	Qelīch Qōīneq	Iran	Achemenid	8th -5th Centuries BC			Hellenistic-Roman			Durham	Arm1T							Mashkour, M
LG071	SF No: P136	Qelīch Qōīneq	Iran	Achemenid	8th -5th Centuries BC			Hellenistic-Roman			Durham	Arm1T							Mashkour, M
LG072	SF No:32	Dasht Qaleh	Iran	Historical	5th Century AD						Durham								Mashkour, M
LG073	SF No: 099	Dasht Qaleh	Iran	Historical	5th Century AD			Medieval			Durham	Arm1T							Mashkour, M
LG074	CHI_aDNA _19	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG075	CHI_aDNA _23	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG076	CHI_aDNA _30	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG077	CHI_aDNA _09	Çayönü	Turkey	PPNA/PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG078	CHI_aDNA _25	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG079	Mun_013	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG080	Mun_014	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG081	Mun_017	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG082	Mun_018	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG083	Mun_020	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG109	Mun_022	Lidar Höyük	Turkey	MBA III/LBA I ?		1,291-1,055 BC	Late Bronze/Iron Age	Iron Age		domestic	Durham	A							Peters, J
LG110	Mun_023	Lidar Höyük	Turkey	MBA III/LBA I ?		1,370-1,119 BC	Late Bronze/Iron Age	Iron Age		domestic	Durham	A							Peters, J
LG111	Mun_024	Lidar Höyük	Turkey	MBA II/III ? (uncertain)				not included		domestic	Durham	Arm1T					X		Peters, J
LG112	Mun_025	Lidar Höyük	Turkey	MBA III/LBA I				Late Bronze Age			Durham	Y2							Peters, J
LG113	Mun_026	Lidar Höyük	Turkey	MBA III/LBA I							Durham								Peters, J
LG114	Mun_033	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC	1,296-1,055 BC	Late Bronze/Iron Age	Iron Age			Durham	A							Peters, J
LG115	Mun_034	Lidar Höyük	Turkey	Middle Bronze Age III	2,000-1,650 BC			Middle Bronze Age			Durham	Arm1T							Peters, J
LG116	Mun_009	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC						Durham								Peters, J
LG117	Mun_011	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC						Durham								Peters, J
LG118	Mun_010	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC						Durham								Peters, J
LG128	Mun_001	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG129	Mun_002	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG130	Mun_003	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG131	Mun_004	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG132	Mun_005	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG133	Mun_006	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG134	Mun_007	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG135	Mun_008	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC						Durham								Peters, J
LG136	Mun_015	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG137	Mun_028	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD	897-1,021 AD	Medieval	Medieval		domestic	Durham	A							Peters, J

ID sample	Ref. ID / Find ID / Context	Site	Country	Period (Stratigraphy evidence)	Period (cal BC)	AMS dating cal BC (*indirect dating)	Period (AMS dating)	Period in fig.1	Element	Status	Lab	ANC1 Haplogroup	ANC 1	ANC 2	Cloning	Ext. replication	GMM Lower M2	GMM Lower M3	Reference-Source
LG138	Mun_039	Lidar Höyük	Turkey	MBA III/ LBA I							Durham								Peters, J
LG139	Mun_040	Lidar Höyük	Turkey	MBA II/III							Durham								Peters, J
LG140	Mun_ 042	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J
LG141	Mun_043	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J
LG142	Mun_044	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J
LG216	MM-KTsiS01	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG217	MM-KTsiS02	Kohneh Tepesi	Iran	Early Bronze Age				Early Bronze Age			Durham	Arm1T							Mashkour, M
LG218	MM-KTsiS03	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG219	MM-KTsiS04	Kohneh Tepesi	Iran	Early Bronze Age				Early Bronze Age			Durham	Arm1T							Mashkour, M
LG220	MM-KTsiS05	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG221	MM-KTsiS06	Kohneh Tepesi	Iran	Early Bronze Age				Early Bronze Age			Durham	Arm1T							Mashkour, M
LG222	MM-KTsiS07	Kohneh Tepesi	Iran	Early Bronze Age				Early Bronze Age			Durham	Arm1T							Mashkour, M
LG223	MM-HTS01	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T							Mashkour, M
LG224	MM-HTS02	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T							Mashkour, M
LG225	MM-HTS03	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T							Mashkour, M
LG226	MM-DTS02	Doshan Tepe	Iran	Iron Age				Iron Age			Durham	Arm1T							Mashkour, M
LG227	MM-DTS01	Doshan Tepe	Iran	Iron Age				Iron Age			Durham	Arm1T							Mashkour, M
LG240	DNA_1	Areni-1	Armenia	Chalcolithic							Durham								Pinhasi, R.
LG241	DNA_4	Areni-1	Armenia	Chalcolithic or Medieval				not included			Durham	Arm1T							Pinhasi, R.
LG242	DNA_5	Areni-1	Armenia	Chalcolithic							Durham								Pinhasi, R.
LG243	DNA_8	Areni-1	Armenia	Chalcolithic							Durham								Pinhasi, R.
LG244	DNA_9	Areni-1	Armenia	Chalcolithic							Durham								Pinhasi, R.
LG245	DNA_11	Shengavit	Armenia	Early Bronze Age							Durham								Pinhasi, R.
LG246	DNA_13	Mokhrablur	Armenia	Early Bronze Age							Durham								Pinhasi, R.
LG247	DNA_15	Tsakaektsi	Armenia	Medieval				Medieval			Durham	A							Pinhasi, R.
LG248	DNA_16	Sevkar 4	Armenia	Iron Age				Iron Age			Durham	A							Pinhasi, R.
LG249	DNA_18	Lchashen 2	Armenia	Middle Bronze Age				Middle Bronze Age			Durham	Arm1T							Pinhasi, R.
LG250	Mun_027	Lidar Höyük	Turkey	MBA II/III							Durham								Peters, J
LG251	Mun_029	Lidar Höyük	Turkey	MBA III				Middle Bronze Age			Durham	Arm1T					X		Peters, J
LG252	Mun_036	Lidar Höyük	Turkey	Iron Age				Iron Age			Durham	Y2							Peters, J
LG253	Mun_037	Lidar Höyük	Turkey	MBA II/III				Middle Bronze Age			Durham	Y2							Peters, J
LG254	Mun_038	Lidar Höyük	Turkey	MBA II/III				Middle Bronze Age			Durham	Y2							Peters, J
LG265	DNA sample 1	Ganj Dareh	Iran	Neolithic							Durham								Zeder, M
LG266	DNA sample 2	Ganj Dareh	Iran	Neolithic							Durham								Zeder, M
LG267	HC94 5E23-2232	Halan Çemi	Turkey	PPNA							Durham								Rosenberg et al.1998. Paléorient 24, 1:25-41
LG268	HC94 5E14-2211	Halan Çemi	Turkey	PPNA							Durham								Rosenberg et al.1998. Paléorient 24, 1:25-41
LG269	HC94 5E23-2227	Halan Çemi	Turkey	PPNA							Durham								Rosenberg et al.1998. Paléorient 24, 1:25-41
LG270	HC94 5E18-2250	Halan Çemi	Turkey	PPNA							Durham								Rosenberg et al.1998. Paléorient 24, 1:25-41
LG271	HC94 5H75-2039	Halan Çemi	Turkey	PPNA							Durham								Rosenberg et al.1998. Paléorient 24, 1:25-41
LG272	DNA sample 21, E-3-8	Umm Qseir	Syria	Chalcolithic (post-Neolithic)							Durham								Zeder 1994. Amer. Anthr., New Ser., 96, 1:97-126
LG273	E-1-6	Umm Qseir	Syria	Chalcolithic (post-Neolithic)							Durham								Zeder 1994. Amer. Anthr., New Ser., 96, 1:97-126
LG274	E-1-4	Umm Qseir	Syria	Chalcolithic (post-Neolithic)							Durham								Zeder 1994. Amer. Anthr., New Ser., 96, 1:97-126
LG275	DNA sample 5, B14	Malyan	Iran	Bronze Age/iron Age							Durham								Miller, Zeder and Arter 2009 (Curr. Anthr. 50, 6:915-924)
LG276	DNA sample 6, OP. B. Lot 12	Malyan	Iran	Bronze Age/iron Age				Iron Age			Durham	Arm1T							Miller, Zeder and Arter 2009 (Curr. Anthr. 50, 6:915-924)
LG277	DNA sample 23, Bag 9	Atij	Syria	Bronze Age							Durham								Zeder 1994. Amer. Anthr., New Ser., 96, 1:97-126
LG278	DNA sample 22, Bag 189	Atij	Syria	Bronze Age							Durham								Zeder 1994. Amer. Anthr., New Ser., 96, 1:97-126
LG279	DNA sample 24, Bag 381	Mashnaqua	Syria	Bronze Age							Durham								Zeder, M
LG280	DNA sample 25, Bag 353	Mashnaqua	Syria	Bronze Age							Durham								Zeder, M
LG281	DNA sample 2, Bag 959	Leilan	Syria	Early/Middle Bronze Age				Early Bronze Age			Durham	Arm1T					X		Zeder, M
LG282	DNA sample 9, Bag 549	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG283	DNA sample 5, Bag 814	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG284	DNA sample 7, Bag 405	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG285	DNA sample 1, Bag 478	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG286	DNA sample 3, Bag 1048	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG287	DNA sample 10, Bag 350	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG288	DNA sample 2, Bag 1051	Leilan	Syria	Early/Middle Bronze Age							Durham								Zeder, M
LG289	DNA sample 8, Bag 549	Leilan	Syria	Early/Middle Bronze Age				Early Bronze Age			Durham	Arm1T					X	X	Zeder, M
LG290	DNA sample 10, Level K	Guran Tepe	Iran	Neolithic							Durham								Zeder 1999 (Paléorient vol. 25/2 pp. 11-25)

ID sample	Ref. ID / Find ID / Context	Site	Country	Period (Stratigraphy evidence)	Period (cal BC)	AMS dating cal BC (*indirect dating)	Period (AMS dating)	Period in fig.1	Element	Status	Lab	ANC1 Haplogroup	ANC 1	ANC 2	Cloning	Ext. replication	GMM Lower M2	GMM Lower M3	Reference-Source
LG291	DNA sample 11, Level F	Guran Tepe	Iran	Neolithic							Durham								Zeder 1999 (Paléorient vol. 25/2 pp. 11-25)
LG350	PIN 23259 Bag18	Gordion	Turkey	Late Hellenistic				Hellenistic			Durham	LDomGermanyAngler					X	X	M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG351	PIN 29955 Bag 22	Gordion	Turkey	Late Bronze Age?				Late Bronze Age			Durham	Arm1T					X		M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG352	PIN 30618 Bag 220	Gordion	Turkey	Late Bronze Age				Late Bronze Age			Durham	Arm1T					X		M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG353	PIN 29550 Bag 16	Gordion	Turkey	Late Phrygian				Hellenistic			Durham	A					X	X	M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG354	PIN 29961 Bag 22	Gordion	Turkey	Late Bronze Age				Late Bronze Age			Durham	Yellow star							M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG355	PIN 28944 Bag 16	Gordion	Turkey	Late Phrygian							Durham								M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG356	PIN 25020 Bag 35	Gordion	Turkey	Late Phrygian				Hellenistic			Durham	Y1							M-M, Voigt and R-C, Henrickson 2000 Anatolian Studies, 50: 37-54
LG357	168-5	Shillourokambos	Cyprus	PPNB							Durham								Vigne, J-D
LG414	MF06 TV:E4 PH:LAPvi	Mehr Ali	Iran	Late Chalcolithic				Chalcolithic			Durham	Arm1T							Mashkour, M
LG415	TV:F10 PH:5	Mehr Ali	Iran	Late Chalcolithic							Durham								Mashkour, M
LG416	TV:F10 LOC:40-58 PH:6	Mehr Ali	Iran	Late Chalcolithic							Durham								Mashkour, M
LG418	#14	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG419	#45	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG420	#377	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG450	CHI_aDNA_01	Çayönü	Turkey	PPNA							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG451	CHI_aDNA_04	Çayönü	Turkey	PPNA							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG452	CHI_aDNA_08	Çayönü	Turkey	PPNA/PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG454	CHI_aDNA_16	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG455	CHI_aDNA_21	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG456	CHI_aDNA_22	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG458	CHI_aDNA_29	Çayönü	Turkey	PPNB							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG459	CHI_aDNA_31	Çayönü	Turkey	PN				Neolithic			Durham	Arm1T							Ervynck et al. 2001. Paléorient 27, 2:47-73
LG460	CHI_aDNA_32	Çayönü	Turkey	PN							Durham								Ervynck et al. 2001. Paléorient 27, 2:47-73
LG475	EDI-CAM 250-397b	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T							Bartosiewicz, L
LG476	EDI-CAM 273-868	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T							Bartosiewicz, L
LG477	EDI-CAM 778-5155b	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Y1					X		Bartosiewicz, L
LG479	EDI-CAM 891-5779	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Y1						X	Bartosiewicz, L
LG480	EDI-CAM 966-6042	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T					X	X	Bartosiewicz, L
LG485	EDI-CAM 247-372b	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Y1					X		Bartosiewicz, L
LG486	EDI-CAM 463-4067	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Y1						X	Bartosiewicz, L
LG487	EDI-CAN 906-5291	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic			?	Durham								Bartosiewicz, L
LG488	EDI-CAM 796-5229	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T					X	X	Bartosiewicz, L
LG489	EDI-CAM 746-4982	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Y1					X	X	Bartosiewicz, L
LG491	EDI-CAM 56-252c	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T							Bartosiewicz, L
LG492	EDI-CAM 352-987	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T						X	Bartosiewicz, L
LG493	EDI-CAM 925-5377	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T					X	X	Bartosiewicz, L
LG495	EDI-CAM 858-5569	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic	Chalcolithic		domestic	Durham	Arm1T						X	Bartosiewicz, L
LG496	EDI-CAN 263-724	Çamlıbel Tarlası	Turkey	Chalcolithic	3,590-3,470 BC		Chalcolithic				Durham								Bartosiewicz, L
LG516	MUN_012	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
G517	MUN_016	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG518	MUN_021	Nevali Çori	Turkey	PPNB							Durham								Helmer, Peters et al. 1999 Paléorient 25, 2:27-48
LG520	MUN_035	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG521	MUN_041	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG522	MUN_045	Sirkeli Höyük	Turkey	Iron Age				Iron Age			Durham	Arm1T							Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG523	MUN_046	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG524	MUN_047	Sirkeli Höyük	Turkey	Iron Age				Iron Age			Durham	Arm1T							Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG526	MUN_048	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html

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LG527	MUN_049	Sirkeli Höyük	Turkey	Iron Age				Iron Age			Durham	Y1							Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG528	MUN_050	Sirkeli Höyük	Turkey	Iron Age							Durham								Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG529	MUN_051	Sirkeli Höyük	Turkey	Iron Age				Iron Age			Durham	Arm1T							Peters, J. Personal communication+http://www.sirkeli-project.info/en/site_sirkeli.html
LG531	MUN_052	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG532	MUN_053	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG533	MUN_054	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG534	MUN_055	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG536	MUN_056	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG537	MUN_057	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG538	MUN_058	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG539	MUN_059	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG540	MUN_060	Hassek Höyük	Turkey	Chalcolithic/Bronze							Durham								Peters, J. Personal communication
LG773	Iran-CG-1	Chogha Gavaneh	Iran	Chalcolithic/Bronze Age	4th/3rd millenium BC			Early Bronze Age			Durham	Arm1T							Mashkour, M
LG775	KSB-01	Kalanan Sirlan Bijar	Iran	Chalcolithic							Durham								Mashkour, M
LG776	L: 5/f:3	Cham Quleh	Iran	Chalcolithic	4th/3rd millenium BC						Durham								Mashkour, M
LG777	L: 5/R.5	Cham Quleh	Iran	Chalcolithic	4th/3rd millenium BC						Durham								Mashkour, M
LG779	KT-01	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG780	KT-29	Kohneh Tepesi	Iran	Early Bronze Age				Early Bronze Age			Durham	Arm1T					X		Mashkour, M
LG781	KT-32	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG782	KT-41	Kohneh Tepesi	Iran	Early Bronze Age							Durham								Mashkour, M
LG784	HV-08	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG785	HV-09	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T					X	X	Mashkour, M
LG786	HV-10	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham								Mashkour, M
LG787	HV-13	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T							Mashkour, M
LG788	HV-33	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T					X	X	Mashkour, M
LG789	HV-34	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG790	HV-35	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T					X	X	Mashkour, M
LG791	HV-36	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG792	HV-37	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T					X	X	Mashkour, M
LG794	HV-39	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG795	HV-45	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG796	HV-46	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG797	HV-47	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham								Mashkour, M
LG798	HV-54	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham	Arm1T						X	Mashkour, M
LG799	HV-55	Haftavan Tepe	Iran	Middle & Late Bronze Age	1,800-1,200 BC			Late Bronze Age			Durham								Mashkour, M
BAD1		Bademağacı	Turkey	Early Neolithic I - 8	7,000-6,000 BC	7,050-6,690 BC*	Early Neolithic		scapula prox F	domestic	Leuven								De Cupere, B.
BAD10		Bademağacı	Turkey	Early Neolithic II - 3	7,000-6,000 BC	6,460-6,220 BC*	Early Neolithic	Neolithic	scapula prox F	domestic	Leuven	Y1				X			De Cupere, B.
BAD11		Bademağacı	Turkey	Early Neolithic II - 3	7,000-6,000 BC	6,460-6,220 BC*	Early Neolithic		tibia dist F	wild	Leuven								De Cupere, B.
BAD12		Bademağacı	Turkey	Early Neolithic II - 3	7,000-6,000 BC	6,460-6,220 BC*	Early Neolithic		tibia dist F	domestic	Leuven								De Cupere, B.
BAD13		Bademağacı	Turkey	Early Neolithic II - 3	7,000-6,000 BC	6,460-6,220 BC*	Early Neolithic		radius prox	domestic	Leuven								De Cupere, B.
BAD14		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC				humerus dist F	wild	Leuven								De Cupere, B.
BAD15		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	mandible	domestic	Leuven	Y2				X			De Cupere, B.
BAD16		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	mandible	domestic ?	Leuven	Arm1T				X			De Cupere, B.
BAD17		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	maxilla	domestic	Leuven	Y1			X				De Cupere, B.
BAD18		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	maxilla	domestic	Leuven	Arm1T				X			De Cupere, B.
BAD19		Bademağacı	Turkey	Early Neolithic II - 1	7,000-6,000 BC	6,230-6060 BC*	Early Neolithic		mandible	domestic	Leuven								De Cupere, B.
BAD2		Bademağacı	Turkey	Early Neolithic I - 8	7,000-6,000 BC	7,050-6,690 BC*	Early Neolithic		scapula prox F	domestic	Leuven								De Cupere, B.
BAD3		Bademağacı	Turkey	Early Neolithic I - 7	7,000-6,000 BC				calc voll F	wild	Leuven								De Cupere, B.
BAD30		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC			Neolithic	mandible	domestic	Leuven	Y1							De Cupere, B.
BAD31		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				mandible	domestic	Leuven								De Cupere, B.
BAD32		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC			Neolithic	mandible	domestic	Leuven	Y1							De Cupere, B.
BAD33		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				mandible	domestic	Leuven								De Cupere, B.
BAD34		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				mandible	domestic	Leuven								De Cupere, B.
BAD35		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				mandible	domestic	Leuven								De Cupere, B.
BAD36		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				mandible	domestic	Leuven								De Cupere, B.
BAD38		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				maxilla	domestic	Leuven								De Cupere, B.
BAD39		Bademağacı	Turkey	Early Neolithic II - 2	7,000-6,000 BC				maxilla	domestic	Leuven								De Cupere, B.
BAD4		Bademağacı	Turkey	Early Neolithic II - 4A	7,000-6,000 BC	6,405-6,235 BC*	Early Neolithic	Neolithic	tibia dist F	wild	Leuven	Y1							De Cupere, B.
BAD47		Bademağacı	Turkey	Early Neolithic II - 3A	7,000-6,000 BC			Neolithic	mandible	domestic	Leuven	Y1			X				De Cupere, B.
BAD5		Bademağacı	Turkey	Early Neolithic II - 4A	7,000-6,000 BC	6,405-6,235 BC*	Early Neolithic	Neolithic	talus compl	wild	Leuven	Y1				X			De Cupere, B.

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BAD50		Bademağacı	Turkey	Early Neolithic II - 4	7,000-6,000 BC	6,420-6,110 BC*	Early Neolithic		maxilla	domestic	Leuven								De Cupere, B.
BAD52		Bademağacı	Turkey	Early Neolithic II - 4A	7,000-6,000 BC	6,405-6,235 BC*	Early Neolithic	Neolithic	mandible	domestic	Leuven	Arm1T			X				De Cupere, B.
BAD54		Bademağacı	Turkey	Early Neolithic II - 4A	7,000-6,000 BC	6,405-6,235 BC*	Early Neolithic	Neolithic	maxilla	domestic	Leuven	Arm1T							De Cupere, B.
BAD6		Bademağacı	Turkey	Early Neolithic II - 3A	7,000-6,000 BC				scapula prox F	domestic	Leuven								De Cupere, B.
BAD60		Bademağacı	Turkey	Early Neolithic II - 4A	7,000-6,000 BC	6,405-6,235 BC*	Early Neolithic		maxilla	domestic	Leuven								De Cupere, B.
BAD63		Bademağacı	Turkey	Early Neolithic II - 4B	7,000-6,000 BC			Neolithic	mandible	domestic	Leuven	Y1							De Cupere, B.
BAD7		Bademağacı	Turkey	Early Neolithic II - 3A	7,000-6,000 BC				scapula prox F	domestic	Leuven								De Cupere, B.
BAD73		Bademağacı	Turkey	Early Neolithic I - 6	7,000-6,000 BC				M2 maxillar	domestic	Leuven								De Cupere, B.
BAD8		Bademağacı	Turkey	Early Neolithic II - 3A	7,000-6,000 BC				scapula prox F	domestic	Leuven								De Cupere, B.
BAD82		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC				radius prox	wild	Leuven								De Cupere, B.
BAD83		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	Ph1 compl, F	domestic	Leuven	Y1							De Cupere, B.
BAD84		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	humerus dist, F	wild	Leuven	Y1							De Cupere, B.
BAD85		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	mandible	wild	Leuven	Y1							De Cupere, B.
BAD86		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	MT III compl, F	wild	Leuven	Y1			X				De Cupere, B.
BAD87		Bademağacı	Turkey	Early Bronze Age II	3,100-2,000 BC			Early Bronze Age	MC II compl, F	wild	Leuven	Y1							De Cupere, B.
BAD9		Bademağacı	Turkey	Early Neolithic II - 3A	7,000-6,000 BC			Neolithic	radius prox F	wild	Leuven	Arm1T							De Cupere, B.
F13	SA2007 TD 12-9	Düzen Tepe	Turkey	6th-3rd century BC	6th-3rd cent BC			Hellenistic	Mandibula	domestic	Leuven	A							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
F15	SA2007 TD 12-9	Düzen Tepe	Turkey	6th-3rd century BC	6th-3rd cent BC	390-180 BC		Hellenistic	Mandibula	domestic	Leuven	A							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
F20	SA2007 TD 12-9	Düzen Tepe	Turkey	6th-3rd century BC	6th-3rd cent BC			Hellenistic	Tibia	domestic	Leuven	A							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
F21	SA2007 TD 12-9	Düzen Tepe	Turkey	6th-3rd century BC	6th-3rd cent BC			Hellenistic	Mp	domestic	Leuven	C							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
M100	1981; E 44 d; Abh. 18	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Radius	domestic	Leuven	A							Peters, J.
M101	1981; E 44 c, Abh. 18	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Mc IV	domestic	Leuven	Arm1T							Peters, J.
M11	S1 1. Steg 200/40; 4/49	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Mandibula	domestic	Leuven								Peters, J.
M113	GT Z; 1995; S 1; 1.1; 80/40; 4/49	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC				Talus	wild	Leuven								Peters, J.
M115	GT Z; 1995; S 2; 1.1; 50/46	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC				Scapula	wild	Leuven								Peters, J.
M116	GT W; 1995; 67/40	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC				Radius	wild	Leuven								Peters, J.
M118	GT W; S 2; 1.1; 50/40	Göbekli Tepe	Turkey	10th millenium BC	9,600-7,000 BC				Talus	wild	Leuven								Peters, J.
M119	1985, BH 32; O 20; 7,00-10,00; 4,30 - 9,80; Niv. 4,18-3,90; Nordhälfte	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Mc III	domestic	Leuven								Peters, J.
M120	1985, BH 32; O 20; 7,00-10,00; 4,30 - 9,80; Niv. 4,18-3,90; Nordhälfte	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC			Chalcolithic	Radius	domestic	Leuven	Arm1T							Peters, J.
M121	1985, BH 32; O 20; 7,00-10,00; 4,30 - 9,80; Niv. 4,18-3,90; Nordhälfte	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Radius	domestic	Leuven								Peters, J.
M122	1985, BH 32; O 20; 7,00-10,00; 4,30 - 9,80; Niv. 4,18-3,90; Nordhälfte	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Scapula	domestic	Leuven								Peters, J.
M123	1984; BH 110; R 21; 5,0-7,0 (S) 0,6-7,0 (N); 0,6-9,4; Niv. 7,39-6,81	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC			Chalcolithic	Ncr	domestic	Leuven	Arm1T				X			Peters, J.
M124	1984; BH 110; R 21; 5,0-7,0 (S) 0,6-7,0 (N); 0,6-9,4; Niv. 7,39-6,81	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC			Chalcolithic	Ncr	domestic	Leuven	Y1				X			Peters, J.
M125	1985, BH 7; P 16; 0,60-9,40; 0,60-9,40; Niv. 6,01	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Pelvis	domestic	Leuven								Peters, J.
M126	1985, BH 7; P 16; 0,60-9,40; 0,60-9,40; Niv. 6,01	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Radius	domestic	Leuven								Peters, J.
M127	1985, BH 7; P 16; 0,60-9,40; 0,60-9,40; Niv. 6,01	Hassek Höyük	Turkey	Chalcolithic	6,000-3,100 BC				Maxilla	domestic	Leuven								Peters, J.
M13	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Maxilla	domestic	Leuven								Peters, J.

ID sample	Ref. ID / Find ID / Context	Site	Country	Period (Stratigraphy evidence)	Period (cal BC)	AMS dating cal BC (*indirect dating)	Period (AMS dating)	Period in fig.1	Element	Status	Lab	ANC1 Haplogroup	ANC 1	ANC 2	Cloning	Ext. replication	GMM Lower M2	GMM Lower M3	Reference-Source
M14	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Maxilla	domestic	Leuven								Peters, J.
M15	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Mandibula	domestic	Leuven								Peters, J.
M16	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Humerus	domestic	Leuven								Peters, J.
M17	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Pelvis	domestic	Leuven								Peters, J.
M18	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC			Early Bronze Age	Pelvis	domestic	Leuven	Arm1T							Peters, J.
M19	H 1984, Ash pit, BH 191 (cont.), Layer T 20; 360-760/060-500; Niv 0817-0777	Hassek Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Mt IV	domestic	Leuven								Peters, J.
M40	1981; R 45 c/d; Abhub 14	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD			Hellenistic	Talus	domestic	Leuven	Arm1T							Peters, J.
M41	1981; R 45 d, Abh. 12	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD				Femur (shaft)	domestic	Leuven								Peters, J.
M42	1981; H 40 b/c; 4 OR u 2 'ges'	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD			Hellenistic	Cranial frgt.	domestic	Leuven	A							Peters, J.
M43	1981; H 40 b/c; 4 OR u 2 'ges'	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD				Pelvis	domestic	Leuven								Peters, J.
M44	1981; H 40 b/c; 4 OR u 2 'ges'	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD			Hellenistic	Mandibula	domestic	Leuven	A							Peters, J.
M45	1981; H 40 b/c; 4 OR u 2 'ges'	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD			Hellenistic	P4, M1 inf.	domestic	Leuven	A							Peters, J.
M46	1981; R 45 c/d, Abh. 15	Lidar Höyük	Turkey	Hellenistic-Roman	600 BC-5th cent AD			Hellenistic	Maxilla	domestic	Leuven	Arm1T			X				Peters, J.
M47	1986; S 43 b; Abh. 15	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC			Middle Bronze Age	Humerus	domestic	Leuven	Arm1T							Peters, J.
M48	1986; S 44 a/b; Abh. 54-55	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC			Middle Bronze Age	Femur (shaft)	wild	Leuven	Y2							Peters, J.
M49	1986; O/P 50; Abh. 22; östl. Stegunterfüllung R.c.	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC			Middle Bronze Age	Mt III	domestic	Leuven	Arm1T							Peters, J.
M5	N-Wadi, W-Profil, A1	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Maxilla	domestic	Leuven								Peters, J.
M50	1986; Q 44 c - R 44 b; 54 K4	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC			Middle Bronze Age	Maxilla	domestic	Leuven	Arm1T							Peters, J.
M51	1986; R 44 d; Abh. Gr 182	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC	1,217-1,025 BC	Late Bronze/Iron Age	Iron Age	Mandibula	domestic	Leuven	A							Peters, J.
M52	1986; R 44 b; Abh. 54 KV	Lidar Höyük	Turkey	Middle Bronze Age II	2,000-1,650 BC			Middle Bronze Age	Mandibula	domestic	Leuven	A							Peters, J.
M53	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Maxilla	domestic	Leuven	A							Peters, J.
M54	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Maxilla	domestic	Leuven	A							Peters, J.
M55	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Maxilla	domestic	Leuven	A							Peters, J.
M56	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Maxilla	domestic	Leuven	A							Peters, J.
M57	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Scapula	domestic	Leuven	A							Peters, J.
M58	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Radius	domestic	Leuven	A							Peters, J.
M59	1980; Q 45 b; 8 GS 1; Layer 1	Lidar Höyük	Turkey	Medieval	5th cent AD-15th cent AD			Medieval	Pelvis	domestic	Leuven	A							Peters, J.
M6	N-Wadi, W-Profil, D4	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Radius	domestic	Leuven								Peters, J.
M60	1987; N 50a; Abh. 27 R 7 u. Fb	Lidar Höyük	Turkey	Middle Bronze Age	2,000-1,650 BC				Humerus	domestic	Leuven								Peters, J.
M61	1987; N 50a; Abh. 27 R 7 u. Fb	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Tibia	domestic	Leuven								Peters, J.
M62	1987; S 44/45 - R 44/45; Abh. 59	Lidar Höyük	Turkey	Middle Bronze Age	2,000-1,650 BC				Tibia	domestic	Leuven								Peters, J.
M63	1987; S 44/45 - R 44/45; Abh. 59	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Mt IV	domestic	Leuven								Peters, J.
M64	1987; S 46 a; Abh. 30 a; BF 4+3	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC			Middle Bronze Age	Atlas	domestic	Leuven	Arm1T							Peters, J.
M65	1987; MB I/II (Phase)	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Altas	domestic	Leuven								Peters, J.

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M66	1987; R 45 c; Abh. 56 u R 322	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Radius	domestic	Leuven								Peters, J.
M67	1987; R 45 c; Abh. 56 u R 322	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Mandibula	domestic	Leuven								Peters, J.
M68	1987; P 50 c/d; Abh. 27 R 18	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC			Middle Bronze Age	Maxilla	domestic	Leuven	Y2							Peters, J.
M69	1987; P 50 c/d; Abh. 27 R 18	Lidar Höyük	Turkey	Middle Bronze Age	2,000-1,650 BC				Humerus	domestic	Leuven								Peters, J.
M7	S2; 1,3; 260/40; 1/49	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Tibia	domestic	Leuven								Peters, J.
M70	1987; S 44/45; Abh. 57-58	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Maxilla	domestic	Leuven								Peters, J.
M71	1987; S 44/45; Abh. 57-58	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC			Middle Bronze Age	Mandibula	domestic	Leuven	Arm1T							Peters, J.
M72	1987; S 44/45; Abh. 57-58	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC				Maxilla	domestic	Leuven								Peters, J.
M73	1987; S 43 d; Abh. 18	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC			Middle Bronze Age	Maxilla	domestic	Leuven	Y2							Peters, J.
M74	1987; S 43 d; Abh. 18	Lidar Höyük	Turkey	Middle Bronze Age II/I	2,000-1,650 BC			Middle Bronze Age	Talus	domestic	Leuven	Arm1T							Peters, J.
M75	1986; R 44 b; Abh. 54 e Fr. 2	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Humerus	domestic	Leuven	Y2							Peters, J.
M76	1986; Q 44 d; Abh. 53, 54 - Fr	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC	1,120-900 BC	Iron Age	Iron Age	Humerus	domestic	Leuven	A							Peters, J.
M77	1986; Q 44 d; Abh. 53, 54 - Fr	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Talus	domestic	Leuven	Arm1T							Peters, J.
M78	1986; R 44 d; Abh. 54 e Fr 2	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC	1,270-1,050 BC	Late Bronze/Iron Age	Iron Age	Tibia	domestic	Leuven	A							Peters, J.
M79	1986; R 44 b; Abh. MaL (?)	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Humerus (shaft)	wild	Leuven	Arm1T							Peters, J.
M8	S1; 1.4; 340/40; 6/49	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Scapula	domestic	Leuven								Peters, J.
M80	1986; S 44 a; Abh. 54 e	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Tibia	wild	Leuven	Arm1T							Peters, J.
M81	1986; R 44 d; Abh. 54 e Fr 2	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Scapula	domestic	Leuven	Arm1T							Peters, J.
M82	1986; R 44 d; Abh. 54 e Fr 2 + Gr	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC	1,600-1,570/1540-1440	Late Bronze Age	Late Bronze Age	Mandibula	domestic	Leuven	A							Peters, J.
M83	1986; Q 44 d; Abh. 53; S.M 315	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC			Late Bronze Age	Scapula	domestic	Leuven	Arm1T							Peters, J.
M84	1986; Q/R/S 44/45; Schicht 7	Lidar Höyük	Turkey	Late Bronze Age	1,650-1,200 BC				Mc IV	domestic	Leuven								Peters, J.
M85	1981; G 34 a/F 34 d; Abh. 24 Fr. 1	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC	2,835-2,478 BC	Early Bronze Age	Early Bronze Age	Mandibula	domestic	Leuven	Arm1T							Peters, J.
M86	1981; F 34 b/c; Abh. 25 R e	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC			Early Bronze Age	Mandibula	domestic	Leuven	Arm1T							Peters, J.
M87	1981; G 34 a; Abh. 26 nB1	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC			Early Bronze Age	Phalanx 2 H	domestic	Leuven	Arm1T							Peters, J.
M88	1981; F 34 c/d - G 34 b; Abh. 26 R j	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC			Early Bronze Age	Mandibula	domestic	Leuven	Arm1T							Peters, J.
M89	1981; F 34 c/d - G 34 b; Abh. 26 R j	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC				Mt IV	domestic	Leuven								Peters, J.
M9	S3; 1.1; 110/40;	Gürcütepe II	Turkey	Aceramic Neolithic	9,600-7,000 BC				Tibia	domestic	Leuven								Peters, J.
M90	1981; G 33 b; Abh. 28 2. Eimer	Lidar Höyük	Turkey	Early Bronze Age	3,100-2,000 BC			Early Bronze Age	Mandibula	domestic	Leuven	Arm1T							Peters, J.
M91	1986; S 48 a; Abh. 15	Lidar Höyük	Turkey	Iron Age	1,200-600 BC				Mp	domestic	Leuven								Peters, J.
M92	1986; S 48 a; Abh. 15	Lidar Höyük	Turkey	Iron Age	1,200-600 BC				Pelvis	domestic	Leuven								Peters, J.
M93	1986; S 48 a; Abh. 15	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Mp N	domestic	Leuven	Arm1T							Peters, J.
M94	1981; E 44 c; Abh. 23	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Scapula	domestic	Leuven	Arm1T							Peters, J.
M95	1981; E 44 c; Abh. 23	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Maxilla	domestic	Leuven	Arm1T							Peters, J.
M96	1981; E 44 c; Abh. 19	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Mandibula	domestic	Leuven	A			X				Peters, J.
M97	1981; E 44 c; Abh. 21	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Tibia	domestic	Leuven	A							Peters, J.
M98	1981; E 44 c; -	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Humerus (shaft)	domestic	Leuven	A							Peters, J.
M99	1981; E 44 d; Abh. 18	Lidar Höyük	Turkey	Iron Age	1,200-600 BC			Iron Age	Scapula	domestic	Leuven	Y2							Peters, J.
SA1193	SA 2003 DA 167	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1203	SA 2003 AP 208	Sagalassos	Turkey	Early to Mid Imperial	0-300 AD			Hellenistic		domestic	Leuven	A				X		X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1227	SA 2003 LA1 73	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A				X	X		De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1230	SA 2003 AP 191	Sagalassos	Turkey	Early to Mid Imperial	0-300 AD	160 BC - 60 AD		Hellenistic		domestic	Leuven	A				X		X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1301	SA 2004 AP 45/3	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1302	SA 2004 AP 45/3	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA1315	SA 2004 AP 70/2	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD	250-430 AD		Hellenistic		domestic	Leuven	LDomBritSaddle01					X	X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA133	SA 2000 B3 198	Sagalassos	Turkey	Early Byzantine	450-650 AD	230-410 AD		Hellenistic		domestic	Leuven	A				X	X	X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/

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SA139	SA 2001 NEG 113	Sagalassos	Turkey	Early Byzantine	450-650 AD	140-390 AD		Hellenistic		domestic	Leuven	A					X	X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA223	SA 2000 B3 278	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A					X	X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA295	SA 91 N 309	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A				X		X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA298	SA 91 N 309	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA398	SA 92 N 389	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD	260-520 AD		Hellenistic		domestic	Leuven	C							De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA400	SA 92 N 389	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA405	SA 90 DT 2	Sagalassos	Turkey	0-1200 AD	0-1,200 AD			Medieval		domestic	Leuven	A					X	X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA406	SA 90 DT 2	Sagalassos	Turkey	0-1200 AD	0-1,200 AD			Medieval		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA510	SA 2000 B1 165	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA791	SA 90 N 4	Sagalassos	Turkey	Late Roman (Imperial)	300-450 AD			Hellenistic		domestic	Leuven	A				X			De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA941	SA 96 B 262	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A				X		X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
SA988	SA 95 UAN 216	Sagalassos	Turkey	Early Byzantine	450-650 AD			Medieval		domestic	Leuven	A						X	De Cupere, B., Van Neer, W., http://www.sagalassos.be/
Aru10	2006, D07	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru11	2006, D08	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru12	2006, D12	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru13	2006, D38	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru24	2005, D30	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru25	2005, A 21 D	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru7	2006, B14	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300			Neolithic		domestic	Mainz	Arm1T							Benecke, N.
Aru8	2006, B21	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300					domestic	Mainz								Benecke, N.
Aru9	2006, C28	Aruchlo	Georgia	Early Neolithic, Šulveri-Šomutepe-Group	5,600-5,300					domestic	Mainz								Benecke, N.
Mal12	2004, Bef. 69	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500	5189 ± 84 calBC	Chalcolithic	Chalcolithic		wild	Mainz	Y1							Benecke, N.
Mal4	2002, Bef. 127	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500					wild	Mainz								Benecke, N.
Mal5	2002, Bef. 122	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500					wild	Mainz								Benecke, N.
Mal6	2004, Bef. 58	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500					wild	Mainz								Benecke, N.
Mal7	2004, Bef. 48	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500					wild	Mainz								Benecke, N.
Mal8	2002, Bef. 22	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500					wild	Mainz								Benecke, N.
Mal9	2002, Bef. 54	Malkayası, Latmos mountains	Turkey	Chalcolithic	5,000-4,500	4254 ± 61 calBC	Chalcolithic	Chalcolithic		wild	Mainz	Y1							Benecke, N.
Men 2	Mentese 2000, 26/7, OPER 2000, 21, 122, 678 / Probe #17	Menteşe	Turkey	Neolithic	~6,000				rechter Metacarpus II	domestic?	Mainz								Pinhasi, R.
Men 4	Mentese 2000, 14/7, OPER 2000, 12, 101, 604 / Probe #10	Menteşe	Turkey	Neolithic	~6,000			Neolithic	linker Metacarpus III	domestic?	Mainz	Y1							Pinhasi, R.
Men 5	Mentese 2000, 16/7, OPER 2000, 11, 101, 619 / Probe #5	Menteşe	Turkey	Neolithic	~6,000			Neolithic	Rechter Humerus	domestic?	Mainz	Y1							Pinhasi, R.
Tac10	UD 2005, 025D / Bef. 197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac13	Ud2005, 025D / Bef.197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac14	Ud2005, 025D / Bef.197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac15	Ud2005, 025D / Bef.197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac16	Ud2005, 025D / Bef. 197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac17	Ud2005, 025D / Bef. 197	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac6	Ud2005, 025 / Bef. 196	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Tac8	Ta2006, 025B / Bef. 270	Tachti-Perda	Georgia	Late Bronze Age	1,400-1,200			Late Bronze Age		domestic	Mainz	Arm1T							Benecke, N.
Ulu1	DIE5920	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Metapodium	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009

ID sample	Ref. ID / Find ID / Context	Site	Country	Period (Stratigraphy evidence)	Period (cal BC)	AMS dating cal BC (*indirect dating)	Period (AMS dating)	Period in fig.1	Element	Status	Lab	ANC1 Haplogroup	ANC 1	ANC 2	Cloning	Ext. replication	GMM Lower M2	GMM Lower M3	Reference-Source
Ulu17	Vd FFO / Fundnr. 3548	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Metapodium	wild?	Mainz								Çakırlar, C. 2008, 2009
Ulu2	IVb DOT	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Mandibula	domestic	Mainz								Çakırlar, C. 2008, 2009
Ulu20	FLI2929	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Scapula	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu21	Vc EUF / Fundnr. 1595	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Maxilla with teeth	wild?	Mainz								Çakırlar, C. 2008, 2009
Ulu24	EUS1209	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Maxilla with teeth	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu27	EHE875	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Maxilla with teeth	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu28	Vb EGN	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Maxilla with teeth	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu29	Vb EEL	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Ulna	domestic	Mainz								Çakırlar, C. 2008, 2009
Ulu30	DBF	Ulucak Höyük	Turkey	Early Bronze Age					Maxilla with teeth	domestic	Mainz								Çakırlar, C. 2008, 2009
Ulu32	CPI520-4	Ulucak Höyük	Turkey	Early Bronze Age					tibia	wild?	Mainz								Çakırlar, C. 2008, 2009
Ulu33	IVb BOF / Fundnr. 2392	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Tibia	wild?	Mainz								Çakırlar, C. 2008, 2009
Ulu34	Vc EUV / Fundnr. 1971	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Metacarpus	wild?	Mainz								Çakırlar, C. 2008, 2009
Ulu48	Vc EUR / Fundnr. 1261	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Astragalus	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu49	Vb EEL / Fundnr. 967	Ulucak Höyük	Turkey	Neolithic	6,400-5,900			Neolithic	Ulna	domestic	Mainz	Y1							Çakırlar, C. 2008, 2009
Ulu50	Vb EHE / Fundnr. 874	Ulucak Höyük	Turkey	Neolithic	6,400-5,900				Maxilla with teeth	domestic	Mainz								Çakırlar, C. 2008, 2009

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Supplementary table S2. List of modern wild boars mapped in supplementary figure S2. Each specimen was assigned to a mtDNA clade (Larson et al. 2007) on the basis of genetic variation in long stretches of the mtDNA control region (380-661bp).

ID sample	GenBank	country	source	Clade
GL52	AY884616.1	Spain	Larson et al. 2005	European
GL55	AY884619.1	Turkey	Larson et al. 2005	Near Eastern - NE2
GL59	AY884622.1	Iran	Larson et al. 2005	Near Eastern - NE2
GL63	AY884626.1	Germany	Larson et al. 2005	European
GL65 - feral	AY884628.1	Italy	Larson et al. 2005	Italian
GL71	AY884633.1	France	Larson et al. 2005	European
GL73	AY884635.1	Morocco	Larson et al. 2005	European
GL77	AY884638.1	Iran	Larson et al. 2005	Asiatic
GL107	AY884664.1	Germany	Larson et al. 2005	European
GL108	AY884665.1	Germany	Larson et al. 2005	European
GL109	AY884666.1	Germany	Larson et al. 2005	European
GL110 - feral	AY884667.1	France	Larson et al. 2005	European
GL111 - feral	AY884668.1	Italy	Larson et al. 2005	European
GL112	AY884669.1	Holland	Larson et al. 2005	European
GL113	AY884670.1	Macedonia	Larson et al. 2005	European
GL133 - feral	AY884672.1	Norway	Larson et al. 2005	European
GL141	AY884679.1	Armenia	Larson et al. 2005	European
GL142	AY884680.1	Armenia	Larson et al. 2005	Near Eastern - NE2
GL143 - feral	AY884681.1	France	Larson et al. 2005	European
GL144	AY884682.1	Italy	Larson et al. 2005	European
GL190 - feral	AY884690.1	Italy	Larson et al. 2005	Italian
GL193	AY884693.1	Armenia	Larson et al. 2005	Near Eastern - NE2
GL194	AY884694.1	Armenia	Larson et al. 2005	Near Eastern - NE2
GL220 - feral	AY884696.1	France	Larson et al. 2005	Near Eastern - NE2
GL221	AY884697.1	Spain	Larson et al. 2005	European
GL222	AY884698.1	Portugal	Larson et al. 2005	European
GL236	AY884710.1	Armenia	Larson et al. 2005	Near Eastern - NE2
GL242	AY884714.1	Spain	Larson et al. 2005	European
GL244	AY884716.1	Italy	Larson et al. 2005	Italian
GL245	AY884717.1	Italy	Larson et al. 2005	Italian
GL246	AY884718.1	Italy	Larson et al. 2005	Italian
GL247	AY884719.1	Italy	Larson et al. 2005	Italian
GL248	AY884720.1	Italy	Larson et al. 2005	Italian
GL249	AY884721.1	Italy	Larson et al. 2005	Italian
GL250	AY884722.1	Italy	Larson et al. 2005	Italian
GL251	AY884723.1	Italy	Larson et al. 2005	Italian
GL252	AY884724.1	Italy	Larson et al. 2005	European
GL254	AY884725.1	Iran	Larson et al. 2005	Near Eastern - NE1
GL270	AY884726.1	Armenia	Larson et al. 2005	Near Eastern - NE1
GL271	AY884727.1	Armenia	Larson et al. 2005	Near Eastern - NE2
GL284 - feral	AY884728.1	France	Larson et al. 2005	European
GL285 - feral	AY884729.1	France	Larson et al. 2005	European
GL286 - feral	AY884730.1	France	Larson et al. 2005	European
GL287 - feral	AY884731.1	France	Larson et al. 2005	European
GL288 - feral	AY884732.1	Italy	Larson et al. 2005	European
GL289 - feral	AY884733.1	Italy	Larson et al. 2005	European
LCorsica82 - feral	AY884796.1	France	Larson et al. 2005	European
LNSardinia88 - feral	AY884795.1	Italy	Larson et al. 2005	European
French Wild Boar	AY884815.1	France	Larson et al. 2005	European
SWB1	AY232868	Spain	Alves et al. 2003	European
SWB2	AY232869	Spain	Alves et al. 2003	European
SWB3	AY232870	Spain	Alves et al. 2003	European
SWB6	AY232871	Spain	Alves et al. 2003	European
SWB4	AY232872	Spain	Alves et al. 2003	European
SWB5	AY232873	Spain	Alves et al. 2003	European
SWB7	AY232874	Spain	Alves et al. 2003	European
GiuPolEWB1	AF136555	Poland	Giuffra et al. 2000	European
GiuPolEWB2	AF136556	Poland	Giuffra et al. 2000	European
GiuItalEWB3	AF136563	Italy	Giuffra et al. 2000	Italian
GiuIsrealiWB (3)	AF136558	Israel	Giuffra et al. 2000	European
Kijas01SwedishWB	AF304203	Sweden	Kijas & Anderson 2001	European
GongFinnish36	AF535163	Finland	Gongora et al. 2003	European
GongFinnish41	AF535164	Finland	Gongora et al. 2003	European
GL374	DQ872931.1	Romania Dubova, Iron Gates	Larson et al. 2007	European
GL392	DQ872932.1	Romania	Larson et al. 2007	European
GL724	DQ872933.1	Estonia Restaurant in Tallinn	Larson et al. 2007	European
GL748	DQ872934.1	Syria Amouk Plains	Larson et al. 2007	Near Eastern - NE2
GL749	DQ872935.1	Poland Bialystok Prov Bialowieza* National Park	Larson et al. 2007	European
GL750	DQ872936.1	Iraq Irbil, Baradost	Larson et al. 2007	Near Eastern - NE2
GL751	DQ872937.1	Iraq Baghdad, 3 mi S	Larson et al. 2007	Near Eastern - NE1
GL752	DQ872938.1	Iran Fars, Yasuj, 10.9 mi SW	Larson et al. 2007	Near Eastern - NE2
GL753	DQ872939.1	Iran Kermanshahan Kermanshah	Larson et al. 2007	European
GL754	DQ872940.1	Turkey Mersin (ifel) Tarsus Forest	Larson et al. 2007	Near Eastern - NE2
GL766	DQ872959.1	Iraq Maysan, Amara, nr; Chahala	Larson et al. 2007	European
GL767	DQ872960.1	Iraq Diyala, Khanaquin, 10 mi from; Rhamalla	Larson et al. 2007	Near Eastern - NE1
GL768	DQ872943.1	Syria Amouk Plains	Larson et al. 2007	Near Eastern - NE2
GL769	DQ872944.1	Iran Esfahan, Kuh Rang	Larson et al. 2007	Near Eastern - NE2
GL771	DQ872945.1	Iran Fars, Yasuj	Larson et al. 2007	Near Eastern - NE1
GL779	DQ872946.1	Iraq As Sulaymaniyah; Darband area, Zagros Mts	Larson et al. 2007	European
GL781	DQ872947.1	Iran Kermanshahan	Larson et al. 2007	Near Eastern - NE1
GL782	DQ872948.1	Iran Khuzistan, Ahwaz	Larson et al. 2007	Near Eastern - NE1
GL783	DQ872949.1	Iran Khuzistan, Ahwaz-Andimeshk	Larson et al. 2007	Near Eastern - NE1
GL784	DQ872950.1	Iran Khuzistan, Ahwaz-Andimeshk	Larson et al. 2007	Near Eastern - NE1
GL786	DQ872951.1	Iran Kermanshahan, Kermanshah	Larson et al. 2007	Asiatic
GL787	DQ872952.1	Iran Mazandaran, Sama	Larson et al. 2007	Asiatic
GL788	DQ872953.1	Iran Maku	Larson et al. 2007	Near Eastern - NE2
GL789	DQ872954.1	Iran Mazandaran, Gorgan	Larson et al. 2007	Asiatic
GL790	DQ872955.1	Iran Mazandaran, Gorgan	Larson et al. 2007	Near Eastern - NE2
GL791	DQ872956.1	Iran Mazandaran, Gorgan	Larson et al. 2007	Asiatic
GL792	DQ872957.1	Iran Sistan and Baluchistan, Zabol	Larson et al. 2007	Asiatic
GL793	DQ872958.1	Iran Sistan and Baluchistan, Zabol	Larson et al. 2007	Asiatic
GL794	DQ872959.1	Iran Sistan and Baluchistan, Zabol	Larson et al. 2007	Asiatic
GL795	DQ872960.1	Iran Sistan and Baluchistan, Zabol	Larson et al. 2007	Asiatic
GL799	DQ872961.1	Romania Dubova, Iron Gates	Larson et al. 2007	European
GL912	DQ872962.1	NW Persia	Larson et al. 2007	Near Eastern - NE2
GL918	DQ872963.1	Russia Volga Delta	Larson et al. 2007	European

GL919	DQ872964.1	Russia Volga Delta	Larson et al. 2007	European
GL935	DQ872965.1	West Caucasus, north slope	Larson et al. 2007	European
GL940	DQ872966.1	Turkey Smyrna (Izmir)	Larson et al. 2007	Near Eastern - NE2
GL942 - domestic	DQ872967.1	Sudan Nuba	Larson et al. 2007	Near Eastern - NE2
GL943	DQ872968.1	Egypt Egyptian	Larson et al. 2007	Near Eastern - NE1
GL944	DQ872969.1	Georgia Kavkaz from tiflis (Tbilisi)	Larson et al. 2007	Near Eastern - NE1
GL945	DQ872970.1	Slovakia	Larson et al. 2007	European
GL946	DQ872971.1	Hungary	Larson et al. 2007	European
GL948 - unknown	DQ872972.1	Greece Kos	Larson et al. 2007	European
GL949 - unknown	DQ872973.1	Greece Kos	Larson et al. 2007	European
GL951	DQ872975.1	Bulgaria	Larson et al. 2007	European
GL952 - wild?	DQ872976.1	Sudan	Larson et al. 2007	Near Eastern - NE2
GL1009	DQ872980.1	Turkmenistan	Larson et al. 2007	Asiatic
AR 2		Armenia	present study	European
AR 298		Armenia	present study	European
East AR		Armenia	present study	European
Northeast AR		Armenia	present study	European
IR 1		Iran	present study	Near Eastern - NE2
IR 2		Iran	present study	Near Eastern - NE2
IR 4		Iran	present study	Near Eastern - NE2
IR 5		Iran	present study	Near Eastern - NE2
TK 107		Turkey	present study	Near Eastern - NE2
TK 119		Turkey	present study	Near Eastern - NE2
TK 126		Turkey	present study	Near Eastern - NE2
Tp1		Turkey	present study	European
Tp10		Turkey	present study	Near Eastern - NE2
Tp11		Turkey	present study	Near Eastern - NE2
Tp12		Turkey	present study	Near Eastern - NE2
Tp2		Turkey	present study	Near Eastern - NE2
Tp3		Turkey	present study	Near Eastern - NE2
Tp4		Turkey	present study	Near Eastern - NE2
Tp5		Turkey	present study	Near Eastern - NE2
Tp6		Turkey	present study	Near Eastern - NE2
Tp7		Turkey	present study	Near Eastern - NE2
Tp8		Turkey	present study	Near Eastern - NE2
Tp9		Turkey	present study	Near Eastern - NE2
WBTN 959		Tunisia	present study	European
WBTN 960		Tunisia	present study	European
WBTN 961		Tunisia	present study	European
WBTN 962		Tunisia	present study	European
WBTN 963		Tunisia	present study	European
WBTN 964		Tunisia	present study	Near Eastern - NE2
WBTN 965		Tunisia	present study	European
WBTN 966		Tunisia	present study	European
WBTR 514		Turkey	present study	European
WBTR 515		Turkey	present study	Near Eastern - NE2
WBTR 516		Turkey	present study	Near Eastern - NE2
WBTR 517		Turkey	present study	Near Eastern - NE2
WBRO 562		Romania	present study	European
WBUA 1267		Ukraina	present study	European
WBUA 1268		Ukraina	present study	European
LG778 KS1		Iran	present study	Near Eastern - NE1

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Supplementary table S3. Variable positions in ANC1 clone sequences from 10 ancient pig specimens obtained with Topo-TA Cloning kit (Invitrogen) and Illumina GAII platform. Cloned sequences (in grey) are aligned to the consensus of each specimen. In Topo-TA cloned sequences, direct sequences from PCR products are shown in white and used to create a consensus sequence. A frequent occurrence of some artifacts appeared in the oldest samples (BAD47, BAD52), most likely due to a low initial number of template molecules. Names for the sequenced clones are given as follow: SAMPLE NAME_EXTRACTION_PCR FRAGMENT_# CLONE. Positions are numbered according to Ursing and Arnason (1998).

	np	15520	15521	15522	15523	15524	15525	15527	15529	15530	15531	15535	15536	15538	15541	15542	15543	15544	15546	15547	15548	15549	15552	15555	15558	15560	15561	15563	15564	15565	15567	15567.1T	15568	15569	15570	15571	15573	15574	15575	15576	15577	15577.1A	15578	15579	15582	15583	15584	15587	15588	15589	15591	15592	15593	15594
BAD17	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T	G	A	-	A	A	C	C	A	A	A	A	A	-	T	C	A	T	A	T	T	A	A	G	C	C
BAD17_I_XXXII_1_BO	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_XXXII_1_BQ	Direct	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_XXXII_1_BM	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_XXXII_1_BN	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_II_XXXIV_1_BS	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Y	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	Y	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_II_XXXIV_1_BU	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_XXXII CO	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_II_XXXIV CO	Direct	.	.	.	.	.	.	.	.	.	Y	Y	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_1	Topo-TA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_2	Topo-TA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_3	Topo-TA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BAD17_I_4	Topo-TA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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BAD47	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T	G	A	-	A	A	C	C	A	A	A	A	A	-	T	C	A	T	A	T	T	A	A	G	C	C
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BAD52	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T	G	A	T	A	A	C	C	A	A	A	A	A	-	T	C	A	T	A	T	T	A	A	A	C	C
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BAD86	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T	G	A	-	A	A	C	C	A	A	A	A	A	-	T	C	A	T	A	T	T	A	A	G	C	C
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M46_1_AV	Direct	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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M96	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	T	G	C	C	C	C	A	T	T	C	C	T	T	G	A	-	A	A	C	C	A	A	A	A	A	-	T	C	A	T	A	C	T	A	A	A	C	C
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M96_II_3	Topo-TA	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	np	15520	15521	15522	15523	15524	15525	15527	15529	15530	15531	15535	15536	15538	15541	15542	15543	15544	15546	15547	15548	15549	15552	15555	15558	15560	15561	15563	15564
LG281	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T
LG281_I_1	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.
LG281_I_2	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.
LG281_I_3	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.
LG281_I_4	GAII	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG281_I_5	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.
LG281_I_6	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG281_I_7	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.
LG281_I_8	GAII	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.
LG281_I_9	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	.
LG281_I_10	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.
LG281_I_11	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	N	.	.	.	.	.	T	.	.	.
LG281_I_12	GAII	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	T	.	.	.	.
LG459	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T
LG459_I_1	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.
LG459_I_2	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.
LG459_I_3	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.
LG459_I_4	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	C	.	.	.	.	.	.
LG459_I_5	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.
LG459_I_6	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG459_I_7	GAII	.	.	N	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.
LG459_I_8	GAII	N	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG459_I_9	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.
LG459_I_10	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.
LG459_I_11	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.
LG459_I_12	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	A	.	.	.	.	.	.	.
LG477	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T
LG477_I_1	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	.
LG477_I_2	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.
LG477_I_3	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.
LG477_I_4	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.
LG477_I_5	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	.	.	.	.	.	.	.	.
LG477_I_6	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.
LG477_I_7	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.
LG477_I_8	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	.
LG477_I_9	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.
LG477_I_10	GAII	.	.	.	.	.	.	T	.	.	T	.	.	G	.	.	T	.	.	T	T	.	.	.	.	.	.	.	.
LG495	Consensus	T	T	G	C	G	C	C	A	A	C	C	A	A	T	G	C	G	C	C	C	C	A	T	A	C	C	T	T
LG495_I_1	GAII	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_2	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_3	GAII	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_4	GAII	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_5	GAII	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_6	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_7	GAII	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_8	GAII	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LG495_I_9	GAII	.	.	A	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	.
LG495_I_10	GAII	.	.	.	.	A	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	.
LG495_I_11	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	.
LG495_I_12	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	C	.
LG495_I_13	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	A	.	G
LG495_I_14	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	G
LG495_I_15	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	A	.	.	.	.	.	.	.	.	.	.	C
LG495_I_16	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.
LG495_I_17	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	N	.	.	T	.	.	.	.	.	.	.	.
LG495_I_18	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.
LG495_I_19	GAII	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.
LG495_I_20	GAII	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.
LG495_I_21	GAII	.	.	.	.	N	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	T	.	.	.	T	T	.	.
LG495_I_22	GAII	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.	.	.	T	T	.	T	.	.	.	T	T	.	.
LG495_I_23	GAII	C	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	T	.	.	.	T	T	.	.
LG495_I_24	GAII	.	.	.	.	C	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	T	.	.	.	T	T	.	.
LG495_I_25	GAII	.	.	N	.	.	.	.	.	.	T	.	.	.	.	.	T	.	T	T	T	T	.	.	.	.	.	.	.

Ursing BM, Arnason U. (1998) The complete mitochondrial DNA sequence of the pig (Sus scrofa). J Mol Evol 47:302-306.

Supplementary table S4. Polymorphic sites and associated haplotypes detected in the fragments ANC1 and ANC2 of the mtDNA control region in ancient pig specimens from the Near East. Alignment was done with a reference sequence, in bold (AJ002189, (Ursing and Arnason 1998)). Colors of mtDNA haplotypes and clades (NE2, Near Eastern clade 2; E, European) mimic those in figures 1 and 2. Positions are numbered according to Ursing and Arnason (1998). Haplotype assignment is based on Larson (2007). The status (wild versus domestic) of some of the specimens was provided following identification based on traditional metrics. Specimens for which status identification was not possible are left blank. Because traditional metrical methods for determining status are not necessarily conclusive (Evin et al. 2013), some of the status calls reported here may be subject to revision.

		ANC1										ANC2											
		15522	15543	15546	15557	15558	15567.1T	15577	15577.1A	15587	15592	15714	15723	15724	15729	15733	15741	15744	15758				
ID sample	**Site**	**G**	**T**	**C**	**T**	**A**	**-**	**A**	**-**	**C**	**A**	**T**	**A**	**C**	**A**	**C**	**C**	**G**	**T**	**Haplotype**	**Clade**	**Date**	**Status**
BAD4	Bademağacı	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Early Neolithic II - 4A	wild
BAD5	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Neolithic II - 4A	wild
BAD52	Bademağacı	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic II - 4A	domestic
BAD54	Bademağacı	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic II - 4A	domestic
BAD63	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Neolithic II - 4B	domestic
BAD10	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Neolithic II - 3	domestic
BAD9	Bademağacı	A	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic II - 3A	wild
BAD47	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Early Neolithic II - 3A	domestic
BAD30	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Early Neolithic II - 2	domestic
BAD32	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Neolithic II - 3	domestic
BAD15	Bademağacı	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Early Bronze Age II	domestic
BAD16	Bademağacı	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age II	domestic ?
BAD17	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Bronze Age II	domestic
BAD18	Bademağacı	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age II	domestic
BAD83	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Early Bronze Age II	domestic
BAD84	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Early Bronze Age II	wild
BAD85	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	G	C	A	C	C	G	T	Y1	NE2	Early Bronze Age II	wild
BAD86	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Early Bronze Age II	wild
BAD87	Bademağacı	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Early Bronze Age II	wild
M120	Hassek Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	domestic
M123	Hassek Höyük	G	C	C	C	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	domestic
M124	Hassek Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Chalcolithic	domestic
M18	Hassek Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age	domestic
M85	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age (AMS)	domestic
M86	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age	domestic
M87	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age	domestic
M88	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age	domestic
M90	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Bronze Age	domestic
M64	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II/I	domestic
M68	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Middle Bronze Age II/I	domestic
M71	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	C	Arm1T	NE2	Middle Bronze Age II/I	domestic
M73	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Middle Bronze Age II/I	domestic
M74	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II/I	domestic
M47	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II	domestic
M48	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Middle Bronze Age II	wild
M50	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II	domestic
M49	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II	domestic
M51	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Bronze/Iron Age (AMS)	domestic
M52	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Middle Bronze Age II	domestic
M75	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Late Bronze Age	domestic
M76	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Iron Age (AMS)	domestic
M77	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
M78	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Bronze/Iron Age (AMS)	domestic
M79	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	T	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	wild
M80	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	T	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	wild
M81	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	C	Arm1T	NE2	Late Bronze Age	domestic
M82	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Bronze Age (AMS)	domestic
M83	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
M93	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	domestic
M94	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	domestic
M95	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	domestic
M96	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Iron Age	domestic
M97	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Iron Age	domestic
M98	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Iron Age	domestic

ID sample	Site	15522	15543	15546	15557	15558	15567.1T	15577	15577.1A	15587	15592	15714	15723	15724	15729	15733	15741	15744	15758	Haplotype	Clade	Date	Status
		ANC1										ANC2											
		G	T	C	T	A	-	A	-	C	A	T	A	C	A	C	C	G	T				
M99	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Iron Age	domestic
M100	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Iron Age	domestic
M101	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	domestic
M40	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Hellenistic-Roman	domestic
M42	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Hellenistic-Roman	domestic
M44	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Hellenistic-Roman	domestic
M45	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Hellenistic-Roman	domestic
M46	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	G	C	T	G	T	Arm1T	NE2	Hellenistic-Roman	domestic
M53	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	domestic
M54	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	T	A	E	Medieval	domestic
M55	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	domestic
M56	Lidar Höyük	G	T	C	T	T	-	A	A	C	A	C	A	C	G	C	C	G	C	A	E	Medieval	domestic
M57	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	domestic
M58	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	domestic
M59	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	domestic
F13	Düzen Tepe	G	T	C	T	T	-	A	-	C	A	C	A	C	A	T	C	G	C	A	E	6th-3rd cent BC	domestic
F15	Düzen Tepe	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	6th-3rd cent BC	domestic
F20	Düzen Tepe	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	6th-3rd cent BC	domestic
F21	Düzen Tepe	G	T	C	T	A	-	A	-	C	A	C	A	C	A	C	C	G	T	C	E	6th-3rd cent BC	domestic
SA133	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA139	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA223	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA510	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA941	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA988	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA1193	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA1227	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early Byzantine (450-650 AD)	domestic
SA295	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA298	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA398	Sagalassos	G	T	C	T	A	-	A	-	C	A	C	A	C	A	C	C	G	T	C	E	Late Roman (Imperial) (300-450 AD)	domestic
SA400	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA791	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA1301	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	T	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA1302	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Roman (Imperial) (300-450 AD)	domestic
SA1315	Sagalassos	G	T	C	T	T	-	A	-	T	A	C	A	C	A	C	C	G	C	LDomBritSaddle01	E	Late Roman (Imperial) (300-450 AD)	domestic
SA1203	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early to Mid Imperial (0-300 AD)	domestic
SA1230	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Early to Mid Imperial (0-300 AD)	domestic
SA405	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	0-1200 AD	domestic
SA406	Sagalassos	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	0-1200 AD	domestic
LG011	Gohar Tappeh	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Early Bronze Age	
LG017	Qaleh Rostam	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Neolithic	
LG067	Qareh Doyub	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Historical	
LG069	Qelīch Qōīneq	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Achemenid	
LG070	Qelīch Qōīneq	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Achemenid	
LG071	Qelīch Qōīneq	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Achemenid	
LG073	Dasht Qaleh	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Achemenid	
LG109	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Bronze/Iron Age (AMS)	
LG110	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Bronze/Iron Age (AMS)	
LG111	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	MBA II/III ? (uncertain)	
LG112	Lidar Höyük	G	C	C	T	A	-	-	-	T	G									Y2	NE2	Late Bronze Age	
LG114	Lidar Höyük	G	T	Y	T	T	-	A	-	C	A									A	E	Late Bronze/Iron Age (AMS)	
LG115	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age II/I	
LG137	Lidar Höyük	G	T	C	T	T	-	A	-	C	A	C	A	C	G	C	C	G	C	A	E	Medieval (AMS)	
LG217	Kohneh Tepesi	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Bronze Age	
LG219	Kohneh Tepesi	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Bronze Age	

		ANC1										ANC2											
		15522	15543	15546	15557	15558	15567.1T	15577	15577.1A	15587	15592	15714	15723	15724	15729	15733	15741	15744	15758				
ID sample	**Site**	**G**	**T**	**C**	**T**	**A**	**-**	**A**	**-**	**C**	**A**	**T**	**A**	**C**	**A**	**C**	**C**	**G**	**T**	**Haplotype**	**Clade**	**Date**	**Status**
LG221	Kohneh Tepesi	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Bronze Age	
LG222	Kohneh Tepesi	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Bronze Age	
LG223	Haftavan	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG224	Haftavan	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG225	Haftavan	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG226	Doshan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	
LG227	Doshan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	
LG241	Areni-1	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG247	Tsakayeghtsi	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Medieval	
LG248	Sevkar 4	G	T	C	T	T	-	A	-	C	A									A	E	Iron Age	
LG249	Lehashen 2	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle Bronze Age	
LG251	Lidar Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	
LG252	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	T	Y2	NE2	Iron Age	
LG253	Lidar Höyük	G	C	C	T	A	-	-	-	T	G	C	A	C	A	C	C	G	Y	Y2	NE2	Late Bronze Age	
LG254	Lidar Höyük	G	C	C	T	A	-	-	-	T	G									Y2	NE2	Late Bronze Age	
LG276	Malyan	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Bronze Age/iron Age	
LG281	Leilan	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Early/Middle Bronze Age	
LG289	Leilan	G	C	C	T	A	T	A	-	T	A	C	A	Y	A	C	T	G	T	Arm1T	NE2	Early/Middle Bronze Age	
LG350	Gordion	G	T	C	T	T	-	A	A	C	A	C	A	C	A	C	C	G	C	LDomGermanyAngler	E	Late Hellenistic	
LG351	Gordion	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age?	
LG352	Gordion	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	
LG353	Gordion	G	T	C	T	T	-	A	-	C	A	C	A	C	A	C	C	G	C	A	E	Late Phrygian	
LG354	Gordion	G	C	C	T	A	-	A	-	T	A	C	A	C	A	C	C	G	T	Yellow star	NE2	Late Bronze Age	
LG356	Gordion	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Late Phrygian	
LG414	Mehr Ali	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Chalcolithic	
LG459	Çayönü	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Pottery neolithic	
LG475	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG476	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG477	Çamlıbel Tarlası	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Chalcolithic	
LG479	Çamlıbel Tarlası	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Chalcolithic	
LG480	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG485	Çamlıbel Tarlası	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Chalcolithic	
LG486	Çamlıbel Tarlası	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Chalcolithic	
LG488	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Chalcolithic	
LG489	Çamlıbel Tarlası	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Chalcolithic	
LG491	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG492	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG493	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG495	Çamlıbel Tarlası	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic	
LG522	Sirkeli Höyük	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Iron Age	
LG524	Sirkeli Höyük	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Iron Age	
LG527	Sirkeli Höyük	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Iron Age	
LG529	Sirkeli Höyük	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Iron Age	
LG773	Chaga Gavaneh	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Chalcolithic/Bronze Age	
LG780	Kohneh Tepesi	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Bronze Age	
LG784	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG785	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG787	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Middle & Late Bronze Age	
LG788	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG789	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG790	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A									Arm1T	NE2	Middle & Late Bronze Age	
LG791	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG792	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG794	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG795	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG796	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Middle & Late Bronze Age	
LG798	Haftavan Tepe	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	A	T	Arm1T	NE2	Middle & Late Bronze Age	
Aru7	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Aru10	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Aru11	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Aru12	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Aru13	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Aru24	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic

		ANC1										ANC2											
		15522	15543	15546	15557	15558	15567.1T	15577	15577.1A	15587	15592	15714	15723	15724	15729	15733	15741	15744	15758				
ID sample	**Site**	**G**	**T**	**C**	**T**	**A**	**-**	**A**	**-**	**C**	**A**	**T**	**A**	**C**	**A**	**C**	**C**	**G**	**T**	**Haplotype**	**Clade**	**Date**	**Status**
Aru25	Aruchlo	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Early Neolithic	domestic
Tac6	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac8	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac10	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac13	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac14	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	C	Arm1T	NE2	Late Bronze Age	domestic
Tac15	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac16	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Tac17	Tachti-Perda	G	C	C	T	A	T	A	-	T	A	C	A	C	A	C	T	G	T	Arm1T	NE2	Late Bronze Age	domestic
Mal9	Malkayası	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Chalcolithic	wild
Mal12	Malkayası	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Chalcolithic	wild
Men 4	Menteşe	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Chalcolithic	domestic?
Men 5	Menteşe	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Chalcolithic	domestic?
Ulu1	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	G	C	C	G	T	Y1	NE2	Neolithic	domestic
Ulu20	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Neolithic	domestic
Ulu24	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Neolithic	domestic
Ulu27	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Neolithic	domestic
Ulu28	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G									Y1	NE2	Neolithic	domestic
Ulu48	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Neolithic	domestic
Ulu49	Ulucak Höyük	G	C	C	T	A	-	A	-	T	G	C	A	C	A	C	C	G	T	Y1	NE2	Neolithic	domestic

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Supplementary table S5. Ancient pig specimens analyzed in the timeframe 6,500-3,000 BC depicted in supplementary figure S3. An asterisk indicated dates based upon direct AMS dating of pig samples unearthed from the same layer.

ID sample	Country	Site	Phase	Dating	State	Anc haplotype	References
Bad4	Turkey	Bademağacı	EN II-4A	6,390-6,250 BC*	Wild	Y1	Present study
Bad5	Turkey	Bademağacı	EN II-4A		Wild	Y1	Present study
Bad10	Turkey	Bademağacı	EN II-3	6,450-6,240 BC*	Domestic	Y1	Present study
Bad30	Turkey	Bademağacı	EN II-2		Domestic	Y1	Present study
Bad32	Turkey	Bademağacı	EN II-2		Domestic	Y1	Present study
Bad47	Turkey	Bademağacı	EN II-3A		Domestic	Y1	Present study
Bad63	Turkey	Bademağacı	EN II-4B		Domestic	Y1	Present study
Bad9	Turkey	Bademağacı	EN II-3A		Wild	Arm1T*	Present study
Bad52	Turkey	Bademağacı	EN II-4A		Domestic	Arm1T*	Present study
Bad54	Turkey	Bademağacı	EN II-4A		Domestic	Arm1T*	Present study
Ulu1	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu20	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu24	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu27	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu28	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu48	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Ulu49	Turkey	Ulucak Höyük	Neolithic	6,400-5,900	Domestic	Y1	Present study
Men4	Turkey	Menteşe	Neolithic	~6.000	Domestic?	Y1	Present study
Men5	Turkey	Menteşe	Neolithic	~6.000	Domestic?	Y1	Present study
Mal9	Turkey	Malkayası	Chalcolithic	5,000-4,500	Wild	Y1	Present study
Mal12	Turkey	Malkayası	Chalcolithic	5,000-4,500	Wild	Y1	Present study
#31	Turkey	Çayönü	Pottery Neolithic	6,500 BC?	Domestic	Arm1T*	Present study
M120	Turkey	Hassek Höyük	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
M123	Turkey	Hassek Höyük	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
M124	Turkey	Hassek Höyük	Chalcolithic	mid 4^{th} mill BC	Domestic	Y1	Present study
EDI-CAN 778-5155b	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Y1	Present study
EDI-CAN 891-5779	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic?	Y1	Present study
EDI-CAN 247-372b	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Y1	Present study
EDI-CAN 463-4067	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic?	Y1	Present study
EDI-CAN 746-4982	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Y1	Present study
EDI-CAN 250-397b	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 273-868	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 966-6042	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 796-5229	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 56-252c	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 352-987	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 925-5377	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
EDI-CAN 858-5569	Turkey	Çamlıbel Tarlası	Chalcolithic	mid 4^{th} mill BC	Domestic	Arm1T*	Present study
GL343	Armenia	Khatunarkh	5^{th} mill	5^{th} mill BC uncal ?	Wild	Arm2T*	Larson et al. 2007
GL376	Armenia	Shengevit	Late 4^{th}-early 3^{rd} mill	late 4^{th}-early 3^{rd}mill BC uncal?	undetermined	Arm2T*	Larson et al. 2007
ARU7	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
ARU10	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
ARU11	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
ARU12	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
ARU13	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study

ID sample	Country	Site	Phase	Dating	State	Anc haplotype	References
ARU24	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
ARU25	Georgia	Aruchlo	Early Neolithic	5,600-5,300	domestic	Arm1T*	Present study
LG017	Iran	Qaleh Rostam	Neolithic	7th millennium BC?		Arm1T*	Present study
LG414	Iran	Mehr Ali	Late Chalcolithic	4th millennium BC		Arm1T*	Present study
GL728	Croatia	Pupicinia cave	Late Neolithic	4,300 BC	Domestic?	Y2-5A	Larson et al. 2007
GL123	Germany	Eilsleben	LBK	5,500-5,000 BC	Wild	Cside	Larson et al. 2007
GL541	Germany	Eilsleben	LBK	5,500-5,000 BC	Undetermined	Cside	Larson et al. 2007
GL977	Germany	Eilsleben	LBK	5,500-5,000 BC	Domestic?	Y1-6A	Larson et al. 2007
GL972	Germany	Eilsleben	LBK	5,500-5,000 BC	Domestic?	Y1-6A	Larson et al. 2007
GL973	Germany	Eilsleben	LBK	5,500-5,000 BC	Domestic?	Y1-6A	Larson et al. 2007
GL976	Germany	Eilsleben	LBK	5,500-5,000 BC	Domestic?	Y1-6A	Larson et al. 2007
GL882	Italy	Grotta Madonna	Mesolithic	6,500-5,500 BC	Undetermined	Italy	Larson et al. 2007
GL848	Italy	Grotta Madonna	Mid Neolithic	5,500-4,500 BC	Undetermined	Italy	Larson et al. 2007
GL900	Romania	Măgura	Neolithic	5,500 BC	Domestic	Y1-6A	Larson et al. 2007
GL903	Romania	Măgura	Neolithic	5,500 BC	Domestic	Y1-6A	Larson et al. 2007
GL375	Romania	Veterani cave	Neolithic	5,300-5,000 BC		Aside	Larson et al. 2007
GL521	Romania	Bordusani	Chalcolithic	4,500-3,950 BC	Domestic	Y1-6A	Larson et al. 2007
GL522	Romania	Poduri	Chalcolithic	4,500-4,250 BC	Domestic	Y1-6A	Larson et al. 2007
GL523	Romania	Poduri	Chalcolithic	4,500-4,250 BC	Domestic	Y1-6A	Larson et al. 2007
GL688	Romania	Poduri	Chalcolithic	4,500-4,250 BC	Wild	Cside	Larson et al. 2007
GL566	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Wild	Cside	Larson et al. 2007
GL567	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Wild	Cside	Larson et al. 2007
GL432	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL568	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL576	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL868	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL575	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Wild	Cside	Larson et al. 2007
GL803	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL834	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL987	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	undetermined	Y1-6A	Larson et al. 2007
GL447	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	undetermined	Cside	Larson et al. 2007
GL565	Romania	Căscioareale	Chalcolithic	mid 5^{th}-mid 4^{th} mill BC	undetermined	Y1-6A	Larson et al. 2007
GL429	Denmark	Flynderhage	Late Mesolithic	4,500-3,900 BC	Wild	Cside	Larson et al. 2007
GL907	Denmark	Flynderhage	Late Mesolithic	4,500-3,900 BC	Wild	Cside	Larson et al. 2007
A212	England	Carsington Pasture cave	Mesolithic	4,393 ± 41 BC	Wild	Cside	Larson et al. 2007
A213	England	Carsington Pasture cave	Mesolithic	5,678 ± 30 BC	Wild	Aside	Larson et al. 2007
A216	England	Carsington Pasture cave	Mesolithic	3,457 ± 58 BC	Domestic	Aside	Larson et al. 2007
GL846	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007
GL859	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic?	Aside	Larson et al. 2007
GL571	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Aside	Larson et al. 2007
GL572	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Aside	Larson et al. 2007
GL824	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Aside	Larson et al. 2007
GL573	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Aside	Larson et al. 2007
GL874	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Aside	Larson et al. 2007
GL574	France	Bercy	Chaseen culture	early 4^{th} mill BC	Wild	Cside	Larson et al. 2007
GL355	France	Bercy	Chaseen culture	early 4^{th} mill BC	Domestic	Y1-6A	Larson et al. 2007

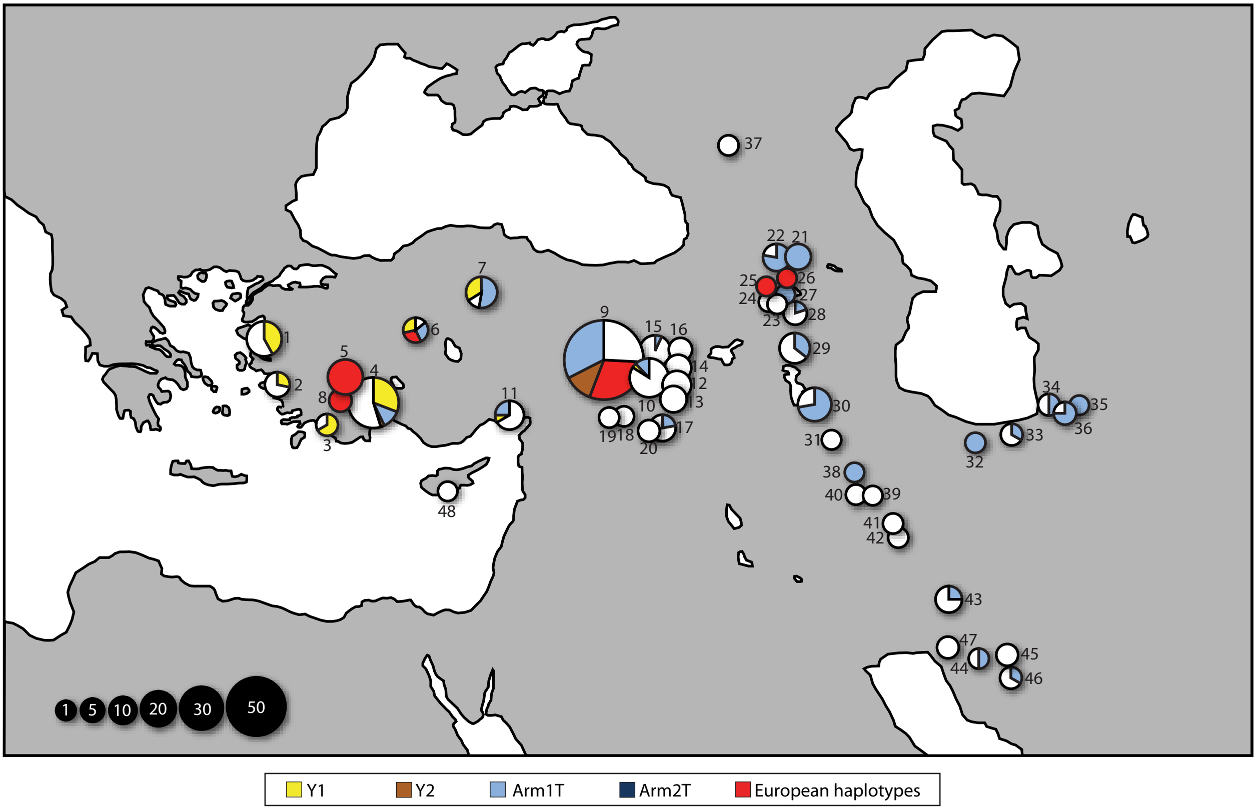
ID sample	Country	Site	Phase	Dating	State	Anc haplotype	References
GL321	France	Roucador	Mid Neolithic	4,200-3,500 BC cal?	Wild	Aside	Larson et al. 2007
GL470	France	Roucador	Mid Neolithic	4,200-3,500 BC cal?	Wild	Aside	Larson et al. 2007
GL485	France	Roucador	Mid Neolithic	4,200-3,500 BC cal?	Wild	Aside	Larson et al. 2007
GL490	France	B. Oulens	Neolithic (cardial)	5,306-4,962 BC	Wild	Cside	Larson et al. 2007
GL491	France	B. Oulens	Neolithic (cardial)	5,471-5,222 BC	Domestic?	Aside	Larson et al. 2007
A244	Ireland	Moynagh Crannog		3,866 ± 60	undetermined	Aside	Larson et al. 2007

Larson G, et al. (2007) Ancient DNA, pig domestication, and the spread of the Neolithic into Europe. Proc Natl Acad Sci U S A 104(39):15276-15281.

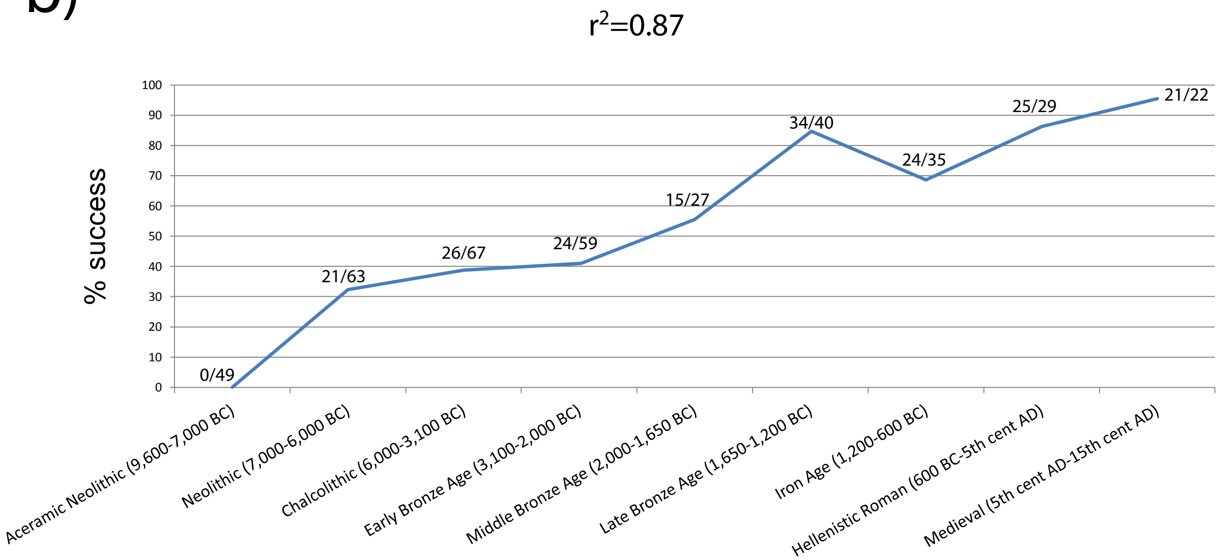
Supplementary table S6. Differences between pigs with Near Eastern and European lineages in size (Kruskall-Wallis test) and shape (MANOVA) based on geometric and traditional morphometrics. Significant results are in bold for lower M2 and M3 with sample size in parentheses (EU: European lineages, NE: Near East lineages).

		Lower M2 (EU=8 ; NE=17)								**Lower M3 (EU=17 ; NE=20)**							
		X^2	Df	Pillai	approxF	numDf	denDf	p	CVP	X^2	Df	Pillai	approxF	numDf	denDf	p	CVP
Geometric morphometrics	Shape		**1**	**0.53**	**3.34**	**6**	**18**	**0.021**	**80%**		**1**	**0.51**	**3.11**	**9**	**27**	**0.011**	**76%**
	Centroid Size	**6.87**	**1**					**0.009**	**80%**	**14.75**	**1**					**0.0001**	**76%**
Traditional metrics	Shape		1	0.29	2.91	3	21	0.06			1	0.15	1.46	4	32	0.24	
	Isometric Size	**8.83**	**1**					**0.003**	**80%**	**13.37**	**1**					**0.0003**	**78%**

a)

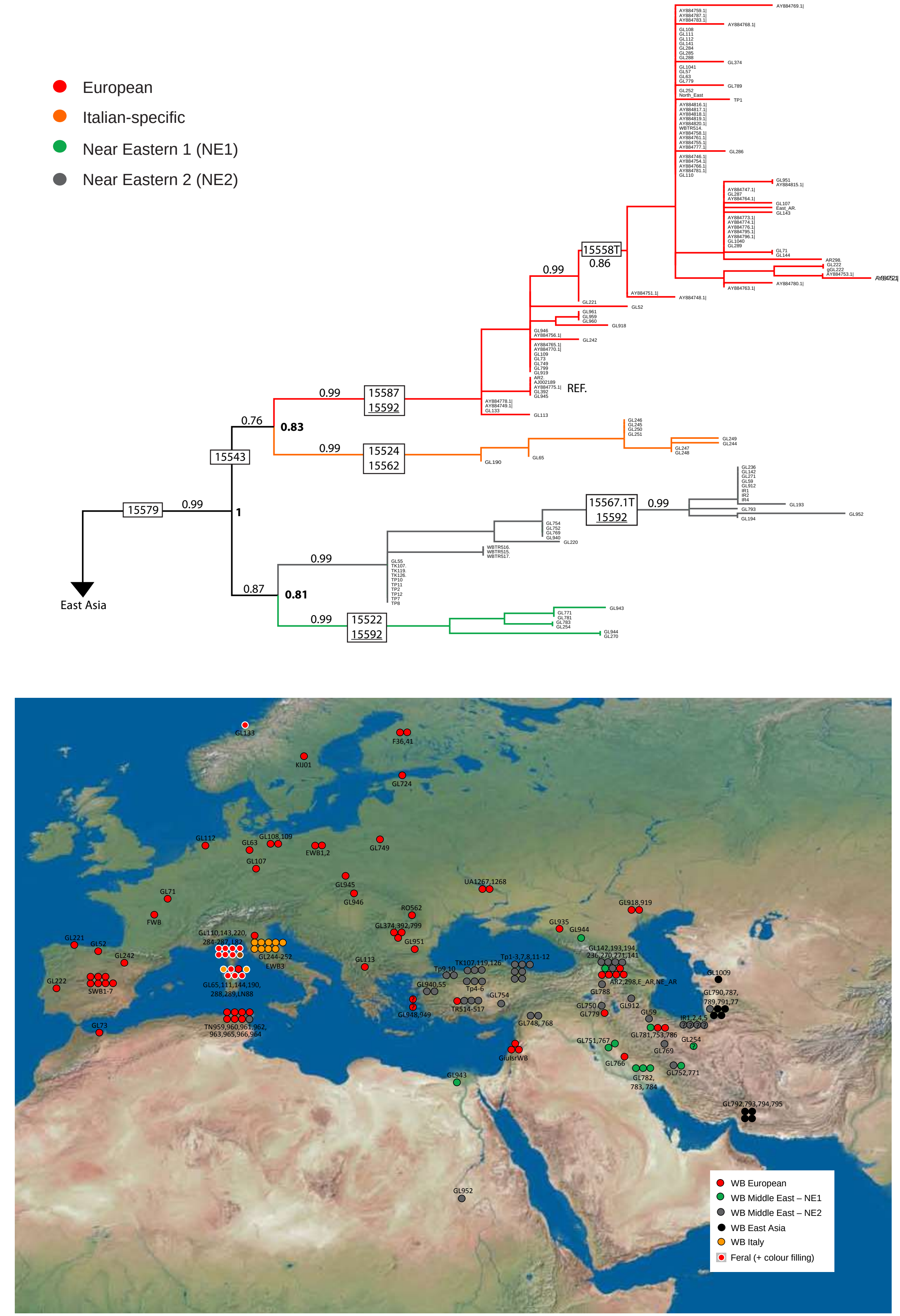

1
5
10
20
30
50
Y1
Y2
Arm1T
Arm2T
European haplotypes

b)

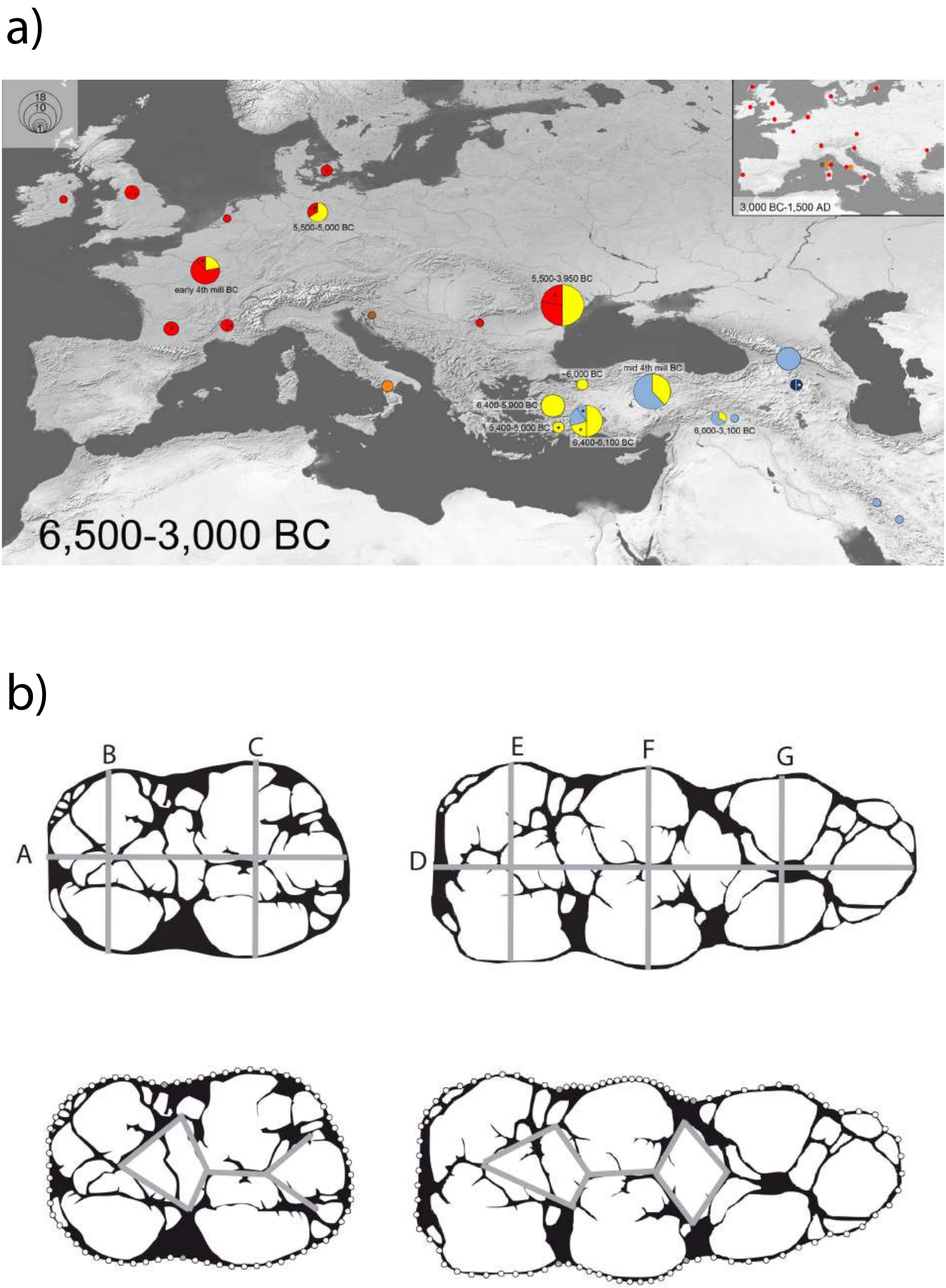

r²=0.87
% success
0/49
21/63
26/67
24/59
15/27
34/40
24/35
25/29
21/22
Aceramic Neolithic (9,600-7,000 BC)
Neolithic (7,000-6,000 BC)
Chalcolithic (6,000-3,100 BC)
Early Bronze Age (3,100-2,000 BC)
Middle Bronze Age (2,000-1,650 BC)
Late Bronze Age (1,650-1,200 BC)
Iron Age (1,200-600 BC)
Hellenistic Roman (600 BC-5th cent AD)
Medieval (5th cent AD-15th cent AD)

a)

b)



European
Italian-specific
Near Eastern 1 (NE1)
Near Eastern 2 (NE2)
15579
0.99
1
15543
0.76
0.83
0.99
15587
15592
0.99
15524
15562
15558T
0.86
0.99
REF.
15567.1T
15592
0.99
0.87
0.81
0.99
0.99
15522
15592
East Asia
WB European
WB Middle East – NE1
WB Middle East – NE2
WB East Asia
WB Italy
Feral (+ colour filling)


a)
18
10
1
3,000 BC-1,500 AD
5,500-5,000 BC
early 4th mill BC
5,500-3,950 BC
~6,000 BC
mid 4th mill BC
6,400-5,900 BC
5,400-5,000 BC
6,400-6,100 BC
6,000-3,100 BC
6,500-3,000 BC
b)
A
B
C
D
E
F
G