ASIA MINOR STUDIEN BAND 64

Forschungsstelle Asia Minor im Seminar für Alte Geschichte
der Westfälischen Wilhelms-Universität Münster

ASIA MINOR STUDIEN

Band 64

Von Kummuḫ nach Telouch

Historische und archäologische Untersuchungen in Kommagene

Dolichener und Kommagenische Forschungen IV

2011

DR. RUDOLF HABELT GMBH · BONN

Forschungsstelle Asia Minor im Seminar für Alte Geschichte
der Westfälischen Wilhelms-Universität Münster

Von Kummuḫ nach Telouch

Historische und archäologische Untersuchungen in Kommagene

herausgegeben von

Engelbert Winter

2011

DR. RUDOLF HABELT GMBH · BONN

Gedruckt mit Unterstützung der Deutschen Forschungsgemeinschaft und
des Exzellenzclusters »Religion und Politik in den Kulturen der Vormoderne und Moderne«
an der Westfälischen Wilhelms-Universität Münster

Abbildung Umschlag: Nekropole von Perrhe, Ausschnitt (Foto: M. Blömer)

Beiträge und Anfragen sind zu richten an:
Forschungsstelle ASIA MINOR im Seminar für Alte Geschichte der
Westfälischen Wilhelms-Universität Münster
Georgskommende 25
D–48143 Münster

Redaktion: Eva Strothenke

ISBN 978-3-7749-3646-1
Ein Titeldatensatz ist bei der Deutschen Bibliothek erhältlich.
(http://www.ddb.de)

Inhaltsverzeichnis

Varia – Kommagene

3D-Brille, Tasche hintere Umschlagseite, für: K.-P. Krüger – M. Blömer, Das Potenzial historischer Aufklärungssysteme zur virtuellen Generierung rezenter Landschaften am Beispiel von Samosata, Farbtaf. 14–15

Vorwort

1968 wurde die Forschungsstelle Asia Minor im Seminar für Alte Geschichte der Westfälischen Wilhelms-Universität Münster von Friedrich Karl Dörner gegründet. Eines der von ihm verfolgten Ziele war die dauerhafte Förderung von Forschungen in Kommagene. Zu diesem Zeitpunkt hatte er sich bereits 30 Jahre lang mit dieser Landschaft beschäftigt. Den Beginn markierte eine Forschungsreise, die er 1938 gemeinsam mit Rudolf Naumann unternommen hatte und deren Ergebnisse bereits im folgenden Jahr als Band der Istanbuler Forschungen publiziert werden konnten. Es folgten in den 1950er und 1960er Jahren die großen Entdeckungen in Arsameia a. Nymphaios und gemeinsam mit Theresa Goell auf dem Nemrud Dağ. Im Umfeld dieser Arbeiten begannen auch seine Schüler eigene Forschungen, die ein breites Spektrum von der hellenistischen Zeit bis in das christliche Mittelalter abdeckten. Besonders hervorzuheben sind hier die Arbeiten Hansgerd Hellenkempers, Sencer Şahins, Elmar Schwertheims und Jörg Wagners.

Ein neues Kapitel der von der Forschungsstelle Asia Minor in Kommagene durchgeführten Arbeiten begann 30 Jahre nach ihrer Gründung 1998, als in der antiken Stadt Doliche mit den Grabungen in zwei dort entdeckten Mithräen begonnen wurde. Seit 2001 stellt das nahe der Stadt gelegene Zentralheiligtum des Iupiter Dolichenus auf dem Dülük Baba Tepesi einen neuen Forschungsschwerpunkt dar. Die Grabungen im Heiligtum dauern seitdem an und sind im Lauf der Zeit von einem kleinen Projekt mit wenigen Mitarbeitern zu einer Unternehmung angewachsen, an der im Jahr 2010 insgesamt 52 Wissenschaftlerinnen und Wissenschaftler, Studierende und Grabungshelfer beteiligt waren. Der vorliegende Band möchte zunächst Rechenschaft ablegen über die von 2007 bis 2009 durchgeführten Arbeiten und präsentiert ein breites Spektrum von Ergebnissen aus den einzelnen Arbeitsbereichen und Epochen der langen Geschichte dieses Kultplatzes (vgl. zu den jüngsten Resultaten www.doliche.de).

Darüber hinaus sind während der vergangenen Jahre im Umfeld der Dolichener Grabung Studien, Projekte und Forschungen zu verschiedenen Aspekten der Geschichte und Archäologie der gesamten Region realisiert worden. Einen neuen Schwerpunkt stellt dabei die wissenschaftliche Aufarbeitung der Bestände des Museums Adıyaman und insbesondere der Funde aus der Grabung in der Nekropole von Perrhe dar. Daneben sind landeskundliche Studien zu nennen, die regelmäßig in enger Kooperation mit den Museen Gaziantep und Adıyaman durchgeführt werden und immer wieder wichtige neue Denkmäler zu erschließen vermögen. Ergebnisse dieser Arbeiten sind ebenfalls in diesem Band vorgelegt, weitere Publikationen in Vorbereitung.

Ziel dieses Bandes ist es nicht nur, die eigenen Arbeiten zu dokumentieren. Er soll gleichzeitig eine Plattform für alle Forscher in Kommagene bieten, ihre Arbeiten vorzustellen. Hier ist vor allem das Zeugma-Projekt zu nennen, das unter der Leitung von Kutalmış Görkay (Ankara) in Kooperation mit türkischen und internationalen Forschern neben dem eigentlichen Stadtgebiet zunehmend auch die weitere Umgebung in seine Untersuchungen einbezieht.

Önsöz

1968 yılında Münster Westfalya Wilhelms Üniversitesi, Eski Çağ Tarihi bölümüne bağlı olarak Friedrich Karl Dörner tarafından Küçük Asya Araştırma Merkezi kurulmuştur. Dörner'in bu araştırma merkezini kurmasının hedeflerinden birisi de Kommagene bölgesinde sürekli gelişecek araştırmaların desteklenmesidir. Dörner bu kurumu kurduğu dönemde amade 30 yıldır bu bölgede araştırmalarını gerçekleştirmekteydi. Bu araştırmaların başlangıcını, 1938 yılında Rudolf Naumann ile beraber yapmış olduğu ve bunun sonuçlarının bir sonraki yılda Istanbul Araştırmaları'nda (Istanbuler Forschungen) bütün bir cild olarak yayınlanmış olan araştırma gezisi damgalamıştır. Bunları 1950'li ve 1960'lı yıllarda Nymphaios Arsameia'sındaki ve Theresa Goell ile beraber Nemrut Dağı'ndaki büyük keşifleri takip etmiştir. Bu çalışmaların çerçevesinde öğrenciler de bölgede, Hellenistik döneminden Hıristiyanlığın Orta Çağına kadarki evreyi kapsayan, kendi araştırmalarına başlamışlardır. Burada özellikle değinilmesi gereken isimler Hansgerd Hellenkempers, Wolfram Hoepfners, Sencer Şahin, Elmar Schwertheim ve Jörg Wagner'dir.

Küçük Asya Araştırma Merkezi tarafından Kommagene'deki çalışmalarının yeni bir başlığını, kuruluşundan 30 yıl sonra, 1998 yılında antik kent Doliche'de keşfedilmiş iki Mithraeum kazısının yapılmasıyla oluşturmuştur. 2001 yılından beri antik kentin yakınında yer alan Dülük Baba Tepesi'ndeki Jüpiter Dolichenus'un merkezi kutsal alanı araştırmaların ağırlık noktasını kazanmıştır. Kutsal alandaki kazı çalışmaları bu tarihten günümüze dek devam etmekte ve zamanla az sayıdaki personele sahip küçük bir proje konumundan daha büyük bir müessese konumuna ulaşmıştır. 2010 yılında akademisyen, üniversite öğrencileri ve kazının fiziksel iş gücünü sağlayan elemanlarla toplam 52 kişilik bir ekip çalışmaları gerçekleştirmiştir. Önümüzdeki kitap öncelikle 2007'den 2009 yılına dek sürdürülmüş olunan çalışmalar hakkında bilgi vermekte ve bu kült alanında gerçekleştirilmiş her bir çalışma sahasına ve uzun tarihinin her bir evresine ait çeşitli sonuçlarını sunmaktadır (en genç neticler için bkz.: www.doliche.de).

Bunun ötesinde Doliche kazılarının kapsamında geçmiş yıllarda bilimsel incelemeler, projeler ve araştırmalar bölgede tarihi ve arkeolojik açıdan değişik değerlendirme şekilleri gerçekleştirilmiştir. Bunların arasında en önemli çalışma noktasını Adıyaman Müzesi`nde bulunan eserlerin ve özellikle Perrhe Nekropolü kazılarından gelen eserlerin bilimsel incelenip, belgelenme çalışmaları oluşturmaktadır. Bunun yanı sıra devamlı Gaziantep Müzesi ve Adıyaman Müzesi ile yakın ilişkilerle gerçekleştirilen ve her seferinde önemli, yeni anıtları ortaya koyan, coğrafi araştırmalar da belirtilmelidir. Bu çalışmaların sonuçları da bu ciltte toplanmış olup, gelecek yayınlar ise hazırlanma aşamasındadır.

Fakat bu cildin amacı sadece kendi çalışmalarımızı belgelemek değildir. Aynı zamada Kommagene'de bütün araştırmacıların çalışmalarını sunabilecekleri bir platform oluşturmak istenmiştir. Bu noktada özellikle Kutalmış Görkay (Ankara) başkanlığında Türk ve uluslararası araştırmacılarla beraber yürütülen, sadece kent içinde değil çevresinde de araştırmaları kapsayan,

Daneben hat ein neues Nemrud Dağ-Projekt der Middle East Technical University unter der Leitung von Neriman Şahin Güçhan (Ankara) damit begonnen, diese herausragende Kult- und Grabstätte Antiochos I. von Kommagene systematisch zu dokumentieren und zu konservieren sowie das Kerngebiet des kommagenischen Königreiches besser zu erschließen.

Insgesamt hoffen wir, einen Band vorlegen zu können, der ein umfangreiches Tableau neuer Forschungsergebnisse zu Kommagene präsentiert. Diese Vielfalt sollte sich auch im Titel des Bandes niederschlagen: »Von Kummuḫ nach Telouch«. Er drückt die große Bandbreite der hier versammelten Beiträge aus, die vom eisenzeitlichen Königreich Kummuḫ bis zum Doliche der mittelbyzantinischen Zeit reicht, als der Ort unter dem Namen Telouch bekannt war.

Angesichts der sich abzeichnenden weitreichenden Perspektiven sowohl für die Grabungen in Doliche als auch für die Vielzahl laufender wie geplanter Projekte in Kommagene erscheint es uns sinnvoll, innerhalb der etablierten Asia Minor Studien die Unterreihe ʻDolichener und Kommagenische Forschungen' zu begründen, die der regelmäßigen Veröffentlichung von Einzelstudien und Sammelbänden zur Geschichte und Archäologie Kommagenes verpflichtet ist. Da der vorliegende Band nach den Bänden 47 (2003), 52 (2004) und 60 (2008) bereits der vierte ist, der sich ausschließlich der Kommagene widmet, erscheint er nun als Band IV dieser neuen Reihe. Die drei vorangegangenen Bände werden rückwirkend in die Reihe eingebunden. Deren vorrangiges Ziel ist es, die wissenschaftliche Erforschung der Region zwischen Taurus und Euphrat zu fördern und wichtige Neufunde zeitnah der wissenschaftlichen Diskussion zugänglich zu machen. Allen Forschern, die zur Geschichte und Archäologie der Landschaft Kommagene arbeiten, soll auf diesem Wege die Möglichkeit geboten werden, ihre Ergebnisse in dieser Reihe zu veröffentlichen.

Abschließend ist es eine angenehme Pflicht, all denen zu danken, ohne deren Engagement die erfolgreiche Durchführung der Arbeiten vor Ort nicht möglich gewesen wäre. Hier sei zunächst allen Mitarbeitern der Grabung in Doliche und der weiteren von der Forschungsstelle Asia Minor initiierten Projekte in Kommagene gedankt, die mit großem Engagement den Erfolg der Grabung und auch der Forschungen in deren Umfeld erst möglich gemacht haben. Für die finanzielle Förderung gilt unser Dank insbesondere der Deutschen Forschungsgemeinschaft, ebenso der Gerda Henkel Stiftung, der Fritz Thyssen Stiftung, der Gesellschaft zur Förderung der Westfälischen Wilhelms-Universität zu Münster e. V., dem Exzellenzcluster „Religion und Politik in den Kulturen der Vormoderne und Moderne" an der WWU Münster sowie dem Historisch-Archäologischen Freundeskreis Münster e.V. Die Generaldirektion für Kulturschätze und Museen im Kultusministerium der Republik Türkei erteilte uns dankenswerterweise kontinuierlich die Erlaubnis zu unseren Arbeiten in Kommagene. Darüber hinaus gilt unser Dank den Direktoren der Museen in Adıyaman und Gaziantep, Fehmi Erarslan und Ahmet Denizhanoğulları für ihre Gastfreundschaft, ebenso allen weiteren Mitarbeitern der beiden genannten Museen. Ahmet Beyazlar (Gaziantep) und Memet Önal (Urfa), die mit eigenen Aufsätzen diesen Band bereichert haben, sowie Fatma Bulgan (Gaziantep) danken wir zudem

Zeugma-Projesi anılmalıdır. Bunun yanı sıra Orta Doğu Teknik Üniversitesi tarafından Neriman Şahin Güçhan (Ankara) başkanlığında başlatılmış olunan yeni Nemrut Dağı-Projesi; Kommagene kraliyetinin merkezi alanını daha iyi değerlendirebilmek için, Kommagene`nin I. Antiochos'un muhteşem kült ve mezar alanını sistematik olarak belgelemeye ve koruma altına alınmaya başlanmıştır.

Böylelikle bütünüyle Kommagene'deki araştırmalarının sonuçlarını kapsamlı bir tablo halinde sunan bir cild yayınlayabilmeyi ümit etmekteyiz. Bu çeşitlilik kitabın başlığında da belirtilmeliydi. Başlık »Kummuh'tan Telouch'a« olarak seçildi ve böylelikle burada sunulan, Demir Çağının Kummuh Kraliyeti'nden; ismi bu dönemde Telouch olarak bilinen, Orta Bizans Dönemi Doliche`sine dek konulu makaleleri ifade etmektedir.

Hem Doliche'deki arkeolojik kazıların hem de Kommagene'de çok sayıdaki devam eden ve de planlanan projelerin uzun süreli perspektifinde bizim için kendine has bir yayın sırasının başlatılması mantıklı gelmektedir. Bu yayında, Kommagene'deki hem tekil çalışmalar hem de bölgenin tarihi ve arkeolojik çalışmalarının düzenli olarak yer alabilir. Böylelikle Asia Minor Studien yayın silsilesinin „Doliche ve Kommagene Araştırmaları" başlığı altında bir alt yayın sırası kurulmuştur. Önümüzdeki kitap, 47 (2003), 52 (2004) ve 60 (2008) cildlerinden sonra tamamen Kommagene konulu dördüncü cild olduğundan bu yayın sırasının Cild IV olarak yayınlanmaktadır. Bundan önceki diğer üç cild de geriye dönük olarak bu sıraya bağlanacaktır. Bunların öncelikli hedefi; Toros ile Fırat arasındaki bölgede gerçekleştirilen bilimsel araştırmaları desteklemek ve önemli yeni buluntuları bilimsel tartışmaların güncelliğinde sunabilmektir. Kommagene coğrafyasında tarihi ve arkeolojik çalışmalarını yürüten bütün araştırmacılar için çalışmalarının sonuçlarını bu yayın sırasında yayınlayabilmelerine olasılık tanınması arzu edilmektedir.

Bu noktada son sözü mahhalinde yapılan çalışmalar esnasında angajmanı olmadan bu çalışmanın gerçekleşemeyeceği insanlara teşekkür etmek isterim. Burada ilk olarak, angajmanlarıyla kazı çalışmalarında ve çevresindeki araştırmaların gerçekleştirilebilmesi sağlanabildiği, Doliche Kazı Ekibine ve de Küçük Asya Araştırma Merkezi'nin ön ayak olmuş olduğu Kommagene projelerine takdirde bulunulmaktadır. Maddi desteklerini sağladıkları için Alman Araştırma Kurumu`na, Gerda Henkel Vakfı'na, Fritz Thyssen Vakfı'na, Münster Westfalya-Wilhelms Üniversitesi'nin Destekleme Dernek'ine, WWU Münster'deki „Modern Öncesi ve Modern Kültürlerin Din ve Siyaset" başlıklı Exzellenscluster'ine ve de Tarih-Arkeoloji Dostluk Birliği'ne takdirlerimizi sunmaktayız. T. C. Kültür Varlıkları ve Müzeler Genel Müdürlüğü takdire şayan bir şekilde aralıksız olarak Kommagene'deki çalışmalarımız için izin yazılarını bize ulaştırmıştır. Bunun dışında teşekkürlerimiz misafirperverlikleri için Adıyaman ve Gaziantep Müzeleri'nin Müdürleri Fehmi Erarslan ve Ahmet Denizhanoğulları'nadır. Bu aynı şekilde iki müzenin de çalışanları için geçerlidir. Makaleleriyle yayınımıza zenginlik katmış olan Ahmet Beyazlar'a (Gaziantep) ve Mehmet Önal'a (Urfa); bütün yardımlarıyla her zaman Kommagene'de miras kalmış kültürlerin açıklanmasında bilimsel çabaları ile işbirliğine hazır olan Fatma Bulgan'a (Gaziantep)

für ihre Großzügigkeit und ihre Kooperationsbereitschaft bei dem gemeinsamen Bemühen um die wissenschaftliche Erschließung der kulturellen Hinterlassenschaften Kommagenes. Taner Atalay (Gaziantep), Mahmut Altunçan (Karaman) und Safinas Akbaş (Karamanmaraş) waren uns im Berichtszeitraum als zuständige Kommissare während der Grabungen auf dem Dülük Baba Tepesi stets eine große Hilfe. Dilek Çobanoğlu (Münster) und Aylin Tanrıöver (Münster) haben dankenswerterweise für den vorliegenden Band die in türkischer Sprache verfassten Beiträge ins Deutsche übertragen.

Münster im Januar 2011 **Engelbert Winter**

sonsuz Teşekkürlerimizi sunarız. Taner Atalay (Gaziantep), Mahmut Altunçan (Karaman) ve Safinaz Akbaş (Kahramanmaraş) Dülük Baba Tepesi'nde gerçekleştirilen kazı dönemlerinde bakanlık temsilcisi olarak kazı ekibi için büyük yardımlar sağlamışlardır. Dilek Çobanoğlu (Münster) ve Aylin Tanrıöver (Münster) takdire şayan bir şekilde önümüzdeki yayının Türkçe ve Almanca çevirilerini gerçekleştirmişlerdir.

Münster, Ocak 2011 **Engelbert Winter**

‘Smoke on the Mountain’ – Animal Sacrifices for the Lord of Doliche

(Pl. 1–4)

Introduction

When travelling north from Gaziantep (southeast Anatolia), Dülük Baba Tepesi, an impressive hill, appears (pl. 1). This reforested elevation rises to 1211 m and dominates the landscape (pl. 4). Its name derives from the modern village of Dülük situated on its northern foot, which in turn is the Turkish version of the ancient name of the town of Doliche, whose remains hidden under the orchards of Keber Tepe await excavation (fig. 1; pl. 2). The importance of Doliche in antiquity is underlined by additional important archaeological sites in the vicinity, such as the necropolis of the priests on Dülük Baba Tepesi and two mithraea, impressive cult spaces in a rock-shelter at Keber Tepe that were dedicated to Mithras.[1]

For a long time, historians and archaeologists have known that Doliche must have been the starting point for the cult of Jupiter Dolichenus cult. This cult was not only worshipped in the god’s original homeland of Commagene, but also far abroad, in the western and northern provinces of the Roman Empire.[2] Nevertheless, the exact location of the sanctuary to Iuppiter Dolichenus remained unknown until 2001, when the summit of Dülük Baba Tepesi became the focus of archaeological research. Since then, annual excavations under the direction of E. Winter (Forschungsstelle Asia Minor, University of Münster, Germany) confirmed that the remnants of the sanctuary devoted to Jupiter Dolichenus were indeed situated on that hilltop (pl. 3). The archaeological finds moreover demonstrate a continuity of cult practices beginning in the Iron Age and continuing until late Antiquity.[3] A plethora of late Babylonian, Achaemenid and Egyptian-Levantine seals, a bronze statuette of Osiris, and Attic black-figured pottery reflect the supra-regional significance of the sanctuary even in its initial phase.[4]

---

[1] Schütte-Maischatz – Winter 2004.

[2] Speidel 1980; Schütte-Maischatz – Winter 2004; M. Hörig – E. Schwertheim, Corpus Cultus Iovi Dolicheni (CCID), Études préliminaires aux religions orientales dans l’Empire romain (Leiden 1987) und in diesem Band A. Collar, Military Networks and the Cult of Jupiter Dolichenus, S. 217–245.

[3] Winter – Blömer 2005; E. Winter, Doliche, das Heiligtum des Iupiter Dolichenus und die Grabung auf dem Dülük Baba Tepesi, in: E. Winter (ed.), ΠΑΤΡΙΣ ΠΑΝΤΡΟΦΟΣ ΚΟΜΜΑΓΗΝΗ. Neue Funde und Forschungen zwischen Taurus und Euphrat, AMS 60 (Bonn 2008) 53-67; E. Winter, The Cult of Iupiter Dolichenus and its Origins. The Sanctuary at Dülük Baba Tepesi near Doliche, in: Ch. Witschel – F. Quack (eds.), Religious Flows in the Roman Empire – the Expansion of Oriental Cults from East to West and Back Again, Oriental Religions in Antiquity (ORA) (forthcoming) and in this volume E. Winter, Der Kult des Iupiter Dolichenus und seine Ursprünge. Das Heiligtum auf dem Dülük Baba Tepesi bei Doliche, S. 1–17.

[4] See A. Schachner, Babylonier und Achämeniden auf dem Dülük Baba Tepesi: Kulturelle Vielfalt in der späten Eisenzeit im Spiegel der vor-hellenistischen Funde, in: E. Winter (ed.), ΠΑΤΡΙΣ ΠΑΝΤΡΟΦΟΣ ΚΟΜΜΑΓΗΝΗ. Neue Funde und Forschungen zwischen Taurus und Euphrat, AMS 60 (Bonn 2008) 69–96 and in this volume A. Schachner, Die Welt des östlichen Mittelmeers in kleinen Bildern – Weitere Beobachtungen zu den Siegeln und Kleinfunden der späten Eisenzeit vom Dülük Baba Tepesi, S. 19–46.

The archaeofauna

This report presents the first results of the faunal analysis carried out on location during three field campaigns. In 2007 and 2008, archaeozoological work focused on the abundant faunal remains collected in Iron Age contexts that can be dated to the sixth and fifth centuries B.C. based on seals, coins, and other small finds.[5] In the 2009 field season, the material from Roman and post-Roman strata took centre stage. The Roman layers could be subdivided into an early (late first and early second centuries A.D.) and a late phase (late second/mid-third century A.D.). Post-Roman periods comprised contexts of Late Antique/Byzantine (fourth century A.D.) and Islamic/Medieval dating (seventh century A.D. and later).

Up to now, more than 50,000 bone fragments weighing more than 100 kg have been analysed. However, the vertical distribution of the faunal remains is quite uneven. Nearly two-thirds of the material analysed dates from the Iron Age, about one-third from the Roman period, and only *c*. 1% from the post-Roman periods. This hampers comparison, especially of the latter assemblage with those from the other two periods.

In the following we will present the major results of the archaeozoological analysis of the different assemblages. Meat consumption and cult practices in the sanctuary on Dülük Baba Tepesi will be evaluated and compared to similar information obtained from contemporaneous sites and sanctuaries in the region and further abroad.

Iron Age

The Iron Age faunal assemblage comprises more than 32,000 fragments. Conceivably, the most striking characteristic of the material studied so far is the high proportion of burnt bones (> 50 %, tables 1 and 2). However, this number has no real significance, since we deliberately selected larger samples of burnt bones, knowing about their scientific potential for reconstructing cult practices.[6] Burnt and unburnt materials will therefore be discussed separately.
The burnt bones were classified according to the degree of burning based on their colouring, namely 1. partially burnt (black), 2. completely burnt, but still greyish, and 3. calcined (whitish). Less than 10% pertain to the first category, about 15% to the second, and the rest to the third category. This burnt fraction is extremely poor in species, with evidence only for cattle and sheep (table 1). Since not a single bone of goat was identified in this material, it can safely be assumed that the overwhelming majority, if not all bones labelled as 'sheep or goat', belonged to sheep. Thus, the complete absence of goat, but also of pig and game is noteworthy. Based on the number of identified specimens (= NISP), the preponderance of sheep (97.2%) is obvious. Since bone weight relates to body weight and hence to meat yield, one can compare the weight obtained for sheep bones with that of cattle. From table 1, it can be seen that the relative importance of sheep (86.3%) regarding bone weight is somewhat lower than the numerical one (97.2%). However, such comparison is problematic, since loss of bone weight can be significant if osseous material is burnt heavily.[7] Whether the bones of sheep suffer a proportionately heavier loss when burnt

[5] Winter – Blömer 2005; Winter 2008 op. cit (note 4); Winter (forthcomning) op. cit. (note 4) and in this volume Winter op. cit (note 4).

[6] e.g. Peters – von den Driesch 1992.

[7] R. L. Lyman, Vertebrate Taphonomy. Cambridge Manuals in Archaeology, Cambridge 1994, 390; P. Correia, Fire Modification of Bone. A Review of the Literature, in: W. Haglund – M. Sorg (eds.), Forensic Taphonomy. The

compared to the larger, more solid bones of cattle has not been investigated so far. Comparing the bone weight of burnt with that of unburnt material is therefore not helpful.

The unburnt bone assemblage is also heavily dominated by remains of small livestock (88.4%), followed by cattle (11.1%), as specimen counts indicate (NISP; tables 1 and 2). The numerical preponderance of small ruminants and the fact that the ratio of sheep to goat is 150 to 1 underscores the extraordinary importance of sheep in the site's economy. Totalling only 0.5% of the total assemblage identified, pigs, dogs, and game obviously played a marginal role, if any at all. Considering bone weight, mutton and chevron still accounted for two thirds of the meat consumed, whereas beef ranked second (32.7%).

Apart from these larger mammals, bone remains of small mammals, birds, anurans and even some fish could be evidenced in Iron Age units containing unburnt bones (in contexts 08/118, 08/119, 08/211,08/215; see table 2). The small mammals can be regarded as occasional admixtures or in case of the burying rodents (*Tatera*, *Spalax*) as later intrusives. Hares, chickens, chukar partridges, doves, and fishes (catfish and cyprinids) certainly were favoured fare of the Iron Age inhabitants of the region. The remains of passerine birds and anurans, however, are surprising, since these taxa are usually absent from Iron Age contexts in Anatolia, for instance at the settlement of Lidar Höyük,[8] and are usually not considered part of the diet. Several explanations can be offered for these special accumulations. Firstly, the batrachians may form part of the natural thanatocoenosis, i.e. the assemblage of animals found at a site that died of natural causes. Toads, for instance, might have fallen into cisterns or other deep structures and perished there. Secondly, rodents, birds and toads count among the preferred diet of predatory birds, which is why accumulations of their bones can be found in disintegrated owl pellets. The diet of the tawny owl, *Strix aluco*, for example, consists of amphibians, rodents (e.g., voles, mice, hamsters) and other small mammals (shrews, moles, hares, hedgehogs etc.) as well as of bunting- to thrush-sized birds, but it will also take doves, partridges or crows.[9] Thirdly, human beings cannot be excluded *a priori* as accumulating agents, since thrushes were (and still are) consumed throughout the Mediterranean region. However, the reasons why the inhabitants and/or visitors of the sanctuary would actively collect toads remain obscure for the moment, since they usually do not play a role in the human diet. Hence, future analyses will include a microscopic study of the bones to validate the presence of digestion marks typical for animals preyed upon by owls.[10] Finally, a combination of the foregoing explanations is possible as well. In a faunal assemblage of a similar nature, Becker decided for a combination of anthropogenic (food/storage refuse) and zoogenic causes (owl pellets).[11]

One of the Iron Age contexts (08/217), yielding a diverse fauna, also produced a shell of *Glycymeris* sp., a coastal bivalve mollusc native to the Mediterranean Sea. *Glycymeris* shells

---

Postmortem Fate of Human Remains, Boca Ranton 1997, 275–293.

[8] Kussinger 1988, 185–191.

[9] U. N. Glutz von Blotzheim, Handbuch der Vögel Mitteleuropas 9: Columbiformes – Piciformes, Wiesbaden 1980, 605–607 tab. 33.

[10] L. Weissbrod et al., Micromammal Taphonomy of el-Wad Terrace, Mount Carmel, Israel. Distinguishing Cultural from Natural Depositional Agents in the Late Natufian, Journal of Archaeological Science 32, 2005, 1–17, 9–11.

[11] C. Becker, Birds, Mice, and Slaughter Refuse form an Islamic Mosque in Syria. A Puzzling Mixture at a Peculiar Location, in: G. Grupe – J. Peters (eds.), Feathers, Grit and Symbolism. Birds and Humans in the Ancient Old and New Worlds. Documenta Archaeobiologiae 3, Rahden 2005, 271–280.

are known from prehistoric sites in continental Turkey, e.g., Hattuşa,[12] and from most prehistoric and historic coastal sites, e.g. Iron Age Sirkeli Höyük.[13] Perforated *Glycymeris* shells are usually interpreted as jewellery. Unfortunately, our find is abraded and freshly broken, rendering a judgement impossible. It certainly was an anthropogenic import to the Jupiter Dolichenus sanctuary, but the significance of this exotic shell remains obscure.

Roman Period

Totalling almost 9000 fragments, the Roman assemblage is significantly smaller than the Iron Age one, but numbers are sufficient to allow statistical computations (table 3). In contrast to the Iron Age material, the Roman sample largely consists of unburnt fragments, only few bones exhibiting traces of burning. This observation agrees well with the proportion of burnt bones usually found in settlement refuse.

Fragments of glass and oil lamps as well as coins and other small finds allow classifying the bone finds into an Early Roman Empire (late first and early second centuries A.D.) assemblage, with 2636 identified specimens, and a Middle Roman Empire (late second to mid-third centuries A.D.) assemblage, with more than 3700 identified specimens (table 3). The species spectra are comparable to the Iron Age spectrum, with a predominance of domestic mammals and a single wild mammal species, the hare. Although the numerical preponderance of small livestock in the Roman assemblages is obvious (81%; table 3), it can be seen that if bone weight is considered, the contribution of mutton and chevron is lower compared to the Iron Age, dropping to slightly over 50%. Cattle, in return, are now almost equally important as a meat supply. Compared to the Iron Age assemblage, we also observe that the relative importance of sheep has declined. Although it is still the predominant species in Roman times, the ratio of sheep to goat is 16 to 1 in the Early Roman and decreases to 4 to 1 during the Middle Roman Empire. Bones of pig and equids number less than 0.1% and seem occasional admixtures. Fowl, on the other hand, gained in importance. Remains of chicken, chukar partridge, and goose (wild or domestic) constitute c. 4% of the identified specimens, whereas domestic and game birds represent less than 0.3% of the identified Iron Age assemblage.

Post-Roman periods

Based on the associated small finds, the osseous remains collected in post-Roman contexts can be separated in a Late Antique/Byzantine assemblage numbering about 400 specimens and an Islamic/Medieval assemblage with nearly 100 specimens (table 4). Although both assemblages are too small to allow statistical computations, they nonetheless already show interesting trends when compared to the earlier materials. For both the Byzantine and the Islamic periods, a dominance of small livestock (> 75%) is visible in the assemblages. Cattle ranked second and were economically important, whereas pigs played a marginal role in the human diet. Game was similarly irrelevant to human diet as during the previous phases. Chicken, on the other hand, clearly gained importance, accounting for about 10% of the identified specimens.

---

[12] A. von den Driesch – N. Pöllath, Vor- und frühgeschichtliche Nutztierhaltung und Jagd auf Büyükkaya in Boğazköy-Hattuša, Zentralanatolien. Boğazköy-Berichte 7. Mainz am Rhein 2004.

[13] Vogler 1997, 184–185.

Spatial, temporal and contextual comparisons

The Dülük Baba Tepesi excavations clearly revealed that the buildings on the summit served ritual purposes during the Iron Age and Roman periods. It is therefore an obvious speculation that the bone finds, the burnt ones in particular, related to cult practices and rites performed in the sanctuary. Several sanctuaries located in the Eastern Mediterranean produced faunal assemblages that have been studied in detail, e.g., Samos, Miletus, Ephesos, Olympia, Eretria, Nemea, Kourion, etc.[14] They share some characteristics but differ in others. However, a common feature of these archaeofaunas is the calcined state of a major part of the material. In order to trace the selection criteria for sacrificial animals against the background of contemporaneous animal husbandry practices, secular refuse from local settlements must be confronted with the leftovers from animal offerings.

The choice of species

As mentioned above, small livestock dominate in the consecutive assemblages from Dülük Baba Tepesi, but to a different degree (fig. 2). Their share is the largest during the Iron Age, i.e. 88% in the unburnt and 97% in the burnt material, decreasing in the Early Roman imperial period to about 76%, to increase again during the Middle Roman imperial period (c. 85 %). At all times, cattle were numerically less important than sheep, but the species gained importance from the Iron Age to the Roman periods inversely to small livestock. The contribution of other meat animals, such as pigs, equids or game is negligible throughout the archaeological sequence. Finally, the importance of domestic fowl for human consumption increased significantly over the course of time, from less than 0.1% in the Iron Age to 2.3% in the earlier and 4.0% in the later Roman sub-phase.

A comparison of our findings with those from contemporaneous Lidar Höyük, a settlement mound on the Euphrates situated *c*. 200 km northeast of Doliche (fig. 1),[15] clearly shows that the meat supply of a secular community living in a rural environment differed considerably (fig. 3). Although sheep and goat are predominant in the Iron Age and Hellenistic/Roman assemblages from Lidar Höyük, their proportions stay below 50%. During the Iron Age, cattle are more important at Lidar than in the sanctuary, but in Classical times, the proportions compare quite well. The fundamental difference, however, is with the other larger mammals. Pig remains, for instance, account for about 20% of the Iron Age and 13% of the Hellenistic/Roman assemblage, those of equids, dogs, and game contributed 9.9% and 17% respectively. In contrast, at the settlement mound of Sirkeli Höyük situated c. 200 km west of Doliche in the Çukurova plain (fig. 1),[16] cattle are preponderant in the Iron Age assemblage, accounting for 44% of the remains. Small livestock ranks second (fig. 3). Pigs, equids, and game contribute about 25% of the total assemblage. Conceivably, local environmental conditions account for the differences observed

[14] For an overview see M. MacKinnon, State of the Discipline: Osteological Research in Classical Archaeology, American Journal of Archaeology 111, 2007, 473–504 and M. MacKinnon, Osteological Research in Classical Archaeology: Extended bibliography. Published online at American Journal of Archaeology webpage <http://www.ajaonline.org/index.php?ptype=content&aid=280>(January 2010).

[15] Kussinger 1988.

[16] Vogler 1997.

between the faunal assemblages from Sirkeli and Lidar Höyük, but by no means can they explain the low number of species observed at Dülük Baba Tepesi. Thus, if a diverse faunal spectrum were the rule in the bone refuse from settlement sites in Anatolia, Dülük Baba Tepesi certainly departs from this.

The comparison of the assemblages from Sirkeli and Lidar with those from the Doliche sanctuary moreover shows that the proportions of sheep, goat, and cattle in the latter certainly do not reflect the composition of contemporaneous livestock herds pastured in the region. Clear parallels, however, are found in bone assemblages from contemporary sanctuaries, such as the sanctuary of Aphrodite on Zeytintepe in Miletus,[17] the Artemision in Olympia,[18] the Artemision in Ephesos,[19] the Opheltes shrine in Nemea,[20] the Geometric altar in Eretria,[21] and the Apollon sanctuary in Kourion on Cyprus (fig. 1).[22] At all these sites, small livestock were the preferred sacrificial animals (table 5). The case of Miletus is of special interest to us, since the sanctuary deposits yielded burnt and unburnt bones and archaeofaunal data are in addition available for the Archaic settlement (Kalabak Tepe). From fig. 5, patterns very similar to those at Dülük Baba Tepesi can be seen: among the burnt bones from the sanctuary, more than 90% pertain to small livestock, whereas their portion is somewhat smaller among the unburnt material (88%). The osseous remains from the contemporaneous settlement at Kalabak Tepe yielded only *c.* 63% of small livestock. Pig and other mammals are absent from the burnt assemblage and play a subordinate role in the unburnt material from the sanctuary, but add up to almost 15% in the bone refuse from Kalabak Tepe. Other species are rarely dominant in animal offerings. Examples of this are the Heraion on Samos with a preference for cattle[23] and the Mycenaean sanctuary at Methana with a preference for pig.[24]

If we compare the ratio of sheep to goat, the overwhelming preponderance of sheep in the Iron Age assemblage from Dülük Baba Tepesi (150 to 1) is accentuated when the ratios are compared with contemporaneous assemblages from Lidar Höyük (1.9 to 1) and Sirkeli (1.6 to 1). The ratios in the Early Roman (16 to 1) and in the subsequent Middle Roman period (4 to 1) illustrate a decrease in sheep, but they still are clearly higher than in Hellenistic/Roman Lidar Höyük (1.6 to 1). From other sanctuaries, where sheep dominated over goat, ratios are 8 to 1 (Olympia) and 4.2 to 1 (Miletus). These ratios are not as pronounced as at Dülük Baba Tepesi, but still higher than in the contemporaneous settlement on Kalabak Tepe in Miletus (3.6 to 1). Ephesos is the only sanctuary where a clear preponderance of goat was evidenced (4 goats to 1 sheep).

---

[17] Peters – von den Driesch 1992; Peters 1993; Zimmermann 1993.

[18] Benecke 2006.

[19] Forstenpointner 2003.

[20] MacKinnon 2004.

[21] Chenal-Velarde – Studer 2003.

[22] Davis 1996.

[23] J. Boessneck – A. von den Driesch, Knochenabfall von Opfermahlen und Weihgaben aus dem Heraion von Samos (7. Jh. v. Chr.), München 1988.

[24] Hamilakis – Konsolaki 2004.

Two sites situated beyond the Greek political sphere also provide interesting parallels: Tall Bazi in northwestern Syria[25] and Tell Qiri in Lower Galilee, Israel.[26] From room 2 at Tall Bazi, an assemblage of animal bones and jewellery, which had been sealed up shortly after deposition, was recovered. The faunal remains showed an exceptional composition of domestic species: Apart from few cattle and donkey bones, small livestock dominated the archaeofauna (97%) with a ratio sheep to goat of 4 to 1. The unusual composition and mode of deposition of this assemblage prompted A. von den Driesch to consider the whole complex as a ritual deposition. At Tell Qiri, animal bones were recovered from contexts identified as ritual areas by the excavator.[27] In these, sheep and goat are represented in equal shares, but taken together they constitute more than 80% of the bone assemblage, which is also an exceptionally high number for this region.

Age profiles for sheep

In this report we will focus on the age profiles of sheep, since it is the most abundant species providing us with statistically reliable results. Based on the mandibles and isolated lower cheek teeth, detailed age profiles could be prepared for the unburnt Iron Age and Roman finds from Dülük Baba Tepesi following the method proposed by Helmer and Vigne.[28] The majority of the sheep were slaughtered at a very young age, almost 40% of the sheep being younger than six months and *c*. 40% between six months and one year in the Iron Age units (fig. 5a). Only 20% of the animals slaughtered were juvenile to adult (= older than one year), but none can be considered really old (≥ 4 years). Interestingly, no mandible or isolated tooth pertaining to animals younger than three months were present in the Iron Age assemblages, suggesting that suckling lambs were not allowed as sacrificial animals. Offering rules obviously changed somewhat in Roman times. During the Roman periods, sheep were even younger when introduced into the sanctuary: 12% of the animals were offered in their first three months, one third between three and six months and 45% between half a year and one year (fig. 5b). Only 10% of the sheep were older than one year.

The distinctiveness of the Doliche age profiles is illustrated when compared to those calculated for Lidar Höyük (fig. 6). Here, juvenile and adult animals are significantly more frequent. If the interpretations of the age profiles proposed by Helmer and Vigne[29] are applied to the Lidar Höyük charts, they reflect a combination of the so-called Meat A (preferential culling of lambs in age class C) and Milk B systems (older females are slaughtered in age classes E–F when milk yields begin to decrease). In this respect, the sheep age profiles from Dülük Baba Tepesi do not fit any 'rational' economic model described in literature,[30] simply because such early kill-off would inevitably constitute a danger to population survival. Unfortunately, no age profiles can be presented for the incinerated bone assemblage, since teeth and mandibles are absent from these

[25] von den Driesch 2006.

[26] Davis 1987.

[27] Davis 1987, 250.

[28] Helmer –Vigne 2004.

[29] Helmer – Vigne 2004.

[30] e.g. S. Payne, Kill-off pattern in Sheep and Goats: The Mandibles of Asvan Kale, AnatSt 23, 1973, 281–303; P. Halstead, Mortality Models and Milking: Problems of Uniformitarism, Optimality and Equifinality reconsidered, Anthropozoologica 2, 1998, 3–20; Helmer – Vigne 2004.

units and diagnostic zones of long bones hardly preserved. However, the majority of animals must have been slaughtered before reaching two years of age considering the high proportion of unfused calcanei in the burnt assemblage.

A small livestock kill-off pattern similar to that of Dülük Baba Tepesi was also noted for the faunal assemblages from Kourion,[31] Tell Qiri (fig. 7) and Tall Bazi, room 2,[32] where sheep younger than two years dominate clearly (*c*. 60%). On the contrary, sacrificial victims seem to have been older in age in sanctuaries in the Greek world. At the Aphrodite sanctuary of Miletus, the majority of sheep and goat were older than two years when brought to the holy precinct (fig. 8). The age profile at Ephesos is less detailed since it is based solely on femora. This long bone fuses proximally at an age of about three and distally with four years, implying that at Ephesos, up to 70% of the animals were younger than three and 30% older than four years when brought to the sacred precinct[33] and so clearly older than at Doliche. In absence of dental remains, epiphyseal fusion data for long bones had to be considered for Olympia as well. Based on these, it can be concluded that sheep and goats were mostly older than two years when brought to the altar of Artemis.[34] Similarly, only adult sheep were sacrificed at Nemea[35] and at Eretria.[36] In sum, offering very young ruminants seems to have been rather uncommon in the Greek world. At a first glance, the sanctuary of Methana might offer a parallel situation, since piglets were sacrificed here.[37] However, pigs have a much larger litter size compared to ruminants, which is why in this species, a much higher proportion of infantile and juvenile animals can be slaughtered without endangering the population.

The choice of prime cuts

Frequently shared characteristics of animal sacrifices in the eastern Mediterranean world are particular distribution patterns of prime cuts offered to the gods and to the sacrificial community and priests. Analyses of bone assemblages revealed that certain skeletal elements occurred systematically in a burnt state, whereas others usually remained unburnt. For Miletus[38], Eretria[39], Nemea[40] and Ephesos[41], the *femora*, *caudal vertebrae*, and *patellae* were almost exclusively found calcined, implying that the thighs and the tail had been incinerated on the altars (table 5). Consequently, these elements are almost absent from the unburnt material at Miletus, Olympia, and the Heraion of Samos, thus providing evidence ex negativo.

---

[31] Davis 1996.

[32] von den Driesch 2006.

[33] Forstenpointner 2003, tab. 21.2.

[34] Benecke 2006, tab. 3.

[35] MacKinnon 2004.

[36] Chenal-Velarde – Studer 2003.

[37] Hamilakis – Konsolaki 2004.

[38] J. Peters, Archaic Milet: Daily Life and Religious Customs from an Archaeozoological Perspective, in: H. Buitenhuis – A. T. Clason (eds.), Archaeozoology of the Near East, Leiden 1993, 88–96; Peters – von den Driesch 1992; E. Zimmermann, Die Tierreste aus dem archaischen Milet/Westtürkei (7.–5. Jh. v. Chr.). München 1993 (Diss. med. vet.).

[39] Chenal-Velarde – Studer 2003.

[40] MacKinnon 2004.

[41] Forstenpointner 2003.

Differing patterns have been described for the assemblage from Kourion on Cyprus, where nearly complete hind legs (femur to tarsal joint) had been charred on the altar, and Iron Age Dülük Baba Tepesi, where the bones of the shank (tibia and tarsal joint) were selectively burnt (fig. 9). A strong skeletal bias but with another body part preference was found at Tell Qiri: bones (unburnt) from the foreleg (scapula, humerus and radius) outnumbered other elements by far.[42] No concordance in the choice of body parts offered to gods was found at Tall Bazi: all parts of the animal skeleton were present proportionate to the numbers expected in 'normal' settlement refuse.

The same applies to another frequent characteristic of burnt animal offerings, namely the preference for a particular body side. A clear bias in favour of the right side was observed at Kourion, Halieis, Tell Qiri, Dülük Baba Tepesi (fig. 10), and also at Ephesos (table 5). Both diagrams for the Iron Age assemblages from the sanctuary on Dülük Baba Tepesi show that the selection of right hind legs for burning on the altar is mirrored in the unburnt units by a strong bias toward left hindlegs (fig. 10). For Eretria, Olympia, Heraion/Samos, and Miletus, it can be assumed that left and right upper legs were offered to the gods in more or less equal numbers. The only case with a preference for the left side is Nemea. MacKinnon explains this with the nature of the worship:[43] Nemea is the only site where a hero was venerated, whereas the sanctuaries excavated elsewhere were dedicated to deities, e.g. Apollo, Artemis, Aphrodite, Hera or Baal/Iuppiter. As for the two sites located outside the Greek world during the Archaic period, no such left/right preference could be attested for Tall Bazi. This is in contrast to the assemblage from Tell Qiri which exhibits a strong bias towards the bones of the right foreleg.[44]

For the animal offerings at Roman Dülük Baba Tepesi, argument has to be made ex negativo, since only unburnt bones have been recovered up to now. The chart opposing the relative frequencies calculated for right and left skeletal elements (fig. 11) shows an almost balanced ratio for the bones of the foreleg (scapula, humerus, radius) and the femur, with a clear preponderance of bones from the left shank (tibia to tarsal joint), though. This suggests that in the Roman period, the ancient custom of incinerating an animal's right shank on the altar of Jupiter Dolichenus was still in place.

Finally, a comparison of the unburnt assemblages of the Iron Age (fig. 10) and Roman periods (fig. 11) relative to body side discloses another peculiarity for the Iron Age material from the sanctuary: the unburnt bones of the foreleg mainly pertain to the right side. Since left elements are strictly underrepresented in this assemblage but had not been burnt on the altar either, we must conclude that during offerings, the left forelegs were deliberately removed. Meat consumption and waste disposal obviously took place elsewhere. No exact parallel for this custom could be found in archaeozoological literature, but the sites of Tell Qiri[45] and Beersheba[46], Israel, come close. Here, the unburnt assemblages show a strong dominance of right forelegs of young sheep and goats.

---

[42] Davis 1987 tab. 24.

[43] MacKinnon 2004.

[44] Davis 1987, 250 tab. 24.

[45] Davis 1987.

[46] Hellwing 1984; Borowski 1998, 221–226.

Discussion and conclusions

The foregoing explanation illustrates unequivocally the ritual nature of the Iron Age and Roman assemblages from Dülük Baba Tepesi. Age profiles and species composition oppose them to contemporaneous settlement refuse from sites in Anatolia, but conform to archaeozoological findings in Greek sanctuaries, particularly regarding the strong focus on one species as sacrificial animal. In addition, the so-called Olympian sacrifice (θυσία) is known from various literary and pictorial sources, allowing us to deduce the sacrificial procedure quite precisely based on these sources and the archaeozoological evidence.[47] However, the comparison with the results from ancient Greek sites also revealed important and from a cultural-historical perspective interesting differences: namely in the age profiles (very young *vs*. adult animals), the body parts selected for incineration on the altar (shank vs. thigh and tail), and the purposeful removal of the left forelegs for reasons unknown to us. Analogies and/or complementary findings to the results presented here have been found in sites located outside the Greek world, namely in Syria (age of sacrificial animals), Israel (age of sacrificial animals, treatment of forelegs) and Cyprus (inclusion of shank, age of sacrificial animals). It seems plausible, therefore, to postulate that the customs evidenced at Iron Age Dülük Baba Tepesi have their roots in the West-Semitic rather than in the Greek tradition. According to W. Burkert, burnt animal offerings are a distinctive feature of West-Semitic peoples, who came into contact with Mycenaean Greek traditions on Cyprus as early as the Late Bronze Age.[48]

For sites in Israel, the analyses of osseous remains can be compared with literary evidence from the Bible. Various passages refer to the rules of offering to be obeyed by the people of Israel, (e.g. Deut. 18,3 and Lev. 7,30–34). There it is laid down that shoulders, cheeks and stomachs (Deut. 18,3) or following Leviticus (Lev. 7,32), the breast and the right thigh of sacrificial animals had to be given to the priests, whereas their fat had to be burnt on the altar.[49] These passages explain well the skeletal distribution observed in the bone assemblages from Tell Qiri[50] and Beersheba[51]. Other sections of the Bible explicitly mention one-year-old sheep as sacrificial animals (e.g. Num. 6,14). Interestingly, the Bible also notes turtledoves and pigeons for offerings and specifies that two of these birds may be given by poor people as substitutes for ruminants.[52] This passage could eventually offer an explanation for the relatively numerous remains of turtledoves and pigeons evidenced in the unburnt Iron Age assemblage from Dülük Baba Tepesi (table 2). It also underscores our assumption that the rituals performed in the Doliche sanctuary were rooted in the West-Semitic rather than Greek tradition.

[47] Forstenpointner 2003.

[48] W. Burkert, Greek Religion, Cambridge 1985.

[49] Lev. 7, 31; see also Borowski 1988, 214.

[50] Davis 1987.

[51] Hellwing 1984.

[52] e.g. Lev. 1, 14; 5, 7; 12, 8; see also Borowski 1998, 211–218.

In sum, animal sacrifices in the Iron Age sanctuary of Dülük Baba Tepesi likely proceeded as follows. Most visitors brought with them sheep as sacrificial animals, often individuals that were younger than one year. Cattle, goats, hares, chickens, and doves were introduced much more rarely. These animals were then slaughtered in the holy precinct. In the case of sheep and cattle, the carcasses were skinned and processed in the sanctuary and body parts sorted purposefully for further course of action. The right shank would then be burnt on the altar, while the left foreleg was removed and presumably given to the priests. Finally, the remainder of the carcass was prepared by boiling for the sacrificial meal for the believers. All other species appear to have been exclusively consumed in the frame of such communal meals, since their bones are absent from the burnt assemblages. This procedure was similarly pursued in the Roman period, albeit with slight shifts in the preference of species. However, the rule that the meat of the left forelegs was consumed elsewhere obviously changed in Roman times. If the left foreleg was in fact the priests' share during the Iron Age, they now received any body part of the carcass in Roman times independent of side, except for the right shank, still reserved for the deity. The rootedness of the latter is underlined by the fact that this Iron Age tradition continued in the Roman period. It likewise emphasises the importance of the god of Doliche, who became an aspect of the most powerful god of the Roman pantheon.

List of abbreviations

In addition to the abbreviations of the guidelines of the German Archaeological Institute 2006 (AA 2005/2, 314–399) the following abbreviations are used:

Benecke 2006	N. Benecke, Animal Sacrifice at the Late Archaic Artemision of Olympia: The Archaeozoological Evidence, in: U. Tecchiati – B. Sala (eds.), Archaeozoological Studies in Honour of Alfredo Riedel (Bolzano 2006) 153–160
Borowski 1998	O. Borowski, Every Living Thing. Daily Use of Animals in Ancient Israel (Walnut Creek 1998)
Chenal-Velarde – Studer 2003	I. Chenal-Velarde – J. Studer, Archaeozoology in a Ritual Context: The Case of a Sacrificial Altar in Geometric Eretria, in: E. Kotjabopoulou et al. (eds.), Zooarchaeology in Greece: Recent Advances, British School at Athens Studies 9 (Athens 2003) 215–220
Davis 1987	S. J. M. Davis, The Faunal Remains from Tell Qiri, in: A. Ben Tor – Y. Portugali (eds.), A Village in the Jezreel Valley, Qedem 24, 1987, 249–250
Davis 1996	S. J. M. Davis, Animal Sacrifices, in: D. Buitron-Oliver (ed.), The Sanctuary of Apollo Hylates at Kourion: Excavations in the Archaic Precinct. Studies in Mediterranean Archaeology 109 (Göteborg 1996) 181–182
von den Driesch 2006	A. von den Driesch, Tierknochenabfall aus zwei spätbronzezeitlichen Räumen auf der Zitadelle von Tall Bazi/Nordwestsyrien, DaM 15, 2006, 137–145

Forstenpointner 2003	G. Forstenpointner, Promethean Legacy: Investigations into the Ritual Procedure of Olympian Sacrifice, in: E. Kotjabopoulou et al. (eds.), Zooarchaeology in Greece: Recent Advances. British School at Athens Studies 9 (Athens 2003) 203–213
Hamilakis – Konsolaki 2004	Y. Hamilakis – E. Konsolaki, Pigs for the Gods. Burnt Animal Sacrifices as Embodied Rituals at a Mycenaean Sanctuary, OxfJA 23, 2, 2004, 135–151
Helmer – Vigne 2004	D. Helmer – J.-D. Vigne, La gestion de cheptels de caprinés au Néolithique dans le Midi de la France, in: P. Bodu – C. Constantin (eds.), Approche fonctionelles en Préhistoire. Actes du XXV. Congrès Préhistorique de France (Nanterre 24–26 Novembre 2000). Mémoires de la Société Préhistorique Française, numeró special (Paris 2004) 397–407
Hellwing 1984	S. Hellwing, Human Exploitation of Animal Resources in the Early Iron Age strata at Tel Beer-Sheba, in: Z. Herzog (ed.), Beer-Sheba II (Tel Aviv 1984) 105–115
Jameson 1988	M. H. Jameson, Sacrifice and Animal Husbandry in Classical Greece, in: C. R. Whittaker (ed.), Pastoral Economies in Classical Antiquity. Cambridge Philological Society, Suppl. 14 (Cambridge 1988) 87–119
Kussinger 1988	S. Kussinger, Tierknochenfunde vom Lidar Höyük in Südostanatolien (Grabungen 1979–86) (Diss. med. vet. München 1988)
MacKinnon 2004	M. MacKinnon, Wiener Lab Report: Animal Sacrifice at the Site of Nemea, Ákoue, the Newsletter of the American School of Classical Studies at Athens 51, 2004, 14–19
Peters – von den Driesch 1992	J. Peters – A. von den Driesch, Siedlungsabfall versus Opferreste: Essgewohnheiten im archaischen Milet, IstMitt 42, 1992, 117–125
Schütte-Maischatz – Winter 2004	A. Schütte-Maischatz – E. Winter, Doliche. Eine kommagenische Stadt und ihre Götter. Mithras und Iupiter Dolichenus, AMS 52, Bonn 2004
Speidel 1980	M. P. Speidel, Jupiter Dolichenus. Der Himmelsgott auf dem Stier. Kleine Schriften zur Kenntnis der römischen Besetzungsgeschichte Südwestdeutschlands 24, Stuttgart 1980
Vogler 1997	U. Vogler, Faunenhistorische Untersuchungen am Sirkeli Höyük/Adana, Türkei (4.–1. Jahrtausend v. Chr.) (Diss. med. vet. München 1997)
Winter – Blömer 2005	E. Winter – M. Blömer, Iupiter Dolichenus. Der Gott auf dem Stier. Ein orientalischer Kult und seine Ursprünge, Antike Welt 4, 2005, 79–85

List of figures, tables and plates

Dr. Nadja Pöllath, Ludwig-Maximilians-Universität München, ArchaeoBioCenter und Institut für Paläoanatomie und Geschichte der Tiermedizin, Kaulbachstr. 37, 80539 München, Germany; e-mail: nadja.poellath@palaeo.vetmed.uni-muenchen.de

Prof. Dr. J. Peters, Ludwig-Maximilians-Universität München, ArchaeoBioCenter und Institut für Paläoanatomie und Geschichte der Tiermedizin, Kaulbachstr. 37, 80539 München, Germany; e-mail: joris.peters@palaeo.vetmed.uni-muenchen.de

Appendix

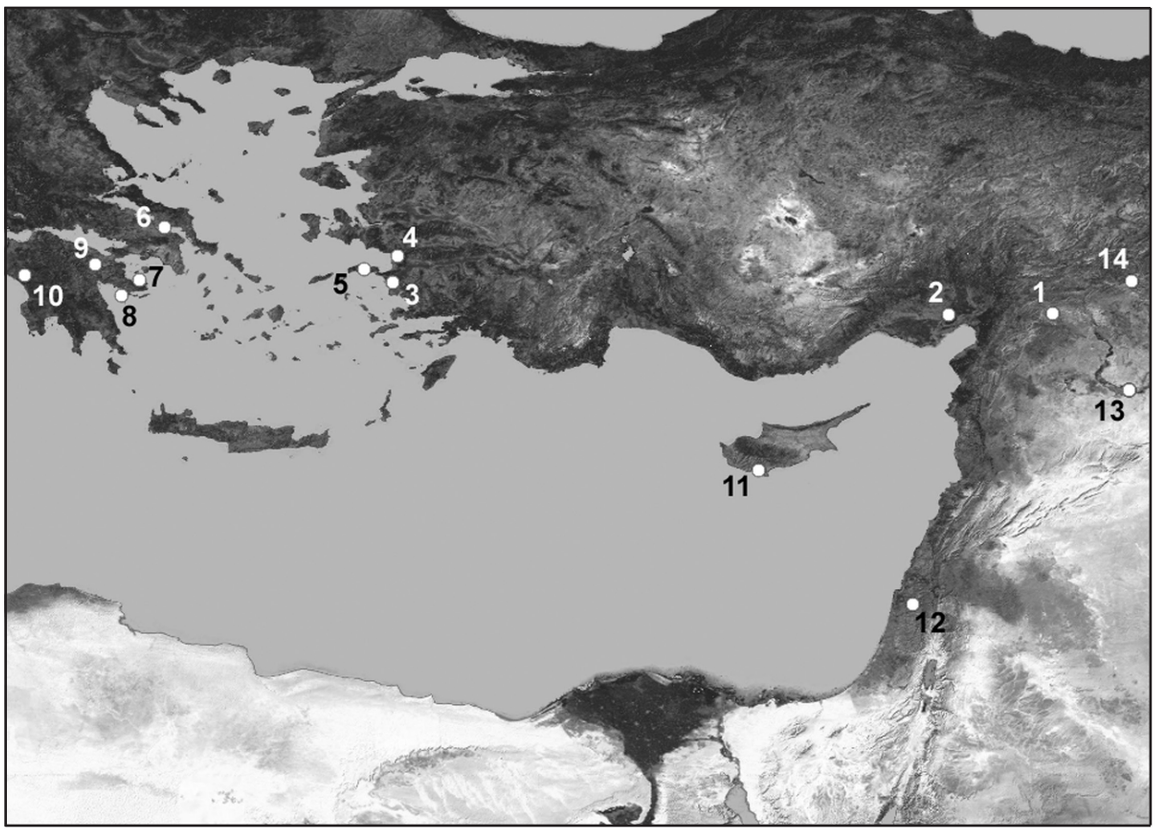
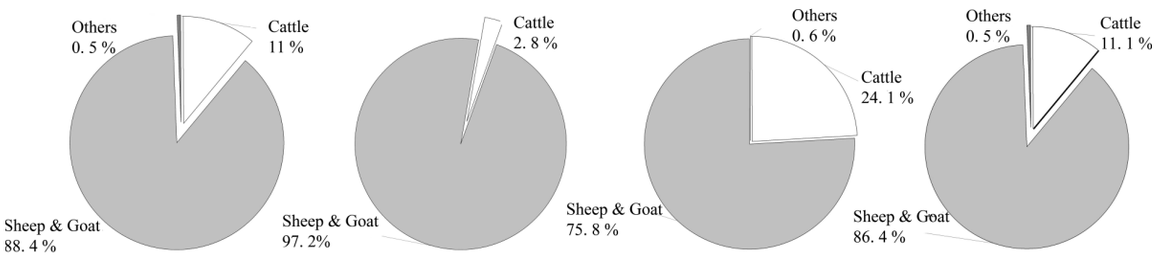


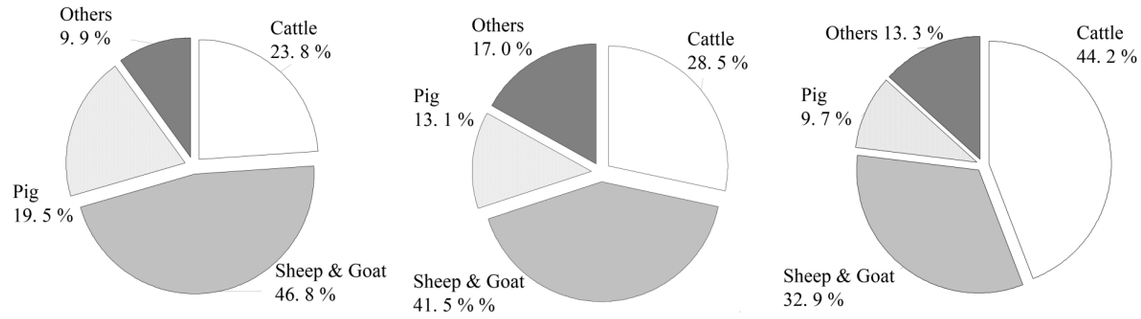
Fig. 1 Map of the Eastern Mediterranean showing the sites mentioned in the text:
1) Doliche; 2) Sirkeli Höyük; 3) Miletus; 4) Ephesos; 5) Samos; 6) Eretria; 7) Methana; 8) Halieis; 9) Nemea; 10) Olympia; 11) Kourion; 12) Tell Qiri; 13)Tell Bazi; 14) Lidar Höyük

Fig. 2 Dülük Baba Tepesi, species composition (NSIP)



a) Iron Age, unburnt bones b) Iron Age, burnt bones c) Early Roman Empire, unburnt bones d) Middle Roman Empire, unburnt bones

Fig. 3 Species composition (NSIP)

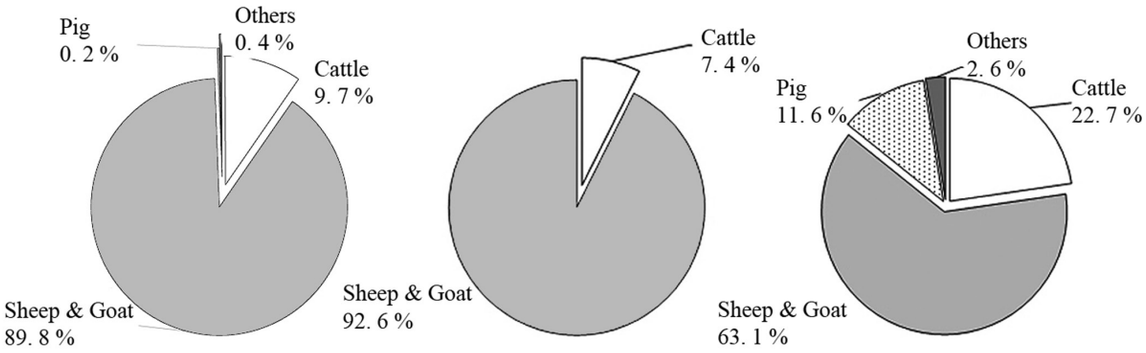


a) Lidar Höyük, Iron Age

b) Lidar Höyük, Hellenistic/ Roman periods

c) Sirkeli, Iron Age

Fig. 4 Miletus, species composition

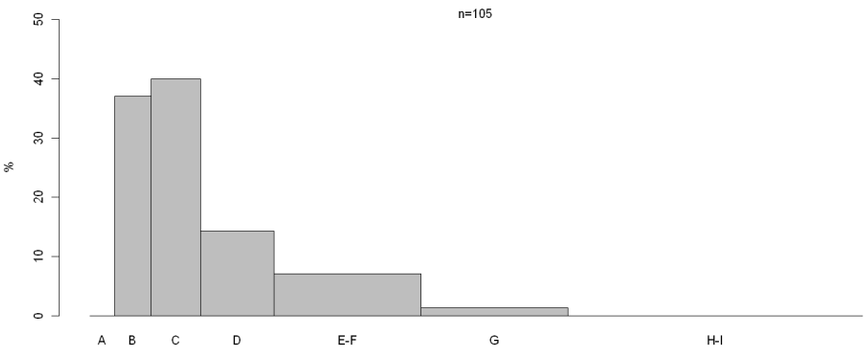


a) Zeytin Tepe - sanctuary of Aphrodite, unburnt bones

b) Zeytin Tepe - sanctuary of Aphrodite, burnt bones

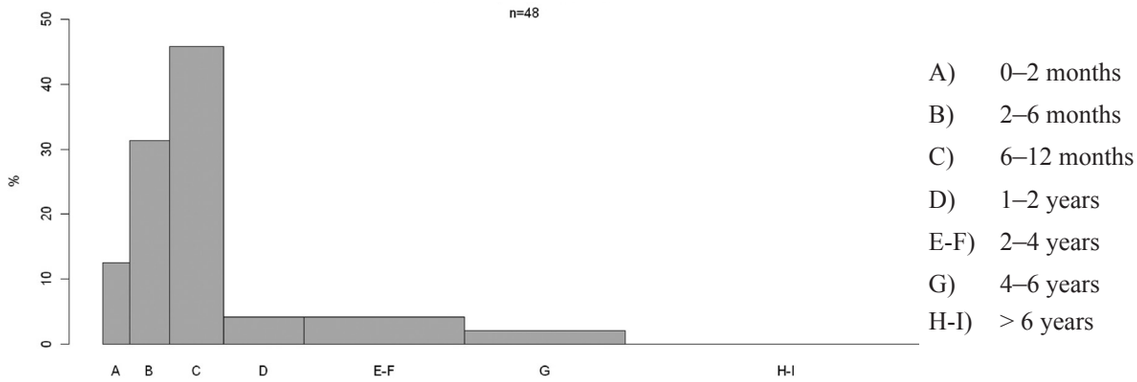
c) Kalabak Tepe - settlement, unburnt bones

Fig. 5 Dülük Baba Tepesi, sheep, unburnt, age profiles



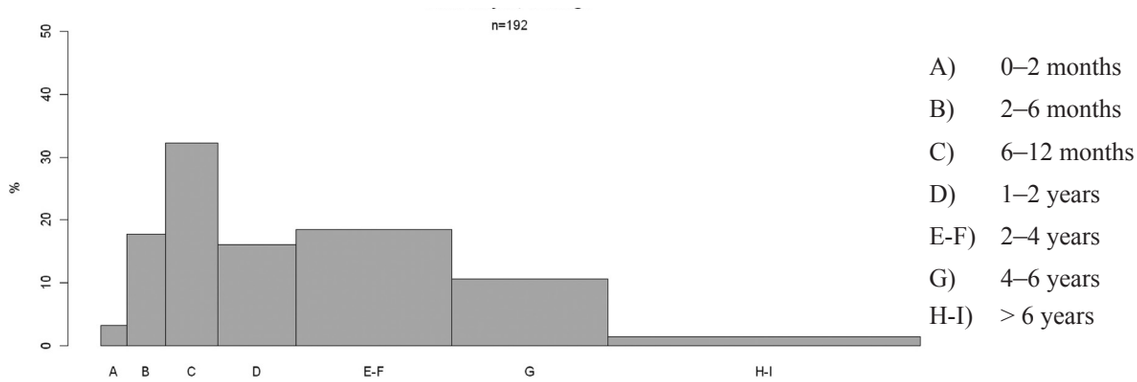
A) 0–2 months
B) 2–6 months
C) 6–12 months
D) 1–2 years
E-F) 2–4 years
G) 4–6 years
H-I) > 6 years

a) Iron Age

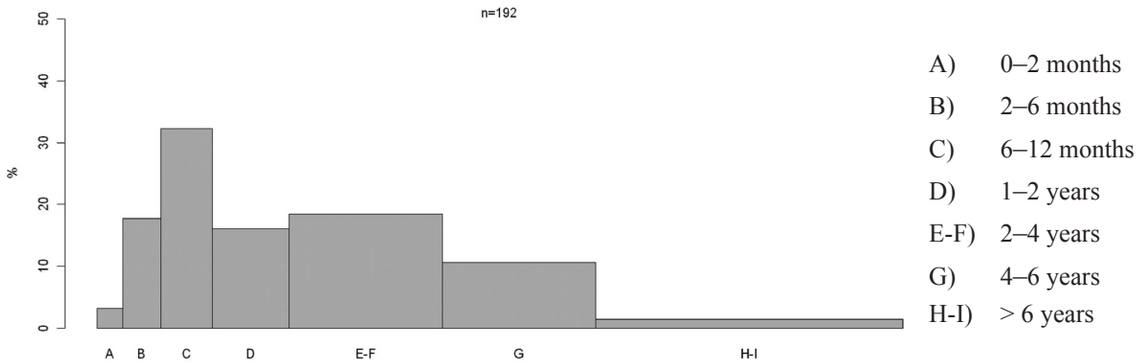


b) Roman Periods

Fig. 6 Lidar Höyük, sheep, age profiles



a) Iron Age



b) Hellenistic/Roman periods

Fig. 7 Tell Qiri, sheep, age profiles

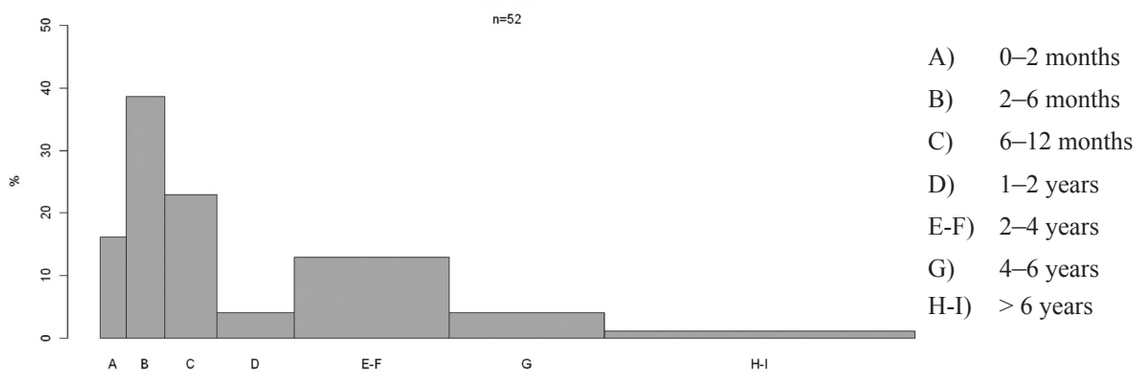


Fig. 8 Miletus, Zeytin Tepe - sanctuary of Aphrodite, sheep, unburnt bones, age profiles

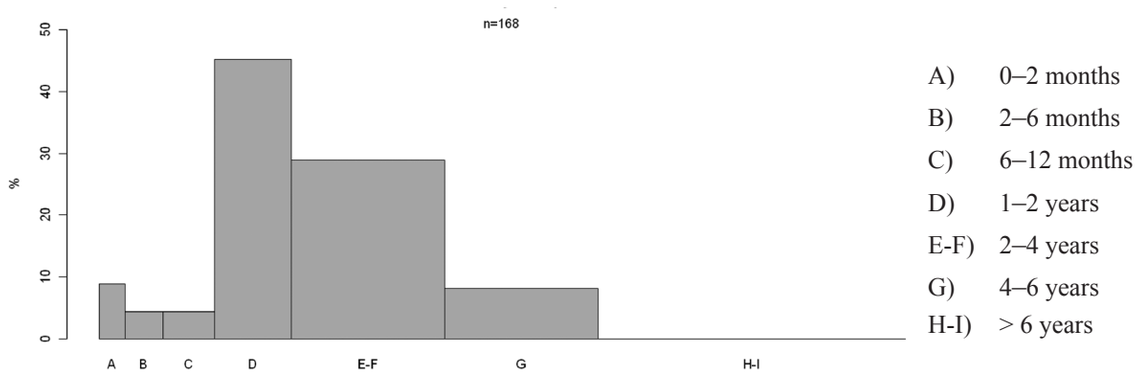


Fig. 9 Dülük Baba Tepesi, Iron Age. Ratio of burnt and unburnt bones per skeletal element

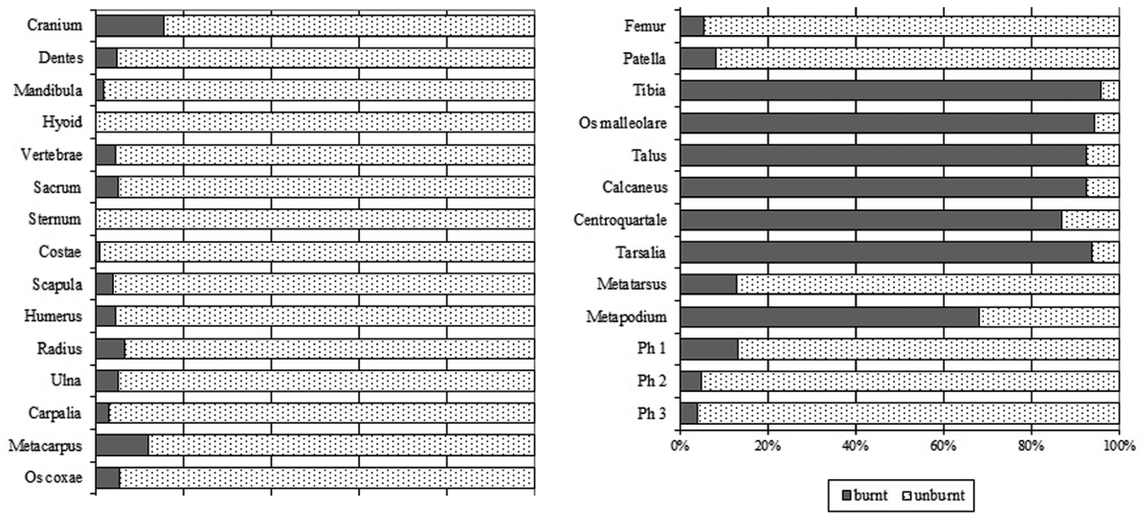
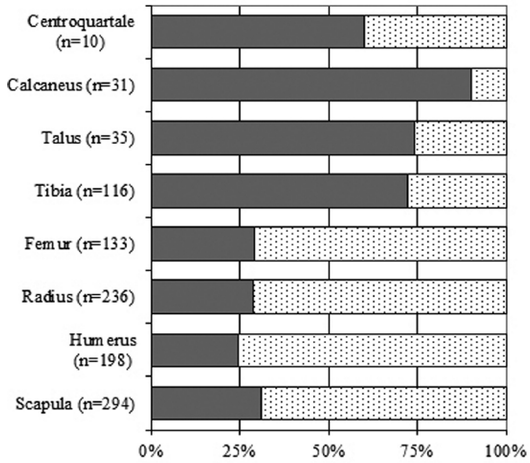
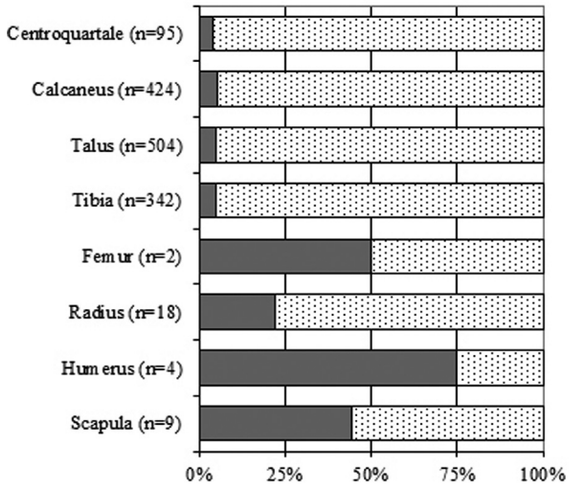


Fig. 10 Dülük Baba Tepesi, Iron Age. Ratio left to right per skeletal element (limb bones)



a) unburnt bones



b) burnt bones

Fig. 11 Dülük Baba Tepesi, Roman periods. Ratio left to right per skeletal element, unburnt bones

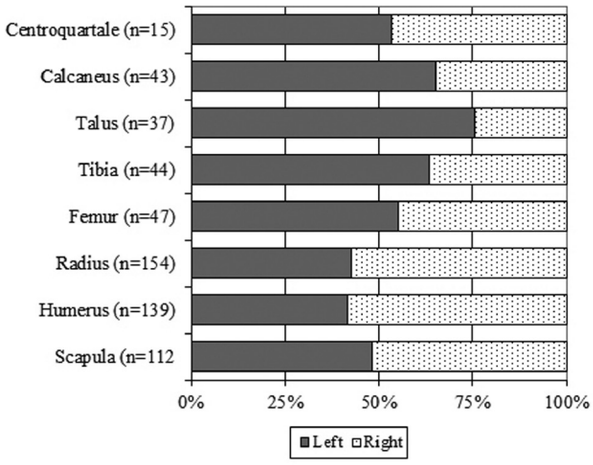


Table 1 Dülük Baba Tepesi. Iron Age. Species composition (mammals)

	unburnt				burnt			
Species	**n**	**n%**	**g**	**g%**	**n**	**n%**	**g**	**g%**
Cattle	1256	11,1	14054,3	32,7	484	2,8	2031,4	13,7
Sheep or Goat	8203	88,4	17385,2	66,9	16598	97,2	12464,2	86,3
Sheep	1775		11322,7		83		278,3	
Goat	12		36,6					
Pig	8	0,1	6,6	0,0				
Dog	4	0,0	11,2	0,0				
Total domestic animals	**11258**	**99,6**	**42816,6**	**99,7**	**17165**	**100,0**	**14773,9**	**100,0**
Red deer, Cervus elaphus	1	0,0	59,0	0,1				
Wild goat, *Capra aegagrus*	1	0,0	67,5	0,2				
Marbled polecat, *Vormela peregusna*	1	0,0	0,3	0,0				
Red fox, *Vulpes vulpes*	1	0,0	0,2	0,0				
Brown hare, *Lepus europaeus*	11	0,1	10,5	0,0				
Hedgehog, *Erinaceaus sp.*	3	0,0	0,9	0,0				
Tatera indica	7	0,1	0,9	0,0				
Spalax sp.	10	0,1	2,8	0,0				
Rodentia indet.	8	0,1	0,5	0,0				
Small mammals	2	0,0	0,1	0,0				
Total wild mammals	**45**	**0,4**	**142,7**	**0,3**				
Total indentified mammals	**11303**	**100,0**	**42959,3**	**100,0**	**17165**	**100,0**	**14773,9**	**100,0**
Mammals indet.	2549		1607,1		941		437,9	

Table 2 Dülük Baba Tepesi. Iron Age. Species composition (birds, anurans, fish, molluscs)

Species	Unburnt n	Unburnt g
Chicken	10	3,0
Goose, *Anser sp. (wild or dom.)*	1	0,0
Chukar, *Alectoris chukar*	4	0,5
Dove, *Columba sp. (cf. dom. dove)*	16	4,5
Collared dove, *Streptopelia decaocto*	4	0,4
Corn bunting, *Emberiza calandra*	1	0,2
Rock bunting/Yellowhammer, *Emberiza cia/citrinella*	1	
Yellowhammer, *Emberiza citrinella*	2	
Hawfinch, *Coccothraustes coccothraustes*	1	0,1
Starling, *Sturnus vulgaris*	2	0,1
Redwing, *Turdus iliacus*	3	1,1
Blackbird, *Turdus merula*	1	
Blackbird/Ring ouzel, *Turdus merula/torquatus*	1	
Songtrush, *Turdus philomelos*	5	
Fieldfare, *Turdus pilaris*	2	
Mistle thrush, *Turdus viscivorus*	2	
Jackdaw, *Corvus monedula*	2	0,3
Small passerine bird	1	<0,1
Bird indet.	16	
Total identified birds	59	10,2
Bird indet.	16	
Green toad, *Bufo viridis*	25	1,5
Anura indet.	3	
Wels catfish, *Silurus glanis*	2	
Glycimeris sp.	1	

Table 3 Dülük Baba Tepesi. Roman periods. Species composition

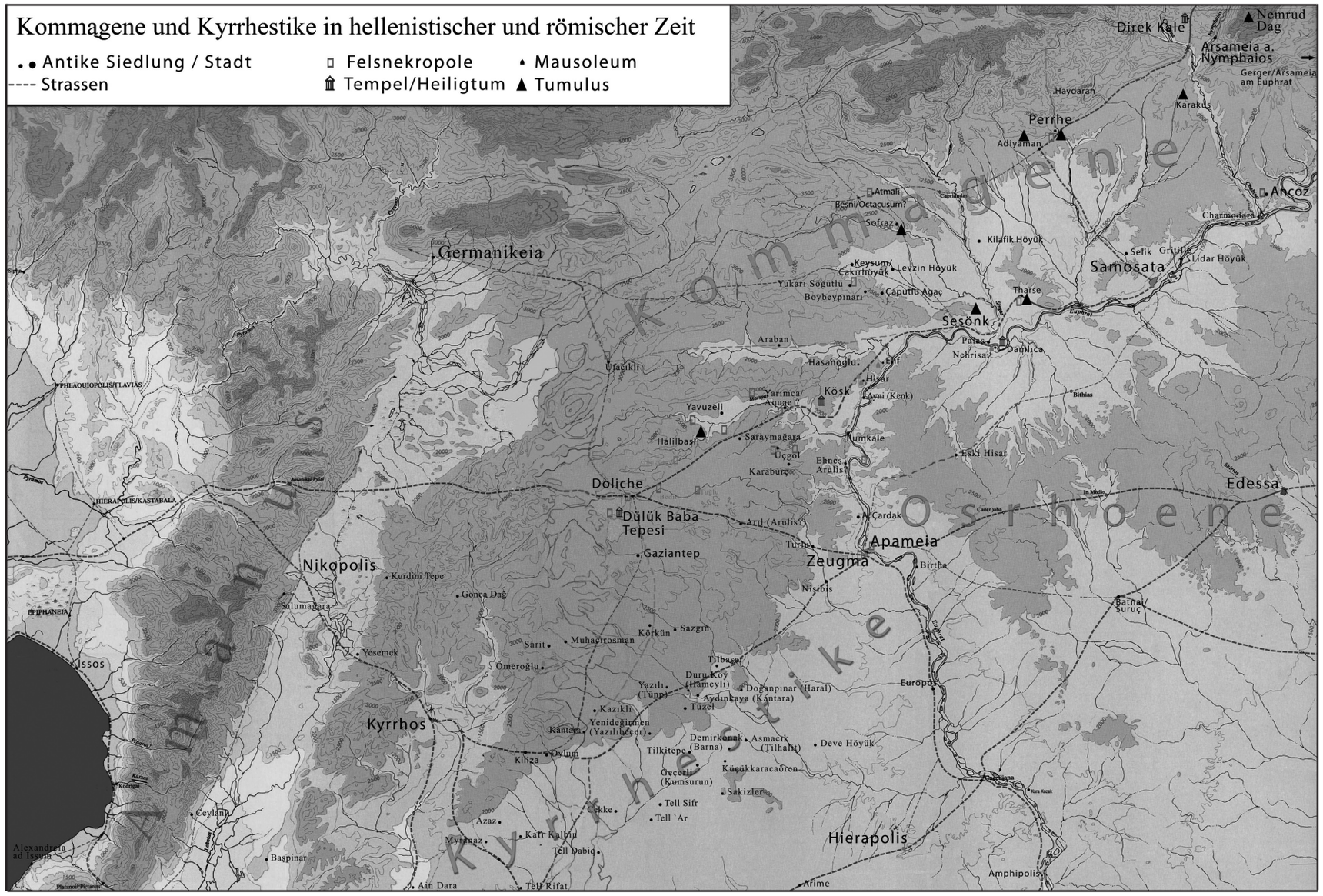
	Total Roman				Early Roman Empire				Middle Roman Empire			
Species	**n=**	**n%**	**g**	**g%**	**n=**	**n%**	**g**	**g%**	**n=**	**n%**	**g**	**g%**
Cattle	1145	18,7	11197,0	47,0	617	24,1	5318,0	45,7	528	14,8	5879,0	43,1
Sheep or Goat	4319				1650				2669			
Sheep	550	81,0	12528,7	52,6	277	75,8	6245,5	53,6	273	84,8	7762,2	56,8
Goat	90				17				73			
Pig	1	0,0	7,0	0,0	1	0,0	7,0	0,1				
Equids	1	0,0	59,0	0,2	1	0,0	59,0	0,5				
Total domestic mammals	**6106**	**99,7**	**23791,7**	**99,9**	**2563**	**99,8**	**11629,5**	**99,9**	**3543**	**99,6**	**13641,2**	**99,9**
Brown hare, *Lepus europaeus*	19	0,3	27,4	0,1	6	0,2	12,6	0,1	13	0,4	14,8	0,1
Total identified mammals	**6125**	**100,0**	**23819,1**	**100,0**	**2569**	**100,0**	**11642,1**	**100,0**	**3556**	**100,0**	**13656,0**	**100,0**
Chicken	211		192		61		58,8		150		133,2	
Chukar partridge, *Alectoris chukar*	14		4,8		5		5		9		2,3	
Anser sp. (wild or domestic)	3		3,0		1		1,2		2		1,8	
Total birds	**228**		**199,8**		**67**		**65**		**161**		**137,3**	
Mammals indet.	2453		1731,5		1008		811,2		1445		920,3	
Birds indet.	21				5				16			

Table 4 Dülük Baba Tepesi. Post-Roman periods. Species composition

	Late Antique/Byzantine Period				Islamic/Medieval Period		Total Post-Roman Periods			
Species	n	n%	g	g%	n	g	n	n%	g	g%
Cattle	50	14,3	415,0	38,8	21	378,9	71	15,9	793,9	43,6
Sheep or Goat	262				64		326			
Sheep	33	85,4	652,0	61,0	8	357,0	41	83,4	1009,0	55,4
Goat	3				3		6			
Pig	1	0,3	2,1	0,2	1	1,5	2	0,4	3,6	0,2
Total domestic mammals	**349**	**100,0**	**1069,1**	**100,0**	**97**	**737,4**	**446**	**99,8**	**1806,5**	**99,1**
Red Deer, *Cervus elaphus*					1	16,2	1	0,2	16,2	0,9
Total identified mammals	**349**	**100,0**	**1069,1**	**100,0**	**98**	**753,6**	**447**	**100,0**	**1822,7**	**100,0**
Mammals indet.	50		83		11	22,2	61		105,2	
Chicken	36		32		8	1,8	44		33,8	
Barbus sp.	1									
Wels catfish, *Silurus glanis*	2									
Siluriformes	2									
Cyprinidae	1									
Fish indet.	1									

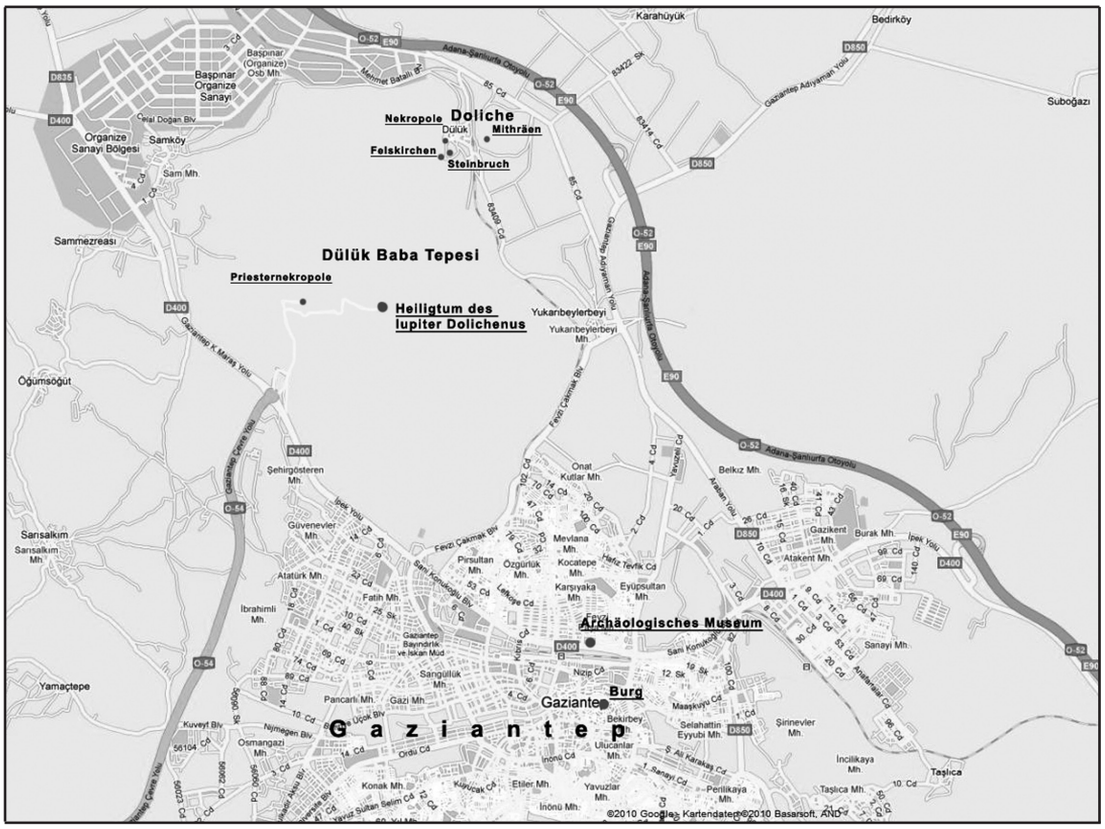
Site	Region	Chronology	Dedication	Burnt/ Unburnt	Preferred species	Preferred skeletal elements among burnt bones	Side preference for burnt bones	Preferred age class	Reference
Dülük Baba Tepesi	SE Anatolia	Iron Age - Roman period	Baal of Doliche, Iuppiter Dolichenus	both	sheep	tibia, calcaneus, talus, centroquartale	right	younger than one year	this report
Milet - Zeytin Tepe	West coast of Anatolia	Archaic	Aphrodite	both	sheep	pelvis, femur, patella, caudal vertebrae, sacrum	both?	younger than 1 year	Peters – von den Driesch 1992; Peters 1993; Zimmermann 1993
Ephesos - Artemision	West coast of Anatolia	Archaic	Artemis	both	goat	pelvis, femur, patella, caudal vertebrae, sacrum	slight preference for right side	30% older than four years	Forstenpointner 2003
Nemea	NE Peloponnesos	Archaic	Opheltes	burnt	sheep	„upper hind leg“ (presumably femora)	left	adult	MacKinnon 2004
Eretria	Euboea	Geometric	unknown	both	sheep/goat	femur, patella, sacrum, caudal vertebrae	both	adult	Chenal-Velarde – Studer 2003
Olympia	West Peloponnesos	Late Archaic	Artemis	unburnt	sheep	*ex negativo*: femur, patella, sacrum, caudal vertebrae	both?	adult	Benecke 2006
Heraion	Samos	Archaic	Hera	unburnt	cattle	*ex negativo*: femur, caudal vertebrae	both?	adult	Boessneck – von den Driesch 1988
Methana - Ayios Konstantinos	NE Peloponnesos	Mycenaean	unknown	both	pig	none (complete carcasses)	both	juvenile	Hamilakis – Konsolaki 2004
Halieis	SE Peloponnesos	Classical	Apollo	unburnt	sheep and goat	femora	right	young	Jameson 1988
Kourion	Cyprus	Archaic	Apollo	burnt	sheep/goat	femur, patella, tibia, calcaneus, talus	right	younger than 1,5 year	Davis 1996
Tall Bazi	NW Syria	Late Bronze Age	unknown	unburnt	sheep	-	-	younger than two years	von den Driesch 2006
Tell Qiri	Israel	Iron Age	unknown	unburnt	sheep and goat	-	-	younger than one year	Davis 1987

Table 5 Overview of the ritual sites mentioned in the text

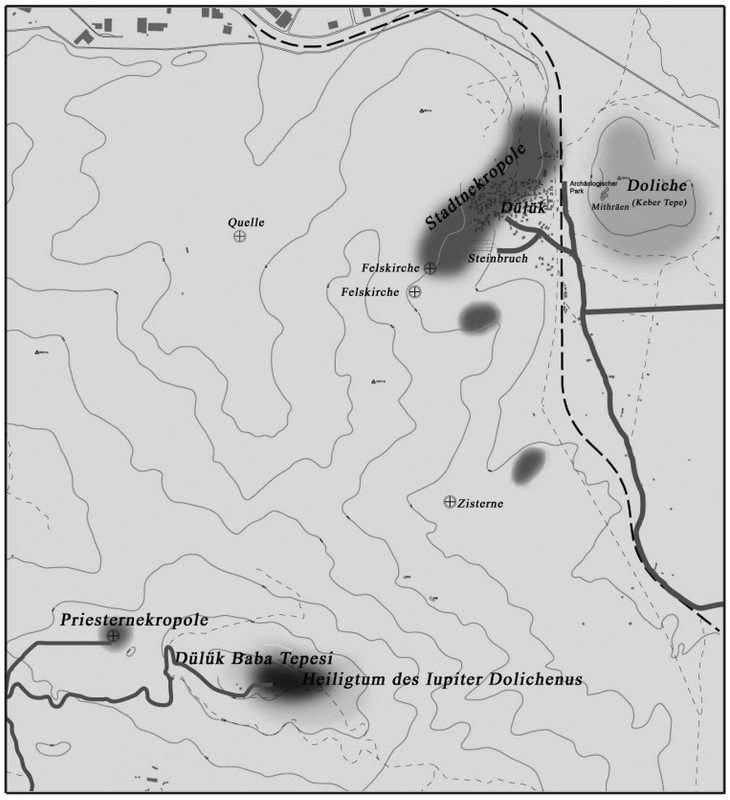

Kommagene und Kyrrhestike in hellenistischer und römischer Zeit
Antike Siedlung / Stadt
Strassen
Felsnekropole
Tempel/Heiligtum
Mausoleum
Tumulus
Kommagene
Osrhoene
Kyrrhestike
Amanus
Germanikeia
Perrhe
Adiyaman
Samosata
Ancoz
Sesönk
Tharse
Direk Kale
Arsameia a. Nymphaios
Nemrud Dag
Karakus
Haydaran
Atmali
Besni/Octacusum?
Sofraz
Kilafik Höyük
Keysum/ Cakirhöyük
Levzin Höyük
Yukari Sögütlü
Boybeypinari
Caputtu Agaç
Selik
Grütülü
Lidar Höyük
Charmodara
Araban
Ufacikli
Hasanoglu
Elif
Hisar
Köse
Yarimca/ Aquaç?
Avni (Kenk)
Yavuzeli
Halilbasli
Saraymagara
Ücgöl
Karaburç
Kumkale
Ebnes/ Arulis?
Eski Hisar
Doliche
Dülük Baba Tepesi
Aru (Arulis?)
Gaziantep
Turla
Apameia
Zeugma
Birtha
Nisibis
Edessa
Nikopolis
Kurdini Tepe
Gonca Dag
Salumagara
Issos
Yesemek
Sarit
Muhacirosman
Körkün
Sazgin
Omeroglu
Tilbasar
Duru Köy (Hameyli)
Yazili (Tünp)
Doganpinar (Haral)
Aydinkaya (Kantara)
Tüzel
Kazikli
Yenidegirmen (Yazilibecer)
Kantara
Kyrrhos
Demirkonak (Barna)
Asmacik (Tilhalt)
Deve Höyük
Tilkitepe
Kiliza
Öylüm
Gecerli (Kumsurun)
Kücükkaracaören
Sakizler
Tell Sifr
Tell 'Ar
Ekke
Azaz
Kafr Kalbil
Tell Dabiq
Mytraaz
Ceylan
Alexandria ad Issum
Baspinar
Ain Dara
Tell Rifat
Hierapolis
Arime
Amphipolis
Europos
Batnai/ Suruç
Bithias
Euphrat
Sajur
Sirius
Pyramus
Sarus
Kara Kozak
Kadirli
Kizan
Platanus/ Picturus
PHLAOUIOPOLIS/FLAVIAS
HIERAPOLIS/KASTABALA
EPIPHANEIA

TAFEL 1

TAFEL 2


Nekropole
Doliche
Dülük
Mithräen
Felskirchen
Steinbruch
Dülük Baba Tepesi
Priesternekropole
Heiligtum des Iupiter Dolichenus
Archäologisches Museum
Gaziantep Burg
G a z i a n t e p
©2010 Google, Kartendaten ©2010 Basarsoft, AND

1


Stadtnekropole
Dülük
Doliche
(Keber Tepe)
Mithräen
Quelle
Felskirche
Felskirche
Steinbruch
Zisterne
Priesternekropole
Dülük Baba Tepesi
Heiligtum des Iupiter Dolichenus

2

TAFEL 4


Dülük Baba Tepesi
Heiligtum des Iupiter Dolichenus
Grabungen 2002 – 2009
Dülük (Doliche)
Gaziantep
Maßstab (m)
0 5 10 15 20 30 40 50