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The JMR (Journal of Mosaic Research) is an international journal on mosaics, annually published by the Bursa Uludağ University Mosaic Research Centre. The aim of this journal is to serve as a forum for scientific studies with critical analysis, interpretation and synthesis of mosaics and related subjects. The main matter of the journal covers mosaics of Turkey and other mosaics related to Turkey mosaics. Besides, the journal also accommodates creative and original mosaic researches in general. Furthermore, together with articles about mosaics, the journal also includes book presentations and news about mosaics.

JMR is a refereed journal. The manuscripts can be written in English, German, French or Turkish. All authors are responsible for the content of their articles.

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The abbreviations in this journal are based on German Archaeological Institute publication criterions, Bulletin de l'Association international pour l'Etude de la Mosaique antique, AIEMA - AOROC 24.2016, La Mosaique Gréco-Romaine IX and Der Kleine Pauly.

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Nato Cad. No: 14 Kat: 1 12.matbaa 34418 Seyrantepe / Kağıthane-İstanbul Tel: +90 (212) 281 25 80; www.onikincimatbaa.com Certificate No: 33094 AIEMA - Türkiye, Antik Çağ'dan Bizans dönemine kadar uzanan zaman süreci içerisindeki mozaikler hakkında bilimsel çalışmalar yapmayı, bu mozaikleri tanıtmayı ve söz konusu mozaikler hakkında bir mozaik veri bankası oluşturmayı amaçlayan bir araştırma merkezidir. AIEMA'ya bağlı olarak, Türkiye mozaiklerinin en iyi şekilde sunumu, bu merkezin işleyişinin nihai hedefidir. Türkiye mozaik veri bankası ve Türkiye mozaiklerini de içeren bir Corpus hazırlanması çalışmaları, merkezin faaliyetlerinden bazılarıdır. Ayrıca, merkezin, antik mozaikler hakkında özgün çalışmaları içeren JMR (Journal of Mosaic Research) adında bir süreli vavını vardır.

JMR (Journal of Mosaic Research) Dergisi, her yıl Bursa Uludağ Üniversitesi Mozaik Araştırmaları Merkezi tarafından, mozaikler konusunda yayınlanan uluslararası bir dergidir. Bu derginin amacı, mozaikler hakkında eleştirel bir analiz, yorumlama, mozaik ve onunla ilgili konuların sentezi ile bilimsel çalışmalar için bir platform oluşturmaktır. Derginin temel konusu, Türkiye mozaikleri ve Türkiye mozaikleriyle ilişkili mozaiklerdir. Bunun yanında, dergi yaratıcı ve özgün mozaik araştırmaları içeren diğer mozaiklerle ilgili makaleleri de kabul etmektedir. Ayrıca dergide, mozaikler hakkındaki makalelerle birlikte, kitap tanıtımları ve haberler de bulunmaktadır.

JMR hakemli bir dergidir. Makaleler İngilizce, Almanca, Fransızca ve Türkçe dillerinde yazılabilir. Dergide yayınlanan makalelerin sorumluluğu makale sahiplerine aittir.

JMR, 2009 yılından itibaren EBSCO tarafından tam metin olarak, 2014 yılından itibaren TÜBİTAK - ULAKBİM Sosyal Bilimler veri tabanları tarafından ve 2016 yılından itibaren ise Clarivate Analytics (Thomson Reuters) - Emerging Sources Citation Index (ESCI) tarafından taranmaktadır. Makaleler, Crossreften alınan DOI numarası ile yayınlanmaktadır.

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Bu dergideki makalelerde kullanılacak olan kısaltmalar Alman Arkeoloji Enstitüsü yayın kuralları, Bulletin de l'Association international pour l'Etude de la Mosaique antique, AIEMA - AOROC 24.2016, La Mosaique Greco Romaine IX ve Der Kleine Pauly dikkate alınarak yapılmalıdır.

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José María Blázquez Martínez in memoriam (1926-2016)

José María Blázquez Martínez (Professor of Ancient History and Fellow of the Spanish Royal Academy of History) passed away on March 26, 2016, in the city of Madrid (Spain) after a full life devoted to teaching, scientific research and the spread of antiquity; and leaving all of us -who have had the immense fortune to enjoy his mastership and overwhelming personality-, with an immense sadness.

Prof. Blázquez graduated in Philosophy and Letters from the University of Salamanca in 1951 and defended his PhD in the Complutense University of Madrid in 1956. During the next decade, Prof. Blázquez continued his training under the supervision of Prof. Pallottino at the University of La Sapienza in Rome and, granted by the DAAD, at the University of Marburg, under the supervision of Prof. Matz and Prof. Drerup. Subsequently he made other successful research stays at the University of Tel Aviv, the British Academy of Rome, the University of Catania, and in the German Archaeological Institute branches at Istanbul, Damascus and Riyadh. In this regard, Prof. Blázquez always



defended the importance of international networks that, through academic contact with other schools and colleagues, conceived as essential for personal development and the progress of scientific research.

After this intense formative period, José María Blázquez obtained a position as Professor of Ancient History at the University of Salamanca (1966-) and shortly after at the Complutense de Madrid (1969-), where he was designated as Professor Emeritus. At the same time, he was an active member of the former Institute of Archaeology "Rodrigo Caro" (CSIC), that he directed during more than ten years (1973-1985). Finally, in recognition to his academic trajectory, Professor Blázquez was elected as a Fellow of the Spanish Royal Academy of History. In all these institutions Prof. Blázquez developed a brilliant contribution to the promotion of Ancient History in Spain, especially important was his capacity for mentoring (he supervised more than 40 PhDs during his academic life) large teams of teachers and researchers, that obtained several tenured positions in different universities and academic institutions. He was also a prolific author publishing many handbooks and monographs that are authentic milestones in history the Spanish scholarship (i. e. La Romanización, Historia social y económica. La España Romana. Economía de la Hispania romana, Bilbao, 1978, Historia de España Antigua, I. Protohistoria, Madrid, 1980; Historia de España Antigua II. Hispania romana, Madrid, 1978). Largely influential was also his leadership in the direction of the scientific journals as Archivo Español de Arqueología (1973-1987) and Gerión (1983-2010). In addition, Prof. Blázquez directed numerous archaeological excavations at Caparra (Cáceres), Cástulo (Jaén), La Loba (Fuenteovejuna, Córdoba), and in the Monte Testaccio (Rome).

By virtue of its training and its wide perspective, Prof. Blázquez's research trajectory was the reflection of the scientist dedicated to the study of antiquity, with a masterful management of

diverse written and archaeological sources, always connected with current intellectual debates of all social and human sciences. During his career published more than 37 books, acting of editor in other 9 monographs. He also published 234 articles in the most prestigious, both Spanish and International, scientific journals and several chapters in collective volumes. His research interests covered multiples areas on the study of antiquity: the Phoenician and Greek colonization of the Western Mediterranean, the Late Iron Age communities of the Iberian Peninsula, the study of Pre-Roman religions, the Impact of primitive Christianism in the Late Roman Empire, and, of course, the ancient economy of Roman Spain, with an special focus on the exports of *Baetican* olive oil.

Finally, we would like to highlight his research on Roman mosaics, whose first publication dates from 1975 - "Arte y Sociedad en los mosaicos del Bajo Imperio" [Art and Society in the mosaics of the Late Roman Empire] *Bellas Artes* 75, 1975, pp. 18-25 -soon followed by- "Mosaicos romanos del Bajo Imperio" [Roman mosaics of the Late Empire], *Archivo Español de Arqueología* 50-51, 1977, pp. 269-293., In this regard, Prof. Blázquez continued the a research line previously initiated by his teacher Prof. Antonio García y Bellido. Since 1976 to 1996, Prof. Blázquez promoted and directed the Corpus of Mosaics of Spain, within the framework of the international project sponsored by the AIEMA. Through this monumental labor, Prof. Blázquez contributed to establish the study of Roman mosaics as an authentic sub-discipline in the field of the Spanish Classical archaeology.

The obtention of several I+D Research projects, funded in competitive calls by the Spanish Ministry of Science (acting as Principal Investigator from 1976 to 1997) and an International Project of the Joint Hispanic-American Committee, with the University of West-Lafayette, Purdue (Indiana-USA), allowed Prof. Blázquez to create a permanent research team on the study of Roman mosaics. This team, which I (Prof. Neira Jiménez) am honored of have been part, managed the realization of the above mentioned Corpus de Mosaicos de España (CME), a work continued afterwards by its dear colleague, Dr. Guadalupe López Monteagudo (CSIC). In addition to the publication of 12 volumes of the CME, he presented numerous papers on the Hispanic, African and Near Eastern Roman mosaics in the most prestigious conferences on these topics, such as the International Congresses organized by the AIEMA or L'Africa romana confe-rence, organized by the Centro di Studi sull'Africa Romana of the Università degli studi di Sassari, as well as in countless courses and seminars in other ins-titutions and universities, such as the Roman Mosaic Seminar of the UC3M, to which he attended every year, without missing any of the 9 editions celebrated.

Prof. Blázquez was a firm believer in the work developed by AIEMA, having been named member of Honor of this scientific association. He also formed part of the editorial board of the Journal of Mosaic Research, where he published various articles, and presented papers in both the 11th International Colloquium on Ancient Mosaics, held in Bursa on 2009, and in the 5th Colloquium of AIEMA Turkey, held in Kahramanmaraş on 2011. Prof. Blázquez was a true lover of Turkey.

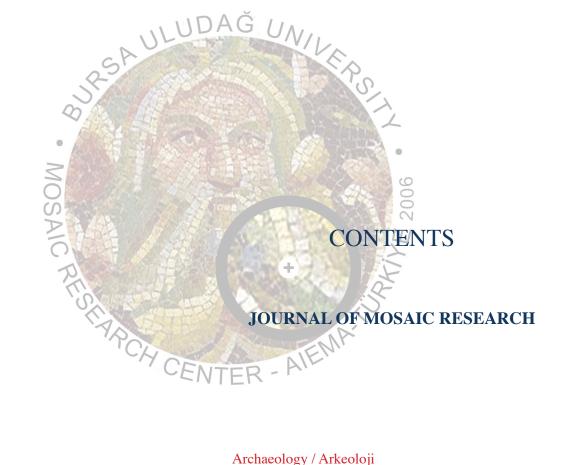
Prof. Blázquez was an unavoidable reference in the international scholarship on ancient mosaics, many colleagues who share our pain remember his vitality even in the XIII. AIEMA Congress held in Madrid on September 2015, where he gave the inaugural conference. As a testimony of his enthusiasm for the study of ancient mosaics, he was already thinking of traveling to the next AIEMA Congress scheduled for 2018 in Cyprus. Proof of his infinite generosity, he prepared

tirelessly until the end of his days a text on Diana in the mosaics of Roman Spain for X SMR, held in September 2016 at Universidad Carlos III de Madrid.

His decisive contribution to the study of antiquity has earned him numerous recognitions from many international academic institutions and associations: Fellow of German Archaeological Institute (1968), Board member of the L'Association Internationale d'Epigraphie grecque et latine (AIEGL), Member of the Hispanic Society (1974); Fellow of the Academy of Arts and Archaeology of Bolonia (1980), Fellow of the Spanish Royal Academy of History (1990), Fellow of the New York Academy of Sciences (1993), Fellow of the Academia Nazionale dei Lincei (1994), Fellow of the Fine Arts Academy of Santa Isabel de Hungría (Seville) (1995), Fellow of the Real Academia de Bones Letres de Barcelona (1997), or Fellow of the Académie de Aix-en-Provence (1999), among others. He also received many prizes as the Franz Cumont prize from the Académie Royale de Belgique (1985), the Great Silver medal of Archaeology from l'Académie d'Architecture de Paris (1987), or the Cavalli d'Oro prize from Venice (2003). Prof. Blázquez was named doctor honoris causa by the universities of Valladolid (1999), Salamanca (2000), Bolonia (2001), León (2005), and Universidad Carlos III de Madrid (2015), and received the Orden del Mérito Civil, one of the highest recognitions granted by the Spanish govern.

He was a genius as scholar, but also a genial person. For both reasons, colleagues, students, and friends of many countries, that have the fortune of meet Prof. Blázquez during his life, feel a great emptiness for the loss of our dear teacher.

Prof. Dr. Mustafa Şahin Bursa Uludağ University Prof. Maria Luz Neira Jiménez Universidad Carlos III de Madrid



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Tethering of Tamed and Domesticated Carnivores in Mosaics from the Roman and Byzantine Periods in the Southern Levant Güney Levant'ta Roma ve Bizans Çağlarında Yularlanmış Olan Ehil ve Evcil Etoburların Betimlendiği Mozaikler

Amir GORZALCZANY* - Baruch ROSEN**

(Received 08 December 2016, accepted after revision 27 June 2018)

Abstract

Tamed and domesticated carnivores such as dogs, cheetahs and mongooses participated as search and chase aids to human hunting in different societies, during most of history, as attested by anthropological, literary or graphic sources. In order to impose human will on the animals, different tethering devices were developed, such as leashes, collars and harnesses. These devices significantly differ from others related to labour e.g. for hauling, riding or carry palanquins.

During the Roman and Byzantine periods in the southern Levant, these animals and their restraining gear were depicted in hunting scenes on mosaic floors of churches, synagogues and private dwellings. These mosaics are discussed as evidence of everyday life. Therefore, this research analyzes the mechanism involved in translation of reality to images, the choice of hunting animals and their respective equipment as motifs represented on the mosaics, the differences between prestige and utilitarian hunts and the motivation behind the animal owner's choices and preferences.

Keywords: Dogs, harness, collar, hunting, rural, tethering.

Öz

Köpekler, çitalar ve firavun faresi gibi ehlileştirilmiş ve evcilleştirilmiş etoburların tarihin büyük bir bölümü boyunca farklı toplumlardaki insanlar tarafından av esnasında avın aranması ve kovalanması sırasında kullanıldıkları antropolojik, yazınsal ve resimsel kaynaklar tarafından da onaylanmaktadır. Hayvanlar üzerinde insan iradesinin uygulanabilmesi için yularlar, tasmalar ve koşum takımları gibi hayvanları bağlamaya ve kontrol altında tutmaya yarayan farklı aletler geliştirilmiştir. Bu aletler taşımacılık yapmak, binmek ya da tahtırevan taşımak için kullanılan aletlerden büyük ölçüde farklıdırlar.

Güney Levant'ta, Roma ve Bizans Çağları boyunca, kilise, sinagog ve özel konutların mozaik döşemelerindeki av sahnelerinde bu tür etobur hayvanlar ve bu hayvanları kontrol altında tutabilmek için kullanılan aletler betimlenmiştir. Bu tür betimleri olan sahneler de günümüze kadar günlük yaşamdan kesitler olarak değerlendirilmişlerdir. Bu nedenle bu araştırmada gerçekliğin resme dönüştürülmesindeki mekanizmanın anlaşılmasının yanı sıra mozaiklerde betimlendiği şekliyle avda kullanılan hayvanlar ve ilgili ekipmanlarının seçilmesi, prestij avı ile fayda beklentili av arasındaki farkları ve hayvan sahibinin seçimlerinin ve tercihlerinin arkasında yatan motivasyonları analiz edilecektir.

Anahtar Kelimeler: Köpekler, koşum takımı, tasma, avlanma, kırsal, hayvan bağlama.

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Introduction

The outstanding, recently excavated, Roman period Lod Mosaics (Avissar 2001; Avni - Gorzalczany 2015; Gorzalczany 2016; Gorzalczany et al. 2016) illuminates important aspects of life in antiquity in the southern Levant. Among these are observations on the complex human-animal relationship in that place and time. This article is the outcome of an ongoing study of the Lod mosaics dated to the late 3rd –early 4th centuries AD¹. Two animals shown on these mosaics, a dog (Bowersock 2015: fig. 5) (Canis lupus familiaris) (Fig. 1) and a tamed feline, probably a cheetah (Acinonyx jubatus) (Fig. 2), wear harnesses, an almost unique tethering device occasionally seen on dogs depicted in Levantine mosaics. The cheetah is the commonest tamed feline used in the ancient Levant as a hunting aid, as detailed below.



Figure 1 Harnessed dog chasing a hare, Lod, northern mosaic (photo: Nikki Davidov, courtesy of the IAA).

¹ The mosaics were discovered in the city of Lod (Lydda) Israel (Schwartz 1991; 2015; Oppenheimer 1998), and excavated during several seasons between 1996 and 2014, first by Miriam Avissar and later by one of the authors (A.G.) on behalf of IAA.

Tethering appliances used in the Southern Levant are known from written sources as well as from representations depicted on mosaic floors or other media, such as sculpture, wall paintings or carved sarcophagi (see e.g. Toynbee 1973: 91, 109–112 and passim). To understand the role and the meaning of such devices, we will discuss similar items shown on carnivores in other Roman and Byzantine mosaics from the southern Levant. When deemed helpful, literary sources and additional works of art outside the defined area and time will be mentioned².

Figure 2 Harnessed cheetah hunting, Lod, southern mosaic (photo: Assaf Peretz, courtesy of the IAA).



Leashes, Harnesses and Collars

Relationships between humans and captured, tamed and domesticated animals have always been associated with the use of control mechanisms and restraining devices. These were and are essential tools in imposing human will on the animal.

Restraining and control implements may vary according to the animal in question

² The authors thank the Israel Museum, Anjelina Dagot (map), Ram Shoeff, Faina Milstein and Silvia Kapriwko (graphics), Noga Z'evi (IAA Photography Archive), Yeshayahu Lender (IAA Southern District), Meir Bass, Nachshon Sneh, Ricky Hershler, Walid Atrash, Nikki Davidov and Assaf Peretz (photography). Yoav Tzur (IAA) provided valuable logistic assistance. Danny Syon, Keren Covallo, Doron Ben-Ami, Peter Gendelman and especially Lihi Habas offered helpful comments. The authors are grateful to all of them. Figs. 1-3 and 6 are by courtesy of the IAA.

and the function desired and imposed on that animal. Cages, ropes, tying knots and tethering gadgets used to immobilize and transport captured wild animals on their way to Rome have been discussed already (Bertrandy 1987). Devices used for both military and civilian riding or for traction animals differ from those used mainly for restraining and control. Even tethering devices used to control the same species could vary, depending on the expected function. Consequently, a hound used in tracking would be tethered differently from a guard dog or a sled dog. Thus, tethering devices ranged from simple foot ropes and neck collars with leashes to complex harnesses or carried palanquins.

Generally, when the main purpose of tethering was to control an animal's movements, e.g. a hunting hound or a guard dog, the basic controlling element was a collar around the neck. The leash, when used, is shown attached to the collar.

A harness, as defined here, has two to several loops surrounding both the torso and the neck of the carnivore, forming two circles into which the front legs are inserted (Figs. 4-5). The loops are interconnected and sometimes can be modified according to the animal's size. Connecting straps are frequently located between the loops to tighten and reinforce the harness. The generally detachable leash is connected to the upper part of one of these loops, between the carnivores' neck and back. This design allowed for an even distribution of force applied on the tethered animal, thus preventing choking and damage to the esophagus. Additionally, the harness was less liable to slip off compared to a simple collar. Most of the harnessed carnivores shown in Levantine mosaics are dogs.

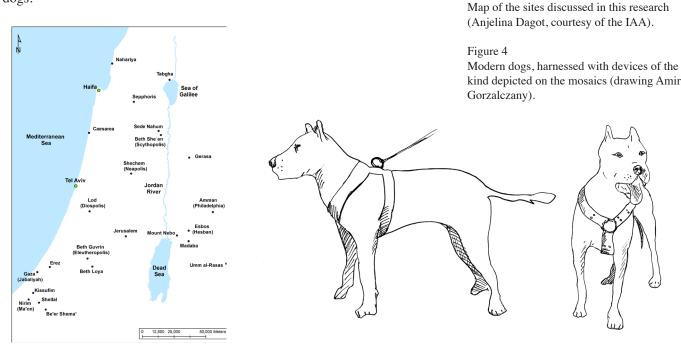


Figure 3

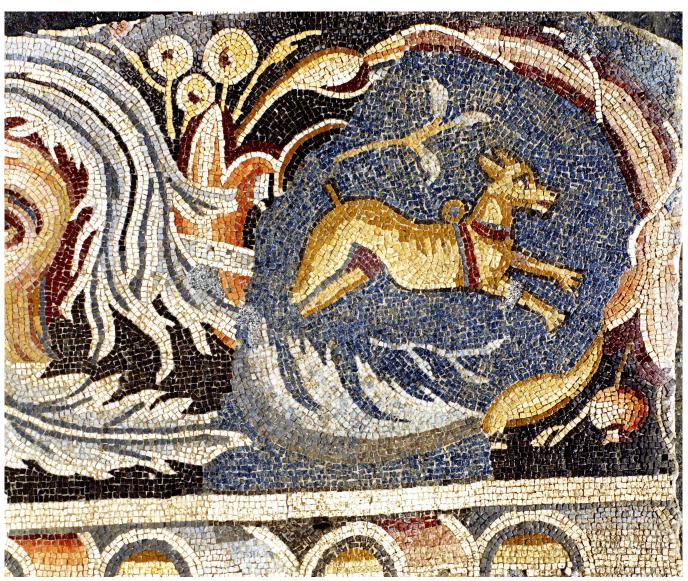
The Data

The data presented in the following tables includes mosaics in which three tethered carnivores (dogs, cheetahs and mongooses) used in hunting were rendered, all from sites located within the boundaries of Roman provinces of Palestine, Arabia and Phoenicia (Tables 1-3).

For the purpose of this study, the carnivores examined were divided into two categories: carnivores tamed but not fully domesticated and those that are

Figure 5 Harnessed dog on mosaic from Shechem (Neapolis) on display in the Israel Museum (photo: photographer unknown, courtesy of the Israel Museum).

domesticated. The first category is represented by the Egyptian mongoose (Herpestes ichneumon) and the cheetah and the second category consists of dogs. Mosaics from the Roman and Byzantine periods showing additional carnivores associated with humans, some of them bearing tethering devices e.g. house cats (Felis catus) or bears (Ursus arctos syriacus), are known from elsewhere (e.g. Toynbee 1976; Wohlgemuth 2008: 135). Following Rosen's 1984 study on mosaics, (and see also Bagatti 1952), the identification of the mongoose as a tamed animal, specifically due to its association with humans, is now accepted.



Besides Lod (Fig. 1), depictions of tethered carnivores on mosaics in this area are known from several other sites in Israel (Table 1), Jordan (Table 2) and Lebanon (Table 3). The date of the depictions ranges between the 2nd and 8th centuries AD, however, the lion's share of the images are dated between the 5th and 7th centuries AD. The kinds of chasing, hunting and killing scenes depicted varies greatly; twenty-nine dogs, seven mongooses and one cheetah. Dogs are conspicuously present in mosaics in Israel (12) and Jordan (15 cases), but they are missing in mosaics from Lebanon. The point should be stressed that the dog scenes can include more than one animal. In Jordan, only dogs were depicted hunting or chasing, and in Lebanon mostly mongooses (3 cases) and two dogs.

The only cheetah was found in Israel. As for the restraining devices, the dogs in the mosaics from Israel bear a collar in 10 cases, a harness in three cases and a poorly defined device in two occasions. The cheetah wears a harness and the mongooses are restrained by collars (3 occasions), except for the mongoose from Jerusalem that wears a harness. In Jordan, the dogs wear the same devices: in eight occurrences the dogs exhibit collars, in four cases collar and leash, dragged or flying and in two occasions, no collar at all (chasing scene as filler in the mosaic). In one case, a dog wears a harness with a flying leash. Interestingly, in four occasions the hounds wear a collar with ring or loop on top. In the mosaics from

Lebanon we can see two hounds, one wearing a collar with leash and the second

a collar adorned with ribbons and three mongooses, two of them fighting snakes

with no restraining device visible, and a third one with a collar and flying leash.

Table 1
Tethered Carnivores Depicted on Selected Mosaics in Israel/Palestine
(Listed from North to South).

No.	Site	Scene depicted	Tethering device	Reference	Context and Remarks
	Hounds				
1	Nahariya	Hound howling	Collar	Dauphin - Edelstein 1984; 1993.	Church, 6th century AD
2	Sepphoris ("House of Dionysios")	Hound attacking ass (?) together with tiger	Unclear	Talgam - Weiss 2004: 91 fig. 82 (picture unclear).	Villa, late 2 nd or early 3 rd century AD
3	Caesarea ("Birds Mosaic")	Hounds chasing gazelle or Antelope	Collar	Reich 1985: figs. 2, 3.124, 154 pl. LI 5.	Villa, 6th-7th centuries AD
4	Beth Shean- Scythopolis (Kyrie Maria Monastery)	Hound standing on two legs, listening to flute player	Collar, no leash	FitzGerald 1939: 9 pls. XVI; XVII.2.	Monastery, 567 AD Depiction of street performance?
5	Shechem (Neapolis)	Hound	Harness	Yeivin 1975: 33 Talgam - Weiss 2004: 7–8.	Dwelling, third quarter of the 3 rd century AD
6	Lod (Diospolis) (Neve Yaraq Quarter)	Hound chasing hare	Harness	Talgam 2015: figs. 30; 43; Bowersock 2015: fig. 5; Gorzalczany 2016: figs. 3, 10, 12.	Villa, 3 rd -4 th century AD
7	Beth Guvrin-Eleutheropolis (Tel Maqerqesh)	Hound chasing	Collar and dragged leash	Avi-Yonah 1993: 198.	Monastery 6 th century AD
8	Beth Loya	Hound biting rabbit	Collar	Patrich - Tsafrir 1993: 268-70.	Church, 5th–8th century AD
9	Gaza (Jabaliyah)	Hound chasing	Collar	Blanc 2000: 130, 134–135.	Unclear
10	Kissufim (Western Negev)	Hound chasing rabbit and gazelle	Collar + loop, dragged Leash	Cohen 1973: 1979: 23.	Mosaic laid 576 AD Church built 565–578 AD
11	Nirim (Ma'on) (Western Negev)	Hound chasing	Collar and dragged leash	Barag 1993a: 946.	Synagogue, dated follo- wing Shellal (see below)
12	Shellal (Habesor Park, Western Negev)	Hound chasing	Collar? No leash	https://www.awm.gov.au/ collection/ART40979/ Hen- derson 1985; 1988: 35–44; Trendall 1957: 13-14.	Church, 651/2 AD
13	Be'er Shema' (Kibbutz Urim, Western Negev)	Hound biting a rabbit	Collar with flying leash	Gazit - Lender 1991; 1993.	Church abandoned 7th century AD
	Mongoose				
14	Tabgha Church of the Loaves and Fishes	Mongoose fighting a bird	Collar	Schneider 1937: 64 tab. 23.	Mongoose identified as badger
15	Sede Nahum Bet Shturman Museum	Mongoose fighting a snake	Collar	Dalali-Amos 2014: fig. 13.	Southeastern corner of chapel's floor, 4th–5th centuries AD
16	Jerusalem	Mongoose fighting a snake	Harness with a flying leash a	Rosen 1982: 182–83; Avi- Yonah 1933; Friedman 1967.	Church? Monastery? Date debated, 3 rd —6 th centuries AD
17	Be'er Shema' (Kibbutz Urim, Western Negev)	Mongoose a fighting snake	Collar, no leash	Gazit - Lender 1991; 1992.	Church abandoned 7th century AD
	Cheetah				
18	Lod (Diospolis) (Neve Yaraq Quarter)	Cheetah hunting	Harness	Talgam 2015: figs. 30; 43; Bowersock 2015: fig. 5; Gorzalczany 2016: figs. 3, 10, 12.	

N°	Site	Scene depicted	Tethering device	Pp.	Fig.	Context and Remarks
	Hounds					
1	Chapel of Elias, Maria and Soreg (Gerasa)	nd Soreg		295–96	572	Early 7th century AD
2	Chapel of Suwayfiyah Amman (Philadelphia)	Hound chasing	Collar + dragged leash	264	472	
3	North Church Esbos (Hesban)	Hound harassing bird or birds	No collar	251	429	No chase, just a filler
4	Massuh, Upper Church Esbos (Hesban)	Hound chasing rabbit	Collar + Harness dragged leash	252–53	444	From the neck, just behind front legs
5-6	Diakonikon, Moses Church, Mount Nebo	Hound following rider Hound attacking boar	Collar Collar	135, 138–39	166, 169	530 AD
7-8	Church of the Holy Martyrs Lot and Procopius Mount Nebo	Multi-colored hound sitting. Hound chasing a hare	Collar + flying leash	153	202	557 AD
9	Upper and Lower Chapels of the Priest John Mount Nebo	Priest John tracking		174–77	220, 233, 238	No ring leash is free
10-11			No collar? Collar and ring on top	181–82	253, 254	
12	Kaianus Lower Church Hound biting Mount Nebo gazelle (female?)		Collar + ring on top 189–90		271, 275	
13	Burnt Palace Madaba	Hound chasing two hares	Collar + ring on top	78–79	50, 52	Late Byzantine
14	Church of al-Khadir Madaba	Hound chasing	Collar + ring on top	129–31	148	Iconoclastic damage
15-17	Church of the Priest Wa'il hounds chasing Umm al-Rasas		Picture unclear	242–44	396, 400	Built 586 AD; Iconoclastic damage

N°	Site	Scene depicted	Tethering device	Reference	Context and Remarks
1	Houarte ('The Michaelion') Syria	Mongoose fighting a snake	No device Visible	Donceel-Voûte 1988: 106 figs. 73, 80 Hachlili 2009: pl. VII.6 f.	Church, 486/7 or 501/2 AD On display at the National Museum, Damascus
2	Qabr Hiram Lebanon	Mongoose fighting a Snake Dog chasing a hare (2 instances)	No device visible Collar and leash, collar with ribbons	Hachlili 2009: pl. VII.6 d.	Mongoose and snake rendered in opposite medallions, con- fronting each other. Dog wearing collar decorated with colored ribbons
3	Zaharani (Sidon) Lebanon	Mongoose fighting a snake	Collar and flying leash	Balty 1976: pls. XLI, XLII,1 Hachlili 2009: pl. VII.6 e Donceel-Voûte 1988: 411–12 figs. 403, 430–32 pls. 17 h-t, 18.	Church, 6 th century AD Mongoose and snake rendered in oppo- site medallions, confronting each other

Table 2 Tethered Carnivores in Selected Jordanian Mosaics as Depicted in Piccirillo (1993), Listed from North to South.

Mongooses Depicted on Selected Mosaics in Syria and Lebanon.

Iconography

In the vast majority of the mosaic depictions discussed here, the tethered carnivores are rendered fighting, hunting and killing. One clear exception is the collared dog depicted on the Kyrie Maria Monastery mosaic at Beth She'an, sitting on its haunches and looking backwards (Fig. 6). The dog is accompanied by a curly-haired, mustached young man playing a flute while sitting on what is apparently a straw basket. The dog's somewhat twisted posture, with the head looking backwards, may suggest that the two were depicted performing some kind of street spectacle in which the animal follows the music (and compare Toynbee 1973: 109–12). Another possibility is that the image represents a shepherd playing music accompanied by his dog as the shepherd is sitting on similar object (a rock?) in the mosaic from the Chapel of the Martyr Theodore at Madaba (Piccirillo 1993: 117 figs. 96, 109). It is possible that the artist represented the dog standing on its rear legs because he used a template representing a tamed dancing dog. However, another option that cannot be ruled out, is that the artist chose this stance due to space constrictions.

Figure 6 Collared dog and musician depicted in the Kira Maria Monastery mosaic at Beth She'an (Scythopolis) (photo: Walid Atrash, courtesy of the IAA).

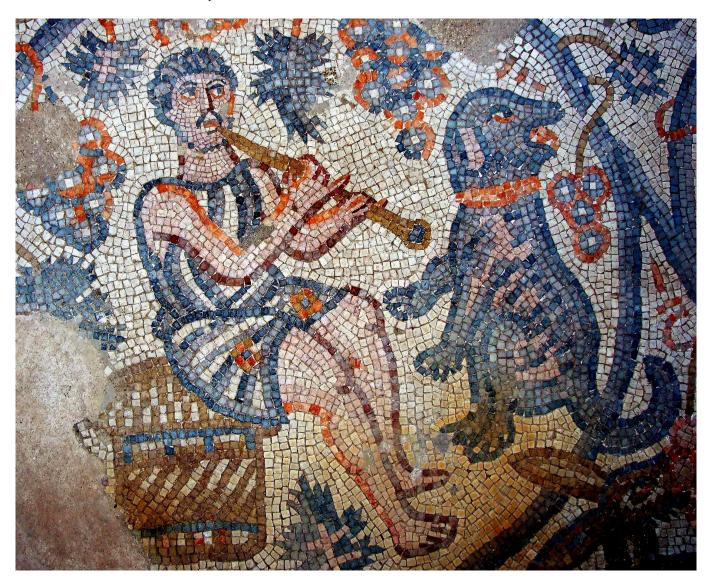




Figure 7 Harnessed mongoose fighting snake, depicted in a mosaic found at Jerusalem (after Rosen 1984).



Figure 8 Collared mongoose fighting snake as depicted in the mosaic at Horvat Be'er Shema' (photo: Nachshon Sneh, courtesy of Y. Lender).

Figure 9 Collared mongoose fighting snake as depicted in the mosaic at Sede Nahum (photo: Ricky Hershler).

The Egyptian Mongoose

Three tethered mongooses, depicted on three different mosaics discovered in Israel, are considered in this article. The identification of the animals illustrated here are based on the latest zoological publications. In two other cases, from Syria and Lebanon, the animals do not wear a visible restraining device and so may represent either untamed specimens in the wild, or, perhaps, fully tamed individuals.

The first depiction of a tethered mongoose (Fig. 7), discovered in Jerusalem (Vincent 1901; Bagatti 1952, now on display in the Archaeology Museum at Istanbul), shows the animal (Rosen 1984; Herrero et al. 2010) tethered by a harness (Avi-Yonah 1933: 26-73 pls. XIV-XVIII; Friedman 1967; Ovadiah -Mucznik 1981). In the second instance, the animal, wearing a collar (Fig. 8), appears on a mosaic in Be'er Shema' in the northern Negev (Gazit - Lender 1991; 1993). The third, also wearing a collar, is depicted, on a mosaic at Sede Nahum but is in a poor state of preservation (Fig. 9), (Ovadiah - Ovadiah 1987: 112; Dalali-Amos 2014 fig. 13). A fourth small animal that appears in the Tabgha mosaic is listed here because it is wearing a collar, but its species identification it is an enigma as it does not look like a local, identifiable, domesticated animal. Sometimes it has been identified as a badger, or possible a mongoose, or perhaps a bear's cub (Schneider 1937: 64 table 23). The very obvious nails on its fore paws could suggest that is a carnivore of some kind. But the posture, the absence of a tail and its size relative to the water bird, facing it, could suggest that it is a rock hyrax (Procavia capensis). The latter is an African animal to be found from the southern tip of Africa to southern Lebanon. In Israel it can be found occurring naturally on the mountains just above Tabgha, where the mosaic on which it appears is found. It is very rarely seen on Levantine mosaics. Therefore, in this case, it is not very probable that it was copied from a "sample book" and it is conceivable that it was drown from real life, except perhaps for the red collar as we don't know that the hyrax was ever domesticated.



Mongoose biology has been studied thoroughly (Rosevear 1974: 268–75; Osborn - Helmy 1980; Harrison - Bates 1991: 144-46; Qumsiyeh 1996: 170-73; Mendelssohn - Yom-Tov 1999: 201-5). In the Levant today, the Egyptian mongoose is a wild animal (Figs. 10-11). However, mongooses hand-reared from a young age make excellent pets (Ben-Yaacov 1980; Ben-Yaacov - Yom-Tov 1983; Mendelssohn - Yom-Tov 1999: 201-5). Mongooses are broad-spectrum diet carnivores, hunting and otherwise consuming a large variety of prey, from crabs to birds and cats, and domesticated poultry (Ben-Yaacov 1980; Mendelssohn -Yom-Tov 1999: 201–5). Since antiquity they have been known as snake killers; research now shows that they are biologically somewhat resistant to snake venom (Barchan et al. 1992). It should be stressed that the theme of the mongoose fighting snakes (e.g. the one discovered in Jerusalem, see above) seems to be deeply rooted in the Christian iconography, and has connotations of the everlasting struggle between Good and Evil (Balty 1995: 219-223). The provenance of the motif is the Hellenistic iconography from Alexandria, known as the 'Nilotic Landscape', and from there it made its way to the Roman and Christian realms.

Wild mongooses will adapt, as commensals, to human environments in most places in the Levant. For example, in Iraq the presence of wild mongooses near human habitations has been accepted because they help control pests (Harrison - Bates 1991: 145). In antiquity, they were revered in Egypt, allegedly because they ate crocodile eggs and killed snakes, thus controlling their numbers. In Egypt this aptitude probably led, until recent times, to their status as revered pets (Osborn - Helmy 1980: 422). In India, as in Egypt, the mongoose often fulfills the role of snake killer. Some are kept as participants in shows arranged by street 'snake-charmers'. In the southern Levant, mongooses, both wild and commensals, must have formed continuous close relationships with humans, 'It is as though the ages have passed it by and it still expects the protection and respect that were its heritage in ancient Egypt' (Rosevear 1974: 272). The mongooses depicted in the four mosaics (Jerusalem, Be'er Shema', Tabgha and Sede Nahum) were probably tamed animals since they wear harnesses or collars and probably resembled mongooses exhibited by the street snake-charmers in modern India.

The Cheetah

Written documents and pictorial evidences show that tame cheetahs kept for hunting were well known in the Middle East and India from antiquity until the mid - 20th century (Ognev 1935: 258–65; Harrison - Bates 1991: 170–72; Maraqten 2015). Other large felines handled by people in the Southern Levant during the Roman and Byzantine periods are known from Dionysian victory parades depicted on works of art, e.g. the Erez mosaic (Rahmani 1975) and see also the Sepphoris mosaic (Talgam - Weiss 2004: 64–66 with thorough discussion therein). The cheetah discussed here depicted in the Lod mosaics while attacking a bleeding gazelle, is tethered by a harness (Fig. 2).

The cheetah belongs to the big-cat subfamily *Felinae* (Ognev 1935: 260–65; Rosevear 1974: 495–512; Osborn - Helmy 1980: 415–22; Harrison - Bates 1991: 170–72; Qumsiyeh 1996: 157–59), it inhabited wide areas in Africa and Asia, and apparently became extinct in the Levant by the first half of the 20th century. In pictorial representations, it is often confused with the leopard (*Panthera pardus*). It is the fastest land mammal. It hunts by sight rather than smell, prey of medium and light weights, like gazelles, ibex, sheep and goats.



Figure 10 Group of wild mongooses on the Carmel coast, Israel (photo: Meir Bass).



Figure 11 Mongoose confronting snake in the wild (photo: Amikam Shuv).

Its origins as a hunting aid are obscure. Supposedly prehistoric rock carvings in southern Jordan, yet to be verified, have been interpreted as depictions of a tethered cheetah (Fugii 2008). However, these interpretations are difficult to accept. Cheetahs were kept in ancient Egypt as hunting aids at least since the 15th century BC (Maragten 2015). Tamed cheetahs were used in Arabia since pre-Islamic times. In medieval times hunting with tamed cheetahs in the area from Sinai to northern Syria was regarded as a common practice (Hitti 1927: 236–37 and *passim*). Carved representations of cheetahs have occasionally been found on marble sarcophagi, perhaps those belonging to avid hunters (Toynbee 1973: 84–85). Cheetahs are easily trained but do not breed well in captivity, and using them was based on capturing and taming young individuals. Culturally speaking, like all big cats (lions, leopards, tigers), they are so-called 'prestige animals', symbolizing rank and status until modern times. The Lod mosaic (Fig. 2) constitutes a good example of a hunt with trained cheetahs but is a unique example from this region.

The Dog

The ever-evolving complex relationships between humans and domestic animals perhaps started with dogs since these were the first animals to undergo domestication (Clutton-Brock 1995). Consequently, the cultural evolution of their tethering can illustrate the development of tethering in general. It would be helpful to supply a short overview of dog tethering devices in general.

Extant hunters-gatherers retain a symbiotic co-existence with dogs. Their dogs are never tethered and are a part of the community; as was the dingo (Canis lupus dingo) in Australia till pre-modern times and are in some places till now (Senior et al. 2006; Smith - Litchfield 2009). Hunter-gatherers, e.g. San in Africa, traditionally hunted accompanied by dogs till recently (Ikeya 1994). Hunter-gatherers and proto-agriculturists of pre-Columbian North America used dogs to pull travois, two wooden poles forming a triangular stretcher whose apex was tied on the back of dogs that dragged it. The last vestiges of that practice lasted well into the 19th century (Eastman - Blumenschein 1971: 5). Huntergatherers of the arctic zone may have developed the use of dogs to pull loads at least 2,000 years ago (Meldgaard 2004). Dogs were apparently used as backpack carriers in the Early Bronze Age of Spain (Albizuri et al. 2011). Restraining devices used for carrying and hauling are technically more complicated than simple collars, as seen in those applied on traction animals depicted on mosaics (e.g. Piccirillo 1993: 241).

The use of dogs in hauling and carriage in prehistoric periods must have necessitated the use of devices more complex than simple collars, as seen in modern sled-dog harnesses and in harnesses used by military transport dogs (e.g. Fischer 1984: 14). It can be suggested that such tethering devices could have preceded the appearance of the harness seen on the mosaics discussed here. It is possible that such restraining devices, originally designed not to choke the pulling dog, evolved into the complex harness that replaced a "choking" collar on some hunt-

An early representation of a hunting dog tethered by a collar and a leash is known from Egypt on a relief in the tomb of Ptahhoterp, vizier of Djedkare Isesi (5th Dynasty) in Sakkara (Wreszinski 1923-38: III, 16), in which hunting hounds in the desert, with a collar topped by a prominent tying ring for the leash, can be seen attacking a gazelle and an oryx. Assyrian records show the habitual use of hounds in hunting (Salonen 1976: 68–97) and in Assurbanipal's reliefs (627-669 BC) from Nineveh, hunting hounds can be seen with the hunter holding the leash attached to the collar around their neck (Frankfort 1989: 131-199).

Rock carvings in Yemen, some of them dated to about the 1st century BC, show hounds participating in hunts (Maraqten 2015: 208).

Dogs tethered by collars and leashes were depicted on Greek works of art during the second half of the 1st millennium BC, while Xenophon (430-354 BC), writing about hunting with hounds in Greece discusses their tethering³:

Harnesses like those discussed in this article were not mentioned by Xenophon.

Use of hunting hounds in Arabia persisted until modern times (Maragten 2015: 208-34 and passim). Using hounds in the hunt, depicted by mosaics in the Southern Levant during the Roman and Byzantine periods is discussed (above) (Tables 1–3). Such use could then indicate the mingling of local and imported traditions corroborating the eclectic nature of the mosaics of Lod that has been noted by scholars (Ovadiah - Mucznik 1998). Often such hunts were conducted by the rulers as seen e.g. by the Piazza Armerina Mosaics. During the hunt, such rulers may have mixed local and imported traditions, as suggested by Ovadiah and Mucznik (1998).

Mosaics as Evidence of Everyday Life

Although the repetition of certain images in mosaics all around the Mediterranean world could attest to the wide use of templates by the artisans, the depictions could also reflect everyday life. The veracity of the depictions the mosaics studied here may be assessed by observing two cases of tethered animals, not carnivores, seen on contemporary mosaics. Tethered donkeys (Equus africanus asinus) and giraffes (Giraffa camelopardalis). While the donkeys were a common component of domestic livestock, giraffes were exotic animals and rarely seen. Both are displayed in several south Levantine mosaics. Several donkeys bear a well -depicted functional harness similar to modern donkey gear (e.g. Piccirillo 1993: figs. 203, 253). Unlike the accurate descriptions of the donkeys and their gear, the giraffes, an exotic, totally alien and unusual animal were depicted as being led by a totally nonfunctional, single line linking their muzzles to a man leading them (e.g. Piccirillo 1993: fig. 106). Timotheus of Gaza described two giraffes in Gaza, albeit not tamed, probably captured and on their way to a circus, such as in Constantinople. This happened at the very end of the 5th century CE or the beginning of the 6th. He described 'two giraffes covered with cloths and harnessed with many bridles and nose straps' (and compare Gatier 2005; Kruk 2001: 364, Timotheus of Gaza [trans. Bodenheimer - Rabinowitz 1949: 32]). It might be surmised that such a sight could have influenced the artists that laid the mosaics, but obviously it did not.

The many forces shaping the depictions on the mosaics have been discussed by the scholars cited above. Of prime importance among them seems to be observed factual details. This is accepted here. When the designer(s), the subsidizer

³ The trapping of hounds are collars, leashes and surcingles [broad belly belts strapped on animals for various reasons, especially those used to hunt wild animals – στελμονία]. The collars should be soft and broad....The leashes should have a noose for the hand and nothing else, for if the collar is made in one piece with the leash, prefect control of the hound is impossible. The straps of the surcingles should be broad, so as not to rub the flanks, and they should have little spurs sewed on them to keep the breed pure (Xen. Hunt.V.32-VI.7; transl. Marchant 1925).

of the endeavor and future onlookers would have been familiar with the subject – in this case a working donkey – presumably the artist would have done his best to depict the animal as realistically as possible. However, when depicting an exotic animal (and compare Habas 2009), realism may not have been of prime consideration, the more so when the artist was not familiar with the alien beast. We assume that this was the case with the depictions of carnivores mentioned in this article, which occasionally were seen by the people of the times in real life. Therefore, their depictions could represent reality.

Tethering Devices: Harnesses and Collars

The most common tethering device to control carnivores was the collar, which appears in the earliest depictions of tethering (above) and was later described by Xenophon. Some collars, seen on the mosaics discussed, have a prominent ring protruding up from the back. Such a ring could have been used to tie a detachable leash or to forcefully restrain the animal by hand. Anyone who has ever dragged a dog from a fight will appreciate that such a loop was more functional than the puny rings seen on the undersides of collars in some North African and Sicilian mosaics, e.g. the Little Hunt in Piazza Armerina (Dunbabin 1978: pl. LXXVI, 198).

A less common tethering device depicted in the mosaics was a harness (Tables 1-3; Figs. 2-4, 7). Harnesses discussed here were in use on both sides of the Jordan, and such devices are also seen on few hunting hounds of the many depicted on North African mosaics. One example is the Le Kef hunting scene dated to the early 3rd century CE (Dunbabin 1978: pl. XXII, 54).

Despite the absence of harnesses in Xenophon's description it cannot be claimed that the dog harness was invented *de novo*, somewhere around the Mediterranean, after Xenophon's time. As mentioned above, bearing and perhaps complex hauling harnesses were used in both circumpolar areas and in Spain probably since the Early Bronze Age (2300 – 1300 BC) (Albizuri et al. 2011; Meldgaard 2004). A plausible explanation for the omission by Xenophon, a very early source (lived (430-354 BC) concerning hunting and dogs, could be that the use of such devices was yet unknown to him because of physical or social distance. Perhaps such devices were used by non-Hellenic, borderland and marginal societies, that only later showed themselves on the discussed mosaics. That might have been the reason that such devices were depicted in the Levant and to some extent in North Africa.

As for the significance and reason behind the choice of the different tethering devices, the numbers of tethering types reported upon in this study (Tables 1–3) cannot be used to arrive at quantitative conclusions. The ability to accurately depict reality may have been there, as shown above in the case of the donkey versus the giraffe. The giraffe was possibly chosen because of the most unique literary description of the "harnessing" of an exotic animal in the very same geographic realms where the harnessed donkeys are a most common sight. However, much is unclear regarding the mechanism involved in translation of reality to images in mosaics. Among such possible influences could have been the ability and interest of artists to observe and record minute details of real life; the prevalence of templates and models; technical limitations of the medium and conventions regarding the way to depict common sights. Even if we could identify additional sources of influence we have no idea of their relative magnitude.

The paucity of harnesses suggests that most carnivore owners must have preferred

collars over harnesses. Perhaps, the kind of tethering device symbolized the type of relationship between the owner and the owned. Possibly some Roman-Byzantine owners of tamed or domesticated animals used a harness because of what we would today call 'humane tethering'. The point should be stressed that although gestures of compassion and empathy toward beasts agonizing in the arena were rare, they were occasionally expressed even by the usually bloodthirsty, thrill-seeking crowd (Newmyer 2011: 93–94; Plin.nat VIII.7, 20–21).

To address the question of why collars may have outnumbered harnesses on the mosaics under discussion, we will examine what is known about the tethered animals depicted. The mongoose and the cheetah, the two wild carnivores discussed here, may have been tamed in pre-modern times using methods similar to modern ones. Both animals were probably tamed by professionals who obtained young animals directly from the wild, or alternatively through agents of those who caught them, sometimes soldiers on duty who caught animals mostly for the venationes (Epplett 2001: 213-16). Such trainers acted as mediators transferring the animal from the wilderness to the *domus*, the house.

The owner-users of the tamed species differed greatly. In medieval times and later, in the Levant and in India, until the cheetah became extinct, the class of people who habitually or occasionally hunted aided by tamed cheetahs differed greatly from those husbanding tamed mongooses. The same situation seems to have prevailed in antiquity. The cheetah was a prestige animal associated with ceremonial hunting by royalty and nobility. In contrast, as noted above, tamed mongooses were used to control pests, especially snakes, in rural environments and were also owned by itinerant snake-charmers. Of the six mongoose depictions discussed in the present study, three were tethered by a collar (Sede Nahum, Tabgha and Be'er Shema') and another by a harness (Jerusalem). In the two other cases mentioned above (Houarte in Syria and Qabr Hiram in Lebanon), the mongooses wear no restraining device; hence, the renderings may actually show mongooses fighting in the wild rather than tamed animals. In the case of the Jerusalem mongoose, the same harness type was used as on the cheetah in Lod, as well as in tethering some hounds e.g. as in the Lod or Shechem mosaics. We suggest that the distinction between the ubiquitous use of the collar and the selective use of harnesses was perhaps associated with the specific attitude of the owner toward the animal and the uses for which the animal was intended. The existence, in the Lod mosaics, of several bloody animals killed on one hand, and two instances of different harnessed animals, both used in hunting on the other hand, could also indicate the role the owner sought for the animal. Perhaps the mosaics were made for an avid hunter who owned a hunting cheetah and a favorite pack of hounds. In some North African mosaics, the names of favorite hunting hounds were placed above their depictions (Dunbabin 1978: pl. XIX, 44).

A mongoose tethered by a harness appears in a mosaic in the Jerusalem Orpheo mosaic. We recall the abovementioned special status of the mongoose in Egypt and note that replacing the more common collar with a harness to tether the Jerusalem mongoose would have symbolized (and emphasized) its special status. In contrast, mongooses wearing a collar appeared in rural churches on mosaics depicting the world of everyday life. These included such scenes as a nursing woman, a collared hound harassing a rabbit, a donkey, a bovine, a bear and exotic animals, possibly recording visits by itinerant animal shows. In such a mundane social environment both dogs and the mongoose were tethered by collars.

Conclusions

We have shown that the basic tethering devices used in antiquity to control carnivores in the Southern Levant could have come into use long before the time of the discussed mosaics. It is suggested that there were specific purposes for restraining an animal in certain ways. Putting the tethering device on a given animal, either tamed and/or domesticated, as they appeared on the mosaics studied, had two purposes. Besides depicting real life, the act of tethering symbolized, and drew attention to, the social role of the tethered animal in the given scene. That can be seen by the purely symbolic role of the rope leading from the giraffe's head to the hand of the man leading it. Though functionally useless, that dangling rope symbolized and broadcasted the abstraction of control. The abstract idea of 'control' is the message conveyed by all collars and harnesses. Secondly the details of the tethering system also drew attention to the relationships of the specific animal and its specific owner in real life, somewhat similar to the role of noting the names of selected hounds and preferred (winning?) horses in North African mosaic.

Future archaeological discoveries coupled with examination of ancient written sources from new or unconventional points of view could increase the understanding of man-animal relationships in antiquity by bringing up more insight on additional animals and the use and meaning of the tethering devices involved in managing them.

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