

# Fierce lions, angry mice and fat-tailed sheep

Animal encounters in the ancient Near East

Edited by Laerke Recht & Christina Tsouparopoulou



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#### with contributions from

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## Abbreviations and sigla

ABL	Harper, R.F., 1892–1914. Assyrian and Babylonian Letters Belonging to the Kouyunjik Collection of the British Museum, 14 volumes. Chicago: University	ARM 30	Durand, JM., 2009. La nomenclature des habits et des textiles dans les textes de Mari. (Archives royales de Mari 30.) Paris: Lib. Paul Geuthner.
AHw	of Chicago Press. von Soden, W., 1959-1981. Akkadisches Handwörterbuch. Wiesbaden.	AUCT 1	Sigrist, M., 1984. <i>Neo-Sumerian Account Texts in the Horn Archaeological Museum.</i> (Andrews University Cuneiform Texts 1.) Berrien Springs:
AKA I	Wallis Budge, E.A. & L.W. King, 1902. Annals	D 134 1	Andrews University Press.
	of the Kings of Assyria: The Cuneiform Texts with Translations and Transliterations from the Original Documents in the British Museum. Vol. I. London:	BabMed	Babylonian Medicine online [no year]: 'Corpora', https://www.geschkult.fu-berlin.de/e/babmed/Corpora/index.html
	The Trustees of the British Museum.	BAM	Köcher, F., 1963–1980. <i>Die babylonisch-assyrische</i>
AMT	Campbell Thompson, R., 1923. <i>Assyrian Medical Texts</i> . Milford, Oxford: Oxford University Press.		<i>Medizin in Texten und Untersuchungen,</i> 6 Vols. Berlin: De Gruyter.
AnOr 8	Pohl, A., 1933. Neubabylonische Rechtsurkunden	BCT 1	Watson, P.J., 1986. Neo-Sumerian Texts from
	aus den Berliner staatlichen Museen. (Analecta Orientalia 8.) Rome: Pontificium Institutum Biblicum.		Drehem. (Catalogue of Cuneiform Tablets in Birmingham City Museum I.) Warminster: Aris & Phillips.
AO	Siglum of objects in the Louvre Museum, Paris	BIN 1	Keiser, C.E., 1917. <i>Letters and Contracts from Erech</i>
	(Archéologie Orientale).		Written in the Neo-Babylonian Period. (Babylonian
ARM 2	Jean, ChF., 1950. <i>Lettres diverses</i> . (Archives royales de Mari 2.) Paris: Lib. Paul Geuthner.		Inscriptions in the Collection of James B. Nies, vol. 1.) New Haven: Yale University Press.
ARM 9	Birot, M., 1958. Textes administratifs de la Salle	BIN 3	Keiser, C.E., 1971. Neo-Sumerian Account Texts
	5 du Palais. (Archives royales de Mari 9.) Paris:		from Drehem. (Babylonian Inscriptions in the
A DD # 40	Lib. Paul Geuthner.		Collection of B.J. Nies, vol. 3.) New Haven: Yale
ARM 10	Dossin, G., 1978. Correspondance feminine. (Archives royales de Mari 10.) Paris: Lib. Paul	BM	University Press. Siglum for objects in the British Museum,
	Geuthner.	DIVI	London.
ARM 14	Birot, M., 1974. Lettres de Yaqqim-Addu, gouverneur	BPOA	Biblioteca del Proximo Oriente Antiguo (Madrid:
	de Sagarâtum. (Archives royales de Mari 14.) Paris: Lib. Paul Geuthner.		Consejo Superior de Investigaciones Científicas, 2006ff.)
ARM 15	Bottero, J. & A. Finet, 1954. Repertoire analytique	BPOA 6	Sigrist, M., & T. Ozaki, 2009a. Neo-Sumerian
	des tomes I à V. (Archives royales de Mari 15.) Paris: Lib. Paul Geuthner.		Administrative Tablets from the Yale Babylonian Collection. Part One (Biblioteca del Próximo
ARM 26	Durand, JM. et al., 1988. Archives épistolaires de		Oriente Antiguo 6.) Madrid: Consejo Superior
	Mari. (Archives royales de Mari 26.) Paris: Lib.		de Investigaciones Científicas.
	Paul Geuthner.	BPOA 7	Sigrist, M., & T. Ozaki, 2009b. Neo-Sumerian
ARM 27	Birot, M., 1993. Correspondance des gouverneurs de		Administrative Tablets from the Yale Babylonian
	<i>Qaṭṭunân</i> . (Archives royales de Mari 27.) Paris: Lib. Paul Geuthner.		Collection. Part Two (Biblioteca del Próximo Oriente Antiguo 7.) Madrid: Consejo Superior
ARM 28	Kupper, JR., 1998. <i>Lettres royales du temps de</i>		de Investigaciones Científicas.
	Zimri-Lim. (Archives royales de Mari 28.) Paris:	BRM 1	Clay, A.T., 1912. Babylonian Business Transactions
	Lib. Paul Geuthner.		of the First Millennium B.C. (Babylonian Records

	in the Library of J. Pierpont Morgan, Part 1.) New York: Privately printed.	HSS 14	Lacheman, E.R., 1950. Excavations at Nuzi V. Miscellaneous Texts from Nuzi, Part 2, The Palace
CAD	The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Chicago: The Oriental	HW <sup>2</sup>	<ul><li>and Temple Archives. (Harvard Semitic Studies</li><li>14.) Cambridge (Mass.): Harvard Univ. Press.</li></ul>
CBS	Institute, 1956–2010. Siglum for objects in the University Museum in Philadelphia (Catalogue of the Babylonian	1144-	Friedrich, J. & A. Kammenhuber (eds.), 1975–. Hethitisches Wörterbuch. Zweite, völlig neubearbeitete Auflage auf der Grundlage der edierten
CDLI	Section). Cuneiform Digital Library Initiative, https://cdli. ucla.edu	IB IM	hethitischen Texte. Heidelberg: Winter. Siglum for finds from Isin (Isan Bahriyat). Siglum for objects in the Iraq Museum, Baghdad.
CHD	Goedegebuure, P.M., H.G. Güterbock, H.A. Hoffner & T.P.J. van den Hout (eds.), 1980–. <i>The Hittite Dictionary of the Oriental Institute of</i>	ITT 5	de Genouillac, H., 1921. Inventaire des Tablettes de Tello conservées au Musée Imperial Ottoman. Tome V. Époque présargonique, Époque d'Agadé, Epoque
	the University of Chicago. Chicago: The Oriental Institute.	KAH 2	d'Ur III. Paris: Édition Ernest Leroux. Schroeder, O. 1922. <i>Keilschrifttexte aus Assur</i>
CM 26	Sharlach, T.M., 2004. <i>Provincial Taxation and the Ur III State</i> . (Cuneiform Monographs 26.) Leiden: Brill.		historischen Inhalts, Heft II. (Wissenschaftliche Veroffentlichungen der Deutschen Orient- Gesellschaft 37.) Leipzig: J.C. Hinrichs'sche
CT 22	Campbell Thompson, R., 1906. Cuneiform Texts from Babylonian Tablets in British Museum, vol.	KBo	Buchhandlung. <i>Keilschrifttexte aus Boghazköi</i> (Bd. 1-22 in Wissen-
CT 32	22. London: British Museum. King, L.W., 1912. <i>Cuneiform Texts from Babylonian</i> <i>Tablets in British Museum</i> , vol. 32. London: British	KRI	schaftliche Veroffentlichungen der Deutschen Orient-Gesellschaft) Leipzig/Berlin, 1916 ff. Kitchen, K.A., 1969–1990. <i>Ramesside Inscrip-</i>
CT 55	Museum. Pinches, T.G. 1982. Cuneiform Texts from Baby-	Rid	tions. Historical and Biographical, 8 vols. Oxford: Blackwell.
C1 00	lonian Tablets in the British Museum Part 55. Neo-Babylonian and Achaemenid Economic Texts. London: British Museum Publications.	KUB LAPO 16	Keilschrifturkunden aus Boghazköi, Berlin 1921 ff. Durand, JM., 1997. Les Documents épistolaires du palais de Mari, tome I. (Littératures anciennes du
CTH	Laroche, E. 1971. Catalogue des Textes Hittites. Paris: Klincksieck.	LAPO 18	Proche-Orient 16.) Paris: Éditions du cerf. Durand, JM., 2000. Les Documents épistolaires du
DAS	Lafont, B., 1985. Documents Administratifs Sumériens, provenant du site de Tello et conservés au	L/11 O 10	palais de Mari, tome III. (Littératures anciennes du Proche-Orient 18.) Paris: Éditions du cerf.
	<i>Musée du Louvre</i> . Paris: Editions Recherche sur les Civilisations.	LD	Lepsius, C.R., 1849–59. <i>Denkmäler aus Aegypten und Aethiopen</i> (plates), 6 vols. Berlin: Nicolaische
DMMA	Siglum for objects in the Département des Mon- naies, médailles et antiques de la Bibliothèque	LKU	Buchhandlung. Falkenstein, A., 1931. Literarische Keilschrifttexte
DUL	nationale de France. Del Olmo Lete, G. & J. Sanmartín, 2015. <i>A Dic</i> -		aus Uruk. Berlin: Berlin Staatliche Museen zu Berlin Vorderasiatische Abteilung.
	tionary of the Ugaritic Language in the Alphabetic Tradition. Translated and edited by W.G.E. Wat-	M Moore, Mi	Siglum for texts from Mari. ch. Coll.
EA	son. Third revised edition. 2 vols. (Handbuch der Orientalistik 112.) Leiden: Brill. Siglum for the Tell El-Amarna Letters, follow-		Moore, E., 1939. <i>Neo-Babylonian Documents in the University of Michigan Collection</i> . Ann Arbor: University of Michigan Press.
El I	ing the edition of Knudtzon, J. A., 1915. <i>Die El-Amarna-Tafeln</i> . Leipzig: J.C. Hinrichs'sche	MSL VIII/I	Landsberger, B., 1960. The Fauna of Ancient Mesopotamia. First Part: Tablet XIII. (Materialien zum
ePSD	Buchhandlung. Electronic version of <i>The Pennsylvania Sumerian</i> Dictionary, http://psd.museum.upenn.edu		Sumerischen Lexikon VIII/1.) Rome: Pontificium Institutum Biblicum. [with the assistance of A. Draffkorn Kilmer & E.I. Gordon].
ETCSL	Black, J.A., G. Cunningham, J. Ebeling, E. Flückiger-Hawker, E. Robson, J. Taylor & G. Zólyomi (eds.), 1998–2006. <i>The Electronic Text Corpus of Sumerian Literature</i> . Oxford, http://etcsl.orinst.	MVN 8	Calvot, D., G. Pettinato, S.A. Picchioni & F. Reschid, 1979. Textes économiques du Selluš-Dagan du Musée du Louvre et du College de France (D. Calvot). Testi economici dell'Iraq Museum Baghdad.
EM 2	ox.ac.uk/		(Materiali per il Vocabolario Neosumerico 8.)
FM 2	Charpin, D. & JM. Durand (ed.), 1994. Recueil d'études à la mémoire de Maurice Birot. (Florilegium Marianum II.) Paris: Société pour l'étude du	MVN 11	Rome: Multigrafica Editrice. Owen, D.I., 1982. Selected Ur III Texts from the Harvard Semitic Museum. (Materiali per il Vocabolario
Hh	Proche-Orient ancien.  The Series HAR-ra='hubullu', Materials for the Sumerian lexicon (MSL), 5, 6, 7, 9, 10 & 11. Rome: Pontificium Institutum Biblicum, 1957–.	MZ NBC	Neosumerico 11.) Rome: Multigrafica Editrice. Siglum for finds from Tell Mozan. Siglum for tablets in the Nies Babylonian Collection of the Yale Babylonian Collection.

NCBT	Siglum for tablets in the Newell Collection of Babylonian Tablets, now Yale University, New Haven.	SAA 11	Fales, F.M. & J.N. Postgate, 1995. <i>Imperial Administrative Records, Part II: Provincial and Military Administration</i> . (State Archives of Assyria 11.)
OIP 99			
OII 99	Biggs, R.D., 1974. Inscriptions from Tell Abu	C A A 10	Helsinki: Helsinki University Press.
	Salabikh. (Oriental Institute Publications 99.)	SAA 12	Kataja, K. & R. Whiting, 1995. Grants, Decrees and
	Chicago: The University of Chicago Press.		Gifts of the Neo-Assyrian Period. (State Archives of
OIP 115	Hilgert, M., 1998. Cuneiform Texts from the Ur		Assyria 12.) Helsinki: Helsinki University Press.
	III Period in the Oriental Institute, Vol. 1: Drehem	SAA 13	Cole, S.W. & P. Machinist, 1998. Letters from
	Administrative Documents from the Reign of Sulgi.		Assyrian and Babylonian Priests to Kings Esarhad-
	(Oriental Institute Publications 115.) Chicago:		don and Assurbanipal. (State Archives of Assyria
	The Oriental Institute.		13.) Helsinki: Helsinki University Press.
OIP 121	Hilgert, M., 1998. Cuneiform Texts from the Ur	SAA 17	Dietrich, M., 2003. The Neo-Babylonian Correspond-
	III Period in the Oriental Institute, Volume 2: Dre-		ence of Sargon and Sennacherib. (State Archives of
	hem Administrative Documents from the Reign of		Assyria 17.) Helsinki: Helsinki University Press.
	Amar-Suena. (Oriental Institute Publications 121.)	SAA 19	Luukko, M. 2012. The Correspondence of Tiglath-
	Chicago: The Oriental Institute.	011111	pileser III and Sargon II. (State Archives of Assyria
P	CDLI (Cuneiform Digital Library Initiative)		19.) Helsinki: The Neo-Assyrian Text Corpus
1			
DDT 1	number.	C A A 20	Project.
PDT 1	Çig, M., H. Kizilyay & A. Salonen, 1956. Die	SAA 20	Parpola, S. 2017. Assyrian Royal Rituals and Cultic
	Puzris-Dagan-Texte der Istanbuler Archäologis-		Texts. (State Archives of Assyria 20.) Helsinki:
	chen Museen Teil 1: Texts Nrr. 1-725. (Academia		The Neo-Assyrian Text Corpus Project.
	Scientiarum Fennica Annales, série B, tome	SAT 2	Sigrist, M., 2000. Sumerian Archival Texts. Texts
	92.) Helsinki: Academia Scientiarum Fennica.		from the Yale Babylonian Collection 2. Bethesda:
PKG 18	Orthmann, W., 1985. Der alte Orient. (Propyläen		CDL Press.
	Kunstgeschichte 18.) Berlin: Propyläen Verlag.	SF	Deimel, A., 1923. Schultexte aus Fara. (Wissen-
PTS	Siglum for unpublished texts in the Princeton		schaftliche Veröffentlichung der Deutschen
	Theological Seminary.		Orientgesellschaft 43.) Leipzig: J.C. Hinrichs'sche
RGTC	Répertoire géographique des textes cunéiformes.		Buchhandlung.
	(Beihefte zum Tübinger Atlas des Vorderen	SP	Alster, B., 1997. Proverbs of Ancient Sumer.
	Orients, Reihe B.) Wiesbaden: Reichert, 1974		Bethesda: CDL Press.
RIMA 2	Grayson, A.K., 1991. Assyrian Rulers of the Early	TCL 12	Conteneau, G., 1927. Contrats Néo-Babyloniens I,
	First Millennium BC I (1114-859 BC). (The Royal		de Téglath-Phalasar III à Nabonide. (Textes cunéi-
	Inscriptions of Mesopotamia, Assyrian Periods		formes, Musées du Louvre 12.) Paris: P. Geuthner.
	Vol. 2.) Toronto, Buffalo & London: University	TCL 13	Contenau, G., 1929. Contrats néo-babyloniens II.
	of Toronto Press.		Achéménides et Séleucides. (Textes cunéiformes,
RIME 1	Frayne, D., 2008. Presargonic Period (2700–2350 BC).		Musées du Louvre 13.) Paris: P. Geuthner.
	(The Royal Inscriptions of Mesopotamia, Early	TRU	Legrain, L., 1912. Le temps des rois d'Ur: recherches
	Periods Vol. 1.) Toronto: University of Toronto		sur la société antique d'après des textes nouveaux.
	Press.		(Bibliothèque de l'École des Hautes Études 199.)
RIME 4	Frayne, D., 1990. Old Babylonian Period (2003–		Paris: H. Champion.
1111112	1595 BC). (The Royal Inscriptions of Mesopotamia,	TU	Thureau-Dangin, F., 1922. Tablettes d'Uruk à
	Early Periods Vol. 4.) Toronto: University of	10	l'usage des prêtres du Temple d'Anu au temps des
	Toronto Press.		Séleucides. (Musée du Louvre. Département des
RINAP	The Royal Inscriptions of the Neo-Assyrian		antiquités orientales. Textes cunéiformes.) Paris:
TGI VI II	Period; Open Richly Annotated Cuneiform		P. Geuthner.
	Corpus, available at http://oracc.museum.upenn.	U.	Siglum for finds from Ur.
	edu/rinap/index.html	UCP 9/1,I	Lutz, H.F., 1927. Neo-Babylonian Administrative
RLA	Reallexikon der Assyriologie und vorderasiatischen	0 (1 )/1/1	Documents from Erech: Part I. (University of Cali-
TCL2 Y	Archaologie.		fornia Publications in Semitic Philology Vol. 9
RS	Siglum for documents from Ras Shamra (Ugarit).		no. 1/I.) Berkeley (CA): University of California
SAA 2	Parpola, S. & K. Watanabe, 1988. Neo-Assyrian		Press.
JAA 2	Treaties and Loyalty Oaths. (State Archives of	UCP 9/1,II	
	Assyria 2.) Helsinki: Helsinki University Press.	OCI 7/1,11	Documents from Erech: Part II. (University of
SAA 7	Fales, F.M. & J.N. Postgate, 1992. <i>Imperial</i>		California Publications in Semitic Philology Vol.
01111	Administrative Records, Part I: Palace and Temple		9 no. 1/II.) Berkeley (CA): University of California
	Administration. (State Archives of Assyria 7.)		Press.
	Helsinki: Helsinki University Press.	UDT	Nies, J.B., 1920. <i>Ur Dynasty Tablets: Texts Chiefly</i>
SAA 10	Parpola, S. 1993. Letters from Assyrian and Baby-	01	from Tello and Drehem Written during the Reigns
<i>5</i> AA 10	lonian Scholars. (State Archives of Assyria 10.)		
			of Dungi, Bur-Sin, Gimil-Sin and Ibi-Sin. Leipzig:
	Helsinki: Helsinki University Press.		J.C. Hinrichs'sche Buchhandlung.

#### Abbreviations and sigla

VA	Siglum for objects in the Vorderasiatisches		et d'Histoire in Genf. Naples: Istituto orientale di
	Museum, Berlin (Vorderasiatische Abteilung).		Napoli.
VAT	Siglum for objects/tablets in the Vorderasiatisches	YBC	Siglum for tablets in the Yale Babylonian
	Museum, Berlin (Vorderasiatische Abteilung.		Collection.
	Tontafeln).	YOS 7	Tremayne, A., 1925. Records from Erech, Time of
VS 1	Ungnad, A. & L. Messerschmidt, 1907. Vordera-		Cyrus and Cambyses (538-521 B.C.). (Yale Oriental
	siatische Schriftdenkmäler der Königlichen Museen		Series, Babylonian Texts, vol. 7.) New Haven:
	zu Berlin. Vol. 1, Texts 1–115, Königliche		Yale University Press.
	Museen zu Berlin. Sammlung der Vorderasi-	YOS 8	Faust, D.E., 1941. Contracts from Larsa, dated in the
	atischen Altertümer. Leipzig: J.C. Hinrichs'sche	1000	Reign of Rim-Sin. (Yale Oriental Series, Babylo-
	Buchhandlung.		nian Texts, vol. 8.) New Haven: Yale University
VS 16	Schröder, O., 1917. Altbabylonische Briefe.		Press & London: H. Milford, Oxford University
<b>V</b> 5 10	(Vorderasiatische Schriftdenkmäler der		Press.
	königlichen Museen zu Berlin 16.) Leipzig: J.C.	YOS 11	van Dijk, J., A. Goetze & M.I. Hussey, 1985.
	Hinrichs'sche Buchhandlung.	10511	Early Mesopotamian Incantations and Rituals. (Yale
VS 17			
V 5 17	van Dijk, J. 1971. Nicht-kanonische Beschwörungen		Oriental Series, Babylonian Texts, vol. 11.) New
	und sonstige literarische Texte. (Vorderasiatische	VOC 17	Haven: Yale University Press.
	Schriftdenkmäler der Königlichen Museen zu	YOS 17	Weisberg, D.B., 1980. Texts from the Time of
	Berlin 17.) Berlin: Akademie Verlag.		Nebuchadnezzar. (Yale Oriental Series, Babylonian
WB	Erman, A. & H. Grapow (eds.), 1971. Wörterbuch		Texts, vol. 17.) New Haven: Yale University Press.
	der ägyptischen Sprache, 5 vols. Berlin: Akademie	YOS 19	Beaulieu, PA., 2000. Legal and Administrative
	Verlag.		Texts from the Reign of Nabonidus. (Yale Oriental
WMAH	Sauren, H., 1969. Wirtschaftsurkunden aus der Zeit		Series, Babylonian Texts, vol. 19.) New Haven:
	der III. Dynastie von Ur im Besitz des Musée d'Art		Yale University Press.

### **Preface**

## Augusta McMahon

The chapters in this volume invert traditional approaches to past human-animal relationships, placing animals at the forefront of these interactions and celebrating the many ways in which animals enriched or complicated the lives of the inhabitants of the ancient Near East. The authors embrace insights from text, archaeology, art and landscape studies. The volume offers rich evidence for the concept that 'animals are good to think' (Levi-Strauss 1963), enabling humans in categorizing the world around us, evaluating our own behaviours, and providing analogies for supernatural powers that are beyond humans' control. However, totemism has never fit the ancient Near East well, because most animals had varied and endlessly complicated relationships with their human associates, as these chapters vividly describe. Taboos on eating or handling animals ebbed and flowed, and the same animal could have both positive and negative associations in omen texts. Animals were good (or bad) to eat, good (or bad) to think, good (or bad) to live with (Kirksey & Helmreich 2010) and good (or bad) to be. Through detailed, theoretically informed and well-supported case studies, this volume moves the study of humananimal-environment interactions forward, presenting animals as embedded actors in culture rather than simply objectified as human resources or symbols.

The chapters in the first section emphasize the agency of animals via their abilities to resolve crises for humans and deities and to shift between animal and human worlds. Animals have paradoxical affects: as metaphors for wilderness and chaos, or as valued companions, helpers, or votive sacrifices. The variety of interactions and assumptions cautions us to treat animals, as we do humans, as individuals. Reconstruction of animals in past rituals has a long history, usually focused on animals associated with the gods and/or animals used in formal religious sacrifice. But the chapters in the second section also examine

the impact of lesser-known animals and less formal encounters, e.g., in the landscape or in funeral contexts within the home. The value and meanings of animals could vary with context.

The fascination engendered by hybrid or composite figures is also well represented. The persistence of composite figures in the Near East, from fourth millennium BC human-ibex 'shamans' on northern Mesopotamian Late Chalcolithic seals to *lamassu* and *mušhuššu* of the first millennium BC, suggests that the division and recombination of animal body elements fulfilled a human need to categorize powerful forces and create a cosmological structure. The anthropomorphizing of animals is another facet of the flexibility of animal identifications in the past. The authors here also grapple with the question of whether composite images represent ideas or costumed ritual participants.

The chapters also cover the most basic of animalhuman relations, that of herd management, use in labour, and consumption, digging deeply into details of mobility, breeding and emic classifications. Economic aspects of the human-animal relationship are currently being rejuvenated through archaeological science techniques (e.g., isotopes, ZooMS), which give us unparalleled levels of detail on diet, mobility, herd management, and species. Matching these insights from science, the issues raised here include the value of individual animals versus that assigned to species, the challenges of pests, the status ascribed to and reflected by different meat cuts, animals as status and religious symbols, and animals' tertiary products or uses (e.g., transport versus traction, bile). These studies allow a more detailed reconstruction of Near Eastern economy and society, as well as emphasizing the flexibility of the relationships between animals, as well as between human and animal.

The authors implicitly advocate for a posthumanist multispecies ethnography, which incorporates

nonhumans and argues for equal care to be given to nonhumans in the realms of shared landscapes, violence, labour and especially ecology (Kirksey & Helmreich 2010; Kopnina 2017; Parathian et al. 2018). This approach advocates for nonhumans' agency in creating shared worlds, in contrast to the traditional approach to animals as symbols or resources in the service of humans. Going forward, the challenge will be to convert the acknowledgement of equal cultural contribution into support for nonhuman species to speak for themselves; this shift from passive subject of research inquiry to genuine active agency in academic writing does not have an easy or obvious path, and many nonhuman animals may be overlooked. Indeed, multispecies ethnography ideally seeks to incorporate plants, microbes, stones and more (Ogden et al. 2013; Smart 2014), many of which are ephemeral in the archaeological record and all but omitted in ancient texts. However, ancient texts do support a new approach which questions our modern boundaries between species. Our perpetual struggle to translate terms for different species of equids, to distinguish whether a word refers to rats or mice, or to link zooarchaeological remains to lexical lists, reinforces the complexity and flexibility of these concepts, and the futility of attempts at absolute categorization.

The chapters in this volume should inspire colleagues to grapple with animals, nonhumans and contexts that could not be included here. For instance, the snake has as lengthy a history of human engagement in the Near East as does the lion and had similarly unusual powers. While the lion was an icon of strength, the perfect symbol for the proximity of the emotions of awe and fear, the snake has the sneaky ability to slither

between worlds, to avoid capture, and to deliver an almost imperceptible lethal injury. Fear of the snake conquers awe. Like the fox, the presence or actions of the snake, as listed in Šumma ālu, may be positive or negative omens. The snake was present at key moments in both Mesopotamian and Biblical literature; its actions (stealing the plant of immortality, offering the fruit of the tree of knowledge) changed the fate of humans forever. Whether represented coiled and copulating on Late Chalcolithic seals, grasped by Late Uruk 'Masters of Animals' or first millennium BC lamaštu, snakes and their paradoxical nature deserve deep scrutiny. There are many other nonhuman animals deserving of similar problematization and integration, and the eclectic and exciting research stream represented by this volume shows us the way.

#### References

Kirksey, S.E. & S. Helmreich, 2010. The emergence of multispecies ethnography. *Cultural Anthropology* 25(4), 545–76.

Kopnina, H., 2017. Beyond multispecies ethnography: engaging with violence and animal rights in anthropology. *Critique of Anthropology* 37(3), 333–57.

Levi-Strauss, C., 1963. Totemism. Boston: Beacon Press.

Ogden, L., B. Hall & K. Tanita, 2013. Animals, plants, people and things, a review of multispecies ethnography. *Environment and Society* 4(1), 5–24.

Parathian, H., M. McLennan, C. Hill, A. Frazão-Moreira & K. Hockings, 2018. Breaking through interdisciplinary barriers: human-wildlife interactions and multispecies ethnography. *International Journal of Primatology* 39, 749–75.

Smart, A., 2014. Critical perspectives on multispecies ethnography. *Critique of Anthropology* 34(1), 3–7.

## Chapter 4

## A Human–Animal Studies approach to cats and dogs in ancient Egypt: evidence from mummies, iconography and epigraphy

#### Marina Fadum & Carina Gruber

In comparison with other established disciplines, Human-Animal Studies is a relatively new field which attempts to validate human-animal relationships from a zoocentric point of view while considering the animal as an equally valued actor in processes within societies (Otterstedt & Rosenberger 2011; DeMello 2012; Wiedenmann 2015; Kompatscher et al. 2017). The concept of animal agency depicts the animal as an agent whose actions may have an impact on human perceptions, attitudes and/or actions (Shapiro 2008; DeMello 2012; Ferrari 2015; Joy 2011; Chimaira 2013; Roscher 2015; Wirth 2015). Roscher (2015, 86) defines animal agency as the ability of animals to influence human concepts and even human history, without (human) language, morality, culture and conscience. In western societies, most people consider themselves as humans and refer to other creatures as 'animals'. This belief that humans are separate from the animal world is referred to as 'human exceptionalism'. However, this semantic distinction does not exist in all human societies. Even in those which do have separate terms for humans and other animals, the borders are often fluid (DeMello 2012, 32-5; Chimaira 2013; Friedrich 2014; Wirth 2015).

The use of animals in religious rituals in ancient Egypt is well documented (David 2002; Teeter 2002; Zivie & Lichtenberg 2005; Petrie 2013; Ikram 2017). Animals were used as votive offerings, whereby an animal was sacrificed in order to facilitate the delivery of prayers (Ikram 2005). Significant numbers of cats, for example, were sacrificed to the goddess Bastet; a comparable number of dogs purportedly functioned as votive offerings for the canid deities Anubis, Khentamentiu or Wepwawet (Malek 1993; Fitzenreiter 2003; Ikram 2005; Rice 2006; Zahradnik 2009; Listemann 2010; Lange-Athinodorou 2018).

Keeping animals as pets is usually only practiced in those social groups with abundant resources. It follows, that in ancient societies, only the elite could afford to care for animals that did not earn their keep (DeMello 2012, 147–51; Chimaira 2013).

This chapter considers the human relationship with cats and dogs in ancient Egyptian culture using evidence from studies of cat mummies and inscriptions relating to the dog in ancient Egypt. It is argued that the evidence reveals differences in how the animals were treated according to the role allotted to them in ancient Egyptian society.

## Human-cat relationships in ancient Egypt: the cat as an animal mummy

Ikram (2005) uses four categories for studying animal mummies: pets, victual, cult animals and votive offerings (taken from Atherton-Woolham *et al.* 2019, 128). In a similar way this article considers the cat as votive mummy, as pet mummy, and as holy animal in ancient Egyptian society during the New Kingdom (c. 1539–1077 BC); the Late Period (c. 722–332 BC); and the Greco-Roman Period (c. 32 BC – AD 395).

Many authors have discussed the phenomenon of mummification in ancient Egyptian society. However, this treatment was not exclusive to humans (Fitzenreiter 2003; Assmann 2005; Ikram 2005; Lange-Athinodorou 2018). Evidence for non-human mummification can be found in the great number of animal cemeteries, which have revealed vast numbers of animal mummies (Malek 1993; Engels 2001; Ikram 2005; Lorenz 2013; Lange-Athinodorou 2018). The wide variety of mummified animals discovered includes crocodiles, birds, snakes, canids and felines (Malek 1993; Ikram 2005; Lorenz 2013). The findings mainly date from the periods of the New Kingdom, the Late Period and the Greco-Roman Period. Through mummification the body remained intact. According to the ancient Egyptian belief system, this ensured the passage to afterlife (Engels 2011; Fitzenreiter 2003; Ikram 2005; Lorenz 2013; Lange-Athinodorou 2018).

The largest category in terms of number of mummies found belongs to the cat as votive mummy. Ikram (2005) defines the votive mummy to be 'generally identified as an offering consisting of a specific mummified animal that was dedicated to its corresponding divinity so that the donor's prayers would be addressed to the god throughout eternity' (Ikram 2005, 9; Lange-Athinodorou 2018, 13). One such divinity prayed to was the cat goddess Bastet (Malek 1993; Lange-Athinodorou 2018, 14). Both, Ikram (2005) and Malek (1993), have stated that the animal was bred, killed, mummified and then sold to pilgrims to be a votive offering. In addition, Ikram (2005) further considers that the votive mummies were rather treated like objects: 'The votive mummies acted much in the same way as the candles purchased and burned in churches, except they were long lasting' (Ikram 2005, 9). This phenomenon became more and more popular during the Late Period and, according to Kessler, also became commercialized at this time (Fitzenreiter 2003; Kessler 2003, 51; Lange-Athinodorou 2018, 16).

Evidence from studies on animal mummies shows that the animals which were classed as votive offerings were treated much more harshly during their lives. According to Kessler (2003) a large number of animals were bred in temples specifically for the purpose of being used as votive offerings. This phenomenon increased throughout the Late Period (Malek 1993; Fitzenreiter 2003; Kessler 2003; Lange-Athinodorou 2018). The evidence from the animal mummies shows that these animals were brutally killed at a very young age (Fitzenreiter 2003; Ikram 2005; Lange-Athinodorou 2018).

Recent studies such as those from the Universities of Manchester, Zagreb and Trento, are shedding light on animal mummies through scientific analysis (Spencer 2007; McKnight 2014). Cat mummies have been analysed using modern techniques such as Multi-Slice Computer tomography, CT-Scans, MRT-Scans and X-Rays (Zivie & Lichtenberg 2005; Spencer 2007; Nicholson 2016; Lange-Athinodorou 2018). Such techniques offer a non-invasive examination, which avoids damage to the often-fragile mummies (Petaros et al. 2015). The results have revealed massive traumata in the majority of animal mummies found. The fact that most of the trauma was found in the spine disks of the neck led the team to conclude that the animals suffered a violent death. Analysis of teeth and bones showed most of the cats to have been between six months and two years old although younger cats were also identified (Malek 1993; Engels 2001; Zivie & Lichtenberg 2005; Fitzenreiter 2008; Lorenz 2013; McKnight 2014; Nicholson 2016). Other findings show similar traumata (Ikram 2005; Nicholson 2016). Evidence from the examination of holy animals and pets, however, reveals a different situation.

Holy animals were considered to be the incarnation of a god or a goddess. They were held at the temples within the cemetery compounds and treated with great honour throughout their lives. They were then mummified with skill and attention to detail (Goedicke 1986; Kessler 2003; Ikram 2005; Malgora et al. 2012; Lange-Athinodorou 2018). Such practices involved great effort. After their careful mummification holy animals were buried in beautifully designed sarcophagi. In contrast to the results of tests on votive mummies, holy animal mummies did not reveal traumata (Malek 1993; Kessler 2003; Ikram 2005; Malgora et al. 2012; Nicholson 2016). The same was the case for pet mummies. Analysis of the Trento Cat for example showed no traumata, and its body had been carefully wrapped in bandages (Malgora et al. 2012).

The Trento Cat is part of the collection of the Trento Buonconsiglio museum. The animal mummy can be dated to the Late Period, more precisely to the 26th or 27th Dynasty, however the exact provenance of the cat mummy is unknown (Malgora et al. 2012, 354). The Trento Cat is 39 cm long and in very good condition. It is covered in several layers of bandages which have been carefully wrapped in a rhombic pattern. The bandages vary in colour: the rhombic pattern is formed with dark red bandages, the remainder of the mummy those of a light earth colour. The head of the mummy features painted-on eyes, nose and mouth, and attached stuff-ears. CT-Scans of the mummy have revealed an entire cat skeleton under the layers of bandages (Zivie & Lichtenberg 2005, 118; Malgora et al. 2012). The scans further show that the cat was mummified in a sitting position (Malgora et al. 2012, 356). CT analyses of the bones, teeth and spine have shown a void skull with no remaining brain material. X-Rays have revealed signs of cracks within the skull bone which may have occurred post mortem. No other major fractures or traumata have been found: the spine and the remainder of the skeleton are perfectly intact (Malgora et al. 2012, 354). The delicate bandages and the general lack of traumata suggest that it is a pet mummy, as these types of animal mummies rarely show forms of traumata and additionally were more delicately wrapped than simple votive mummies (Malek 1993; Ikram 2006; Fitzenreiter 2008; McKnight 2014; Nicholson 2016; Lange-Athinodorou 2018).

DeMello suggests that the human-animal border in ancient Egyptian society existed but was not 'absolute', and further notes that cats were treated similarly to humans, in that they were mummified (DeMello 2012, 35). Arguably the Egyptians believed the animal had the chance to enter the afterlife in a similar way to humans. The evidence from the treatment of holyanimal mummies and pet mummies would support this assertion. In this case, the cats were treated in a similar way to humans without distinction between animal and human in terms of post mortem bodily treatment.

## Human–canine relationships in ancient Egypt: the dog as companion animal

The Egyptian experience of the humancanine relationship is particularly apt as it is by far the most ancient of which we have a documented record and the earliest in which the dog was consciously brought into membership of the human family in a settled context. (Rice 2006, 11)

It has been established that the dog in ancient Egypt could be a companion animal, as a several thousandyear co-evolution of dog and human, explained in more detail by Haraway (2003). A large number of iconographic sources illustrate the close relationship of the Egyptian elite with their pet dogs (Germond 2001; Zahradnik 2009; Listemann 2010; Bohms 2013). The dog is mostly depicted in private graves and was generally illustrated in a standing or running position by its owner's side or sitting or lying under its owner's seat (Zahradnik 2009; Listemann 2010). Furthermore, the dogs are shown running free (cf. Listemann 2010, tablet XXX, 6-7) or led on leashes (cf. Zahradnik 2009, fig. 133). The range of illustrations showing dogs as companion animals together with their owner, especially those in private graves, suggests that pet dogs were highly appreciated in Egyptian elite society (Zahradnik 2009; Listemann 2010). A good example of the appreciation of a pet dog is the richly ornamented coffin of the official Khui (Egyptian Museum Cairo, JE36445) which has an illustration of Khui together with his dog, *Iupu* [mnjw-pw], which is kept on a leash (cf. Listemann 2010, tablet XXVI, 4). According to Rice (2006, 68), 'he [Iupu] and Khui typify the Egyptian and his dog, walking together for all eternity in the Islands of the Blest'. From a HAS point of view, it can be argued that *Iupu*, as companion animal, had a 'social place' (DeMello 2012, 155) in Khui's life and played an important emotional role to him.

Further evidence of the close relationship between dogs and humans in ancient Egypt is shown by the fact that humans named their dogs. In ancient Egypt, giving names to pets was not as usual as it is nowadays (Bohms 2013). Therefore, the fact that they

were named is arguably evidence that a higher esteem was given to particular animals. Indeed, it is believed that dogs were one of the most preferred pets of the Egyptian family (Rice 2006; Bohms 2013). Evidence shows that dogs were given human names or names based on their typical character traits, for example m3'tj, meaning 'the reliable', or 'd3wtt' meaning 'goodfor-nothing' (Zahradnik 2009, 351; Listemann 2010, 62; Bohms 2013). Names for dogs have been found from the First Dynasty onwards until the Late Period (Zahradnik 2009). As shown in the next paragraph, evidence of naming is to be found on the stele of King Wahankh Intef II (Houlihan 1996; Störk 1998; Rice 2006; Zahradnik 2009). As stated in the introduction, giving a pet a name allows better communication since it is easier to address the animal directly (DeMello 2012; Krüger & Steinbrecher 2015). It is interesting to note that this practice occurred in ancient Egyptian society: the fact that they were naming some dogs suggests that these animals were considered important and part of the family.

Another indication of the nature of human-canine relationships in ancient Egypt is found in how the pet names were recorded. Some pet dogs are mentioned by name on funerary stelae and grave paintings (Zahradnik 2009; Listemann 2010; Bohms 2013). The Egyptians attached much importance to stelae as they were part of the personality cult in ancient Egypt (Martin 1986). As the Egyptians ordered funerary stelae for themselves before death, it is notable that some pet owners commissioned the illustration of their dogs on objects of such importance. An impressive example of this phenomenon is the funerary stele of King Wahankh Intef II (Egyptian Museum Cairo, CG20512), which shows an image of Intef surrounded by five of his dogs (cf. Rice 2006, fig. 62). One of Intef's dogs, Behkai, is pictured at his feet, indicating that this was probably his favourite pet (Houlihan 1996; Rice 2006). The name of *Behkai*, of Libyan origin meaning 'gazelle', is recorded on the stele as are those of the other dogs. The other inscriptions are Abaquer ('the hound'), Phetes ('the black one'), Tegra (meaning 'kettle') and Tekenru (Houlihan 1996; Störk 1998; Rice 2006; Zahradnik 2009). It is suggested that these five dogs, grouped around their owner, were accorded an extraordinary honour to be pictured and mentioned by name on the stele for all eternity. The honour accorded to pets among the elite in ancient Egypt adds weight to the suggestion that emotional bonds existed between them, and therefore implies a positive human-dog relationship in this context.

Additional evidence that there was a developed human-dog relationship in ancient Egypt is the use of dog collars and leashes from the Predynastic Period

onwards. This practice is very similar to that of modern societies. The leashes could be attached to the dog collar (Rice 2006), the pet and owner thus forming a single unit. Treating the animal in this way arguably demonstrates a great significance of the dog in such an early civilization as that of ancient Egypt (Zahradnik 2009; Listemann 2010). Different types of collars have been handed down to us: some with spherical pendants (cf. Listemann 2010, tablet XIII, 3), others with wrapped ties and loops (cf. Listemann 2010, tablet XX, 1), even some which were richly ornamented, as for example two leather collars (Egyptian Museum Cairo, JE33774, CG24076; cf. Listemann 2010, cat. 63, figs. 1-2). In addition, the use of leashes to tie or lead the dog, and further presumably to define the dog as a domesticated one, was a common phenomenon in ancient Egypt (Listemann 2010). The 'Golenischev dish' (Pushkin Museum Moscow, N2947), which dates back to Naqada I, can be taken as an example, as it is the oldest illustration in ancient Egypt of domesticated dogs on leashes (Zahradnik 2009; cf. Listemann 2010, tablet XIII, 1). The fact that the use of collars built a connection between the dog and its owner may show a bond of affection between canids and humans. Furthermore, this could be seen as an expression of animal agency since in this situation the dog interacts with its owner (Krüger & Steinbrecher 2015). In addition, it might also be an indication for ownership, which would then have a negative effect on the animal's social agency (Lauffer 2011; Krüger & Steinbrecher 2015).

In contrast to the dog as a companion animal, stray dogs in ancient Egypt were disdained (Bohms 2013; cf. Papyrus Anastasi IV, British Museum, EA10249), and hunting hounds were abused for hunting activities (Listemann 2010; Rice 2006; Zahradnik 2009). Listemann (2010) states that dogs were set on wild animals to rush them, until both of them, the prey and the hunting dogs, were exhausted and the human hunters would have an easy game (Rice 2006; Zahradnik 2009; cf. Listemann 2010, tablet XIX, 3). Moreover, millions of dogs were killed to be used as votive mummies interred in mass graves, as for example in the catacombs of the *Anubieion* in Saqqâra (cf. Ikram *et* al. 2015). Flossmann-Schütze's (2018) analysis of dogs which functioned as votive mummies reveals similar fractures and traumata to those discovered through the analysis of cat mummies (Ikram 2007; Listemann 2010; Flossmann-Schütze 2018; Lange-Athinodorou 2018). After being killed by strangulation or poison, dogs of all ages, from puppy to grown dog, were sacrificed to the canid deities Anubis, Khentamentiu or Wepwawet (Ikram 2007; Listemann 2010; Ikram, Nicholson & Mills 2015; Lange-Athinodorou 2018).

#### Conclusion

The analysis of cat mummies shows notable variations in the treatment of cats in ancient Egypt. In turn, the relationships between humans and cats have been shown to vary according to the circumstances and category of cat considered. In particular, significant divergence was found between the treatment of cats being bred for use as votive mummies and those whose function was to be a temple holy animal or pet.

From the available evidence, it seems reasonable to conclude that the cats used as votive offerings were treated more severely than those which functioned as holy animals or pets. The human-cat distance relationship in terms of emotions and values was likely closer for the pets and holy animals than for the votive offering animals.

The variety of iconographic sources showing dogs in action has established that dogs played an important role in ancient Egypt. Furthermore, these sources provide an insight into the *animal agency* which might have been attributed to these canids. The evidence also shows that dogs as pets were companion, friend and part of the family. Similarly to the evidence regarding cats, companion dogs were shown to have a closer relationship with humans and to have been treated better than was the case for other categories of dogs, particularly those used as votive mummies.

Future research in this area could develop knowledge about the relationships between humans and animals in the situations described. Although the studies described in this chapter have significantly helped our understanding of this area, there is still the need for more detailed analysis. As Petaros *et al.* state: 'Although mummy studies are being extensively published in international literature, there has been little discussion on forensic radiological species identification and analysis of mummified nonhuman remains' (2015, 55). The concept of *animal agency* in particular is still under-researched. It is hoped that further research in this area would provide further details about cats and dogs as subject within the era of ancient Egypt.

#### References

Assmann, J., 2005. Death and Salvation in Ancient Egypt. London: Cornell University Press.

Atherton-Woolham, S., L. McKnight, C. Price & J. Adams, 2019. Imaging the gods: animal mummies from Tomb 3508, North Saqqara, Egypt. *Antiquity* 93(367), 128–43.

Bohms, I., 2013. Säugetiere in der altägyptischen Literatur. (Ägyptologie 2.) Münster/Berlin: Lit-Verlag.

Chimaira-Arbeitskreis für Human-Animal Studies (eds.), 2013. *Tiere Bilder Ökonomien: Aktuelle Forschungsfragen* der Human-Animal Studies. Bielefeld: Transcript Verlag.

- David, R., 2002. *Religion and Magic in Ancient Egypt*. London: Penguin UK.
- DeMello, M., 2012. *Animals and Society: An Introduction to Human-Animal Studies*. New York: Columbia University Press.
- Engels, D., 2001. Classical Cats: The Rise and Fall of the Sacred Cat. New York (NY): Routledge.
- Fadum, M., 2018. Die Katze im Alten Ägypten Gottheit Nutztier Haustier "Osiris": Mit Perspektiven der Human-Animal Studies und möglichen Anwendungen für den Geschichte-Unterricht. Diploma thesis, unpublished. Innsbruck: Leopold-Franzens-Universität.
- Ferrari, A. & K. Petrus (eds.), 2015. *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag.
- Flossmann-Schütze, M., 2018. Kleine Götter große Götter? Wie der Tierkult den Alltag in Tuna el-Gebel prägte. Zeitschrift für Archäologie und Kulturgeschichte 2, 18–24.
- Fitzenreiter, M., 1994. Zum Ahnenkult in Ägypten. *Göttinger Miszellen* 143, 51–72.
- Fitzenreiter, M. (ed.), 2003. *Tierkulte im pharaonischen Ägypten*. (Internet-Beiträge zur Ägyptologie und Sudanarchäologie 4.) Berlin: Humboldt-Universität zu Berlin.
- Fitzenreiter, M., 2008. Jenseits im Diesseits: die Konstruktion des Ortes der Toten im pharaonischen Ägypten, in Körperinszenierung-Objektsammlung-Monumentalisierung 6, eds. C. Kümmel, B. Schweizer & U. Veit. Münster: Waxmann Verlag GmbH, 76–106.
- Friedrich, U., 2014. Portraits Menschentier und Tiermensch: Diskurse der Grenzziehung und Grenzüberschreitung im Mittelalter. *Historische Semantik online* 5, 11–19.
- Germond, P., 2001. Das Tier im Alten Ägypten. München: Hirmer.
- Gruber, C., 2018. Der domestizierte Hund und der vergöttlichte Schakal im Alten Ägypten – Ein Vergleich: Eine wissenschaftliche Analyse und eine fachdidaktische Aufarbeitung für den Geschichtsunterricht unter Berücksichtigung der Human-Animal Studies. Diploma thesis, unpublished. Innsbruck: Leopold-Franzens-Universität.
- Goedicke, H., 1986. Tierkult, in *Lexikon der Ägyptologie* VI, eds. W. Helck & W. Westendorf. Wiesbaden: Harrassowitz Verlag, 571–88.
- Haraway, D., 2003. The Companion Species Manifesto: Dogs, People, and Significant Otherness. Chicago: Prickly Paradigm Press.
- Houlihan, P.F., 1996. *The Animal World of the Pharaohs*. London: Thames & Hudson.
- Hornung, E., R. Krauss & D. Warburton, 2006. *Chronological Table for the Dynastic Period: Ancient Egyptian Chronology*. Boston: IDC Publishers.
- Ikram, S., 1995. *Choice Cuts: Meat Production in Ancient Egypt*. Leuven: Peters Press & Department of Oriental Studies.
- Ikram, S., 2003. *Death and Burial in Ancient Egypt*. London: Longman.
- Ikram, S., 2005. Protecting pets and cleaning crocodiles, in *Divine Creatures: Animal Mummies in Ancient Egypt*, ed. S. Ikram. New York: American University in Cairo Press, 207–18.
- Ikram, S., 2006. *Beloved Beasts: Animal Mummies from Ancient Egypt*. Cairo: Supreme Council of Antiquities Press.

- Ikram, S., 2007. Animals in the ritual landscape at Abydos: a synopsis, in *The Archaeology and Art of Ancient Egypt: Essays in Honor of David B. O'Conner*, eds. Z. Hawass & J. Richards. Cairo: Supreme Council of Antiquities Press, 417–32.
- Ikram, S., 2017. Animals in ancient Egyptian religion, in *The Oxford Handbook of Zooarchaeology*, ed. U. Albarella. Oxford: Oxford University Press, 452–65.
- Joy, M., 2011. Why We Love Dogs, Eat Pigs and Wear Cows: An Introduction to Carnism. San Francisco: Conari Press.
- Kessler, D., 2003. Tierische Missverständnisse: Grundsätzliches zu Fragen des Tierkultes, in *Tierkulte im pharaonischen Ägypten*, ed. M. Fitzenreiter. (Internet-Beiträge zur Ägyptologie und Sudanarchäologie 4.) Berlin: Humboldt-Universität zu Berlin, 33–68.
- Kompatscher, G., R. Spannring & K. Schachinger, 2017. Human Animal Studies: Eine Einführung für Studierende und Lehrende. Münster: Waxmann Verlag GmbH.
- Krüger, G. & A. Steinbrecher, 2015. Tiere. Europäische Geschichte online. https://d-nb.info/1125543957/34
- Lange-Athinodorou, E., 2018. Herrin des Himmels-Auge des Re: Der Kult der heiligen Katze in Bubastis. Zeitschrift für Archäologie und Kulturgeschichte 2, 12–17.
- Lauffer, A., 2011. Understanding Your Social Agency. University of Michigan: SAGE Publication.
- Listemann, K., 2010. Kulturgeschichtliche Bedeutung des Hundes im alten Ägypten: Untersuchungen anhand archäozoologischer und archäologischer Quellen. München: AVM.
- Lorenz, G., 2013. Tiere im Leben der alten Kulturen: Schriftlose Kulturen, Alter Orient, Ägypten, Griechenland und Rom. Innsbruck: Innsbruck University Press.
- Malek, J., 1993. *The Cat in Ancient Egypt*. London: British Museum Press.
- Malgora, S., S. Borgonovo, M. Moioli, A. Di Giancamillo, C. Domeneghini, & M. Di Giancamillo, 2012. Investigation of the Trento Cat Mummy. *Journal of Biological Research Bollettino Della Società Italiana Di Biologia Sperimentale* 85(1), 354–9.
- Martin, K., 1986. Stele, in *Lexikon der Ägyptologie* VI, eds. W. Helck & W. Westendorf. Wiesbaden: Harrassowitz Verlag, 1–6.
- McKnight, L. & S. Atherton-Woolham, 2014. The evolution of imaging ancient Egyptian animal mummies at the University of Manchester: 1972–2014, in *Mummies, Magic and Medicine in Ancient Egypt: Multidisciplinary Essays for Rosalie David*, eds. P. Campbell & F. Roger. Manchester: Manchester University Press, 346–54.
- Moss, C., 2000. Elephant Memories: Thirteen Years in the Life of an Elephant Family. Chicago: Chicago University Press.
- Nicholson, P., 2016. The sacred animal necropolis at North Saqqara: narrative of ritual landscape, in *Mummies*, *Magic and Medicine in Ancient Egypt: Multidisciplinary Essays for Rosalie David*, eds. P. Campell & F. Roger. Manchester: Manchester University Press, 19–32.
- Nicholson, P.T., S. Ikram & S. Mills, 2015. The Catacombs of Anubis at North Saqqara. *Antiquity* 89(345), 645–61.
- Otterstedt, C & M. Rosenberger (eds.) 2011. *Gefährten Konkurrenten –Verwandte. Die Mensch-Tier-Beziehung im wissenschaftlichen Diskurs*. Göttingen: Vandenhoeck & Ruprecht GmbH & Co KG.

- Petaros, A., I. Janković, F. Cavalli, G. Ivanac, B. Brkljačić & M. Čavka, 2015. Mummified remains from the Archaeological Museum in Zagreb, Croatia reviewing peculiarities and limitations of human and non-human radiological identification and analysis in mummified remains. *Journal of Forensic and Legal Medicine* 35, 54–61.
- Petrie, W.M.F., 2013. *The Religion of Ancient Egypt*. Cambridge: Cambridge University Press.
- Rice, M., 2006. Swifter Than the Arrow: The Golden Hunting Hounds of Ancient Egypt. London/New York: I.B. Tauris.
- Roscher, M., 2015. Geschichtswissenschaft: von einer Geschichte mit Tieren zur Tiergeschichte, in *Disziplinierte Tiere: Perspektiven der Human-Animal Studies für die wissenschaftlichen Disziplinen*, eds. R. Spannring, K. Schachinger, G. Kompatscher & A. Boucabeille. Münster/New York: Transcript Verlag, 75–99.
- Roscher, M., 2016. Zwischen Wirkungsmacht und Handlungsmacht: sozialgeschichtliche Perspektiven auf tierliche Agency, in *Das Handeln der Tiere: Tierliche Agency im Fokus der Human-Animal Studies*, eds. S. Wirth, A. Laue, M. Kurth, K. Dornenzweig, L. Bossert & K. Balgar. Bielefeld: Transcript Verlag, 43–65.
- Serpel, J., 2003. *In the Company of Animals: A Study of Human- Animal Relationships*. Cambridge: Cambridge University Press.
- Shapiro, K., 2008. *Human-Animal Studies. Growing the Field, Applying the Field.* Ann Arbor: Animals and Society Institute.
- Spannring, R., K. Schachinger, G. Kompatscher & A. Boucabeille, 2015. Einleitung: disziplinierte Tiere?, in Disziplinierte Tiere: Perspektiven der Human-Animal Studies für die wissenschaftlichen Disziplinen, eds. R. Spannring, K. Schachinger, G. Kompatscher & A.

- Boucabeille. Münster/New York: Transcript Verlag, 13–27.
- Spencer, N., 2007. The Gaya-Anderson Cat: British Museum Objects in Focus. London: British Museum Press.
- Steiner, G., 2015. Anthropozentrismus, in *Lexikon der Mensch-Tier-Beziehungen*, eds. A. Ferrari & K. Petrus. Bielefeld: Transcript Verlag, 28–30.
- Steward, H., 2009. Animal agency. Inquiry 52(3), 217-31.
- Störk, L., 1998. Tiere im alten Ägypten, in *Tiere und Menschen: Geschichte und Aktualität eines prekären Verhältnisses*, eds. P. Münch & R. Walz. Paderborn: Schöningh, 87–119.
- Teeter, E., 2002. Animals in Egyptian religion, in *A History* of the Animal World in the Ancient Near East, ed. B.J. Collins. Leiden/Boston/Köln: Brill, 335–60.
- Wiedenmann, R., 2015. Soziologie: humansoziologische Tiervergessenheit oder das Unbehagen an der Mensch-Tier-Sozialität, in *Disziplinierte Tiere? Perspektiven der Human-Animal Studies für die wissenschaftlichen Disziplinen*, eds. R. Spannring, K. Schachinger, G. Kompatscher & A. Boucabeille. Bielefeld: Transcript Verlag, 257–85.
- Wirth, S., A. Laue, M. Kurth, K. Dornenzweig, L. Bossert & K. Balgar (eds.), 2015. *Das Handeln der Tiere: Tierliche Agency im Fokus der Human-Animal Studies*. Bielefeld: Transcript Verlag.
- Zahradnik, E., 2009. Der Hund als geliebtes Haustier im Alten Ägypten anhand von bildlichen, schriftlichen und archäologischen Quellen: Altes und Mittleres Reich. Berlin: Pro Business.
- Zivie, A. & R. Lichtenberg, 2005. The cats of the goddess Bastet, in *Divine Creatures: Animal Mummies in Ancient Egypt*, ed. S. Ikram. New York (NY): American University in Cairo Press, 107–20.

## Fierce lions, angry mice and fat-tailed sheep

Animals have always been an integral part of human existence. In the ancient Near East, this is evident in the record of excavated assemblages of faunal remains, iconography and – for the later historical periods – texts. Animals have predominantly been examined as part of consumption and economy, and while these are important aspects of society in the ancient Near East, the relationships between humans and animals were extremely varied and complex.

Domesticated animals had great impact on social, political and economic structures – for example cattle in agriculture and diet, or donkeys and horses in transport, trade and war. Fantastic mythological beasts such as lion-headed eagles or Anzu-birds in Mesopotamia or Egyptian deities such as the falcon-headed god Horus were part of religious beliefs and myths, while exotic creatures such as lions were part of elite symbolling from the fourth millennium BC onward. In some cases, animals also intruded on human lives in unwanted ways by scavenging or entering the household; this especially applies to small or wild animals. But animals were also attributed agency with the ability to solve problems; the distinction between humans and other animals often blurs in ritual, personal and place names, fables and royal ideology. They were helpers, pets and companions in life and death, peace and war. An association with cult and mortuary practices involves sacrifice and feasting, while some animals held special symbolic significance.

This volume is a tribute to the animals of the ancient Near East (including Mesopotamia, Anatolia, the Levant and Egypt), from the fourth through first millennia BC, and their complex relationship with the environment and other human and nonhuman animals. Offering faunal, textual and iconographic studies, the contributions present a fascinating array of the many ways in which animals influence human life and death, and explore new perspectives in the exciting field of human-animal studies as applied to this part of the world.

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