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The Animal Turn and Byzantine Studies Historiographical Trends and Future Directions

ABSTRACT: This article surveys the development of Byzantine Animal Studies within the broader field of Human-Animal Studies (HAS), outlining its past achievements, current trends, and future directions. It begins by defining HAS and its interdisciplinary foundations, then explores key theoretical concepts such as the ‘animal turn’ and ‘animal lens.’ The article traces the emergence of sustained interest in animals among Byzantinists from 2008 onward, highlighting growing scholarly engagement with both material and symbolic animals. It further examines recent advances, including new editions, translations, and thematic studies, while critiquing their anthropocentric bias. Finally, it proposes more zoocentric approaches for future research on human-animal relations in Byzantium.

KEYWORDS: animals; Human-Animal Studies (HAS); humanities; animal turn; Byzantine literature; Byzantine Studies; historiography of the field; anthropocentrism; zoocentric strategies

The aim of this article is to define the state of the field when it comes to the exploration of Byzantine literary culture in respect of animals by focusing on its past and current contributions and possible future directions. The article is in five sections. The first one provides a definition of Human-Animal Studies (HAS), stressing the unique cross-disciplinarity of the field. It also highlights its main points of interest and offers a brief history of the discipline from its roots to its significant expansion in recent years. The second section delves into the key theoretical questions that HAS scholars often tackle in exploring human-animal entanglements. In doing so, it unpacks the notions of ‘animal turn’, ‘animal question’, ‘animal perspective’, and ‘animal lens’ as useful categories of historical analysis and as theoretical toolkits that present both great explanatory potential and challenges alike. The third section discusses when and how Byzantinists developed a sustained focus on animals, identifying 2008–2011 as marking the period in which the first evidence of this emerged. It surveys the scholarship on material and symbolic animals prior to and after that time and explains the increasing interest in Byzantine animals in the context of scholarly attention to the non-human in other premodern cultures. The fourth section, by far the longest in this paper, showcases how recent developments within Byzantine Studies (new critical editions and modern translations of works on animals, the organisation of animal-themed events, and interpretative studies on Byzantine texts involving animals) have opened up space for the emergent field of Byzantine Animal Studies. It also marks out the limitations of current interventions, notably their prevalent anthropocentrism, suggesting new, more zoocentric avenues for future research on human-animal co-dependencies in the Byzantine world. These are expanded upon in the fifth section. Without claiming to be exhaustive, this article provides a critical overview of the representative trends in the study of animals in Byzantine literature. It is concerned primarily with texts, rather than with zooarchaeology or iconography, which, where mentioned, serve secondarily or as auxiliary to the main textual focus.

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WHAT IS HUMAN-ANIMAL STUDIES (HAS)?

Human-Animal Studies (HAS), also known simply as Animal Studies or by the more technical term Anthrozoology, is a rapidly developing field of research, which examines the interactions between humans and animals in and across specific timeframes, geographical regions, and socio-cultural spaces¹. In doing so, it productively combines methods and insights from a wide range of disciplines from the humanities (literary studies, cultural history, philosophy, theology), social sciences (anthropology, zooarchaeology, ethnology, comparative psychology, linguistics, law), and natural and life sciences (zoology, veterinary medicine, environmental studies, ethology, biology, primatology) as well as areas that intersect with the above fields, notably cognitive science and ethics. In that sense, HAS is both interdisciplinary and multidisciplinary, given that it involves scholars from distinct backgrounds (interdisciplinary) to produce research outputs that are themselves made up from data drawn from multiple areas of knowledge (multidisciplinary)².

Since HAS's inception around 30 years ago and its explosion since the turn of the millennium, several overriding themes have dominated the debates in the field. These include: the role of animals in social and economic history, e.g. in sport, hunting, work and entertainment; the symbolism of animals in literature and art; the importance of animals in religion, folklore and language; animal rights/abuse and their ethical dimensions (meat consumption, animals in medical research); the social construction of animals; emotional bonds between humans and animals (normally domesticated ones and pets); human-animal hybrids (covering such notions as metamorphosis, mixanthropy, anthropomorphism); the intersections of speciesism (i.e. discrimination based on species identity), racism, sexism, and class privilege; the history of animal evolution, domestication, husbandry, and many more. These topics are not just covered in scholarly publications. They are actively institutionalised and further negotiated in specialised programmes such as MAs in Anthrozoology at universities and colleges in the US, UK, Canada, Germany and the Netherlands³, in addition to over 30 HAS organisations across the globe including in Australia. The expanding body of work in HAS is also documented in the existence of four primary lists for the exchange of knowledge and ideas between students and scholars interested in animals (e.g. H-Animal) and in the fact that major academic publishers such as Oxford University Press, Johns Hopkins and Brill have established dedicated HAS series. Heightened interest in HAS is also attested in the existence of currently some 15 academic journals publishing animal-informed research, the most important being *Anthrozoös* and *Humanimalia*.

ANIMAL TURN, ANIMAL QUESTION, ANIMAL PERSPECTIVE AND ANIMAL LENS: RESEARCH APPROACHES AND CHALLENGES

The relationship between humans and animals has been a disputed one throughout human history. The title of Hal Herzog's 2011 book *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals*⁴ encapsulates human beings' complex symbiosis with fauna and brings to the forefront key questions that HAS has been struggling to tackle: how can humans rethink

¹ The standard large-scale introductions for any newcomer to the field are M. DEMELLO, *Animals and Society: An Introduction to Human-Animal Studies*. Columbia 2012, and P. WALDAU, *Animal Studies: An Introduction*. Oxford 2016. See also M. GARRY – S. MCHUGH (eds.), *Routledge Handbook of Human-Animal Studies*. London 2014, and M. R. CALARCO, *Animal Studies. The Key Concepts*. London – New York 2021.

² DEMELLO, *Animals and Society* 7.

³ The collected volume edited by M. DEMELLO, *Teaching the Animal: Human-Animal Studies Across the Disciplines*. New York 2010 functions as a valuable textbook for anyone planning to develop a new HAS course in the humanities, social sciences, and natural sciences. See also G. KOMPATSCHER-GUFLER – R. SPANNRING – K. SCHACHINGER, *Human-Animal Studies. Eine Einführung für Studierende und Lehrende mit Beiträgen von Reinhard Heuberger und Reinhard Margreiter (UTB 4759)*. 2., überarb. u. aktual. Aufl. Münster – New York 2021.

⁴ H. HERZOG, *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals*. New York – London 2011.

and reconfigure their encounters with animals? This ‘animal question’ (Kalof 2017)⁵ has been seeking to build a scholarship of the non-human life and experience, in order to prompt us away from crude phenomena of speciesism, such as mass extinction, animal weaponisation or the pornography of meat (de Fontenay 1998)⁶. Akin to the ‘animal question’ is the well-known ‘animal turn’ that influenced several academic disciplines even earlier as a response to the animal rights movement back in 1975. Inspired by the seminal philosophical work of Peter Singer, *Animal Liberation* 1975, Tom Regan, *The Case for Animal Rights* 1983, and later on Jacques Derrida *L’animal que donc je suis (The Animal That Therefore I Am)* 2006⁷, the ‘animal turn’ (Ritvo 2007, Wolfe 2011)⁸ introduces crucial problematics on how we should treat animals, encouraging us to decentre the human and focus attention on non-human beings, so as to be able to examine them as subjects of life and history in their own right (Baratay 2012, Campbell 2014)⁹. This approach often comes with critical and radical politicisations of the key ethical, environmental, and social issues embedded in animal studies (Critical Animal Studies)¹⁰.

At the very heart of HAS lies the methodological invite to explore human-animal entanglements by seeing animals within the frame of human society and culture, i.e. by understanding them as vital components of the material foundations and ideological underpinnings of the human world. A particular challenge for many HAS scholars is the attempt to deconstruct the human construction of animals, ‘to unpack the various layers of meaning that we have imposed onto animal bodies and to try to see the animal within’¹¹. This can lead us to a ground-breaking shift in outlook. It can open up the ‘animal perspective’, which enables us to look at the world from the point of view of the animal, once we have recreated it as far as is humanly possible with the help of modern animal science. This approach is not without its complications, but still has great explanatory potential. For even if we cannot ever understand what it is like to smell like a dog, for example¹², given our different biological make-up¹³ (dogs massively outperform us as regards their sense of smell, having roughly forty times the number of smelling receptors humans do), it is indeed possible to make sense of canine bodily experiences and get to grips with the mechanics of their olfactory system in the light of biological research. As Ken Shapiro reminds us, ‘kinesthetic empathy’ is a good way of knowing the other via a compassionate understanding of the other’s embodiment, materiality, and use of space based on

⁵ L. KALOF (ed.), *The Oxford Handbook of Animal Studies*. Oxford – New York 2017.

⁶ É. DE FONTENAY, *Le Silence des bêtes: la philosophie à l’épreuve de l’animalité*. Paris 1998.

⁷ P. SINGER, *Animal Liberation: A New Ethics for our Treatment of Animals*. London 1975; T. REGAN, *The Case for Animal Rights*. Berkeley 1983; J. DERRIDA, *L’animal que donc je suis*. Paris 2006.

⁸ H. RITVO, On the Animal Turn. *Daedalus. Journal of the American Academy of Arts and Sciences* 136.4 (2007) 118–122; K. WEIL, A Report on the Animal Turn. *Differences: A Journal of Feminist Cultural Studies* 21.2 (2010) 1–23; C. WOLFE, Moving Forward, Kicking Back: The Animal Turn. *Postmedieval* 2 (2011) 1–12.

⁹ É. BARATAY, *Le Point de vue animal: Une autre version de l’histoire*. Paris 2012; G. CAMPBELL (ed.), *The Oxford Handbook of Animals in Classical Thought and Life*. Oxford 2014; cf. R. DELORT, *Les Animaux ont une histoire*. Paris 1984. Other relevant studies include, e.g.: M. DEKOVEN, Why Animals Now? *Publications of the Modern Language Association* 124 (2009) 361–369; E. FUDGE, What Was It Like to Be a Cow?: History and Animal Studies, in: *The Oxford Handbook of Animal Studies*, ed. L. Kalof. Oxford 2017, 258–278. See also the studies in n. 16.

¹⁰ See e.g. the different volumes in the new Brill series: *Critical Animal Studies*, editors: R. Twine and C. Parkinson, and the volume by A. J. NOCELLA II et al. (eds.), *Defining Critical Animal Studies: An Intersectional Social Justice Approach for Liberation*. New York 2014.

¹¹ DEMELLO, *Animals and Society* 16.

¹² A thesis advocated by the American philosopher Thomas NAGEL in his paper ‘What Is It Like to Be a Bat?’ first published in *The Philosophical Review* in October 1974. NAGEL argued that while humans may be able to imagine what it is like to be a bat by taking ‘the bat’s point of view’, it would still be impossible ‘to know what it is like for a bat to be a bat’. NAGEL’s thesis has been contested in the light of advancements in neuroscience, and scholarly discussions on animal consciousness and intersubjectivity. For a recent response, see https://thephilosophicalsalon.com/thomas-nagels-bat-and-ours/#_edn17 (accessed: 30.01.2025).

¹³ ‘We are, as a species, ontologically bound’, according to R. BODDICE, *The History of Emotions*. Manchester 2018, 101.

the embodied awareness that we have shared ways of knowing the world through bodily movement¹⁴. We can get closer to the dogs' worldview by sensitising ourselves to the functions of their bodies, their special capacities, and potential needs and intents arising from them (see below 'Where to now?').

Related intricacies but also ways out of them feature in the specialised field of Historical Animal Studies¹⁵. Historians have questioned our ability to access the perspective of a lingual, apparently incomprehensible, nonhuman others, since we are two stages away from its origins: a human being writes down accounts of animals and another human being (indeed probably several of them across time and space) decode(s) those human records¹⁶. Academic historiography has now argued that, even if we cannot set aside our involvement in the production and explication of animal history, we can still take a step back, leave room for the animals to emerge, and be open enough to appreciate what they are showing or telling us—an approach referred to as 'attentiveness'. To borrow Chris Pearson's words: even if historians 'cannot gain direct access to animal subjectivities and motivations', they can still 'think about how animals... are complex agents with varying degrees of cognitive abilities, intentionality and ways of relating'¹⁷. Focusing on the individual animals themselves (rather than exclusively on humans)—their actions, choices, presences, absences, voices, and even silences—when unpacking history and human-animal relations is what Joshua Specht has dubbed the 'animal lens', a powerful research prism that places the animal on an equal footing with the human as historical actor and factor¹⁸. Animal agency, once peripheral, is now firmly part of the historiographical mainstream in HAS¹⁹.

ANIMALS IN BYZANTIUM: HOW IT ALL STARTED

This proliferation of theoretical advances in HAS, accompanied by a spate of new books and articles on the subject, has impacted the research on animals conducted in the humanities. Important work has been done for certain ancient (e.g. Greek, Indian, Egyptian) and medieval cultures (e.g. Latin West, Islamic world), with the momentum increasing over time (Kalof 2007, Resl 2007, Fögen and Thomas 2017, Kindt 2017, Pommerening and Althoff 2018, Adamson and Fay Edwards 2018)²⁰. For example, influential work by Richard Sorabji 1993 and Catherine Osborne 2007 has made an

¹⁴ K. SHAPIRO, Understanding Dogs Through Kinesthetic Empathy, Social Construction, and History. *Anthrozoös* 3 (1990) 184–195.

¹⁵ The field is usefully introduced by M. ROSCHER – A. KREBBER – B. MIZELLE, Writing History after the Animal Turn? An Introduction to Historical Animal Studies, in: *Handbook of Historical Animal Studies*, eds. M. Roscher – A. Krebber – B. Mizelle. Berlin – Boston 2021, 1–18. The originator of the field is Harriet RITVO with her book *The Animal Estate. The English and Other Creatures in the Victorian Age*. Cambridge, Mass. 1987.

¹⁶ See, e.g., H. KEAN, Challenges for Historians Writing Animal–Human History: What Is Really Enough?. *Anthrozoös* 25.1 (2012) 57–72; A. REES, Animal Agents? Historiography, Theory and the History of Science in the Anthropocene. *The British Journal for the History of Science: Themes* 2 (2017) 1–10; Ph. HOWELL – H. KEAN, Writing in Animals in History, in: *The Routledge Companion to Animal-Human History*, eds. Ph. Howell – H. Kean. London 2018, 3–27; FUDGE, What Was It Like to Be a Cow?

¹⁷ C. PEARSON, Dogs, History and Agency. *History and Theory* 52.4 (2013) 128–145, at 138.

¹⁸ In Historical Animal Studies, the 'animal lens' refers to focusing on animals to provide new perspectives on human history and 'explore broader historical phenomena' 'by filtering them through an analysis of human-animal relationships', J. SPECHT, Animal History after its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens. *History Compass* 14 (2016) 326–336 (quotes taken from p. 326 and 327 respectively). As a research tool, the 'animal lens' could be expanded to refer to the scholarly willingness to take the perspective of the animal, or generally embrace concepts, methods, and insights from HAS.

¹⁹ S. E. MCFARLAND – R. HEDIGER, *Animals and Agency: An Interdisciplinary Exploration*. Leiden – Boston 2009.

²⁰ L. KALOF (ed.), *A Cultural History of Animals in Antiquity*. Oxford – New York 2007; B. RESL (ed.), *A Cultural History of Animals in the Medieval Age*. Oxford – New York 2007; T. FÖGEN – E. THOMAS (eds.), *Interactions between Animals and Humans in Graeco-Roman Antiquity*. Berlin – Boston 2017; J. KINDT, *Capturing the Ancient Animal: Human/Animal Studies and the Classics*. *Journal of Hellenic Studies* 137 (2017) 213–225; T. POMMERENING – J. ALTHOFF (eds.), *Kult, Kunst, Konsum. Tiere in alten Kulturen*. Darmstadt 2018; P. ADAMSON – G. FAY EDWARDS (eds.), *Animals: A History (Oxford Philosophical Concepts)*. New York 2018.

overwhelming case for the sentience of animals in the Graeco-Roman world and the need to approach animal-related evidence by straddling the human-animal divide and foregrounding points of affinity rather than difference between humans and animals²¹. Research in Classics has also stressed the methodological role of ‘animal affordances’, which encourage us to explore how the qualities of animals can help us develop by enabling us to better understand our own existence, place in the cosmos, and entanglements with our symbionts on this planet (Bettini 2013)²².

It should be noted, however, that, seen cumulatively in the context of the humanities’ ‘animal turn’, for the vast majority of premodern cultures the historiography of animals is scanty and unsystematic (e.g. we still do not have a comprehensive history and philosophy of animals in a set timeframe of the Graeco-Roman world or the Medieval West); while studies concentrating specifically on animals themselves as embodied and autonomous subjects, regardless of what they can reveal about human history and thought, are even more limited. On the Arabic front, for instance, an ERC Advanced Grant project (2018–2023) led by Peter Adamson has only recently investigated developments in the conception of animals in Islamicate philosophy²³, showing that humanistic fields are still lagging behind as regards pursuing genuinely zoocentric investigations. This is also confirmed by the relatively one-sided historiography of medieval Western European animals, which, despite the existing archipelago of studies, is mainly represented by research on the economically significant animal species (esp. horses, Ropa and Dawson 2022)²⁴, and on the symbolic functions of animals, especially their role as transmitters of theological and moral messages, in the light of medieval bestiaries, saints’ lives, and animal fables (a useful overview is Taylor 2018, and Glück, Krumm and Majewski 2023; cf. Byrne 2022)²⁵.

When it comes to Byzantium, things remain even more underdeveloped and there is less research available, despite the fact that animals have long been acknowledged as a vital component of Byzantine everyday life²⁶ and economy²⁷. This is both because of the restricted research community of Byzantinists worldwide and the limited research positions and funding available to them. Let’s see exactly how all this started, where we are at the moment, and what should hopefully come next.

The seeds of the academic interest in Byzantine animals may be located in a conference organised in June 2008 at the National Hellenic Research Foundation in Athens, which led to the publication of an important volume on the connection between humans, animals, and the natural environment (Anagnostakis, Koliás and Papadopoulou 2011)²⁸. By being the first of its kind for Byzantine Studies and covering not just texts but also the visual arts and to some extent zooarchaeology and zoo-osteology, this volume marked a breakthrough at the time and is still a helpful entry point for any newcomer wishing to investigate the roles of animals in the period from the seventh to the twelfth century.

²¹ R. SORABJI, *Animal Minds and Human Morals: The Origins of the Western Debate*. London 1993; C. OSBORNE, *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature*. Oxford 2007.

²² M. BETTINI, *Women and Weasels. Mythologies of Birth in Ancient Greece and Rome*. Chicago 2013.

²³ *Animals in Philosophy of the Islamic World (2018–2023)*: <https://www.philosophie.lmu.de/de/forschung/archiv/animals-in-philosophy-of-the-islamic-world-2018-2023/> (accessed 4.02.2025). The main reference work for medieval Islamic animals is M. H. BENKHEIRA – C. MAYEUR-JAOUEN – J. SUBLET, *L’animal en islam*. Paris 2005.

²⁴ A. ROPA – T. DAWSON (eds.), *Echoing Hooves: Studies on Horses and their Effects on Medieval Societies*. Leiden – Boston 2022.

²⁵ A. L. TAYLOR, *Where are the Wild Things? Animals in Western Medieval European History*. *History Compass* 16:e12443 2018; J. GLÜCK – M. KRUMM – K. MAJEWSKI, *Einleitung: Medieval Animal Studies*. *Das Mittelalter* 28.2 (2023) 259–270; cf. P. BYRNE, *Chronologies of the Animal Turn*. *Postmedieval* 13.1–2 (2022) 141–161.

²⁶ E.g. by the important but now outdated work by Ph. KOUKOULES, *Byzantinōn bios kai politismos*, 6 vols. Athens 1948–1955.

²⁷ E.g. A. E. LAIOU (ed.), *The Economic History of Byzantium: From the Seventh to the Fifteenth Century*, 3 vols. Washington, D.C. 2002.

²⁸ I. ANAGNOSTAKIS – T. KOLIÁS – E. PAPAPOULOU (eds.), *Animals and Environment in Byzantium (7th – 12th c.)*. Athens 2011.

Prior to the publication of this volume, the attention paid to the animal world by scholars tended to be more sparse and one-dimensional, centring mainly on the (symbolic) role of animals in the early Christian tradition (Grant 1999, Ciccarese 2002, Gilhus 2006, Spittler 2008)²⁹, on animal products and their use in Byzantine diet (Kokoszko 2005, Mayer and Trzcionka 2005, Mylona 2008, Brubaker and Linardou 2008)³⁰, on animals in law (Karakostas-Bredimas 2005)³¹, and on veterinary medicine. Study of the latter subject is especially connected with the *Hippiatrika* (a Byzantine compilation of seven late antique treatises dealing with the care and medical treatment of horses) and has tended to concentrate on the textual transmission and edition of relevant works, and their manuscript illustrations (Doyen-Higuet 2006, McCabe 2007, Ortoleva and Petringa 2009, Lazaris 2010)³². Important zooarchaeological findings on the material remains of various animal species across Byzantine territory were also available at the time (Kroll 2010)³³, as were the authoritative studies by the

²⁹ R. M. GRANT, *Early Christians and Animals*. London 1999; M. P. CICCARESE, *Animali simbolici: Alle origine del Bestiario Cristiano*. Bologna 2002; I. S. GILHUS, *Animals, Gods and Humans: Changing Attitudes to Animals in Greek, Roman and Early Christian Ideas*. London – New York 2006; J. E. SPITTLER, *Animals in the Apocryphal Acts of the Apostles: The Wild Kingdom of Early Christianity*. Tübingen 2008. This line of research continues to yield important insights, see e.g.: I. SCHAFF (ed.), *Animal Kingdom of Heaven. Anthrozoological Aspects in the Late Antique World*. Berlin – Boston 2019; R. MCLAUGHLIN, *Nonhuman Animals in Christian Theology*, in: *St Andrews Encyclopaedia of Theology* 2023, ed. B. N. Wolfe, available online: <https://www.saet.ac.uk/Christianity/NonhumanAnimalsinChristianTheology> (accessed: 27.06.2025); L. KOLÁŘOVÁ, *The Animal within Creation: Thoughts from Christian Theology*. *Theologica* 13.1 (2023) 43–66; D. COSTACHE, *Abraham, the Contemplation of Nature, and Divine Vision in Clement of Alexandria*, in: *Knowing God in Light: Theophany and Language*, eds. N. Tanase et al. Berlin 2024, 127–144.

³⁰ M. KOKOSZKO, *Ryby i ich znaczenie w życiu codziennym ludzi późnego antyku i wczesnego Bizancjum (III–VII w.)* [Fish and their Significance in the Everyday Life of People in Late Antiquity and Early Byzantium (3rd–7th Centuries)]. Łódź 2005; W. MAYER – S. TRZCIONKA (eds.), *Feast, Fast or Famine. Food and Drink in Byzantium*. Brisbane 2005; D. MYLONA, *Fish-Eating in Greece from the Fifth Century B.C. to the Seventh Century A.D.: A Story of Impoverished Fishermen or Luxurious Fish Banquets*. Oxford 2008; L. BRUBAKER – K. LINARDOU (eds.), *Eat, Drink and Be Merry (Luke 12:19). Food and Wine in Byzantium: Papers of the 37th Annual Spring Symposium of Byzantine Studies*. Birmingham 2008. This line of research persisted: see, e.g. M. CHRONI, *Hē Panida stēn Diatrophē kai stēn Iatrikē sto Byzantio*. Athens 2012; cf. B. CASEAU, *Dogs, Vultures, Horses and Black Pudding. Unclean Meats in the Eyes of the Byzantines* (2017) (<https://books.openedition.org/momeditions/10194?lang=en>; accessed: 31.01.2025); M. KOKOSZKO – Z. RZEŹNICKA, *Animals as a Source of Food during the Byzantine Period: Dietetic Advice and Dietary Reality*, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 265–296. Especially on honey and apiculture, see I. ANAGNOSTAKIS, *Wild and Domestic Honey in Middle Byzantine Hagiography: Some Issues relating to its Production, Collection and Consumption*, in: *Beekeeping in the Mediterranean from Antiquity to the Present*, eds. F. Hatjina – G. Mavrofridis – R. Jones. Nea Moudania 2017, 105–118, and S. GERMANIDOU, *Honey Culture in Byzantium - An Outline of Textual, Iconographic and Archaeological Evidence*, in: *Beekeeping in the Mediterranean from Antiquity to the Present*, eds. F. Hatjina – G. Mavrofridis – R. Jones. Nea Moudania 2017, 93–104.

³¹ I. K. KARAKOSTAS – A. H. BREDIMAS (eds.), *Ἐ Prostatia tōn zōōn kai to dikaio*. Athens 2005. See also A. BOULOUBASI, *Physiko kai anthropogenes periballon sto Byzantio. Oi kratikes periballontikes rythmisseis stē Byzantinē nomothesia*. University of the Peloponnese 2021 (Unpublished MA Dissertation).

³² A.-M. DOYEN-HIGUET, *L'Épitémé de la Collection d'hippiatrie grecque*, vol. 1. Louvain-la-Neuve 2006; A. MCCABE, *A Byzantine Encyclopaedia of Horse Medicine: The Sources, Compilation, and Transmission of the Hippiatrica*. Oxford 2007; V. ORTOLEVA – M. R. PETRINGA (eds.), *La veterinaria antica e medievale: testi greci, latini, Arabi e romanzi: atti del II Convegno internazionale*, Catania, 5 ottobre 2007. Biblioteca di Sileno, 2. Lugano 2009; S. LAZARIS, *Art et science vétérinaire à Byzance. Formes et fonctions de l'image hippiatrice* (*Bibliologia* 29). Turnhout 2010. See also: S. LAZARIS, *Some Thoughts on the Development of Medieval Hippiatric Science in the Mediterranean Region*, in: *Anekdotia Byzantina. Studien zur byzantinischen Geschichte und Kultur. Festschrift für Albrecht Berger anlässlich seines 65. Geburtstags* (BA 41), eds. I. Grimm Stadelmann et al. Berlin – Boston 2023, 391–412; S. LAZARIS, *Veterinaria (Medicina)*, in: *Dizionario delle scienze e delle tecniche di Grecia e Roma*, eds. P. Radici Colace – G. Solaro. Pisa – Rome 2022, 315–325; S. LAZARIS, *Veterinary Medicine*, in: *A Companion to Byzantine Science*, ed. S. Lazaris. Leiden 2020, 404–428.

³³ H. KROLL, *Tiere im Byzantinischen Reich: Archäozoologische Forschungen im Überblick*. Mainz 2010. Zooarchaeological research in Constantinople was later on expanded by V. ONAR, *Animals in Food Consumption During the Byzantine Period in Light of the Yenikapı Metro and Marmaray Excavations, Istanbul*, in: *Multidisciplinary Approaches to Food and Foodways in the Medieval Mediterranean*, ed. S. Y. Waksman. Lyon 2021, 331–342; V. ONAR et al., *Animal Skeletal Remains of the Theodosius Harbor: General Overview*. *Turkish Journal of Veterinary and Animal Sciences* 37 (2013) 81–85; V. ONAR et al., *Osteological Evidences of Byzantine Draught Cattle from Theodosius Harbour at Yenikapı, Istanbul*. *Mediterranean Archaeology and Archaeometry* 15.2 (2015) 71–80.

Maguires on animals in early Byzantine art that go back even further. The Maguires produced research on images of the natural world and how they related to corresponding descriptions in sermons, letters, poems, and *ekphraseis* by early Byzantine authors (Maguire 1987) and how depicted animals functioned as talismanic agents in sacred and secular contexts (Dauterman Maguire and Maguire 2007)³⁴. Taken collectively, these modes of inquiry have enabled and shaped the broader movements in the field.

To go back to the volume by Anagnostakis, Kolias and Papadopoulou 2011, this follows a traditional line of research by tracing functions and perceptions of animals in different areas of daily life during the middle Byzantine period, e.g. in trade, agriculture, diplomacy, hunting and fishing. It also deals with the representations of animals in political, rhetorical, and religious thought; and occasionally with animals as objects in science. However, methodologically speaking, one gets the impression that we are still at the stage of fact finding and gathering material, not being immersed in the phase of critical interpretation via theory from animal studies. When did this start to change?

SHIFT IN RESEARCH ON BYZANTINE ANIMALS

As a result of the increased interest in human-animal relations, especially under the influence of the methodological and theoretical advancements in HAS that have been taking place in the period between 2011 and today, the animal world in Byzantium is now beginning to come up more prominently on the scholars' radar. A number of studies have helped make important animal-related works more widely known by providing new scholarly editions and modern translations of Byzantine texts concerned with animals. The prestigious *Dumbarton Oaks Medieval Library* series alone has offered us no less than three such translations: a) that of Nikephoros Basilakes' *Progymnasmata*, which are replete with animals (notably the *Encomium to the Dog* but also the fables, Beneker and Gibson 2016)³⁵, b) the *Byzantine Sinbad*, i.e. a Byzantine version of a Persian wisdom storytelling tradition involving animals (Beneker and Gibson 2021)³⁶, and c) *Stephanites and Ichneutes*, the Byzantine adaptation of oriental stories with animal protagonists, drawing on the Arabic work *Kalila wa-Dimna* itself translated from an Indian prototype (Noble 2022)³⁷. Other translations of works featuring animals that have been explored in recent research include that of the *Description of a Crane Hunt* by Constantine Manasses (Messis and Nilsson 2019)³⁸ and the *Agricultural Law*, which includes details of legal penalties for animal abuse (Koder 2020)³⁹, while Arnaud Zucker has announced a new edition of the *Zoological Collection* of Constantine VII⁴⁰.

In addition to the above, the last fourteen years have seen the production of dedicated analyses of other animal-informed works such as the *Schede tou Myos*, Theodore Prodromos' *Katomyomachia* (*Cat and Mouse War*, a Byzantine version of an ancient Greek mock epic), an *ekphrasis* of a chariot race, and paradoxical encomia of insects (Marciniak and Warcaba 2014, Marciniak 2017, Marciniak

³⁴ H. MAGUIRE, *Earth and Ocean. The Terrestrial World in Early Byzantine Art*. University Park – London 1987; E. DAUTERMAN MAGUIRE and H. MAGUIRE, *Other Icons. Art and Power in Byzantine Secular Culture*. Princeton 2007. See also Z. KÁDÁR, *Survivals of Greek Zoological Illuminations in Byzantine Manuscripts*. Budapest 1978.

³⁵ J. BENEKER and C. A. GIBSON, *The Rhetorical Exercises of Nikephoros Basilakes. Progymnasmata from Twelfth-Century Byzantium. Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts London, England 2016.

³⁶ J. BENEKER – C. A. GIBSON, *The Byzantine Sinbad*, Michael Andreopoulos. *Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts – London 2021.

³⁷ A. NOBLE (with A. ALEXAKIS – R. H. GREENFIELD), *Animal Fables of the Courtly Mediterranean: The Eugenian Recension of Stephanites and Ichneutes. Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts London, England 2022.

³⁸ CH. MESSIS and I. NILSSON, *The Description of a Crane Hunt by Constantine Manasses: Introduction, Text and Translation. Scandinavian Journal of Byzantine and Modern Greek Studies* 5 (2019) 9–89.

³⁹ J. KODER (ed.), *Nomos Georgikos: Das byzantinische Landwirtschaftsgesetz. Überlegungen zur inhaltlichen und zeitlichen Einordnung. Deutsche Übersetzung*. Vienna 2020.

⁴⁰ As he informed me in private correspondence, the edition will be for the *Belles Lettres* series and will include text, translation, introduction and notes.

and Warcaba 2018, Marciniak 2019, Lauxtermann 2024, Marciniak and Warcaba 2024)⁴¹. These studies have very effectively shed light on these intriguing yet neglected texts on animals, with their chief focus being on their structure and content, authorship, genre, connection with classical sources, and rhetorical and educational traits, not on animals as independent subjects in themselves.

A similar focus on works dealing with animals as a means of extrapolating conclusions on Byzantine politics, rhetorical representations of imperial authority, and social commentary can be observed in studies dealing with later Byzantine texts such as Manuel Philes' poems on the nature of animals (Leonte 2017)⁴² and in particular the so-called 'animal epics'. These late Byzantine satirical works in vernacular Greek present animals interacting with other animals (*The Book of Birds*, *The Entertaining Tale of Quadrupeds*, *The Book of Fish*, *Synaxarion of the Honorable Donkey*). Such works have so far been addressed in isolation and were said to be satirising legal customs and revealing political or religious references concealed under sophisticated theriomorphic allusions (Prinzing 2003, Gaul 2007, Stewart 2019; cf. Eliopoulos 2021)⁴³. Can we move beyond the human viewpoint? More could be said, for example, on how these works engaged with animals not as narrative props but as independent beings, endowed with subjective experience, participation in moral activity, and, notably, the ability to vocalise the boundaries of human meaning through irony, humour, and dissimulation. This might happen through the medium of animal narratology, with a focus on animals as narrators of tales via dialogism and graphic storytelling (Jacobs 2020)⁴⁴. But before all that, we need to digest and move on from encyclopaedic recordings of animal knowledge (Koutrakou 2011, Littlewood 2007)⁴⁵.

Byzantine technical works on animals have also come into vogue lately. These include mostly works on the properties of animals (e.g. Timotheus of Gaza's treatise *On Animals*, 5th c. CE), allegories intended to offer spiritual guidance (the *Physiologus*, the first Christian bestiary, ca. 2nd-4th c. CE), encyclopaedias (e.g. the *Constantine Encyclopaedia*, 10th c.), or zoologically-informed accounts in miracle tales (e.g. *Life and Miracles of Thekla*, 5th c.) and hexaemeral literature (i.e. commentaries on the six days of Creation such as Basil's homilies in his *On the Hexaemeron*, 4th c., and

⁴¹ P. MARCINIAK – K. WARCABA, Racing with Rhetoric: A Byzantine Ekphrasis of a Chariot Race. *BZ* 107.1 (2014) 97–112; P. MARCINIAK, A Pious Mouse and a Deadly Cat: The Schede tou Myos, attributed to Theodore Prodromos. *GRBS* 57 (2017) 507–527; P. MARCINIAK – K. WARCABA, Theodore Prodromos' Katomyomachia as a Byzantine Version of Mock-Epic, in: *Middle and Late Byzantine Poetry: Texts and Contexts*, eds. A. Rhoby – N. Zagklas. Turnhout 2018, 97–110; P. MARCINIAK – K. WARCABA, How to lament a Fallen Mouse? A Parody of Ancient Lament in the Katomyomachia by Theodore Prodromos'. *BZ* 117.1 (2024) 157–168; M. D. LAUXTERMANN, Of Mice and Cat: The Katomyomachia as Drama, Parody, School Text and Animal Tale, in: *Poetry in Byzantine Literature and Society (1081–1204): New Texts, New Approaches*, eds. B. van den Berg – N. Zagklas. Cambridge 2024, 183–202; P. MARCINIAK, The Paradoxical Enkomion and the Byzantine Reception of Lucian's Praise of the Fly. *MEG* 19 (2019) 141–150.

⁴² F. LEONTE, ...For I have brought to you the Fugitive Animals of the Desert: Animals and Representations of the Constantinopolitan Imperial Authority in two Poems by Manuel Philes, in: *Animaltown: Beasts in Medieval Urban Space*, eds. A. M. Choyke – G. Jaritz. Oxford 2017, 179–189.

⁴³ G. PRINZING, Zur byzantinischen Rangstreitliteratur in Prosa und Dichtung. *RHM* 45 (2003) 241–286; N. GAUL, The Partridge's Purple Stockings: Observations on the Historical, Literary and Manuscript Context of Pseudo-Kodinos' Handbook on Court Ceremonial, in: *Theatron: rhetorische Kultur in Spätantike und Mittelalter*, ed. M. Grünbart. Berlin 2007, 69–103; K. STEWART, An Entertaining Tale of Quadrupeds: Animals and Insults in a Late Byzantine Poem, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*, eds. T. Schmidt – J. Pahlitzsch. Berlin – Boston 2019, 165–183. Cf. P. ELIOPOULOS, Ta zōa ston prosblētiko logo tōn Byzantinōn. *Byzantina Symmeikta* 31 (2021) 51–120.

⁴⁴ J. JACOBS, ed. *Animal Narratology*. Printed Edition of the Special Issue Published in *Humanities*. Basel 2020.

⁴⁵ N. KOUTRAKOU, Animal Farm in Byzantium? The Terminology of Animal Imagery in Middle Byzantine Politics and the Eighth Deadly Sins, in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 319–377. Littlewood 2007 proceeds along the same lines in providing a list of the instances where animal imagery and language are used in the *History* of Niketas Choniates. A. LITTLEWOOD, Vegetal and Animal Imagery in the History of Niketas Choniates, in: *Theatron: Rhetorische Kultur in Spätantike und Mittelalter*, ed. M. Grünbart. Berlin 2007, 223–258.

George Pisides' *Hexaemeron*, 7th c.)⁴⁶. The *Geoponika* (an encyclopaedic collection of agricultural lore compiled during the tenth century for the emperor Constantine VII), the various recensions of Byzantine horse manuals (*Hippiatrika*), war manuals (e.g. *Sylloge Tacticorum*), and veterinary texts on falcons and dogs, and birds from later Byzantium (*Ierakosophion*, *Kynosophion*, *Orneosophion*) may also be included in this category. Interest in these texts tends to revolve around their authorship and general characteristics (Lazaris 2006)⁴⁷, what they can tell us about taxonomy and classification of species (Lazaris and Aragon 2025, Chronē-Vakalopoulos and Vakalopoulos 2009)⁴⁸; their formative influences (e.g. Fögen 2022, McCabe 2007)⁴⁹; and receptions. In connection with the latter, volume 7 of the online journal *RursuSpicae* published in 2012 (<https://journals.openedition.org/rursus/617>; accessed: 3.02.2025) offers studies that examine the *Zoological Collection* commissioned by Constantine VII (the *Constantine Encyclopaedia*) and how it revived interest in Aristotelian biology and Timotheus of Gaza. A more comprehensive analysis of zoological knowledge in Byzantium and its background is provided by Zucker 2020⁵⁰.

The publication of a recent volume on the transmission of zoological knowledge in late antiquity and Byzantium (Hellmann and Zucker 2023)⁵¹ has shown that we have moved beyond the phase of source identification. By foregrounding both the different processes involved in material collection (selection, adaptation, reinterpretation etc) and the various intellectual agendas these processes served or promoted, the volume offers nuanced insights into the epistemology of zoological knowledge in the (Byzantine) Greek, but also the Latin and Islamic world during the medieval period. For example, in the volume mentioned above, Diego De Brasi has now shown that stories about animals in the *Physiologos* and the *Hexaemera* literature (homiletic tradition) do not just serve the purposes of moral didacticism but also convey important lessons about the epistemology of the natural world, including in connection with Christian ideas on the creation of the *kosmos*⁵². It also shows how fantastical animals were legitimised to contemporary audiences as representing factual knowledge. Animals in dream interpretation, prognostication and hunting have also received

⁴⁶ Interest has also been shown in other *Hexaemera* lately: see e.g. D. ZAGANAS, L'Hexaemeron d'Anastase le Sinaitte. Son authenticité, ses sources et son exégèse allégorisante. Leiden – Boston 2022. A handy overview of the *Physiologos* and *Hexaemeral* literature, with further references, is provided by S. LAZARIS, Christianising Animals: Physiologos and Hexaemeral Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 58–82; cf. C. MACÉ, Animals in Pseudo-Eustathius of Antioch's Chronicle, in: *Von der Historienbibel zur Weltchronik. Studien zur Paleja-Literatur*, ed. C. Böttrich – D. Fahl – S. Fahl (*Greifswalder Theologische Forschungen*, 31). Leipzig 2020, 205–222. On the Greek *Physiologos*, see S. LAZARIS, *Le Physiologos grec* (2 Vols). Firenze 2016 & 2021.

⁴⁷ S. LAZARIS, La production nouvelle en médecine vétérinaire sous les Paléologues et l'oeuvre cynégétique de Dèmétrios Pépagôménos, in: *Philosophie et sciences à Byzance de 1204 à 1453: les textes, les doctrines et leur transmission. Actes de la table ronde organisée au XXe Congrès International d'Etudes Byzantines (Analecta Orientalia Lovaniensia)*, eds. M. Caours – M.-H. Congourdeau. Louvain 2006, 225–267.

⁴⁸ S. LAZARIS and S. ARAGON (eds), Identifications des espèces animales : controverses antiques et modernes. Valenciennes 2025; M. CHRONE-VAKALOPOULOS – A. VAKALOPOULOS, Fishes and Other Aquatic Species in the Byzantine Literature. Classification, Terminology and Scientific Names. *Byzantina Symmeikta* 18 (2009) 123–157.

⁴⁹ T. FÖGEN, Of Mice and Men. Zur Darstellung von Tieren in den Geoponika. *Gymnasium* 129.6 (2022) 539–573; MCCABE, A Byzantine Encyclopaedia of Horse Medicine; cf. J. F. KINDSTRAND, Manuel Philes' Use of Aelian's *De Natura Animalium* in his *De Animalium Proprietate*. *Studi italiani di filologia classica* 4 (1986) 119–139.

⁵⁰ A. ZUCKER, Zoology, in: *A Companion to Byzantine Science*, ed. S. Lazaris. Leiden 2020, 261–301; see also A. ZUCKER, Timotheus of Gaza and the Zoological Collection of Constantine VII: Two Byzantine Treatises, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 42–57.

⁵¹ O. HELLMANN – A. ZUCKER eds, *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*. Trier 2023.

⁵² D. DE BRASI, Basil of Caesarea's Homilies on the Six Days of Creation: Scientific Transfer and Moral Education between Aristotle and the Bible, in: *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*, eds. O. Hellmann – A. Zucker. Trier 2023, 37–58.

increased attention and further illumination, though mostly from an anthropocentric point of view⁵³, showing the persistent invisibility of animals as subjects in themselves in scholarly research.

What is obvious from the above survey is that most of this scholarship does not speak directly to the wider interdisciplinary debate but rather reflects an awareness of the importance of animals to various Byzantine texts and contexts, perhaps, but not necessarily, thanks to the growth in HAS. As the years have gone by, Byzantinists have been particularly active in organising animal-related conferences and other events. One should note, for example, the session on Byzantine animals at the 45th Annual Byzantine Studies Conference in Wisconsin-Madison in October 2019; a conference on ‘Diffusion of zoological knowledge in late Antiquity and the Byzantine period’ in Trier also in October 2019; and another one on ‘Byzantine Animals between Materiality and Fantasy’ in Katowice in June 2023. Yet, the current state of affairs is less encouraging: we only have disjointed case studies—mostly articles and chapters—each dealing with a single topic, author, work, or, at best, a genre or a specific period of time: bits and pieces of a jigsaw puzzle, while the complete picture is still missing. Moreover, the most recent developments in Animal Studies have yet to be fully integrated into Byzantine Studies as a whole. Remarkably, scholarly interest in Byzantine nature is better represented: we currently have three stimulating monographs, one on Byzantine tree life and arboreal imagination (Arentzen, Burrus and Peers 2021)⁵⁴, one on the environment and society (Olson 2020)⁵⁵, and another on Byzantine ecocriticism (Goldwyn 2018)⁵⁶ in addition to an edited volume on Byzantine garden culture (Littlewood, Maguire, and Wolschke-Bulmahn 2002)⁵⁷ and the brand new *A Companion to the Environmental History of Byzantium* (Izdebski and Preiser-Kapeller 2024, esp. the chapter by Baron)⁵⁸. K. Mavrommati’s book on environmental issues in late Byzantine epistolography is scheduled for publication as this article is being written⁵⁹.

A welcome new avenue that has appeared lately is the use of insights from posthumanism to show the ways in which Byzantine animals served to articulate status, class and gender (Perisanidi 2024)⁶⁰. This strand of research is influenced by HAS trends. Another is the productive dialogue with ecocriticism, as seen in the exemplary work of Adam Goldwyn on ecocritical readings of Byzantine romances, emphasising the sympoietic co-existence of humans, animals, plants and objects in

⁵³ Animals in hunting: e.g. Ph. KOUKOULES, Kynēgetika ek tēs epochēs tōn Komnēnōn kai tōn Palaiologōn. *EEBS* 9 (1932) 3–33; K. SINAKOS, To kynēgi kata tē mesē Byzantinē epochē (7os–12os ai.), in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 71–86; Ch. MESSIS – I. NILSSON, Man, Beast and Nature: Descriptions of Hunting in Byzantine Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 187–210. Specifically on falconry, see S. LAZARIS, Hunting in Byzantium: A Case Study in Falconry, in: *Falconry in the Mediterranean Context during the Premodern Era*, eds. Ch. Burnett – B. Van den Abeele. Genève 2021, 261–276; Y. HADJINICOLAOU, The Art of Medieval Falconry. London 2024; A. KÜLZER, Some Notes of Falconry in Byzantium, in: *Raptor and Human: Falconry and Bird Symbolism throughout the Millennia on a Global Scale*, eds. K.-H. Gersmann – O. Grimm. Kiel 2018, 699–706. Animals in prognostication: S. COSTANZA, Nitriti come segni profetici. Cavalli fatidizi a Bisanzio (XI–XIV sec.). *BZ* 102 (2009) 1–24; S. COSTANZA, Wiehernde Pferde und westlicher Einfluss auf die Divination der Komnenen- und Palaiologenzeit. *Byzanz und das Abendland V. Studia Byzantina Occidentalia*, ed. E. Juhász. Budapest 2017, 99–113; M. GRÜNBART, Mantic Arts: Traditions and Practices in the Medieval Eastern Christian World, in: *Prognostication in the Medieval World: A Handbook*, vol. 1, eds. M. Heiduk et al. Berlin – Boston 2021, 446–452.

⁵⁴ T. ARENTZEN – V. BURRUS – G. PEERS. *Byzantine Tree Life: Christianity and the Arboreal Imagination*. Cham 2021. See also T. ARENTZEN, Arboreal Lives: Saints among the Trees in Byzantium and Beyond. *Scandinavian Journal of Byzantine and Modern Greek Studies* 5 (2019) 113–136.

⁵⁵ A. OLSON, *Environment and Society in Byzantium, 650–1150: Between the Oak and the Olive*. Cham 2020.

⁵⁶ A. GOLDWYN, *Byzantine Ecocriticism: Women, Nature, and Power in the Medieval Greek Romance*. Cham 2018.

⁵⁷ A. LITTLEWOOD – H. MAGUIRE – J. WOLSCHKE-BULMAHN (eds), *Byzantine Garden Culture*. Washington D.C. 2002.

⁵⁸ H. BARON (née Kroll), *Animals and the Byzantine Environment: Zooarcheological Approaches*, in: *A Companion to the Environmental History of Byzantium*, eds. A. Izdebski – J. Preiser-Kapeller. Leiden – Boston 2024, 137–161.

⁵⁹ K. MAVROMMATI, *The Natural Environment in Late Byzantine Correspondence*. Cham 2025.

⁶⁰ M. PERISANIDI, *Masculinity in Byzantium, c. 1000–1200: Scholars, Clerics and Violence*. Cambridge 2024, 43–72 (in connection with John Tzetzes).

Byzantine literature⁶¹; or Tristan Schmidt's illuminating discussion on eco-poetics (Schmidt 2022)⁶². Additional theoretical directions may be observed in studies devoted to animal language (Hawhee 2017)⁶³, animal rationality and communication (Schmidt 2024)⁶⁴ and animal agency (Schneider 2023; Schmidt forthcoming)⁶⁵ in Byzantium (cf. Cox Miller 2018 and Vorpahl 2020 for early Christianity)⁶⁶. These studies involve the sort of interdisciplinary thinking that represents one desirable direction in which the animal turn could travel next.

As should have become obvious by now, Byzantine textual sources have so far been examined for what they can tell us about the place of tangible animals in human history. They have also been explored for the animals' function as images and symbols and how they helped the Byzantines shape their ethical, political, religious, and metaphysical ideas. Some other studies, however, tend to focus on the intersections between the material and the symbolic. Przemysław Marciniak 2024⁶⁷ explores octopus zoobiography, discussing Byzantine perceptions of the physical traits of this sea creature and the metaphorical applications these sparked in Byzantine literary and cultural discourse. This study situates itself in the ambit of premodern zoology, showing that zoological material is influenced by the horizon of expectations of its intended audience. It stresses that any discussion of the octopus in Byzantine textual sources must take into consideration the interconnections between the scientific, anecdotal and literary uses of this marine creature. Marciniak's 'Byzantine cultural entomology'⁶⁸ is in the same spirit in that it offers a 'microhistory' of Byzantine insects revealing their metaphorical functions in the Byzantine *imaginaire*. The author reaches two main conclusions: first, the dynamic dialogue that emerged between pagan and Christian metaphors on insects, and second, how the Byzantines reworked the ancient tradition on insects by projecting their Christian beliefs onto it. This article is important in that it foregrounds species eclipsed by those more normally dominating the modern conversation on animals in Byzantium and premodernity in general, namely horses (Kolias 2009, Kaya 2020, Stamouli 2021, Stamouli 2022, Perisanide 2020)⁶⁹, dogs (Rhoby 2018, Schmidt 2019, Krueger 1996, Metzger 2015, Duffy 2009, Gibson 2017, Franco 2023)⁷⁰, cats

⁶¹ See GOLDWYN, Byzantine Ecocriticism.

⁶² T. SCHMIDT, Constantinople and the Sea: Narratives of a Human-Nonhuman Ecosystem? *Scandinavian Journal of Byzantine and Modern Greek Studies* 8 (2022) 69–103.

⁶³ D. HAWHEE, Rhetoric in Tooth and Claw: Animals, Language, Sensation. Chicago 2017, 89–112 (focus on Psellos' paradoxical encomium).

⁶⁴ T. SCHMIDT, Because I don't Speak Human – Literary Concepts of Verbal and Nonverbal Human-Animal Communication up to the Middle Byzantine Period. *BZ* 117.3 (2024) 841–876.

⁶⁵ H. SCHNEIDER, Michael Italikos' Monodie auf ein totes Steinhuhn. Ein byzantinischer Text im Fokus moderner ‚Human-Animal Studies. *Das Mittelalter* 28.2 (2023) 429–447; T. SCHMIDT, Agency – A Core Concept in the Cultural History of Human-Animal Relations, in: *Ecologizing Late Ancient and Byzantine Worlds*, eds. T. Arentzen – L. Borghetti. London 2025, 103–121.

⁶⁶ See also P. COX MILLER, *In the Eye of an Animal: Zoological Imagination in Ancient Christianity*. Philadelphia 2018; D. VORPAHL, A Donkey that speaks is a Donkey no less: Talking Animals in the Hebrew Bible and its Early Jewish Reception, in: *Speaking Animals in Ancient Literature*, ed. H. Schmalzgruber. Heidelberg 2020, 509–525.

⁶⁷ P. MARCINIAK, Writing a Byzantine Zoobiography: The Case of the Octopus. *BZ* 117.3 (2024) 669–692.

⁶⁸ P. MARCINIAK, Byzantine Cultural Entomology (Fourth to Fifteenth Centuries): A Microhistory of Byzantine Insects. *DOP* 77 (2023c) 177–194.

⁶⁹ T. G. KOLIAS, The Horse in the Byzantine World, in: *Le Cheval dans les sociétés antiques et médiévales (Actes des journées d'études internationales, 6–7 novembre 2009. Strasbourg)*, ed. S. Lazaris. Turnhout 2012, 87–97; T. KAYA, Routes and Communications in Late Roman and Byzantine Anatolia (ca. 4th–9th centuries A.D.). Middle East Technical University 2020 (Unpublished PhD Thesis); A.-F. STAMOULI, The Use of Horses in The History by Georgios Akropolites: A Comparison with *Historia Romana* by Nikephoros Gregoras. *Cheiron: The International Journal of Equine and Equestrian History* 1.1 (2021) 86–99; A.-F. STAMOULI, Information of Middle Byzantine Hagiographical Texts about Equids, in: *Echoing Hooves: Studies on Horses and their Effects on Medieval Societies*, eds. A. Ropa – T. Dawson. Leiden – Boston 2022, 112–138; M. PERISANIDI, Byzantine Parades of Infamy through an Animal Lens, *History Workshop Journal* 90 (2020) 1–24.

⁷⁰ A. RHOBY, Hunde in Byzanz, in: *Lebenswelten zwischen Archäologie und Geschichte. Festschrift für Falko Daim zu seinem 65. Geburtstag*, eds. J. Drauschke et al. Mainz 2018, 807–820; T. SCHMIDT, Noble Hounds for Aristocrats, Stray Dogs for Heretics, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in*

(Kislinger)⁷¹ or birds (esp. with reference to Michael Italikos' *Monody* to his dead bird, Schneider 2023, Agapitos 1987)⁷². The other key contribution of this study is that it argues that Byzantine authors were able to acknowledge the abilities of and complex tasks performed by some insects (p. 184) by reworking the ancient tradition (see remarks on Plutarch below). It has become increasingly important to argue in favour of animals having their own active space of interaction with the Byzantines in the urban space of Constantinople (what has been termed 'animalscape') (Marciniak 2023a)⁷³ and of their being cultural constructs (Marciniak 2023b)⁷⁴.

The work of Tristan Schmidt also forges a role for animals as figures of thought and speech while also recognising their identity as 'material-semiotic hybrids' (in line with Borgards 2016 and Haraway 2008)⁷⁵. Schmidt has done astute work on animal imagery in Byzantine political discourse in the 'long twelfth century', showcasing the research potential of the topic through a series of dedicated studies (Schmidt 2019a, 2019b, 2019c, 2020, 2025; cf. 2022)⁷⁶. In 2019b, for example, he looks at the different metaphorical uses of dogs in Byzantine court literature, showing that the sign 'dog' could stand for either social status, power and submission or religious heresy depending on the narrative situation and intended meanings. And in 2019c he discusses how Byzantine authors made use of concepts relating to certain animal species, specifically of the immutable reproduction of the lion and the eagle, for the purposes of political propaganda, in this case to authorise claims by the elite to hereditary succession to the imperial throne.

Overall, Schmidt shows that animals are material-semiotic actors as advocated by zoopoetics, a theoretical field that explores how animals shape human literature, stressing that it is often the awareness of the concrete creature that provides the basis for the construction of semiotic readings and the use of animals as framing devices in human discourse (Moe 2012, 28–29; Driscoll 2015)⁷⁷. In his 2024 paper, for example, Schmidt proposes reading texts from different genres on the assumption

Ancient and Medieval Mediterranean Thought, eds. T. Schmidt – J. Pahlitzsch. Berlin – Boston 2019, 103–131; D. KRUEGER, Symeon the Holy Fool: Leontius's Life and the Late Antique City. Berkeley – Los Angeles – London 1996, 85–87, 90, 100–117; N. METZGER, Kynanthropy: Canine Madness in Byzantine Late Antiquity. *History of Psychiatry* 26.3 (2015) 318–331; J. DUFFY, Mondo Cane: Some Comments on Two Performing Dog Scenes from Byzantium, in: *Realia Byzantina*, eds. S. Kotzabassi – G. Mavromatis (*Byzantinisches Archiv* 22). Berlin – New York 2009, 35–41; C. A. GIBSON, In Praise of Dogs: An Encomium Theme from Classical Greece to Renaissance Italy, in: *Our Dogs, Our Selves Dogs in Medieval and Early Modern Art, Literature, and Society*, ed. L. D. Gelfand. Turnhout 2017, 19–40; C. FRANCO, Quorum postremo naturae est extra homines esse non posse. Appraisals of Canine Ethology in Early Christian Writers, in: *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*, eds. O. Hellmann – A. Zucker. Trier 2023, 117–135.

⁷¹ E. KISLINGER, Byzantine Cats, in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Kolia – E. Papadopoulou. Athens 2011, 165–188.

⁷² SCHNEIDER, Michael Italikos; P. AGAPITOS, Michael Italikos. Klage auf den Tod seines Rebhuhns. *BZ* 82 (1987) 59–68.

⁷³ P. MARCINIAK, Animals in Constantinople. Some Initial Remarks, in: *Anekdotia Byzantina: Studien zur byzantinischen Geschichte und Kultur. Festschrift für Albrecht Berger anlässlich seines 65. Geburtstags*, eds. I. Grimm-Stadelmann et al. Berlin – Boston 2023a, 435–442, at 441–442.

⁷⁴ P. MARCINIAK, I nomi degli insetti a Bisanzio tra sviluppi eruditi e tradizioni popolari (Insect Names in Byzantium: Between Erudite Developments and Popular Traditions) 2023b <https://journals.openedition.org/rursuspicae/3108> (accessed: 3.02.2025).

⁷⁵ R. BORGARDS, Tiere und Literatur, in: *Tiere. Kulturwissenschaftliches Handbuch*, ed. R. Borgards. Stuttgart 2016, cols. 225b–244b, at 236a. Likewise, D. HARAWAY calls them 'material-semiotic nodes', *When Species Meet*. Minneapolis 2008, 4.

⁷⁶ T. SCHMIDT, Introduction: Perception and Evaluation of Animals in Euro-Mediterranean Cultures, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*, eds. T. Schmid – J. Pahlitzsch. Berlin – Boston 2019a, 1–9; T. SCHMIDT, Noble Hounds for Aristocrats (2019b); T. SCHMIDT, Father and Son like Eagle and Eaglet – Concepts of Animal Species and Human Families in Byzantine Court Oration (11th/12th c.). *BZ* 112.3 (2019c) 959–990; T. SCHMIDT, Politische Tierbildlichkeit in Byzanz. Vom späten 11. bis zum beginnenden 13. Jahrhundert. Wiesbaden 2020; T. SCHMIDT, More Than Meets the Eye: The Semiotics of Animals in Byzantium, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 15–41; cf. SCHMIDT, Constantinople and the Sea.

⁷⁷ See A. MOE, *Zoopoetics: Animals and the Making of Poetry*. Lanham-Plymouth 2014; K. DRISCOLL, The Sticky Temptation of Poetry. *Journal of Literary Theory* 9.2 (2015) 212–229.

that animal representations in these texts are affected by the extent to which ‘a narrative space was meant to relate to the material world’, as experienced by the text’s audience, or by the story’s plausibility, what Schmidt terms ‘worldedness’⁷⁸. This intriguing combination of narratology and HAS may be further developed in the future. Schmidt notes that: ‘animals do influence human interpretation and evaluation. Nevertheless, the selection of animal knowledge, its transformation, reinterpretation and its preservation or disappearances is based on human narrative strategies, discourses and traditions of use’ (2019a: 8), a notion that he repeatedly expresses in his work, albeit phrased in slightly different terms each time. In that sense, Byzantine zoopoetics remains predominantly anthropocentric, despite highlighting the importance of the material animal for human concept formation and the close connection between human history and natural history. According to Schmidt: ‘Rather than being regarded for its own sake, the dog serves as a material and literary instrument of the anthropocentric world’ (2019b: 123). It is this objectivisation of the animal that the animal perspective is trying to offset.

This is an important methodology for achieving a less anthropocentric and more inclusive analysis of textual sources on animals, something that has not yet been productively applied in Byzantine Studies. By concentrating on animals as embodied subjects with their own needs and intents, the animal perspective enables us to elevate the animals’ status from subordinate beings to important history-shaping actors that acted independently of or in tandem with humans and could change the outcome of events. Deploying the animal perspective also helps us recover some of the animals’ sensory and affective experience and sensitises us to the workings of their inner mind, following cognitive ethology’s insights into the subjective, emotional, empathetic, and moral lives of animals (Bekoff and Pierce 2009)⁷⁹.

Until recently only two articles had attempted to tackle the animal perspective in Byzantium. On the one hand there is Maroula Perisanidi’s discussion of the role of mules and donkeys in the context of humiliation parades⁸⁰ in eleventh-century Byzantine historiography (Michael Attaleiates, John Skylitzes). One section of the study (pp. 16–18) considers the animals’ experience in the light of modern veterinary science, which, though important and insightful, remains peripheral to the central discussion that focuses mainly on the symbolic function of equids in Byzantine political history. Dionysios Stathakopoulos, on the other hand, has provided a zoocentric explanation of the sixth-century Justinianic plague gauging it ‘as a dynamic relationship between climate and the environment on the one hand, and animals (including ancient microorganisms) on the other’⁸¹. This study suggests that the animal perspective may be conceived as a broader category that includes not just the exploration of animal agency and subjectivity, but also the physical and involuntary impact of animals which humans could scarcely control as historical factors.

Sophia Xenophontos’ two articles published in 2025 have refined and advanced this strand of research, showing the potential of using the animal perspective as a source for interdisciplinary methodologies that supplement and hone our interpretation of Byzantine sources. In Xenophontos 2025a she decentres Theodore Hyrtakenos’s *Letters* (14th c.) from the human narrator, makes his horse the focus of attention, and, combining insights from posthumanism, modern equine ethology, veterinary science, horse nutrition, and historical praxeology, shows that this animal is not a passive narrative prop but a social agent⁸². She argues that ‘Hyrtakenos’s desire and potential to describe, often in

⁷⁸ SCHMIDT, *Because I don’t Speak Human*.

⁷⁹ M. BEKOFF and J. PIERCE, *Wild Justice: The Moral Lives of Animals*. Chicago 2009.

⁸⁰ PERISANIDI, *Byzantine Parades of Infamy*. R. A. KITCHEN – G. PEERS, *The Bird Who Sang the Trisagion of Isaac of Antioch: Becoming Parrot in a Late Antique Syriac Sermon*. Cham 2024, is in the same spirit, though its focus is not a source written in medieval Greek.

⁸¹ D. STATHAKOPOULOS, *Invisible Protagonists: The Justinianic Plague from a Zoocentric Point of View*, in: *Animals and Environment in Byzantium (7th–12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 87–95, at 95.

⁸² S. XENOPHONTOS, *Gazing at the World through Animals’ Eyes: Methodological Approaches to Highlighting the Animal Lens in Byzantine Literature through the Case-Study of Theodore Hyrtakenos’s Horse*. *Cheiron: The International Journal of Equine and Equestrian History* 5.1 (2025a) 35–61.

minute detail, the less mainstream angles of his horse's lived experience and to do so from the perspective of the animal, suggests that he developed a kind of 'attentiveness' and sensitivity that he hoped to awaken in his readers too, a strategy of de-familiarisation and counter-focalisation that is also essential for us studying Byzantine sources involving animals today' (p. 57). In Xenophontos 2025b the author expands the chronological remit from the sixth century (John Malalas) to the early post-Byzantine period (Theodore Gazes) to look at 'Byzantine dogs for the first time from the animal's point of view, i.e. not for what our textual sources tell us about their contribution to Byzantine human history, society and culture, but for what they may enable us to trace between the lines regarding the dogs' own sensory and emotional experience, reactions and dispositions, individuality and agency'⁸³. Methodologically this is made possible by exploiting the benefits of a modern biological and ethological understanding of the nature of dogs, and of post-humanistic approaches that collapse the human-animal divide. These studies taken together enable us to approach animals as constitutive in the functioning of Byzantine society, which can now be assessed more holistically as a hybrid community inhabited by both humans and non-humans. Against this backdrop the classical legacy on which Byzantine authors drew is also critical. In a forthcoming article Xenophontos shows that animal intentionality and embodiment are crucial factors in human history; and she points to the importance of Plutarch's three treatises devoted to animals, i.e. *On the Intelligence of Animals*, *On the Eating of Meat* and *Whether Beasts are Rational* (also known as *Gryllus*)—antiquity's most seminal works on animal superiority—in Byzantium, given the rich afterlife they enjoyed⁸⁴ (same arguments in Xenophontos forthcoming b)⁸⁵. A wealth of important and compelling zoohistories await recovery. Using the animal perspective can help us do this.

The new *Routledge Handbook of Human-Animal Relations in the Byzantine World* edited by Przemysław Marciniak and Tristan Schmidt⁸⁶ proves itself a significant achievement by providing an array of valuable source material for anyone seeking to delve into the fascinating world of Byzantine animals, and accompanying it with useful overviews. By including contributions from leading experts addressing material (hunting, zooarchaeology, animals as food, animals in diplomacy⁸⁷, animals as pets, visual representations of animals in mosaics and manuscripts) and immaterial (semiotics, philosophy, zoology, religious discourse, law) aspects of the human-animal entanglement in the Byzantine period, it shows that there is further potential here that should be exploited, mostly by intertwining the critical role of animals in the narratives under discussion with the staples of HAS.

This volume gives us the opportunity to stop and ponder what does it really mean to 'do' animal studies in the humanities? Negotiating the subordinate role of animals as material and imaginary creatures in Byzantine textual sources does not seem enough. Are animals in satire merely entertaining conduits for communicating the Byzantines' thoughts and feelings about political power⁸⁸? Are animals in Byzantine hunting narratives just objectified symbols helping to fashion the elite's social and political image⁸⁹? Do animals in Byzantine historical writing really have 'a secondary role in narratives that are chiefly about humans', merely showcasing the human author's knowledge in his use of them, and can they thus 'never to be seen only as creatures of flesh and blood' (Eftthymiadis

⁸³ S. XENOPHONTOS, Wonder Dogs of Byzantium from an Animal Point of View. *BMGS* 49.2 (2025b) 187–204.

⁸⁴ S. XENOPHONTOS, Animal Agency and Plutarch's Elephants. *Trends in Classics* forthcoming, (June 2026).

⁸⁵ S. XENOPHONTOS, Elephant Emotions: Ancient and Modern Perspectives, in: *Premodern Animal Emotions*, ed. S. Xenophontos. Leiden forthcoming.

⁸⁶ P. MARCINIAK – T. SCHMIDT (eds.), *The Routledge Handbook in Human-Animal Relations in the Byzantine World*. London – New York 2025.

⁸⁷ On animals as gifts, see e.g. N. DROCOURT, Animals as Diplomatic Gifts. From Species to Political Uses, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 313–331; M. CRISTINI, Elephant Diplomacy: A disturbing Gift to the Khagan of the Avars. *Viator* 53 (2022) 49–59.

⁸⁸ K. STEWART, Animals in Satire, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 169–186.

⁸⁹ Ch. MESSIS – I. NILSSON, Man, Beast and Nature.

2025), viz. as self-standing entities⁹⁰? More links between the Byzantine material and the modern interdisciplinary debate could function as a salutary hedge against such excessive anthropocentrism.

WHERE TO NOW?

We have seen above that we are still missing studies that use the animal perspective and lens in the light of Byzantine textual sources. But what else is it that we do not yet have in our examinations of Byzantine animals? A key desideratum is what Stephen Newmyer 2005, Catherine Osborne 2007 and John Heath 2005⁹¹ have done for Classics, namely an enquiry into how philosophical views on animals found their way into human thought and literature (in Classics this is currently the most well-studied aspect of research into animals). Another key desideratum is examining how notions of animality extended from philosophy to other genres or even found a practical application in daily life (something Peter Adamson has been investigating in respect of Islamic animals in the context of his ERC project), and how these philosophical issues can speak to the ethical concerns of the modern interdisciplinary debate. With only partial exceptions, there is currently no fully fledged philosophy of Byzantine animals. Interesting insights into how fertile the topic can be are provided by Pantazakos 2012 and Arabatzis 2012⁹². The former has argued that Plethon's positive philosophy on animals may render him 'a forerunner of animal rights theorists' and the latter has given a useful overview from a fresh vantage point of philosophical works on animals (Michael of Ephesus) that have been hitherto marginalised or hastily dismissed by modern scholars as 'disappointing modern readers' expectations' (Trizio 2018: 164)⁹³. Promising results are also to be found in Somma and Vogiatzi 2025⁹⁴.

It would also be salutary to expand our interest in time periods that have not been explored before or at least not satisfactorily, such as the textually rich Palaiologan period (see Xenophontos 2025a and 2025b), away from the twelfth century, and the middle Byzantine period in general, that has monopolised scholars' attention until now⁹⁵. Similarly it would be good to investigate thematic areas that have hitherto been neglected, sometimes entirely, notably animals in magic, astrology, and popular meteorology⁹⁶, or their place in the history of the book. Related interventions in medieval studies include looking at animal skins as the material on which human records are preserved (Holsinger 2009, Kay 2017)⁹⁷, and bookworms as a critical part of the manuscript's complex history (Solberg 2020)⁹⁸. These new directions can build on the excellent work of Nancy Ševčenko on depictions of animals in Byzantine illuminated manuscripts (Ševčenko 2011, 2025)⁹⁹.

⁹⁰ S. EFTHYMIADIS, Animals in Byzantine Historical Writing, in: The Routledge Handbook in Human-Animal Relations in the Byzantine World, eds. P. Marciniak – T. Schmidt. London – New York 2025, 133–156, at 150–151.

⁹¹ S. T. NEWMYER, Animals, Rights and Reason in Plutarch and Modern Ethics. London – New York 2005; OSBORNE, Dumb Beasts; J. HEATH, The Talking Greeks: Speech, Animals and the Other in Homer, Aeschylus and Plato. Cambridge 2005.

⁹² P. PANTAZAKOS, Plethon's Views on Animals, in: Animal Ethics: Past and Present Perspectives, ed. E. Protopapadakis. Berlin 2012, 113–120; G. ARABATZIS, Animal Rights in Byzantine Thought, in: Animal Ethics: Past and Present Perspectives, ed. E. Protopapadakis. Berlin 2012, 103–111.

⁹³ M. TRIZIO, The Byzantine Reception of Aristotle's *Parva Naturalia* (and the Zoological Works) in Eleventh- and Twelfth-Century Byzantium: An Overview, in: The *Parva Naturalia* in Greek, Arabic and Latin Aristotelianism: Supplementing the Science of the Soul, eds. B. Bydén – F. Radovic. Dordrecht 2018, 155–168, at 164.

⁹⁴ B. SOMMA – M. VOGIATZI, Animal Rationality in Byzantine Philosophy and Islamic Philosophy, in: The Routledge Handbook in Human-Animal Relations in the Byzantine World, eds. P. Marciniak – T. Schmidt. London – New York 2025, 85–106.

⁹⁵ Not that animal histories should follow human chronologies and periodisations; see BYRNE, Chronologies.

⁹⁶ The main sources for popular meteorology were the so-called *brontologia*, i.e. treatises on divination by thunder. See I. TELELIS, Ean brontēsē ...: Koina themata tōn Byzantinōn brontologiōn. *Byzantiaka* (forthcoming).

⁹⁷ B. HOLSINGER, Of Pigs and Parchment: Medieval Studies and the Coming of the Animal. *Publications of the Modern Language Association of America* 124 (2009) 616–623; S. KAY, Animal Skins and the Reading of the Self in Medieval Latin and French Bestiaries. Chicago 2017.

⁹⁸ E. M. SOLBERG, Human and Insect Bookworms. *Postmedieval* 11.1 (2020) 12–22.

⁹⁹ N. ŠEVČENKO, Eaten Alive: Animal Attacks in the Venice *Cynegetica*, in: Animals and Environment in Byzantium (7th – 12th c.), eds. I. Anagnostakis – T. Kolias – E. Papadopoulou. Athens 2011, 115–135; N. ŠEVČENKO, Animals in Byzantine

Another highly understudied area is the role of animals in Byzantine human medicine, pharmacology and health care. We need to shed light on the treatment of animals as patients with their own individualised needs, elucidating the various diagnostic and therapeutic methods used for treating them. And we could also examine the critical role of animal parts as therapeutic agents for the therapy of humans or other animals¹⁰⁰, since in many cases, substances derived from domestic animals, e.g. beeswax and fat from pigs, goats, and sheep, were essential ingredients in the preparation of various sorts of unguents and cerates (prominent dosage forms for local application to the skin in the Middle Ages)¹⁰¹. A key topic in this respect would be the availability and cost of animal ingredients and the relevant ethical implications. What do we know about the trade of such substances? Were they produced locally or did they have to travel long distances? If the latter, their price could potentially become higher, which could mean limited access to ‘healthcare’ for the lower classes. There is evidence, for example, showing that especially from the eleventh century onwards, ambergris (a waxy substance originating in the intestine of the sperm whale, Durak 2018)¹⁰² and musk (a secretion of the male musk deer), two extremely expensive ingredients sourced from animals, travelled long distances from the Far East to arrive in Byzantium¹⁰³. To what extent and with what consequences did this fact also affect the treatments of sick animals owned by the less privileged? Similarly, Byzantine hunting should no longer be seen merely as a cultural and economic pursuit for the Byzantine upper-class, but as an interspecies social and cultural system, in which incidents of shared embodiment emphasise aspects of resemblance and interdependence between humans and animals (Klemettilä 2015)¹⁰⁴.

We could also be open to casting our net wider to discover relevant material in the available sources. We could move beyond the usual suspects—historiography¹⁰⁵, hagiography¹⁰⁶, technical literature¹⁰⁷—and look at other unexpectedly valuable works entailing enthralling reports of animals, particularly of exotic and mysterious fauna, such as collections of letters, dreambooks, novels and philosophical texts. An important step in that direction would be the production of a sourcebook of the sort that is already available in Classics: e.g. Newmyer 2011, Kitchell 2014 and Lewis and Llewellyn-Jones 2018¹⁰⁸. And, of course, we need to examine more animal species, including ones that

Manuscripts, in: *The Routledge Handbook in Human Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 234–262.

¹⁰⁰ I. GRIMM-STADELMANN informed me that she is currently working in this area, examining the crucial role of animals in the treatment of visual impairments, see e.g. her paper *Disability in Byzantine Medicine: Visual Impairment and Iatromagic Therapies*, in: *Disability in Middle and Late Byzantium*, eds. M. Perisandi – G. Makris (*DOP*). Washington DC forthcoming a. See also her *Insects as Materia Medica*, in: *Eating and Caring in the Mediterranean World. Medicine in the Medieval Mediterranean*, eds. M. Kokoszko – Z. Rzeźnicka. Berlin – Boston forthcoming b, focusing on the medical qualities of insects.

¹⁰¹ On cerates in ancient pharmacology, see L. TOTELIN, *Waxing Lyrical: Ancient Medical Authors on Wax and Wax Tablets. *Deltos: Journal for the History of Medicine* 33.51 (2023) 13–18.*

¹⁰² K. DURAK, *From the Indian Ocean to the Markets of Constantinople: Ambergris in the Byzantine World*, in: *Life Is Short, Art Long: The Art of Healing in Byzantium. New Perspectives*, eds. B. Pitarakis – G. Tanman. Istanbul 2018, 201–225.

¹⁰³ See P. BOURAS-VALLIANATOS, *Cross-cultural Transfer of Medical Knowledge in the Medieval Mediterranean: The Introduction and Dissemination of Sugar-based Potions from the Islamic World to Byzantium. *Speculum* 96 (2021) 963–1008*, who examines the use of expensive vegetal ingredients in Byzantine medicine, such as sugar.

¹⁰⁴ S. CRANE, *Medieval Animal Studies: Dogs at Work*, in: *Oxford Handbook Topics in Literature 2013*: <http://www.oxford-handbooks.com> (accessed: 14.02.2025); H. KLEMETILÄ, *Animals and Hunters in the Late Middle Ages: Evidence from the BnF MS fr. 616 of the Livre de Chasse by Gaston Fébus*. New York – London 2015.

¹⁰⁵ See the overview by EFTHYMIADIS, *Animals in Byzantine Historical Writing*.

¹⁰⁶ E.g. M. WHITE, *The Rise of the Dragon in Middle Byzantine Hagiography. *BMGS* 32.2 (2008) 149–167*; S. PASCHALIDIS, *Saints et animaux, anticipation du royaume dans la littérature byzantine*, in: *La restauration de la création. Quelle place pour les animaux?*, eds. M. Cutino – I. Iribarren – F. Vine. Leiden – Boston 2018, 213–230; C. PAPAVERNANAVAS, *Unsung Heroes of Byzantine Hagiography: The Role of Animals in Martyrs’ Passions*, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 107–132.

¹⁰⁷ See n. 32, 46 and 47.

¹⁰⁸ S. T. NEWMYER, *Animals in Greek and Roman Thought: A Sourcebook*. London – New York 2011; K. F. KITCHELL, *Animals in the Ancient World from A to Z. The ancient world from A to Z*. London – New York 2014; S. LEWIS – L. LLEWELLYN-JONES, *The Culture of Animals in Antiquity. A Sourcebook with Commentaries*. Abingdon – New York 2018.

are rarely addressed in academic accounts of animals, such as the wolf that has become a very popular subject for research into other medieval cultures in recent years. Currently on the Byzantine front we have, for example, Ševčenko 2002 on wild animals in game parks, menageries and animal parks¹⁰⁹, Papagiannaki 2017 on cheetahs, Piotrowska 2025 on mice, and Marciniak on insects, and sea creatures¹¹⁰. Once we get to grips with all that, we will be even better equipped to tackle studies on the cross-cultural transfers of knowledge about animals and animal symbolisms in the Euro-Mediterranean and the Near-Eastern world (Schmidt and Pahlitzsch 2019)¹¹¹.

Most importantly, we need to be willing to undertake purely zoocentric investigations. ‘Zoocentric’ is not the opposite of (or indeed inimical to) the ‘anthropocentric’; it is not a tendency that proposes the human element be eliminated in favour of the animal. Rather, it denotes that the animal can be explored as the indispensable companion to the human through ‘exit strategies’ such as that of de-familiarisation and counter-focalisation that bridge the human-animal divide¹¹². We can also pursue genuinely zoocentric explorations by maximising our use of post-humanistic approaches that emphasise cross-species engagements and promote models of relationality in the definition of humanity (what its scope and remit includes), in line with what Jeffrey Cohen 2003, Karl Steel 2011 and Susan Crane 2013 have done to theorise medieval animals¹¹³. Pursuing readings ‘against the grain’ (i.e. non-anthropocentric readings that bring to light the perspective of marginalised groups that have left no traces of written record) can also be achieved, as we have noted, by considering animals’ emotional and sensory experience using insights from fieldwork in veterinary medicine, ethology, animal welfare science, behavioural ecology and other relevant fields. The latest findings from contemporary animal science highlighting animals’ cognitive and affective aptitudes are now being productively exploited as a theoretical basis for the understanding of historical animals and for helping us to reconstruct their sensory experiences, personhood and intentions, thereby substantiating their agency as historical subjects¹¹⁴.

Refinements from the area known as ‘textuality and animality’, whereby humans are encouraged to use the text as an avenue into the animal body, viz. to ‘read’ animals’ bodies so as to reconstruct their sense of their surroundings, may also prove useful¹¹⁵. The same goes for the use of praxeology,

¹⁰⁹ N. ŠEVČENKO, Wild Animals in the Byzantine Park, in: *Byzantine Garden Culture*, eds. A. Littlewood – H. Maguire – J. Wolschke-Bulmahn. Washington D.C. 2002, 69–86. Cf. N. ŠEVČENKO, The giraffe that came to Constantinople, in: *The Eloquence of Art. Essays in Honour of Henry Maguire*, eds. A. O. Lam – R. Schroeder. Abingdon – New York 2020, 336–349.

¹¹⁰ A. PAPAGIANNAKI, Experiencing the Exotic: Cheetahs in Medieval Byzantium, in: *Discipuli dona ferentes. Glimpses of Byzantium in Honour of Marlia Mundell Mango*, eds. T. Papacostas – M. Parani. Turnhout 2017, 223–257; K. PIOTROWSKA, It was not Easy Being a Mouse in Constantinople: Some Notes on the Role of Mice in Byzantine Life and Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 343–357; MARCINIAK, Writing a Byzantine Zoobiography; MARCINIAK, Byzantine cultural entomology; see also P. MARCINIAK on pets: P. MARCINIAK, Animals we Love: Pets and Companion Animals in Byzantium?, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 332–342.

¹¹¹ T. SCHMIDT – J. PAHLITZSCH (eds.), *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*. Berlin – Boston 2019.

¹¹² See individual studies in the volume by C. MENGOZZI (ed.), *Outside the Anthropological Machine: Crossing the Human-Animal Divide and Other Exit Strategies*. New York – London 2021.

¹¹³ J. COHEN, *Medieval Identity Machines*. Minneapolis 2003; K. STEEL, *How to Make a Human: Animals and Violence in the Middle Ages*, Columbus 2011; S. CRANE, *Animal Encounters: Contacts and Concepts in Medieval Britain*. Philadelphia 2013.

¹¹⁴ E.g. C. SANDERS – A. ARLUKE, If Lions Could Speak: Investigating the Animal-Human Relationship and the Perspectives of Non-Human Others. *Sociological Quarterly* 34 (1993) 377–390; S. SWART, The World the Horses Made: A South African Case Study of Writing Animals into Social History. *International Review of Social History* 55.2 (2010) 241–256; E. FUDGE, Milking Other Men’s Beasts. *History and Theory* 52.4 (2013) 13–28.

¹¹⁵ E.g. S. SWART, But Where’s the Bloody Horse?: Textuality and Corporeality in the Animal Turn. *Journal of Literary Studies* 23.3 (2007) 271–292; R. PISKORSKI, Animal as Text, Text as Animal: On the Matter of Textuality, in: *Derrida and Textual Animality: For a Zoogrammatology of Literature*, ed. R. Piskorski. Cham 2020, 29–64.

a historical domain which prioritises practices (actions and utterances) rather than social structures or systems, thereby also elucidating the impact of animal corporeality *qua* bodily patterns on human history¹¹⁶. Relevant is the notion of assembled agency that has become very trendy in historical animal studies lately, whereby the joint agencies of human and nonhuman animals coexist and cooperate and there can be no action unless the two partners execute their respective duties/agencies, just as in a dance it takes two to tango, regardless of the fact that one dancer is the leader and the other is being led¹¹⁷. In this type, the agency of animals is no longer judged by anthropocentric criteria, since the animal's own potency in being socially and culturally determinative as a historical actor in conjunction with humans is established¹¹⁸.

It is high time Byzantinists displayed greater 'attentiveness' to the textual representations (explicit or opaque) of animals' physical appearance and behaviour as a way of affirming their active presence in the material world. We should even be willing to step into the animals' shoes and gaze at the world through their eyes. Referring to what is needed in order to capture the perspective of the nonhuman other, the ethologist Margaret Nice once stated that: 'A necessary condition for success ... is a continuous sympathetic observation of an animal under as natural conditions as possible. To some degree, one must transfer oneself into the animal's situation and inwardly partake in its behaviour'¹¹⁹. By becoming more adept at observing the animal's individual postures and distinctive physical presence, including their movements, moods and activities, that all point to animal agency and potentially personhood too, we shall be able to come up with arresting zoohistories we have never previously imagined. Historian Sandra Swart has coined the term 'horsetory' to describe the blending of history with *natural history* that constitutes an effective way of articulating the horse's authentic voice, often silenced or ventriloquised in the textual sources by the human narrator¹²⁰. The volume by B. Resl (ed.), *A Cultural History of Animals in the Medieval Age*. Oxford-New York 2007 has nothing on Byzantium, which remains the biggest unknown in premodern animal studies. Byzantium was teeming with compelling zoohistories throughout the medieval period. It is up to us to recover and disentangle them.

¹¹⁶ D. FREIST, Historische Praxeologie als Mikro-Historie, in: *Praktiken der Frühen Neuzeit. Akteure – Handlungen – Artefakte*, ed. A. Brendecke. Cologne – Weimar – Vienna 2015, 62–77.

¹¹⁷ Ph. HOWELL, Animals, Agency, and History, in: *The Routledge Companion to Animal-Human History*, eds. H. Kean – Ph. Howell. London 2018, 197–221. Cf. S. R. SCOTT, The Racehorse as Protagonist. Agency, Independence, and Improvisation, in: *Animals and Agency. An Interdisciplinary Exploration*, eds. S. E. McFarland – R. Hediger. Leiden – Boston 2009, 45–65.

¹¹⁸ M. RÖBEN, The Horse Behind the Text: Animal Agency in Early Medieval Historiography. *Cheiron: The International Journal of Equine and Equestrian History* 1.1 (2021) 68–85, at 70–74. The same thesis is advocated by Actor-Network Theory (ANT), see B. LATOUR, *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford 2005, as well as Thing Theory, as per B. LATOUR, *We Have Never Been Modern*. Hemel Hempstead 1993.

¹¹⁹ Quoted in E. LAWRENCE, Wild Birds: Therapeutic Encounters and Human Meanings. *Anthrozoös* 3 (1989) 111–118, at 118.

¹²⁰ S. SWART, The World the Horses Made, 257. See also P. CUNEO, Equine Empathies: Giving Voice to Horses in Early Modern Germany, in: *Interspecies Interactions: Animals and Humans between the Middle Ages and Modernity*, eds. S. Cockram – A. Wells. London – New York 2018, 66–86; C. SANDERS – A. ARLUKE, If Lions Could Speak.

BIBLIOGRAPHY

- P. ADAMSON – G. FAY EDWARDS (eds.), *Animals: A History (Oxford Philosophical Concepts)*. New York 2018.
- P. AGAPITOS, Michael Italikos. Klage auf den Tod seines Rebhuhns. *BZ* 82 (1987) 59–68.
- I. ANAGNOSTAKIS – T. KOLIAS – E. PAPADOPOULOU (eds.), *Animals and Environment in Byzantium (7th–12th c.)*. Athens 2011.
- I. ANAGNOSTAKIS, Wild and Domestic Honey in Middle Byzantine Hagiography: Some Issues relating to its Production, Collection and Consumption, in: *Beekeeping in the Mediterranean from Antiquity to the Present*, eds. F. Hatjina – G. Mavrofridis – R. Jones. Nea Moudania 2017, 105–118.
- G. ARABATZIS, Animal Rights in Byzantine Thought, in: *Animal Ethics: Past and Present Perspectives*, ed. E. Protopapadakis. Berlin 2012, 103–111.
- T. ARENTZEN, Arboreal Lives: Saints among the Trees in Byzantium and Beyond. *Scandinavian Journal of Byzantine and Modern Greek Studies* 5 (2019) 113–136.
- T. ARENTZEN – V. BURRUS – G. PEERS. Byzantine Tree Life: Christianity and the Arboreal Imagination. Cham 2021.
- É. BARATAY, *Le Point de vue animal: Une autre version de l’histoire*. Paris 2012.
- H. BARON (née Kroll), Animals and the Byzantine Environment: Zooarcheological Approaches, in: *A Companion to the Environmental History of Byzantium*, eds. A. Izdebski – J. Preiser-Kapeller. Leiden – Boston 2024, 137–161.
- M. BEKOFF – J. PIERCE, *Wild Justice: The Moral Lives of Animals*. Chicago 2009.
- J. BENEKER – C. A. GIBSON, *The Rhetorical Exercises of Nikephoros Basilakes*. *Progymnasmata from Twelfth-Century Byzantium*. *Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts – London 2016.
- J. BENEKER – C. A. GIBSON, *The Byzantine Sinbad*, Michael Andreopoulos. *Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts – London 2021.
- M. H. BARATAY – C. MAYEUR-JAOUEN – J. SUBLET, *L’animal en islam*. Paris 2005.
- M. BETTINI, *Women and Weasels. Mythologies of Birth in Ancient Greece and Rome*. Chicago 2013.
- R. BODDICE, *The History of Emotions*. Manchester 2018.
- R. BORGARDS, Tiere und Literatur, in: *Tiere. Kulturwissenschaftliches Handbuch*, ed. R. Borgards. Stuttgart 2016, 225–244.
- A. BOULOUBASI, *Physiko kai anthropogenes periballon sto Byzantio. Oi kratikes periballontikes rythmisisi stē Byzantinē nomothesia*. University of the Peloponnese 2021 (Unpublished MA Dissertation).
- P. BOURAS-VALLIANATOS, Cross-cultural Transfer of Medical Knowledge in the Medieval Mediterranean: The Introduction and Dissemination of Sugar-based Potions from the Islamic World to Byzantium. *Speculum* 96 (2021) 963–1008.
- L. BRUBAKER – K. LINARDOU (eds.), *Eat, Drink and Be Merry (Luke 12:19)*. *Food and Wine in Byzantium: Papers of the 37th Annual Spring Symposium of Byzantine Studies*. Birmingham 2008.
- P. BYRNE, Chronologies of the Animal Turn. *Postmedieval* 13.1–2 (2022) 141–161.
- M. R. CALARCO, *Animal Studies. The Key Concepts*. London – New York 2021.
- G. CAMPBELL (ed.), *The Oxford Handbook of Animals in Classical Thought and Life*. Oxford 2014.
- B. CASEAU, *Dogs, Vultures, Horses and Black Pudding. Unclean Meats in the Eyes of the Byzantines* (2017) (<https://books.openedition.org/momeditions/10194?lang=en>; accessed: 31.01.2025).
- M. CHRONE-VAKALOPOULOS – A. VAKALOPOULOS, Fishes and Other Aquatic Species in the Byzantine Literature. Classification, Terminology and Scientific Names. *Byzantina Symmeikta* 18 (2009) 123–157.
- M. CHRONI, *Hē Panida stēn Diatrophē kai stēn Iatrikē sto Byzantio*. Athens 2012.
- M. P. CICCARESE, *Animali simbolici: Alle origine del Bestiario Cristiano*. Bologna 2002.
- J. COHEN, *Medieval Identity Machines*. Minneapolis 2003.
- D. COSTACHE, Abraham, the Contemplation of Nature, and Divine Vision in Clement of Alexandria, in: *Knowing God in Light: Theophany and Language*, eds. N. Tanase et al. Berlin 2024, 127–144.
- S. COSTANZA, *Nitriti come segni profetici. Cavalli fatidizi a Bisanzio (XI–XIV sec.)*. *BZ* 102 (2009) 1–24.
- S. COSTANZA, *Wiehernde Pferde und westlicher Einfluss auf die Divination der Komnenen- und Palaiologenzeit. Byzanz und das Abendland V*. *Studia Byzantina Occidentalia*, ed. E. Juhász. Budapest 2017, 99–113.
- P. COX MILLER, *In the Eye of an Animal: Zoological Imagination in Ancient Christianity*. Philadelphia 2018.
- S. CRANE, *Animal Encounters: Contacts and Concepts in Medieval Britain*. Philadelphia 2013.
- S. CRANE, *Medieval Animal Studies: Dogs at Work*, in: *Oxford Handbook Topics in Literature 2013*: <http://www.oxfordhandbooks.com> (accessed: 14.02.2025).
- M. CRISTINI, *Elephant Diplomacy: A disturbing Gift to the Khagan of the Avars*. *Viator* 53 (2022) 49–59.
- P. CUNEO, *Equine Empathies: Giving Voice to Horses in Early Modern Germany*, in: *Interspecies Interactions: Animals and Humans between the Middle Ages and Modernity*, eds. S. Cockram – A. Wells. London – New York 2018, 66–86.
- E. DAUTERMAN MAGUIRE – H. MAGUIRE, *Other Icons. Art and Power in Byzantine Secular Culture*. Princeton 2007.
- D. DE BRASI, *Basil of Caesarea’s Homilies on the Six Days of Creation: Scientific Transfer and Moral Education between Aristotle and the Bible*, in: *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*, eds. O. Hellmann – A. Zucker. Trier 2023, 37–58.
- É. DE FONTENAY, *Le Silence des bêtes: la philosophie à l’épreuve de l’animalité*. Paris 1998.
- M. DE KOVEN, *Why Animals Now?* *Publications of the Modern Language Association* 124 (2009) 361–369.
- R. DELORT, *Les Animaux ont une histoire*. Paris 1984.
- M. DEMELLO, *Teaching the Animal: Human-Animal Studies Across the Disciplines*. New York 2010.

- M. DEMELLO, *Animals and Society: An Introduction to Human-Animal Studies*. Columbia 2012.
- J. DERRIDA, *L'animal que donc je suis*. Paris 2006.
- A.-M. DOYEN-HIGUET, *L'Épitémè de la Collection d'hippiatrie grecque*, vol. 1. Louvain-la Neuve 2006.
- K. DRISCOLL, The Sticky Temptation of Poetry. *Journal of Literary Theory* 9.2 (2015) 212–229.
- N. DROCOURT, Animals as Diplomatic Gifts. From Species to Political. Uses, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 313–331.
- J. DUFFY, Mondo Cane: Some Comments on Two Performing Dog Scenes from Byzantium, in: *Realia Byzantina*, eds. S. Kotzabassi – G. Mavromatis (*BA* 22). Berlin – New York 2009, 35–41.
- K. DURAK, From the Indian Ocean to the Markets of Constantinople: Ambergris in the Byzantine World, in: *Life Is Short, Art Long: The Art of Healing in Byzantium. New Perspectives*, eds. B. Pitarakis – G. Tanman. Istanbul 2018, 201–225.
- S. EFTHYMIADIS, Animals in Byzantine Historical Writing, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 133–156.
- P. ELIOPOULOS, Ta zōa ston prosblētiko logo tōn Byzantinōn. *Byzantina Symmeikta* 31 (2021) 51–120.
- T. FÖGEN – E. THOMAS (eds.), *Interactions between Animals and Humans in Graeco-Roman Antiquity*. Berlin – Boston 2017.
- T. FÖGEN, Of Mice and Men. Zur Darstellung von Tieren in den Geoponika. *Gymnasium* 129.6 (2022) 539–573.
- C. FRANCO, Quorum postremo naturae est extra homines esse non posse. Appraisals of Canine Ethology in Early Christian Writers, in: *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*, eds. O. Hellmann – A. Zucker. Trier 2023, 117–135.
- D. FREIST, D. Historische Praxeologie als Mikro-Historie, in: *Praktiken der Frühen Neuzeit. Akteure – Handlungen – Artefakte*, ed. A. Brendecke. Cologne – Weimar – Vienna 2015, 62–77.
- E. FUDGE, Milking Other Men's Beasts. *History and Theory* 52.4 (2013) 13–28.
- E. FUDGE, What Was It Like to Be a Cow? History and Animal Studies, in: *The Oxford Handbook of Animal Studies*, ed. L. Kalof. Oxford 2017, 258–278.
- M. GARRY – S. MCHUGH (eds.), *Routledge Handbook of Human-Animal Studies*. London 2014.
- N. GAUL, The Partridge's Purple Stockings: Observations on the Historical, Literary and Manuscript Context of Pseudo-Kodinos' Handbook on Court Ceremonial, in: *Theatron: rhetorische Kultur in Spätantike und Mittelalter*, ed. M. Grünbart. Berlin 2007, 69–103.
- S. GERMANIDOU, Honey Culture in Byzantium - An Outline of Textual, Iconographic and Archaeological Evidence, in: *Beekeeping in the Mediterranean from Antiquity to the Present*, eds. F. Hatjina – G. Mavrofridis – R. Jones. Nea Moudania 2017, 93–104.
- C. A. GIBSON, In Praise of Dogs: An Encomium Theme from Classical Greece to Renaissance Italy, in: *Our Dogs, Our Selves: Dogs in Medieval and Early Modern Art, Literature, and Society*, ed. L. D. Gelfand. Turnhout 2017, 19–40.
- I. S. GILHUS, *Animals, Gods and Humans: Changing Attitudes to Animals in Greek, Roman and Early Christian Ideas*. London – New York 2006.
- J. GLÜCK – M. KRUMM – K. MAJEWSKI, Einleitung: Medieval Animal Studies. *Das Mittelalter* 28.2 (2023) 259–270.
- A. GOLDWYN, *Byzantine Ecocriticism: Women, Nature, and Power in the Medieval Greek Romance*. Cham 2018.
- R. M. GRANT, *Early Christians and Animals*. London 1999.
- I. GRIMM-STADELMANN, Disability in Byzantine Medicine: Visual Impairment and Iatromagic Therapies, in: *Disability in Middle and Late Byzantium*, eds. M. Perisandī – G. Makris (*DOP*). Washington DC forthcoming.
- I. GRIMM-STADELMANN, Insects as Materia Medica, in: *Eating and Caring in the Mediterranean World. Medicine in the Medieval Mediterranean*, eds. M. Kokoszko – Z. Rzeźnicka. Berlin – Boston forthcoming.
- M. GRÜNBART, Mantic Arts: Traditions and Practices in the Medieval Eastern Christian World, in: *Prognostication in the Medieval World: A Handbook*, vol. 1, eds. M. Heiduk et al. Berlin – Boston 2021, 446–452.
- Y. HADJINICOLAOU, *The Art of Medieval Falconry*. London 2024.
- D. HARAWAY, *When Species Meet*. Minneapolis 2008.
- D. HAWHEE, *Rhetoric in Tooth and Claw: Animals, Language, Sensation*. Chicago 2017.
- J. HEATH, *The Talking Greeks: Speech, Animals and the Other in Homer, Aeschylus and Plato*. Cambridge 2005.
- O. HELLMANN – A. ZUCKER (eds.), *On the Diffusion of Zoological Knowledge in Late Antiquity and the Byzantine Period*. Trier 2023.
- H. HERZOG, *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals*. New York – London 2011.
- B. HOLSINGER, Of Pigs and Parchment: Medieval Studies and the Coming of the Animal. *Publications of the Modern Language Association* 124 (2009) 616–623.
- Ph. HOWELL, Animals, Agency, and History, in: *The Routledge Companion to Animal-Human History*, eds. H. Kean – Ph. Howell. London 2018, 197–221.
- Ph. HOWELL – H. KEAN, Writing in Animals in History, in: *The Routledge Companion to Animal-Human History*, eds. Ph. Howell – H. Kean. London 2018, 3–27.
- J. JACOBS (ed.), *Animal Narratology. Printed Edition of the Special Issue Published in Humanities*. Basel 2020.
- Z. KÁDÁR, *Survivals of Greek Zoological Illuminations in Byzantine Manuscripts*. Budapest 1978.
- L. KALOF (ed.), *A Cultural History of Animals in Antiquity*. Oxford – New York 2007.

- L. KALOF (ed.), *The Oxford Handbook of Animal Studies*. Oxford – New York 2017.
- I. K. KARAKOSTAS – A. H. BREDIMAS (eds.), *Ἐ Prostasia tōn zōōn kai to dikaio*. Athens 2005.
- S. KAY, *Animal Skins and the Reading of the Self in Medieval Latin and French Bestiaries*. Chicago 2017.
- T. KAYA, *Routes and Communications in Late Roman and Byzantine Anatolia (ca. 4th-9th centuries A.D.)*. Middle East Technical University 2020 (Unpublished PhD Thesis).
- H. KEAN, Challenges for Historians Writing Animal–Human History: What Is Really Enough? *Anthrozoös* 25.1 (2012) 57–72.
- J. KINDT, Capturing the Ancient Animal: Human/Animal Studies and the Classics. *Journal of Hellenic Studies* 137 (2017) 213–225.
- J. F. KINDSTRAND, Manuel Philes' Use of Aelian's *De Natura Animalium* in his *De Animalium Proprietate*. *Studi italiani di filologia classica* 4 (1986) 119–139.
- E. KISLINGER, Byzantine Cats, in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 165–188.
- K. F. KITCHELL, *Animals in the Ancient World from A to Z. The ancient world from A to Z*. London – New York 2014.
- R. A. KITCHEN – G. PEERS, *The Bird Who Sang the Trisagion of Isaac of Antioch: Becoming Parrot in a Late Antique Syriac Sermon*. Cham 2024.
- H. KLEMETILÄ, *Animals and Hunters in the Late Middle Ages: Evidence from the BnF MS fr. 616 of the Livre de Chasse by Gaston Fébus*. New York – London 2015.
- J. KODER (ed.), *Nomos Georgikos: Das byzantinische Landwirtschaftsgesetz. Überlegungen zu inhaltlichen und zeitlichen Einordnung. Deutsche Übersetzung*. Vienna 2020.
- L. KOLÁŘOVÁ, The Animal within Creation: Thoughts from Christian Theology. *Theologica* 13.1 (2023) 43–66.
- T. G. KOLIAS, The Horse in the Byzantine World, in: *Le Cheval dans les sociétés antiques et médiévales (Actes des journées d'études internationales, 6–7 novembre 2009. Strasbourg)*, ed. S. Lazaris. Turnhout 2012, 87–97.
- M. KOKOSZKO, Ryby i ich znaczenie w życiu codziennym ludzi późnego antyku i wczesnego Bizancjum (III–VII w.) [Fish and their Significance in the Everyday Life of People in Late Antiquity and Early Byzantium (3rd–7th Centuries)]. Łódź 2005.
- M. KOKOSZKO – Z. RZEŹNICKA, Animals as a Source of Food during the Byzantine Period: Dietetic Advice and Dietary Reality, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 265–296.
- G. KOMPATSCHER-GUFLER – R. SPANNRING – K. SCHACHINGER, *Human-Animal Studies. Eine Einführung für Studierende und Lehrende mit Beiträgen von Reinhard Heuberger und Reinhard Margreiter (UTB 4759)*. 2., überarb. u. aktual. Aufl. Münster – New York 2021.
- Ph. KOUKOULES, Kynēgetika ek tēs epochēs tōn Komnēnōn kai tōn Palaiologōn. *EEBS* 9 (1932) 3–33.
- Ph. KOUKOULES, *Byzantinōn bios kai politismos*, 6 vols. Athens 1948–1955.
- H. KROLL, *Tiere im Byzantinischen Reich: archäozoologische Forschungen im Überblick*. Mainz 2010.
- D. KRUEGER, *Symeon the Holy Fool: Leontius's Life and the Late Antique City*. Berkeley – Los Angeles – London 1996.
- N. KOUTRAKOU, Animal Farm in Byzantium? The Terminology of Animal Imagery in Middle Byzantine Politics and the Eighth Deadly Sins, in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 319–377.
- A. KÜLZER, Some Notes of Falconry in Byzantium, in: *Raptor and Human: Falconry and Bird Symbolism throughout the Millennium on a Global Scale*, eds. K.-H. Gersmann – O. Grimm. Kiel 2018, 699–706.
- A. E. LAIOU, (ed.), *The Economic History of Byzantium: From the Seventh to the Fifteenth Century*, 3 vols. Washington, D.C. 2002.
- B. LATOUR, *We Have Never Been Modern*. Hemel Hempstead 1993.
- B. LATOUR, *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford 2005.
- M. D. LAUXTERMANN, Of Mice and Cat: The *Katomyomachia* as Drama, Parody, School Text and Animal Tale, in: *Poetry in Byzantine Literature and Society (1081–1204): New Texts, New Approaches*, eds. B. van den Berg – N. Zagklas. Cambridge 2024, 183–202.
- E. LAWRENCE, Wild Birds: Therapeutic Encounters and Human Meanings. *Anthrozoös* 3 (1989) 111–118.
- S. LAZARIS, La production nouvelle en médecine vétérinaire sous les Paléologues et l'œuvre cynégétique de Démétrios Pépagôménos, in: *Philosophie et sciences à Byzance de 1204 à 1453: les textes, les doctrines et leur transmission. Actes de la table ronde organisée au XXe Congrès International d'Etudes Byzantines (Analecta Orientalia Lovaniensia)*, eds. M. Cacouros – M.-H. Congourdeau. Louvain 2006, 225–267.
- S. LAZARIS, Art et science vétérinaire à Byzance. Formes et fonctions de l'image hippiatrice (*Bibliologia* 29). Turnhout 2010.
- S. LAZARIS, *Le Physiologus grec (2 Vols)*. Firenze 2016 & 2021.
- S. LAZARIS, Veterinary Medicine, in: *A Companion to Byzantine Science*, ed. S. Lazaris. Leiden 2020, 404–428.
- S. LAZARIS, Hunting in Byzantium: A Case Study in Falconry, in: *Falconry in the Mediterranean Context during the Premodern Era*, eds. Ch. Burnett – B. Van den Abeele. Genève 2021, 261–276.
- S. LAZARIS, Veterinaria (Medicina), in: *Dizionario delle scienze e delle tecniche di Grecia e Roma*, eds. P. Radici Colace and G. Solaro. Pisa – Rome 2022, 315–325.

- S. LAZARIS, Some Thoughts on the Development of Medieval Hippiatric Science in the Mediterranean Region, in: *Anekdotia Byzantina. Studien zur byzantinischen Geschichte und Kultur. Festschrift für Albrecht Berger anlässlich seines 65. Geburtstags (BA 41)*, eds. I. Grimm-Stadelmann et. al. Berlin – Boston 2023, 391–412.
- S. LAZARIS, Christianising Animals: Physiologus and Hexaemeral Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 58–82.
- S. LAZARIS – S. ARAGON (eds.), *Identifications des espèces animales : controverses antiques et modernes*. Valenciennes 2025.
- F. LEONTE, ... For I have brought to you the Fugitive Animals of the Desert: Animals and Representations of the Constantinopolitan Imperial Authority in two Poems by Manuel Philes, in: *Animaltown: Beasts in Medieval Urban Space*, eds. A. M. Choyke – G. Jaritz. Oxford 2017, 179–189.
- S. LEWIS – L. LLEWELLYN-JONES, *The Culture of Animals in Antiquity. A Sourcebook with Commentaries*. Abingdon – New York 2018.
- A. LITTLEWOOD – H. MAGUIRE – J. WOLSCHKE-BULMAHN (eds.), *Byzantine Garden Culture*. Washington D.C. 2002.
- A. LITTLEWOOD, A. Vegetal and Animal Imagery in the History of Niketas Choniates, in: *Theatron: rhetorische Kultur in Spätantike und Mittelalter*, ed. M. Grünbart. Berlin 2007, 223–258.
- C. MACÉ, Animals in Pseudo-Eustathius of Antioch's Chronicle, in: *Von der Historienbibel zur Weltchronik. Studien zur Pajala-Literatur*, ed. C. Böttrich, D. Fahl and S. Fahl (*Greifswalder Theologische Forschungen*, 31). Leipzig 2020, 205–222.
- H. MAGUIRE, *Earth and Ocean. The Terrestrial World in Early Byzantine Art*. University Park and London 1987.
- P. MARCINIAK – K. WARCABA, Racing with Rhetoric: A Byzantine Ekphrasis of a Chariot Race. *BZ* 107.1 (2014) 97–112.
- P. MARCINIAK, A Pious Mouse and a Deadly Cat: The Schede tou Myos, attributed to Theodore Prodromos. *GRBS* 57 (2017) 507–527.
- P. MARCINIAK – K. WARCABA, Theodore Prodromos' Katomyomachia as a Byzantine Version of Mock-Epic, in: *Middle and Late Byzantine Poetry: Texts and Contexts*, eds. A. Rhoby – N. Zagklas. Turnhout 2018, 97–110.
- P. MARCINIAK, The Paradoxical Enkomion and the Byzantine Reception of Lucian's Praise of the Fly. *MEG* 19 (2019) 141–150.
- P. MARCINIAK, Animals in Constantinople. Some Initial Remarks, in: *Anekdotia Byzantina: Studien zur byzantinischen Geschichte und Kultur. Festschrift für Albrecht Berger anlässlich seines 65. Geburtstags*, eds. I. Grimm-Stadelmann et al. Berlin – Boston 2023.
- P. MARCINIAK, I nomi degli insetti a Bisanzio tra sviluppi eruditi e tradizioni popolari (Insect Names in Byzantium: Between Erudite Developments and Popular Traditions) 2023 <https://journals.openedition.org/rursuspicae/3108> (accessed: 3.02.2025).
- P. MARCINIAK, Byzantine Cultural Entomology (Fourth to Fifteenth Centuries): A Microhistory of Byzantine Insects. *DOP* 77 (2023) 177–194.
- P. MARCINIAK, Writing a Byzantine Zoobiography: The Case of the Octopus. *BZ* 117.3 (2024) 669–692.
- P. MARCINIAK – K. WARCABA, How to lament a Fallen Mouse? A Parody of Ancient Lament in the Katomyomachia by Theodore Prodromos'. *BZ* 117.1 (2024) 157–168.
- P. MARCINIAK, Animals we Love: Pets and Companion Animals in Byzantium?, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 332–342.
- P. MARCINIAK – T. SCHMIDT (eds.), *The Routledge Handbook in Human-Animal Relations in the Byzantine World*. London – New York 2025.
- K. MAVROMMATI, *The Natural Environment in Late Byzantine Correspondence*. Cham 2025.
- W. MAYER – S. TRZCIONKA (eds.), *Feast, Fast or Famine. Food and Drink in Byzantium*. Brisbane 2005.
- A. MCCABE, *A Byzantine Encyclopaedia of Horse Medicine: The Sources, Compilation, and Transmission of the Hippiatrica*. Oxford 2007.
- S. E. MCFARLAND – R. HEDIGER, *Animals and Agency: An Interdisciplinary Exploration*. Leiden – Boston 2009.
- R. MCLAUGHLIN, Nonhuman Animals in Christian Theology, in: *St Andrews Encyclopaedia of Theology 2023*, ed. B. N. Wolfe, available online: <https://www.saet.ac.uk/Christianity/NonhumanAnimalsinChristianTheology> (accessed: 27.06.2025).
- C. MENGOZZI (ed.), *Outside the Anthropological Machine: Crossing the Human-Animal Divide and Other Exit Strategies*. New York – London 2021.
- Ch. MESSIS – I. NILSSON, The Description of a Crane Hunt by Constantine Manasses: Introduction, Text and Translation. *Scandinavian Journal of Byzantine and Modern Greek Studies* 5 (2019) 9–89.
- Ch. MESSIS – I. NILSSON, Man, Beast and Nature: Descriptions of Hunting in Byzantine Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 187–210.
- N. METZGER, Kynanthropy: Canine Madness in Byzantine Late Antiquity. *History of Psychiatry* 26.3 (2015) 318–331.
- A. MOE, *Zoopoetics: Animals and the Making of Poetry*. Lanham; Plymouth 2014.
- D. MYLONA, *Fish-Eating in Greece from the Fifth Century B.C. to the Seventh Century A.D.: A Story of Impoverished Fishermen or Luxurious Fish Banquets*. Oxford 2008.
- T. NAGEL, What Is It Like to Be a Bat? *The Philosophical Review* 83.4 (1974) 435–450.
- S. T. NEWMYER, *Animals, Rights and Reason in Plutarch and Modern Ethics*. London – New York 2005.
- S. T. NEWMYER, *Animals in Greek and Roman Thought: A Sourcebook*. London – New York 2011.
- A. NOBLE (with A. ALEXAKIS and R. H. GREENFIELD), *Animal Fables of the Courtly Mediterranean: The Eugenic Recension of Stephanites and Ichneutes*. *Dumbarton Oaks Medieval Library*. Cambridge, Massachusetts – London 2022.

- A. J. NOCELLA II et al. (eds.), *Defining Critical Animal Studies: An Intersectional Social Justice Approach for Liberation*. New York 2014.
- A. OLSON, *Environment and Society in Byzantium, 650–1150: Between the Oak and the Olive*. Cham 2020.
- V. ONAR et al., Animal Skeletal Remains of the Theodosius Harbor: General Overview. *Turkish Journal of Veterinary and Animal Sciences* 37 (2013) 81–85.
- V. ONAR et al., Osteological Evidences of Byzantine Draught Cattle from Theodosius Harbour at Yenikapı, Istanbul. *Mediterranean Archaeology and Archaeometry* 15.2 (2015) 71–80.
- V. ONAR, Animals in Food Consumption During the Byzantine Period in Light of the Yenikapı Metro and Marmaray Excavations, Istanbul, in: *Multidisciplinary Approaches to Food and Foodways in the Medieval Mediterranean*, ed. S. Y. Waksman. Lyon 2021, 331–342.
- V. ORTOLEVA – M. R. PETRINGA (eds.), *La veterinaria antica e medievale: testi greci, latini, Arabi e romanzi: atti del II Convegno internazionale*, Catania, 5 ottobre 2007. Biblioteca di Sileno, 2. Lugano 2009.
- C. OSBORNE, *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature*. Oxford 2007.
- P. PANTAZAKOS, Plethon's Views on Animals, in: *Animal Ethics: Past and Present Perspectives*, ed. E. Protopapadakis. Berlin 2012, 113–120.
- A. PAPAGIANNAKI, Experiencing the Exotic: Cheetahs in Medieval Byzantium, in: *Discipuli dona ferentes. Glimpses of Byzantium in Honour of Marlia Mundell Mango*, eds. T. Papacostas – M. Parani. Turnhout 2017, 223–257.
- C. PAPAVERNANAS, Unsung Heroes of Byzantine Hagiography: The Role of Animals in Martyrs' Passions, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 107–132.
- S. PASCHALIDIS, Saints et animaux, anticipation du royaume dans la littérature byzantine, in: *La restauration de la création. Quelle place pour les animaux?*, eds. M. Cutino – I. Iribarren – F. Vine. Leiden – Boston 2018, 213–230.
- C. PEARSON, Dogs, History and Agency. *History and Theory* 52.4 (2013) 128–145.
- M. PERISANIDI, Byzantine Parades of Infamy through an Animal Lens, *History Workshop Journal* 90 (2020) 1–24.
- M. PERISANIDI, *Masculinity in Byzantium, c. 1000–1200: Scholars, Clerics and Violence*. Cambridge 2024.
- K. PIOTROWSKA, It was not Easy Being a Mouse in Constantinople: Some Notes on the Role of Mice in Byzantine Life and Literature, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 343–357.
- R. PISKORSKI, Animal as Text, Text as Animal: On the Matter of Textuality, in: *Derrida and Textual Animality: For a Zoogrammatology of Literature*, ed. R. Piskorski. Cham 2020, 29–64.
- T. POMMERENING – J. ALTHOFF (eds.), *Kult, Kunst, Konsum. Tiere in alten Kulturen*. Darmstadt 2018.
- G. PRINZING, Zur byzantinischen Rangstreitliteratur in Prosa und Dichtung. *RHM* 45 (2003) 241–286.
- A. REES, Animal Agents? Historiography, Theory and the History of Science in the Anthropocene. *The British Journal for the History of Science: Themes* 2 (2017) 1–10.
- T. REGAN, *The Case for Animal Rights*. Berkeley 1983.
- B. RESL (ed.), *A Cultural History of Animals in the Medieval Age*. Oxford – New York 2007.
- A. RHOBY, Hunde in Byzanz, in: *Lebenswelten zwischen Archäologie und Geschichte. Festschrift für Falko Daim zu seinem 65. Geburtstag*, eds. J. Drauschke et al. Mainz 2018, 807–820.
- H. RITVO, *The Animal Estate. The English and Other Creatures in the Victorian Age*. Cambridge, Mass. 1987.
- H. RITVO, On the Animal Turn. *Daedalus. Journal of the American Academy of Arts and Sciences* 136.4 (2007) 118–122.
- M. RÖBEN, The Horse Behind the Text: Animal Agency in Early Medieval Historiography. *Cheiron: The International Journal of Equine and Equestrian History* 1.1 (2021) 68–85.
- A. ROPA – T. DAWSON (eds.), *Echoing Hooves: Studies on Horses and their Effects on Medieval Societies*. Leiden – Boston 2022.
- M. ROSCHER – A. KREBBER – B. MIZELLE, Writing History after the Animal Turn? An Introduction to Historical Animal Studies, in: *Handbook of Historical Animal Studies*, eds. M. Roscher – A. Krebber – B. Mizelle. Berlin – Boston 2021, 1–18.
- C. SANDERS – A. ARLUKE, If Lions Could Speak: Investigating the Animal-Human Relationship and the Perspectives of Non-Human Others. *Sociological Quarterly* 34 (1993) 377–390.
- I. SCHAFF (ed.), *Animal Kingdom of Heaven. Anthropozoological Aspects in the Late Antique World*. Berlin – Boston 2019.
- T. SCHMIDT – J. PAHLITZSCH (eds.), *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*. Berlin – Boston 2019a.
- T. SCHMIDT, Introduction: Perception and Evaluation of Animals in Euro-Mediterranean Cultures, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*, eds. T. Schmidt – J. Pahlitzsch. Berlin – Boston 2019b, 1–9.
- T. SCHMIDT, Noble Hounds for Aristocrats, Stray Dogs for Heretics, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*, eds. T. Schmidt – J. Pahlitzsch. Berlin – Boston 2019, 103–131.
- T. SCHMIDT, Father and Son like Eagle and Eaglet – Concepts of Animal Species and Human Families in Byzantine Court Oration (11th/12th c.). *BZ* 112.3 (2019c) 959–990.

- T. SCHMIDT, Politische Tierbildlichkeit in Byzanz. Vom späten 11. bis zum beginnenden 13. Jahrhundert. Wiesbaden 2020.
- T. SCHMIDT, Constantinople and the Sea: Narratives of a Human-Nonhuman Ecosystem? *Scandinavian Journal of Byzantine and Modern Greek Studies* 8 (2022) 69–103.
- T. SCHMIDT, Because I don't Speak Human – Literary Concepts of Verbal and Nonverbal Human-Animal Communication up to the Middle Byzantine Period. *BZ* 117.3 (2024) 841–876.
- T. SCHMIDT, More Than Meets the Eye: The Semiotics of Animals in Byzantium, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 15–41.
- T. SCHMIDT, Agency – A Core Concept in the Cultural History of Human-Animal Relations, in: *Ecologizing Late Ancient and Byzantine Worlds*, eds. T. Arentzen – L. Borghetti. London 2025, 103–121.
- H. SCHNEIDER, Michael Italikos' Monodie auf ein totes Steinhuhn. Ein byzantinischer Text im Fokus moderner ‚Human-Animal Studies‘. *Das Mittelalter* 28.2 (2023) 429–447.
- R. SCOTT, The Racehorse as Protagonist. Agency, Independence, and Improvisation, in: *Animals and Agency. An Interdisciplinary Exploration*, eds. S. E. McFarland – R. Hediger. Leiden – Boston 2009, 45–65.
- N. ŠEVČENKO, Wild Animals in the Byzantine Park, in: *Byzantine Garden Culture*, eds. A. Littlewood – H. Maguire – J. Wolschke-Bulmahn. Washington D.C. 2002, 69–86.
- N. ŠEVČENKO, Eaten Alive: Animal Attacks in the Venice Cynegetica, in: *Animals and Environment in Byzantium (7th – 12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 115–135.
- N. ŠEVČENKO, The giraffe that came to Constantinople, in: *The Eloquence of Art. Essays in Honour of Henry Maguire*, eds. A. O. Lam – R. Schroeder. Abingdon – New York 2020, 336–349.
- N. ŠEVČENKO, Animals in Byzantine Manuscripts, in: *The Routledge Handbook in Human Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 234–262.
- K. SHAPIRO, Understanding Dogs Through Kinesthetic Empathy, Social Construction, and History. *Anthrozoös* 3 (1990) 184–195.
- K. SINAKOS, To kynēgi kata tē mesē Byzantinē epochē (7os–12os ai.), in: *Animals and Environment in Byzantium (7th–12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 71–86.
- P. SINGER, *Animal Liberation: A New Ethics for our Treatment of Animals*. London 1975.
- E. M. SOLBERG, Human and Insect Bookworms. *Postmedieval* 11.1 (2020) 12–22.
- B. SOMMA – M. VOGIATZI, Animal Rationality in Byzantine Philosophy and Islamic Philosophy, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 85–106.
- R. SORABJI, *Animal Minds and Human Morals: The Origins of the Western Debate*. London 1993.
- J. SPECHT, Animal History after its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens. *History Compass* 14 (2016) 326–336.
- J. E. SPITTLER, *Animals in the Apocryphal Acts of the Apostles: The Wild Kingdom of Early Christianity*. Tübingen 2008.
- A.-F. STAMOULLI, The Use of Horses in The History by Georgios Akropolites: A Comparison with *Historia Romana* by Nikephoros Gregoras. *Cheiron: The International Journal of Equine and Equestrian History* 1.1 (2021) 86–99.
- A.-F. STAMOULLI, Information of Middle Byzantine Hagiographical Texts about Equids, in: *Echoing Hooves: Studies on Horses and their Effects on Medieval Societies*, eds. A. Ropa – T. Dawson. Leiden – Boston 2022, 112–138.
- D. STATHAKOPOULOS, Invisible Protagonists: The Justinianic Plague from a Zoocentric Point of View, in: *Animals and Environment in Byzantium (7th–12th c.)*, eds. I. Anagnostakis – T. Koliass – E. Papadopoulou. Athens 2011, 87–95.
- K. STEEL, *How to Make a Human: Animals and Violence in the Middle Ages*. Columbus 2011.
- K. STEWART, An Entertaining Tale of Quadrupeds: Animals and Insults in a Late Byzantine Poem, in: *Impious Dogs, Haughty Foxes and Exquisite Fish: Evaluative Perception and Interpretation of Animals in Ancient and Medieval Mediterranean Thought*, eds. T. Schmidt – J. Pahlitzsch. Berlin – Boston 2019, 165–183.
- K. STEWART, Animals in Satire, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 169–186.
- S. SWART, But Where's the Bloody Horse?: Textuality and Corporeality in the Animal Turn. *Journal of Literary Studies* 23.3 (2007) 271–292.
- S. SWART, The World the Horses Made: A South African Case Study of Writing Animals into Social History. *International Review of Social History* 55.2 (2010) 241–256.
- A. L. TAYLOR, Where are the Wild Things? Animals in Western Medieval European History. *History Compass* 16:e12443 2018.
- I. TELELIS, Ean brontēsē ...: Koina themata tōn Byzantinōn brontologiōn. *Byzantiaka* (forthcoming).
- L. TOTELIN, Waxing Lyrical: Ancient Medical Authors on Wax and Wax Tablets. *Deltos: Journal for the History of Medicine* 33.51 (2023) 13–18.
- M. TRIZIO, The Byzantine Reception of Aristotle's *Parva Naturalia* (and the Zoological Works) in Eleventh- and Twelfth-Century Byzantium: An Overview, in: *The Parva Naturalia in Greek, Arabic and Latin Aristotelianism: Supplementing the Science of the Soul*, B. Bydén – F. Radovic (eds). Dordrecht 2018, 155–168.
- D. VORPAHL, A Donkey that speaks is a Donkey no less: Talking Animals in the Hebrew Bible and its Early Jewish Reception, in: *Speaking Animals in Ancient Literature*, ed. H. Schmalzgruber. Heidelberg 2020, 509–525.
- P. WALDAU, *Animal Studies: An Introduction*. Oxford 2016.
- K. WEIL, A Report on the Animal Turn. *Differences: A Journal of Feminist Cultural Studies* 21.2 (2010) 1–23.

- M. WHITE, The Rise of the Dragon in Middle Byzantine Hagiography. *BMGS* 32.2 (2008) 149–167.
- C. WOLFE, Moving Forward, Kicking Back: The Animal Turn. *Postmedieval* 2 (2011) 1–12.
- S. XENOPHONTOS, Gazing at the World through Animals' Eyes: Methodological Approaches to Highlighting the Animal Lens in Byzantine Literature through the Case-Study of Theodore Hyrtakenos's Horse. *Cheiron: The International Journal of Equine and Equestrian History* 5.1 (2025a) 35–61.
- S. XENOPHONTOS, Wonder Dogs of Byzantium from an Animal Point of View. *BMGS* 49.2 (2025b) 187–204.
- S. XENOPHONTOS, Animal Agency and Plutarch's Elephants. *Trends in Classics* forthcoming (June 2026).
- S. XENOPHONTOS, Elephant Emotions: Ancient and Modern Perspectives, in: *Premodern Animal Emotions*, ed. S. Xenophontos. Leiden forthcoming.
- D. ZAGANAS, L'Hexaameron d'Anastase le Sinaïte. Son authenticité, ses sources et son exégèse allégorisante. Leiden – Boston 2022.
- A. ZUCKER, Zoology, in: *A Companion to Byzantine Science*, ed. S. Lazaris. Leiden 2020, 261–301.
- A. ZUCKER, Timotheus of Gaza and the Zoological Collection of Constantine VII: Two Byzantine Treatises, in: *The Routledge Handbook in Human-Animal Relations in the Byzantine World*, eds. P. Marciniak – T. Schmidt. London – New York 2025, 42–57.