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# Beast and Human – Introduction, Discussion and Synthesis

Human-Animal Studies began to take shape in the wake of the animal rights movement of the 1970s. Subsequently, in the late 1980s, it was established as an academic discipline in its own right, as a branch of the Humanities that endeavours to consider the animal-human relationship in a less anthropocentric way than before, by granting agency to the animal (Kompatscher et al. 2017; DeMello 2021; Roscher et al. 2021). However, it was only introduced into archaeo-(zoo)logy considerably later, as »Social Zooarchaeology« (groundbreaking: Russell 2012 and Overton/Hamilakis 2013, but see also Mannermaa 2013 with a critical view on the latter contribution). Yet another approach is through Posthumanism in archaeology (Fernández-Götz et al. 2021; see also Fredengren 2013; 2021; Jennbert 2021).

Human-Animal Studies continue to gain more and more momentum in archaeo(zoo)logy, but there is still considerable potential for studies that cover longer periods, such as from the Stone Age and onwards, or for pioneer work on restricted periods. In this respect, it is worth a mention that the Iron Age of northern Europe has much to offer in the form of hundreds of burials with animal remains, mostly from bear, dog and raptor, although Neolithic cattle depositions (burials) will not be overlooked (more on this below).

For a period of almost 15 years (2010–2023), research into the archaeology and history of hunting and, increasingly, Human-Animal Studies was carried out by scholars at the Centre for Baltic and Scandinavian Archaeology (ZBSA, Schleswig, Germany), of which I was part (due to its integration into the LEIZA [Leibniz-Zentrum für Archäologie/Leibniz-Centre for Archaeology with its main seat in Mainz, Germany] this Centre no longer exists, but research continues in Schleswig within the LEIZA). The work took different forms, from articles and books as the outcome of personal research to the realising of conferences and their proceedings. Particular cases have been the much extended conference proceedings that transcend time, region and academic branch: »Hunting in Northern Europe« (Grimm/Schmölcke 2013), »Raptor and Human« (Gersmann/Grimm 2018), »Raptor on the Fist« (Grimm 2020a), and »Bear and Human« (Grimm 2023a). These books will also have a bearing on some of the following articles on dogs, raptors/falconry and bears.

With some alterations and additions, the present publication goes back to a session at the Annual Meeting of the European Association of Archaeologists (EAA) in Kiel (Germany) in September 2021, conducted online, entitled »Beast and Human«. It should be noted that »beast« is a general term that can be used to describe both wild and domesticated animals, but in the present book it will primarily refer to wild animals. Interestingly, our book has a precedent, at least to some extent, in the proceedings of a conference in 2011 on »Representing Beasts in Early Medieval England and Scandinavia« (Bintley/Williams 2015). We will return to this.

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## Structure

The texts in the book belong to two main sections.

The first three contributions approach *methodological issues* and are about matters of identification:

- natural sciences: wolf vs. dog and bear claw vs. bear skin,
- posthumanism: cattle vs. aurochs.

The other nine contributions, which are in fact *case studies*, have been ascribed to the following subchapters:

- hunter, huntress and animal hunting assistants (dogs and raptors in medieval and early modern Lithuania) as the human's close companions,
- bears as animal agents, symbols and prey (Russian material for the Stone and Bronze Ages, also with references to more western parts of Europe; burials with bear claws in England/northern Germany and the Sambian Peninsula in the middle of the 1st millennium AD),
- animal symbolism, from snake and duck (Belarus, from the Stone Age to medieval times) to »dragon« and hare (Estonia's Late Iron Age),
- further consideration: wild animals of the North Pontic region (»Sarmatia«) and raptors of Asia (Early Bronze Age).

## Material

The materials used in the articles are archaeo(zoo)logical. The papers on medieval and early modern Lithuania, however, not only draw upon a rich source of osteological information but also high quality written records. In the following, the contributions are discussed in a broader archaeo(zoo)logical manner in an attempt to create a narrative based on the given papers. From to time to time, other materials are taken into account (visual, non-archaeological), and a look at the biology of the animals (raptors, snakes) and practical aspects (falconry as seen by the practitioner, thus transdisciplinarily) contribute to this, too. This will lead to insights that cannot be gained from archaeo(zoo)logy alone.

## Method

Three contributions about matters of animal identification in both the Natural Sciences and the Humanities address methodological issues, which is necessary in order to provide solid ground for further reflection.

### Natural Sciences: Dog vs. Wolf and Bear Skin vs. Bear Claw

Where are the wolves? The wolf enigma – its absence in archaeozoological records – has been considered in a paper by the influential scholar A. Pluskowski, who looked at medieval archaeological contexts almost 20 years ago, but this kind of rarity is also the case for earlier times (Pluskowski 2006). Among other things, this paper explores the morphological relationship between wolves and dogs, including the issue of hybridisation and suggests, using a mixture of archaeo(zoo)logical and historical sources, that the scarcity of wolf remains may in fact reflect infrequent hunting.

Now, almost 20 years later, in this volume, **Luc August Adèle Janssens** looks at research on the wolf/dog differentiation in the natural sciences over the past years. In comparison to wolves, it was usually presumed that dogs are characterised, *inter alia*, by their smaller size and wider snout. Recently, genetics have become increasingly important alongside computerised Geometric Morphometrics, while Classical Morphology has seen a revival. Based on these different strands of research, many previously assumed differences between wolf and dog can be rejected, but elements such as size, snout width and height continue to be of importance. It is probably too early to recognise if the wolf enigma can be solved this way. However, the past two decades have seen a growing number of identified wolf remains in medieval archaeological contexts (personal communication on June 23rd 2025 with Aleks Pluskowski, who has a paper on this in preparation). This increase in knowledge may have an influence on the hotly debated topic of wolf-domestication, too (see e. g. Sykes 2018).

We also owe a re-analysis of the famous dog from Oberkassel (Bonn, Germany) to Luc August Adèle Janssens (Janssens et al. 2018). More than 100 years ago, human and animal bones came to light there during quarrying, and it is argued that the remains

of a dog and two humans (male and female) were found so close to each other that they constitute one burial, dated to around 14,000 years ago and once stained with ochre (Street et al. 2015). The dog remains, which differ from wolf to a considerable extent and consist of forelimbs, vertebrae and skull and rib bones, are special: The pathology of the dog, in fact a late juvenile of 27–28 weeks of age, suggests that it died young of a severe illness (canine distemper), during which it had to be taken care of and fed, which seems to indicate a close bond between human and dog. Remarkably, the most recent re-analysis of the bone material from Oberkassel revealed the tooth of another, older and smaller dog (Janssens et al. 2018).

The dog-human relationship has been characterised as multi-layered (see e. g. Petersen 2013; Schmölcke 2013). This dog was not just a mere »hunting assistant« (if it really was one), but a human's close companion, if not »soul mate«. However, there is an issue: one cannot reliably identify hunting dogs on the basis of (partial) skeletons alone, although the build of the animal in question may give a hint (see below). One thing is apparent: the association of dogs with richly furnished burials at some points in the Iron Age (still fundamental: Prummel 1992). We can see this all over Scandinavia, such as in the »royal« Viking Age Ladby ship in Denmark (Holm Sørensen 2013), the likewise »royal« and contemporary burial in Gokstad in Norway (Gansum 2018) and the richly furnished Late Iron Age boat-graves of Valsgärde, central Sweden (Nichols 2021).

Besides the wolf/dog enigma, the bear skin/bear claw question may also benefit from intensified research by the natural sciences. Recently, this bear claw/bear skin controversy has increased, with claws being identified as the remnants of former skins (see e. g. Beermann 2016). It is the point of view of **Tuija Kirkinen** and **Oliver Grimm** in the present book that there is a difference in evidential value between claws and skins in burials (see also Grimm 2013; 2023b). In the case of the former, which are usually found in cremation burials, it is very possible that the deceased was placed on a skin on the funeral pyre and that, as a rule, only one or a few claws made their way into the actual burial, but there is no way to prove this. In contrast, assumed or actual skin, mostly found in inhumation burials, seems to provide undoubted proof. But also for those cases, a very close look is needed; how substantial are the skin remains? Is it really skin with the claws still attached or rather claws with small remnants of skin? As analysis shows, there are a number of factual »bear skin burials« in Norway, Sweden and Finland, often connected to burials beyond the ordinary (more on this below).

The novelty in the analysis of »bear skin burials« is the use of the microscope by which animal hairs can also, quite successfully, be detected (see Kirkinen et al. 2020a; 2020b). The present paper may also be seen as a call for action to try a re-analysis by microscope of skin remains from burials that still exist in museum archives. The Migration Period chamber grave from Högom (Medelpad, northern Sweden), which was excavated indoors under laboratory conditions after it had been encased on location, has brought to light an amazing collection of fur/hair, owing to the excellent preservation conditions of the burial and the use of the microscope; apart from bear, reindeer/roe deer, beaver, marten, sable, polecat and pinniped/musquash fur and hair have also been found (!) (Nockert 1991, 31).

## Posthumanism: Cattle vs. Aurochs

As already stated, an alternative perspective on the animal-human-relationship, as opposed to a purely utilitarian, anthropocentric view, was already advocated in a broad sense decades ago, post-1968, in the Humanities. This was influenced by the Animal Rights Movement in the wake of calls for a new approach to life (Kompatscher et al. 2017; DeMello 2021; Roscher et al. 2021). It took decades, however, for this approach to find its way into archaeo(zoo)logy, at least openly expressed, and it comes in different variations. One of these is labelled Posthumanism, as **Emily Banfield** sketches in her paper, with a reference to the French philosopher J. Derrida's influential book »The Animal That Therefore I Am« (2008; French original edition 2006) (on Posthumanism and archaeology see also Fredengren 2013; 2021; Fernández-Götz et al. 2021; Jennbert 2021). As Banfield puts it, studies to that effect in archaeology have predominantly looked at wild species and early domestication, but her angle is different.

She draws attention to Woodford G2, a long barrow on Salisbury Plain, five kilometres south of Stonehenge. Excavation uncovered a flint cairn at the core of the mound; its other and later elements will be disregarded here. Eighty-six disarticulated human bones were found in the cairn, which belong to a minimum of three individuals, with a $^{14}C$ dating to the Early Neolithic (3427–3370 cal BC; 68.2 % probability). Also, a low number of fragments of seemingly residual sheep/goat remains and pottery sherds were found. The cairn consisted of unstruck flint nodules, with cattle teeth and pedal bones

placed close to its upper edge. Remarkably, at least one of the cattle bones belongs to a male aurochs (!), the wild progenitor species that was present in Britain before domesticated cattle were introduced. Unless the bone is from an aurochs that died of natural causes, hunting must be taken as given.

A large-scale study on Stone Age big-game hunting remains to be written, as it may seem. However, communal reindeer hunting with bow and arrow, using bottle-necks during the animals' annual migration, is well-documented. These were natural bottlenecks, such as at the lake in the Late Palaeolithic Ahrensburger Tunneltal (tunnel valley) in northern Germany (e. g. Weber 2013), but there were also artificial ones, created by stone alignments in parts of Norway, yet with a much broader dating (e. g. Indrelid 2013). Trapping by stone constructions, likewise used over long periods, is recorded for Norway, too (Bang Andersen 2013). Furthermore, it has been suggested that the hunting of reindeer and elk in the Mesolithic Maglemose Period in Denmark took place in water into which the animals had been driven and which left them vulnerable to attack, first by the use of large-barbed harpoons in order to immobilise them, followed by the use of other weapons for the deadly blow (Petersen 2005). Any further elaboration has to be omitted here, but the other end of the time scale in the present book is represented by the prestige (royal) hunting of large game in late medieval/early modern Vilnius Lower Castle (more on this below).

It has been suggested for Woodford that the humans in the flint cairn were deliberately placed beneath a cattle hide, which may suggest an embrace or protection of the human by the animal. This, however, is only true if one takes as given a sequence of actions – arrangement of the human burials and placement of the animal hide – with no intermission. This would have reflected a close contact between both species, with humans benefitting daily from the increased dairy products. Among the cattle, there was at least one with a high age whose biography could point towards a long relationship with humans who recognised it as an individual. It is yet another assumption that the flint cairn with human remains was enveloped by an aurochs-cattle composite hide, and while the cattle signalled protection, the aurochs bull introduced the idea of power and ferocity.

Repeatedly, cattle remains, especially the skull and pedal bones (often associated with human burials), have been reported for the advanced Neolithic of the British Isles, and this phenomenon, called »head and hooves«, may indicate former, now decomposed hides (see Piggott 1962). Another interesting Late Neolithic find originates from a barrow in Irthlingborough (Northamptonshire, East Midlands), with a deceased human placed in the large central pit of the barrow and the incredible number of 185 cattle skulls found on top, all from domesticated animals, though again one is from an aurochs, with a dating of 2500–2200/2100 BC (Davis/Payne 1993).

Ultimately, Woodford and the other sites in England should be related to the custom of »cattle depositions« more broadly, be it in Kilshane, Ireland, with a dating to the late 4th millennium BC (Piegière et al. 2021), or the Middle and Final Neolithic sites (3800–2200 BC) in the north of Denmark, central Poland, and the Carpathian Basin as well as the Middle-Elbe-Saale-region and adjacent areas (Hartmann in print).

## Case Studies

### Dogs and Raptors

Two papers in this book, one on hunting dogs and hunting with dogs by **Giedrė Piličiauskienė** (lead author), and one on raptors/falconry by **Aurelija Zagurskytė** (lead author), take into account archaeo-(zoo)logical and historical material from the Grand Duchy of Lithuania in the period from the 13th to the 17th centuries, during which Władysław II Jagiełło (ruled 1386–1434) and his successors were kings of Poland as well as Lithuanian dukes. We will return to this duke/king and his hunting. The Grand Duchy is well known from written records but also from the excavations at Vilnius Lower Castle, the third and final phase of which (16th and first half of the 17th century) represents the actual royal palace. Excavations at this castle have been ongoing for decades and up until recently. This is also where most of the analysed bird (raptor) and dog bones come from. As a matter of fact, no less than 80,000 animal bones have come to light during the investigations. With the main finds at Vilnius Lower Castle supplemented by a few from other sites, there is a minimum number of 51 dogs and more than 1300 (!) birds, including at least 29 raptors: goshawk and sparrowhawk, but also small falcon and white tailed/golden eagle.

As for the dogs, one has to face the methodological problem that those with the same morphotype

might have seen different uses (in the following, after Giedrė Piličiauskienė and others in the present volume). An identification of hunting dogs is thus problematic, but the find context, such as in Vilnius Lower Castle within its Duchy, could strengthen any such assumption. Interestingly, a sighthound-like dog from there (74 cm high, with gracile build, and a narrow and long skull), which has been radiocarbon-dated to the 14th century, yields high isotope values indicative of an exceptional diet that consisted of meat and/or fish. Such animals were in the hands of professional dog keepers, mentioned for later times in written records. Quite remarkably, dogs of a comparable build are well known from wealthy Late Iron Age burials in northern Europe (see above).

Another important aspect is the great diversity of dogs at Vilnius Lower Castle, ranging from small (lapdogs) to tall and slender (sighthound-like) and further to large (Molossians and Spitz-type); this kind of diversity can also be taken as an indication for an upper(most) social milieu. Again, however, it is the written sources that offer much more insight. For the 16th century and onwards, more than ten different kinds of dogs are mentioned for Lithuania, including hunting dogs distinguished by the type of their game (bear, bison, deer, and so on), or the type of hunting (with birds of prey in falconry).

When it comes to the interpretation of the raptors from Vilnius Lower Castle, we have to point to falconry, which is defined by the practitioners from the IAF (International Association for Falconry and Conservation of Birds of Prey; www.iaf.org), as »the taking of quarry in its natural state and habitat by means of trained birds of prey«. At the core of falconry, there is the raptor-human relationship (»comradeship«) between a non-domesticated/non-domesticable bird that distances itself from humans by nature and a human who wants to spend time with the bird, fascinated by its personality, aerial manoeuvres and hunting (Bednarek 2018; Richter 2018). This bird is a »companion« (see here the use of the word by the influential thinker, Donna Haraway [2003]). Falconry is the day-to-day care of the bird; hunting is only a part of it. Notably, the falconer says that the bird goes hunting with the human and not the other way around, and each time nature takes its course between the hunting bird and its possible prey the falconer is both thrilled and concerned, in fear that the bird may not return.

Falconry was once practised on one stretch of land that reached from Europe and northern Africa in the west to Japan in the east, and it has left a multitude of materials with an ascertained minimum age of 2,000 years (Gersmann/Grimm 2018; Grimm 2020). Historically, in many areas, falconry was a badge of rank for royalty and the nobility, and its status is most prominently associated with the Holy Roman Emperor Frederick II (1194–1250). Not only did he write a famous book on falconry (»De arte venandi cum avibus«) in the early 1240s, after decades of experience with raptors and hunting with trained birds (Giese 2018), but falconry was also part of state philosophy in his time: it was thought that only the patient ruler – as patient as the falconer – is a good ruler (Boccassini 2018). Notably, falconers were practitioners who also took daily care of the birds; once the bird had been trained it could be placed on the fist of the king or queen who wished to hunt (Richter 2018, 56).

As far as Lithuania is concerned, with its dense forests in the given time period, goshawk and sparrowhawk, which live and hunt in forests, would have been the birds of choice, although this is not fully in line with the osteological record that also shows falcons, though small ones. In turn, eagles – specifically golden eagles – played no role in premodern European falconry (in the following, after Aurelija Zagurskyte and others in the present volume; see also Richter 2018 on European falconry more broadly). Female birds, which are bigger than their male counterparts, would have been preferred; however, the sexing of the birds has only been possible in a few cases, which are mainly from Vilnius Lower Castle, and there is no clear dominance of females. As we know, just-fledged raptors were taken out of nests or young birds were captured and then properly trained for hunting. According to written records, raptors used in falconry were highly praised and priced in Lithuania, and they served as diplomatic gifts which, incidentally, was also the case for dogs (see Giedrė Piličiauskienė and others, this volume).

The salvaged material from Lithuania and in particular from Vilnius Lower Castle is notable in that at least 29 raptors were found in a settlement archaeological context, the number alone of which is otherwise unknown in Europe, except for the West Slavonic late 1st-millennium-AD seat of power in Starigard-Oldenburg (northern Germany) with 41 such birds (Grimm 2018; see also Bleile 2018; Teegen 2018). Also, the preservation of hoods at Vilnius Castle is extraordinary, owing to favourable conditions. Such hoods were typically used for falcons, and Emperor Frederick II (1194–1250) mentions that he had them brought from Arabia in the first part of the 13th century (Giese 2018, 1461). Accordingly, hoods that have so far been found in Norway and Russia are post-1250 (Orten Lie 2018; Zinoviev 2018), as are those from the Great Duchy of Lithuania.

In the present context of raptors and dogs in the Grand Duchy of Lithuania, sources other than ar-

chaeo(zoo)logy have considerable evidential value (see here Aurelija Zagurskyte and others and Giedrė Piličiauskienė and others in the present volume). Wigand of Marburg, chronicler of the Teutonic Order, states for late 14th century Lithuania that when the Grand Duke Kęstutis, a second generation duke in the period of Lithuanian growth, was cremated, hunting dogs and hunting birds were among the furnishings.

The aforementioned duke of Lithuania and king of Poland, Władysław II Jagiełło (ruled 1386–1434), also deserves a mention in this respect. As recorded, he had 100 hunting dogs and 40 hunting birds at his disposal, which were surely in the hands of professional animal keepers, who took daily care of them. His tomb in Cracow is among the most outstanding examples of European sepulchral art (Chrubasik 2018), and the dogs and birds of prey that are found on the plinth of the tomb are unique, which raises the question of whether the king, most certainly an ardent hunter in his lifetime, was depicted as such on his tomb. However, he had just adopted Christianity, which is why any reference to hunting on his tomb was completely out of the question. It must therefore be assumed that these animals had other meanings. The birds may represent eagles and could thus be understood in a heraldic context as representative of the kingdom as well as the Cracow territory. Władysław II Jagiełło was surely also a representative of the classical period of royal hunting which, until the mid-15th century, was considered to be a school for the nobility to learn warfare, achieve greatness and become accustomed to the wilderness (see Giedrė Piličiauskienė and others, Aurelija Zagurskyte and others, this volume). From the 15th century onwards, however, royal hunting increasingly decayed and finally took the form of animals just being driven in front of guns.

Exceptional women of the Grand Duchy of Lithuania are described as participants in hunting, such as the Italian princess, Bona Sforza (1494–1557), who was the mother of the Duke of Lithuania and King of Poland, Sigismund II Augustus (1520–1572), and the Lithuanian noble woman, Barbara Radziwiłł (1520–1551), the second wife of Sigismund (see Aurelija Zagurskyte and others, this volume). This is not as surprising as it may seem. Mary, Duchess of Burgundy (1457–1482), is the best documented medieval female hunter/falconer in Europe, in both pictorial and written form (Karakova-Hesry 2020), but there is a trail to much earlier times. The burial in question was robbed, but a wealthy female buried in Quedlinburg in east Germany, roughly 1500 years ago, had obtained a goshawk – a female one, whose skull is preserved, which is a very rare find, if not unique (Ludowici 2018; Schmölcke 2018). Notably, the burial is a *Gründergrab*, the earliest one on location, and also the wealthiest in grave construction and furnishings at this site, documenting the advent of a new leading family. Perhaps there was also a connection with two dogs buried close by. The find in Quedlinburg is the oldest among only a handful of burials with goshawks in central Europe, and may represent the earliest falconry in this area, notably connected with a woman (Ludowici 2018; Schmölcke 2018). However, the animals in the mentioned burial have also been interpreted in a symbolic manner; the predators – dog, goshawk and pike – stand for the elements earth, air and water, and a legitimation for dominion over the local population was deduced from that.

## Bears

The present book contains three contributions on »bear and human«, and rightly the question arises of whether these are worthy contributions, coming as they do immediately after the publication of a large-scale book on the same subject (Grimm 2023a). It may come as a surprise, but the three contributions presented here can be seen as enriching the subject and, notably, each contribution has its own angle.

In the first contribution on bears in this book, written by **Ekaterina Kashina** and **Vladislav Zhitenev**, a long-term perspective is chosen, from the Late Pleistocene to the Early Bronze Age, in an intra-regional sense, which connects the northern latitudes of both western and eastern Europe. Emphasis, however, is rightly put on the archaeo(zoo)logical sources from Russia, which are this time presented in the English language. The paper follows the well-established assumption, as put forward by Ferdinand Braudel of the second generation of the French Annales school, that it is only the long-term consideration (*longue durée*) that makes changes in overall attitudes visible (Braudel 1958; Burke 1990).

The paper in question investigates the role of the cave, but much more so the brown bear in the lives and afterlives of humans. Based on bone finds, hunting, tool making and ritual aspects are discussed. While the bear as prey can be encountered more often in the Holocene than the Late Pleistocene, it definitely had some constant role(s) in spirituality in both epochs, though not as central as other animals (first, mammoth, horse and bison; later, elk and swan): the bear remained more hidden. The absence of bear images in east European Late Neolithic portable art is of particular interest, whereas these

animals occur, from time to time, in northern European rock art. This includes depictions of hunting at the den, foremost known from the famous northern Norwegian UNESCO world heritage site of Alta, which covers most of the last five millennia BC. But, even there, the bear did not play a central role (on Alta see Helskog 2012). At the turn from the Stone to the Early Bronze Age, portable bear images came into being, in the form of stone hammer axes with bear heads. Judging from their form, these were not actual weapons; they must have had some other meaning (we will return to this).

Archaeology aside, there is a strong indication for a special role ascribed to the bear: its taboo-name in the Slavic, but also the Germanic languages from times immemorial (Nedoma 2023; Særheim 2023; Udolph 2023). It suggests that the bear was regarded with both fear and admiration, and it could not be called by its real name (see below).

The second contribution on bears in this book, by lead author **Kirsty Squires**, leads us back to archives and information that are unpublished so far, but also an intra-regional perspective is chosen. The assumed Anglo-Saxon migration to England in the middle of the 1st millennium AD, as described by the monk Beda Venerabilis (672/673–735), is a controversial topic in archaeology (see for example Häßler 1998 on a conference to that effect), but it is now strongly supported by the a-DNA analysis of 460 medieval north-western Europeans, which points to just such a migration by a population mostly from Germany and Denmark (Gretzinger et al. 2022). This raises the question about common cremation burial rites in both areas and, in the present case, a bioarchaeological analysis of burials with bear claws and also, more broadly, other wild animal remains, has been conducted.

As regards England, a larger number of burials with bear claws comes from the early medieval period (5th to 7th centuries) in the east of England or, more precisely, cemeteries in Sancton I, Spong Hill, Elsham Wold, and Cleatham. However, a comprehensive zooarchaeological assessment has so far been available only for the latter two (O'Regan 2023), which comprises 16 burials that show differences in age, sex, and social level with no common denominator. It is only now, in the present paper, that the finds from Sancton I and Spong Hill have been taken into account, too. As for northern Germany, information on bear remains originates from only two cemeteries: Süderbrarup in northernmost (Bantelmann 1988; Wahl 1988) and Liebenau in northern Germany (introductory: Häßler 2001). The burials in question range from the late 4th to the 7th century. Details about cremation rites will have to be omitted here, but Liebenau is outstanding in both regional and east English respects. Suffice it to say that funeral pyres were lit on this burial sites and the remains then intentionally covered by sand and earth.

Analyses of the burials with the remains of wild animals in both England and northern Germany reveal that bear, bird, red deer, roe deer, and beaver are represented to a certain extent, whereas fox, hare, fish, marten and oyster are rare (following Squires and others, this volume). It was the adults of a population that were buried with the main species of bear, bird, dog and deer, while only Cleatham has burials of subadults with bear claws. Both women and men are represented; the former, more numerous, were more likely to be accompanied by parts of bears and birds, while the latter received those of deer and dogs as furnishings. Among the animal parts in the graves, there is a certain association between deer and sheep remains. The non-animal objects in the burials are very variable and do not point to any particular status. Interestingly, in the period in question, England probably no longer had a bear population (O'Regan 2023). The placement of the deceased on a bear skin and, as one may also suggest, the trading of such an item to England, might be indicated by the c. ten claws found in a burial in Cleatham. It is evident that more zooarchaeological work is needed for both England and Germany: it was called for 25 years ago by C. M. Hills (1998), but with little effect. As to Denmark, burials with bear claws belong to the first centuries AD and are thus older than their counterparts in England and northern Germany (briefly: Grimm 2013).

Let us take a brief look at the aforementioned two burial sites in northernmost Germany: one is located on the Anglian Peninsula (Süderbrarup), the other in »Old Saxony« (Liebenau), and they provide interesting insights, although the number of burials with bear remains is low, episodical and without statistical relevance, in contrast to the situation for the east of England.

The cemetery of Süderbrarup has yielded only two burials with bear claws, and both are above average: firstly an old man in grave 934, from the mid-4th century, whose furnishings belong to a military sphere and include a fragmentary belt with richly furnished bronze mounts, and secondly an adult man in grave 402, from the first half of the 5th century, with sherds of a glass vessel (such objects being known from only eleven local graves; see Bantelmann 1988; Wahl 1988; Rau 2010, vol. 1, 79–83). In the latter case, no less than 12 bear claws indicate – by their mere number – a former skin, and it is also remarkable that this is the burial with most animal remains at this site: alongside bear remains,

pig, sheep/goat and horse are also represented, in the latter case possibly a skull (!).

In turn, four burials in Liebenau have yielded bear remains: R13/B5, R14/B3, R14/B4, S13/B1; all are those of women, and at least one inventory is above average, due to the remains of a glass vessel (Häßler 1990; May 1994). In one burial, S13/B1 from the first half of the 7th century, not only five claws were recorded, but also the long bone and skull fragments of a bear, which point towards the placement of a skin on the funeral pyre. Interestingly, all four burials were found close to one another in the south-western part of the cemetery, which suggests close (family?) bonds, and there are signs of foreign influence (Thuringian, eastern Germany) in their non-animal furnishings (Wamers 2015).

In the third contribution on bears in this book (**Konstantin Skvorcov** and **Jaroslaw A. Prassolow**), burials with claws are introduced for the Kaliningrad area in Russia; so far, there had been no knowledge to that effect for this region. The seven cremation burials in question date to the first half of the 7th century (the »Dark Ages«, as termed regionally), and they came to light in short succession over the past years in large, flat burial sites in the Zelenogradskij district (former German *Kreis Fischhausen*). The graves are outstanding not only for their claws but also the general wealth of the inventories, which include gold votive bracelets and a silver neck ring (Alejka-7 burial site, with the burial of a man) and also drinking horns made of aurochs horn ornamented with pressed silver sheets (Putilovo-2, with the burial of a woman). As to the latter, somewhat ahistorically, the Late Hallstatt princely burial in Hochdorf in south-west Germany comes to mind, which is c. 2500 years old and has yielded no less than eight such horns from aurochs (!), interpreted as the belongings of a retinue (Hansen 2013). The graves in Kaliningrad are not only accentuated by their furnishings but also by outstanding grave constructions, with horses buried nearby, too. The number of burnt but unprocessed bear claws in the burials ranges from two up to twelve.

In the period in question, the area was inhabited by the West Balt tribe of Sambians (the *Aestii* in historical records). The foreign goods in the burials hint at the cultural influence of Germanic-speaking groups on *Aestii* society. This leaves two possibilities for explaining the sudden appearance of bear claws in the burials: either foreign goods, the bear claw burial rite and associated beliefs came from Germanic groups, or the deposition of bear claws was an independent feature based on the universal perception of the bear as a strong animal that evokes both admiration and fear (see below).

The composition of the cremation burials is also noteworthy; six men interred with weapons indicate a male and martial sphere, but the seventh burial is that of a woman (Putilovo). The deceased persons in the Kaliningrad region all seem to indicate an upper class, which is not the case in the North – there, burials of men and women with bear claws and sometimes skin have been recorded for inventories that range from poor to abundantly wealthy (see e. g. Mansrud 2023 for the Late Roman and Migration Period of southern Norway, and Grimm 2013, more generally). Remarkably, the finds from the Kaliningrad area can be paralleled with Migration Period Norway, where well-furnished and well-known weapon burials (Evebø and grave V in Snartemo) stand side by side with the grave of the so-called petty queen from Krosshaug. All these, however, are older inhumation burials that were also granted actual bear skins (Grimm 2023b).

It is exciting to see how, somewhat unexpectedly, the first burials with bear claws associated with an upper class have come to light in the Kaliningrad area. However, it can be assumed, by intra-regional comparison, that burials of the uppermost layer are yet to be found (!) – these could be identified by so-called *Kolbenarmringe*, heavy open gold arm rings that are thicker at their ends, foremost known from the famous late 5th-century Childeric burial in Tournai, Belgium (e. g. Werner 1980; von Carnap-Bornheim/Ilkjær 1996, vol. 5, 360–365). However, the aforementioned silver neck ring from a burial in the Kaliningrad area might have functioned in the same way. For the time being, it is simply too early to come to any wide-ranging conclusions for the burials with bear claws that have come to light in the Kaliningrad region. Patience is needed; will more such burials be discovered soon, and will they support or contradict the impressions gained so far?

To sum up the contributions on the bear: they yield a wealth of materials that enrich the recently published book »Bear and Human« (Grimm 2023a), and all three contributions are worth re-considering against a broader background.

In the following, three game changers will be introduced that strongly influence the interpretation of the bear-human relationship.

The first game changer is the actual hunt. In the present book, actual bear hunting is only encountered in parts of Stone Age Russia, more precisely in rock art (Kashina/Zhitenev, this volume). It depicts the hunt taking place at the den, as a communal action that aims to reduce the risks for the individual hunter. This kind of hunting is known for the Sami in rather recent times, too, and thus represents

a long-standing tradition (Iregren 2023). Bear trapping also has to be taken into account as, for example, shown in a woodcut in Olaus Magnus' »Historia de gentibus septentrionalibus« (1555). Place names from Norway are also indicative of trapping sites (Særheim 2023). However, historically, we know of yet another kind of bear hunting, apart from the one carried out at the den, in which the animals are driven by dogs in a desired direction where the hunter waits with his weapon: the bear-spear with »stoppers« (Oehrl 2013; Almond 2023). This is the despatching of a bear as a heroic deed, known *inter alia* from imagery on Roman mosaics and medieval hunting manuscripts, but also from a woodcut that adorns the aforementioned book by Olaus Magnus (Oehrl 2013; see also, more broadly, Animals Study Group 2006). One step further, the Late Roman scribe Ammianus Marcellinus has left a somewhat distorted remark on a Germanic tribe which may, however, point towards the killing of a bear as an initiation rite for entering adulthood and/or a warrior community.

How far back can we project this kind of hunting? Was it already practised many thousands of years ago in the period of hunters and gatherers, or was it a more recent facet in societies with increasing social complexity, and gradually restricted to noble and royal persons? In this context, Migration period »master warriors« in Sweden (Högom, mound 2) and Norway (Evebø; Snartemo, grave 5) warrant a mention, as they represent the richest male burials of their time (Grimm 2023b). The deceased were placed on bear skins by the bereaved. Were they thus staged not only as warriors but also as heroes who killed bears with spears? And were the berserks of Old Norse literature members of a warrior community who wore actual (bear) skins (Sundqvist 2023) and were further elevated in their role by an actual bear killing? However, quite remarkably, the oldest Iron Age burial in the North with a bear skin is that of a woman in Gotland, which is above average in its inventory. The so-called Migration Period petty queen in Krosshaug, south-western Norway, may have been placed on a skin, too (Grimm 2023b). How do we »read« these burials?

Stone figural axes and maces with bear heads also deserve attention (Kashina/Zhitenev, this volume). Occasional finds, some 50 objects, are known from coastal Sweden, Finland, north-western and northern Russia, with a concentration in Karelia and a rather broad dating to the 3rd millennium BC. They have been considered as »ritual stone weaponry« used as scepters and/or deposited ritually. Was martial prowess and masculinity attributed to these axes/maces by the bear heads, and did this also reflect the actual killing of bears as a heroic deed? However, although bear heads dominate, elk and unspecified animals are also represented.

The second game changer is the »the power of the paw«, a topic that has gained attention rather recently (Jahnsen 2023; Mansrud 2023). It takes its point of departure in still-existing bear paws, which made their way from farm to farm in inner western Norway for the healing of human or animal diseases or as a help during childbirth until the early 20th century. A tradition to that effect is quite possibly indicated by paws that came to light during excavations beneath the modern floors of medieval churches. Were they placed beneath the floor, as is argued, in the hope of »recharging« power for the aforementioned use but were then forgotten and not recovered? We can go one step further back by the radiocarbon-dating of one of these paws, found beneath a church floor. It is in fact from the Viking Age and originates from a polar bear, not a brown one (!).

With this find, we are already in the pre-Christian era, and thus it is legitimate to ask whether the belief in the power of the paw was a reality some centuries earlier, in the period when many hundreds of burials received bear claws, not only in Scandinavia but also in England and at the northernmost area of the central continent. If we follow this assumption, the entire discussion about the bear in the grave would have to take into account that one to five claws found in a burial may stem from a paw added to the funeral pyre because of its assumed power. And only from six claws upwards, i. e. more than one paw, could one rightly speculate about the role of a skin in the case of cremation burials.

The third game changer is the taboo and the ceremonial associated with the bear. We have to assume that the real word for the bear was lost or was rather suppressed in the Germanic and Slavonic languages (Nedoma 2023; Udolph 2023). It became taboo, because it was feared that when the bear was called by its real name it could overhear this human communication and conjure a dangerous encounter. The names used today mean »the brown one« (Germanic) and »honey-eater« (Slavonic), whereas earlier on – in times immemorial – the real but lost word for the bear was connected, linguistically, with the Latin »ursus« and the Greek »arktos«. A particularly late element of the »bear cult« among Germanic groups may be represented by the amazing archaeo-(zoo)logical finds in Frösö, northern Sweden. Below the choir of the early medieval stone church, the remains of a partly decomposed birch tree stump were found, surrounded by a dark layer containing bones (mostly from bears) and fire-cracked stones (Magnell 2023). Does this reflect the preparation of a ritual meal and the ritual deposition of bear bones at a holy

tree as the end of a bear ceremonial? In this respect, the Sami and Finno-Karelian »bear ceremonialism« also warrants a mention. The hunting and despatching of a bear was embedded into ceremonials before, during and after the hunt (Rydving 2023; Piludu 2023a; 2023b; 2023c). It was essential to show respect towards the despatched bear and the community of all living and dead bears, since only this would avoid trouble with the bear and guarantee future hunting success.

## Animal Symbolism

Two contributions in this book are openly dedicated to animal symbolism: the first assumes a long-term perspective from premodern to medieval times in Belarus, and the considered animals, snake and duck, are seen as embodiments of religious content (**Maksim Čarnâûski**), whereas the second is concerned about the quite numerous animal representations (animal pendants, animal art) in Late Iron Age Estonia, considered as indicators of status rather than religion (**Tõnno Jonuks**).

Representations of animals in Estonian archaeology may not yet have found the attention they deserve, since, in fact, there is a wealth of material (in the following, based on Jonuks, this volume). Such representations can only be found in two periods of Estonian archaeology: among Stone Age hunters and fishers and in the Late Iron Age (9th to 13th centuries, with a peak in the last two centuries of this period). For the Late Iron Age, animals occur in different ways: firstly, as pendants made of animal teeth and bones (more than 200 finds) and, secondly, as representations on other objects (no given number). The animals used for the first (mostly bear, beaver, dog and pig/boar) and for the second kind (mostly snakes and oscine birds, but identification is sometimes problematic) are significantly different. Three kinds of creature can be encountered: furred animals, prestigious game species and creatures associated with rank and moral norms. While the first two are found among tooth and bone pendants, the latter appear in art and as animal-shaped pendants. These finds came to light mostly in central hillforts and settlements, which may imply some sort of status.

Besides animal pendants and animals in art, a third kind of representation has been omitted from study: the Animal Style, found on 10th–12th-century objects. The animals in question are highly stylised and interpretation is difficult; however, snake/dragon and wolf/lion seem to have played a role. All three forms of animal representation, taken together, may be seen as a reflection of a period of stress in society, under the growing influence of Christianity in the Baltic area.

To add detail, when it comes to the pendants made of animal tooth and bone, bear remains may represent communal or prestige hunting, the latter of which would be the despatching of the animal by a spear as a »heroic deed« (see above). For pendants made of tusks, it is not always clear whether they derive from domestic pig or wild boar. If wild, the question of communal or heroic hunting would arise again. Beavers may have been sought after for their fur, but they may also have been feared and despatched because of their nocturnal »landscape shaping« (Schmölcke et al. 2017). As regards animals in art, a 12th-century bird figurine from a grave in Kolu is particularly telling. The massive beak on this figure may suggest an eagle, but the zig-zag on that beak, the comb on the head and in particular the ears on both sides, marked by circles, might rather indicate a griffin. Quite remarkably, the object in question is interpreted as the handle of a staff, which thus was surely in the hand of a powerful person.

As to Belarus, the period from the 5th to the middle of the 2nd millennium BC saw local, probably genetically linked groups (beginning with the Narva culture), but periodically there was influence from incoming populations (first from the so-called Comb-Pit Ware culture) by which, in the mid-4th millennium BC, the image of the duck (waterfowl) and the snake (grass snake) was introduced (in the following based on Čarnâûski, this volume). These two animals occur first as motifs on ceramics and later as small sculptures/figurines of bone and clay, until the first half of the 2nd millennium BC. Before then, the Narva and Comb-Pit Ware cultures had merged into the Usviaty Culture, while others, which came from outside, had also left their imprint (Globular Amphora and Corded Ware cultures). The animal motifs (now as duck figurines/bone duck pendants and snake heads at the ends of bronze bracelets) appeared again in the period from the 5th to 11th centuries AD, and they were then associated with different populations (one was late Baltic and the other the so-called Smaliensk-Polack long mound culture, described in the chronicles as the Kryvichy tribe). With the spread of Christianity in the region, the motifs shifted into the oral tradition and can be seen in regional folklore. As has been argued, ducks were associated with a cosmogenesis myth that described the creation of the world (see also Jonuks, this volume), whereas the snake may have represented certain forces tied to the earth (or underworld). It is also worth a mention that for the forest hunter-gatherer-fishers of the central part of the East European Plain, snake and water-

fowl may have represented totemic ancestors in the period 3500–2700 BC (Kashina/Emelyanov 2020).

It might be said that it was the natural behaviour of the animals that attracted the attention of humans. The return of flocks of ducks, geese and swans was undoubtedly a significant event for a local population whose life was tied year-round to lakes. It signified the end of winter, the rebirth of nature and the arrival of warmer times, whereas the birds' departure indicated the approach of winter. As to snakes: for the settlers who lived predominantly near the shorelines of shallow, overgrown lakes and close to peatland and floodplain meadows, they were common animals. Their disappearance in wintertime was surely noticed, along with the conspicuous balls of entangled snakes in the autumn, which were getting ready to hibernate (see below on warrior, sword and snake in Viking Age Scandinavia)

Thus, ducks and snakes occur as motifs in two separate periods, with a considerable hiatus from the middle of the Bronze Age to the end of the Iron Age (middle of the 2nd millennium BC to 400 AD). Perhaps the assumed hiatus is only due to a general lack of knowledge for that time period. This leads to two possible explanations: either snake and duck imagery was represented over the entire period and handed down by different populations (cultures), domestic and immigrating, or there really were two different periods of time with duck and snake imagery, as their natural behaviour attracted a general interest and was interpreted in a comparable manner. It is an interesting side-note that disappearance during hibernation and return with offspring has also given rise to the so-called bear festivals – »bears bring spring«. Such festivals are recorded broadly for Europe but it remains an open question as to how old they really are (Bakels/Boer 2023; Frank 2023).

## Further Consideration

In her contribution, **Valentina Mordvintseva** looks at »Sarmatia« in the North Pontic region, which saw different kinds of population in the period from the 3rd century BC to the mid-3rd century AD: »nomadic« (Volga-Don, partly Kuban) and »agricultural« (Crimea, Lower Dnieper and partly Kuban region). As for the settled population, it had contact with and was influenced by the urban centres of the Greek and later Roman civilizations. All in all, 557 funerary complexes of the »barbarian« elite from four chronological periods have been taken into account via their furnishings but not the grave constructions themselves. Analysis focuses on elite graves with animal remains and animal imagery, whereas the so-called »Polychrome Animal Style« from the areas adjoining the northern Black Sea is not considered; it reflects different handicraft traditions, and the objects in question often depict unidentifiable, mythological animals/beasts.

Animal remains, which are found in up to 60 % of the burials of a given time and region, mostly represent domesticates, that is, sheep/goat, cow, horse, and dog, whereas wild animals (boar, deer, bear and, in a single case, birds of prey) are mainly represented by »symbolic parts« (fangs, claws, horns) used as pendants. There are patterns in the burials; horse, cow and dog were staged as »full animal«, »partial animal« or »stuffed animal«, whereas sheep legs were often associated with knives, horse/cow bones with bronze cast cauldrons, and cow legs with plates.

Two images prevail: firstly, the »ungulate in the victim pose« by itself (lying down with its legs tucked under its body) or in a torment scene and, secondly, animals (horse, dog, boar) together with anthropomorphic characters (»rider«, »horsemen fighting«, »master of animals«). The heads of animals (domestic and wild) are usually found as decoration on jewellery (pendants, neck rings, bracelets), whereas full animal figures, separately or in interaction with other animals (confrontation, torment), or anthropomorphic features occur on different kinds of objects, such as clothing, tableware and weapons.

Besides these generalisations, however, regional variations are also worth a mention. Usually, there are only a few wild animal bones in settlement remains but in one area such bones – mainly of reindeer, deer and wild boar – amount to considerably more than 10 % of the overall number of animal bones (along the *Lower Dnieper*). Yet another area stands out by a wild boar skull and several deer antlers in male elite burials (*Kuban region*). Do these indicate elite hunting with a symbolic meaning? Episodically, wild boar bones, fragmentary deer antlers, but also the claws of an eagle (*Volga-Don* region) or boar tusks (*Crimea*) have come to light in burials.

To sum up, there are general features as much as regional variations for the different populations in North Pontic »Sarmatia«. Hunting is most prominently represented in the form of reindeer, deer and wild boar remains in settlement contexts, while boar skulls and deer antlers (shed and gathered or acquired by hunting after the despatching of the animal?) occur in graves, as well as pendants made from the fangs and claws of predatory animals. In this respect, a close look at the dogs (recorded quite frequently in the burials) and the eagle claws (in only one instance) may be telling. It would be worthwhile, too, to consider the present findings against the Eurasian Steppe culture more broadly. Given

the vast area of the steppe, horses were fundamentally important for mobility (see here the ongoing work in the ERC Synergy Grant »Horsepower. Interactions between China, Mongolia and the steppe 2000–0 BCE«; ERC-Grant no. 101071707; https://erc.europa.eu/sites/default/files/2022-11/erc_2022_syg_selected.pdf and www.horsepowerproject.org).

In his contribution, **Yury Esin** has a look at early raptor imagery among the herders of the Early Bronze Age steppe and the arid zone of Asia (mid-3rd to early 2nd millennium BC), and he also raises the important question of early falconry. This consideration is far from trivial as it must address a basic methodological issue; what can we accept as reliable proof for this kind of hunting in an archaeological context (Prummel 2018)? So far, there are two different materials at hand for discussing prehistoric falconry in Asia:

The first type of early material is visual. It is the image of a rider with a bird on the fist which, judging from its beak, is a raptor (Esin, this volume, fig. 1). This depiction originates from a mount in a burial in north-eastern China, which dates to the 2nd century BC, in an area of contact between steppe nomads and the sedentary population of Han Dynasty China (Wallace 2018, 1860–1861). This image, understood as the depiction of a mounted falconer with a raptor on the fist, is iconic for falconry in a broad manner, as it is known from hundreds over hundreds of later cases from different continents (see here Grimm 2020a; 2020b; note the title »Raptor on the Fist«). Remarkably, the image from north-eastern China – »the archtype« – is the earliest case to that effect. One may object critically that the placement of the bird is somewhat awkward in the present case; we would expect it not to face the rider but to look forward, as both horse and rider do, but this does not negate its evidential value. A misplacement of the bird on the fist is also known from other cases (see as one instance the earliest Arabic falconry image from early Islamic times; Grimm/Gersmann 2018, fig. 1).

The second type of early material is archaeozoological and it comprises bird skeletons (golden eagles) found in a few kurgans (Russia and Kazakhstan), the oldest of which are c. 2,500 years old (see briefly Kosintsev/Nekrasov 2018 and Nagler 2020). This material is also noteworthy inasmuch as entire skeletons (!) of golden eagles are present, which is the classical falconry bird in parts of the Eurasian Steppe (see for instance Keen 2018). However, a closer look is needed. In this respect, the famous early 7th-century Rickeby burial, which was found in an area to the north of Stockholm in Sweden, should be mentioned (Sjösvärd et al. 1983; Vretemark 2018; Grimm 2020c). To cut a long story short: In the case of Rickeby, an entire wealth of animal bones could be proven, since the funeral pyre was directly covered by a mound and later excavated in a very careful manner. Amongst the animals, one horse, several dogs with a potential use in hunting, several birds of prey used in falconry (one goshawk, one sparrowhawk, two peregrine falcons) and also the potential prey of falconry (black grouse, hazel grouse, crane) have been found in that burial. Thus, there is very good reason to suggest that the buried man, whom we may recognise as the member of a retinue, owing to the helmet and weapons, was a falconer in his lifetime or was at least »staged« as a falconer by the bereaved in the burial ceremony. As a matter of fact, two types of falconry can be visualised for Rickeby: the hunter on foot with a goshawk or sparrowhawk and the mounted one with a peregrine falcon. On top of this, there are several dozen burials in Sweden, more or less contemporary to the one at Rickeby, which have also yielded the same kind of animals (Vretemark 2018, list). And this brings us back to the kurgans with the golden eagle skeletons. In these cases, we have to wait for detailed analysis and publication of the graves – have other animals been found in these burials, too, and, if so, which ones? Would they support the assumption of falconry in the manner seen at Rickeby? For the time being, the Rickeby burial with all the aforementioned animal species makes a strong case for falconry, whereas the golden eagles in the kurgans do not.

Asian falconry continues to be the enigma in the overall discussion of this kind of hunting, in particular since hunting with golden eagles in the steppe area has been regarded as particularly old and, perhaps, the cradle from where the knowledge of this kind of hunting spread (see for example Warmbier 1959; Erdenebat 2018; Grimm/Gersmann 2018; Grimm/Gersmann 2024). Yury Esin will consider this topic further; only the first and lesser part of his analysis, which touches upon Early Bronze Age Asia (mid-3rd to early 2nd millennium BC) is presented here in this volume. In the light of the aforementioned source materials with evidential value for falconry – both visual and osteological – there is no way to substantiate the assumption of Early Bronze Age hunting with trained raptors in Asia (steppe and arid areas). It may well have already existed in that period of time, but there is no compelling evidence so far. In contrast, rock art may point towards the role of raptors in certain beliefs. It shows persons with raptor headdresses, persons with raptor heads and anthropomorphous beings together with smaller raptors. This imagery leads to a more general question: did humans first see raptors as divine beings or »masters of the sky« with particular power before

using them as hunters (see here Warburton 2018 on the Horus Falcon of Pharaonic Egypt, whereas falconry in that area came into being not before early Islamic times)?

To be on the safe side, so far there is no certainty about the age of falconry in the Eurasian Steppe, and thus, all kinds of broader attempts to reconstruct the archaeology and history of falconry for Europe, Northern Africa, Arabia and Asia are bound to fail. This also includes the discussion about the single or multiple invention of falconry (Grimm/Gersmann 2024). However, as regards the more western part of the steppe, Herodotus' writing on the Scythians from the 4th century BC may be seen as a warning against the assumption of millennia-old falconry; he has a lot to say about the Scythians but there is no mention of either raptors or falconry (Nagler 2020).

## Synthesis

This book provides only a very limited number of archaeo(zoo)logical contributions, but they have a broad range, reaching from England to Russia and from the Late Palaeolithic (again for Russia) to early modern times (Lithuania). Furthermore, while all papers look at beasts, the actual content of the individual articles is quite varied.

However, there are subtopics:

- methodology (animals in the Natural Sciences and Humanities),
- hunter, huntress and hunting assistants as human's close companion (though, in fact, dogs and raptors were more than that),
- bears as animal agents, symbols and prey (with the animal both respected and feared),
- animal symbolism: from hare to dragon for Estonia (Late Iron Age) and from duck to snake for Belarus (Stone Age to medieval times) – however, animal symbolism is a broader topic that is also relevant for other animals considered in the book (such as bears),
- further consideration: wild animals of the North Pontic Region (»Sarmatia«) and raptors of Asia.

Any attempt to identify a common thread must start with the animals themselves, which can be ascribed to three different groups:

- firstly: wild beasts from the real world, such as aurochs from the English Neolithic and the »Dark Ages« of the Sambian Peninsula (7th century AD), but also boar and bear, which are described for different areas/time periods,
- secondly: imaginary beasts, whose existence, however, was quite probably taken as given (such as dragon and griffin for Estonia),
- thirdly: mythological beasts portrayed in abstract Animal Style, mentioned for Late Iron Age Estonia and the North Pontic region, c. 300 BC to 250 AD. This style, however, is not discussed in the present volume, and neither is the question of which kinds of animal – from the real world or imaginery – served as templates.

The first important overall aspect is the hunting of wild beasts. In this regard, two different types are to be distinguished: the communal hunt with its aim of reducing the risk for the individual hunter and the »heroic« hunt, in the final part of which the hero despatches the beast with a spear that has »stoppers«, at least in the case of bear and boar hunting (see above). It is open to debate when this heroic hunting came into being – does it go back thousands of years, in terms of trophy hunting or ceremonial despatching by which the successful hunter mastered some initiation ritual? In more recent times, this hunting was connected with (male) noble, if not royal, persons. Vilnius Lower Castle, which in medieval/early modern times served as a residential site, provides a lesson in big game hunting, by means of elk, deer and boar but also bison/aurochs, whose bones have come to light during the excavations (personal communication, Giedrė Piličiauskienė, on June 24th 2025). However, there was also the noble (royal) hunting by women (see here the papers on Lithuania, and the references above on the richly furnished woman from Quedlinburg, c. AD 500, and the Duchess Mary of Burgundy [1457–1482], the best known female hunter and falconer of the European Middle Ages).

The second important aspect is the »power of the wild beast« that could be acquired by the use of animal parts, be it bear skins worn by warriors (see above on the berserks) or prepared as a rug for the deceased (Norway, Sweden and Finland for parts of the 1st and early 2nd millennia AD). A beverage taken from an aurochs drinking horn (see here the wealthy burial of a woman from the »Dark Age« [7th century AD] of the Sambian Peninsula) might have been considered as »energising« as wearing pendants made of wild animal parts (see here the Late Iron Age of Estonia). In this respect, Norway is highly insightful

with the aforementioned belief in »the power of the bear paw«, which was a reality up to the beginning of the 20th century.

To some extent, the present book has a precedent: the proceedings of a conference from 2011, entitled »Representing Beasts in Early Medieval England and Scandinavia« (Bintley/Williams 2015). The eleven articles have diverse backgrounds in art, language, literature, place names and landscape.

This book itself yields no subchapters but a division can be made, following its introduction:

- the first four contributions delve into real and mythological beasts,
- two introduce written records and analyse animals (beasts) that possess hidden knowledge,
- three are about the influence of beasts upon the identities of peoples and landscapes,
- two address place name evidence for animal-human interaction in the landscapes of Anglo-Saxon England.

Three kinds of beasts emerge:

- real beasts from the same environments as humans,
- strange beasts, half glimpsed in the dark and/or seen only in the imagination, and
- »objects«, such as swords, being very much alive in the understanding of contemporaries, in contrast to our present one.

As regards »animated objects«, Sue Brunning (2015; see also 2019) looks at connections between snakes and swords in Viking Age Scandinavian culture, with a focus on serpentine ornamentation on swords and the literary (Scaldic) paraphrasing of swords as serpents (such as »wound snake« and »battle snake«). Snakes were both fascinating and frightening by their very nature, with their slithering movement, sharp bite, the swallowing of whole prey, their forked tongues, and piercing eyes. In physical appearance, long, thin and glossy sword blades could be likened to snakes, and this is also the case for the quick waving and blows (when seen as bites) of the sword in battle. Thus, there was a close connection between human (warrior), sword and snake, and the sword was very much seen as a living being. The discussion about »animated objects« continues; one example at hand is the role of the ring in the different versions of the famous Nibelung tale (see for example Hammer 2018).

Both books on beasts (the 2015 volume and the present one) complement each other and lead to a synthesis that goes beyond the result of just one book. Beasts from the real world are encountered in both cases but there is a difference between strange beasts, half glimpsed in the dark and/or seen only in the imagination (2015) and imaginary beasts whose existence was quite possibly taken as given plus mythological ones (present book). Of particular interest are the »animated objects« only represented in the earlier book.

The aforementioned study on the connection between snakes and swords is a prime example of how important it is to take into account source materials other than archaeology: in this case, literary sources but also snake biology. This approach also became apparent in the present book when rich animal remains from Lithuania were considered in the light of the high quality written records of the time. And, perhaps surprisingly, name-giving has turned out to be of utmost importance, in the case of the Germanic and Slavonic terms for bears (»name taboo«; see above).

What lies ahead? Human-Animal Studies are still a rather recent approach in archaeo(zoo)logy, and a lot of research remains to be done. Work at the (former) Centre for Baltic and Scandinavian Archaeology (2010–2023) has addressed different frameworks in the form of much-extended interdisciplinary conference proceedings : »Raptor and Human« and »Bear and Human« on the one hand, opposed to the »Archaeology of Hunting« and now the present book on the other. While the first two focus on only one animal species, the latter two focus on several.

An important aspect for future research is the question of »species archaeology«, with four different sectors: one of these could look at the animal as such through the lens of Animal Studies or Anthrozoology, then there is a »two species archaeology« (animal and human animal), followed by an »oligo species archaeology« and, finally, »multispecies archaeology«. Ideally, the latter would incorporate both fauna and flora. Despite attempts to that effect (Birch 2018, introductory Harris/Cipolla 2017, 152–169), one could call »multispecies archaeology« an unrealised if not unrealisable ideal. It would necessitate multiple perspectives covered by scholars with different backgrounds and, for more recent times, written and pictorial (art-historical) evidence would also be relevant. Recently, both the beaver-human and raptor-human relationships have been described in a promising way as a matter of co-habitation and multi-species-arrangement against a broader Stone Age context, but this cannot be elaborated upon any further (Hussain 2023; Hussain/Brusgaard 2023; see also Schmölcke/Grimm 2024 on four species, i. e. birds of prey, brown bears, beavers and elks, and similarities or differences in animal-human relationships in these cases).

Another instructive example at hand would be the human-horse-dog-raptor interaction in the most advanced form of falconry. This kind of hunting, with human, horse and dog as the assistants of the golden eagle, which was the actual hunter, was a reality in parts of the Eurasian Steppe, and still is to some extent (see e. g. Keen 2018). In contrast, hunting with peregrines or gyrfalcons, with the falconer in the saddle and the involvement of dogs, is long past in Europe (Grimm/Gersmann 2018).

It is the experience, after 15 years of work at the former Centre for Baltic and Scandinavian Archaeology, that Human-Animal Studies are very demanding, if they are expected to transcend region, time and scientific branch with the goal of creating broad syntheses that reach far beyond the realms of archaeo(zoo)logy. Taking this into account, further elaboration on a restricted basis, animal by animal, topic by topic, will be needed before a true synthesis can be reached with the tentative title »Animal and Human – Facets of a Multi-Layered Relationship«.

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