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Cultural Constructions of Nature: Animal Representation and Use in Early Iron Age Southeastern Slovenia

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CULTURAL CONSTRUCTIONS OF NATURE:

ANIMAL REPRESENTATION AND USE IN EARLY IRON AGE

SOUTHEASTERN SLOVENIA

by

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ABSTRACT

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Adrienne C. Frie

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This dissertation investigates the place of animals in the cultural world of Early Iron Age southeastern Slovenia (800-300 BCE) by analyzing animal iconography and faunal remains in archaeological contexts. The central questions are: What types of human-animal relationships characterized Early Iron Age Slovenia, and how were these relationships intertwined with conceptions about animals in local cultural frameworks? I examine the conception of the animal world and its symbolic significance through quantitative and qualitative analyses of animal depictions on artifacts as well as faunal remains from mortuary contexts. The analysis is structured to answer a series of empirical questions that provide insight into the central questions posed above. These include: 1) In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets? 2) Are there any differences in the representation or treatment of certain animals based on taxon? 3) Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles? This holistic analysis reveals how ideologies and practice were co-constituted in the construction and maintenance of human-animal relationships and how conceptions of animals were deployed in symbolic communication through the medium of artistic representation. The use of multiple lines of evidence provides a robust framework, both

materially and theoretically, to address ancient beliefs and practices regarding animals. The juxtaposition of representational practices and the remains of physical interactions with animals evidenced by the zooarchaeological remains provides insight into multiple aspects of prehistoric animal relations – the real and the ideal(ized). This highlights the multifaceted nature of human-animal relationships and the fundamental role played by material culture in these interactions, where multiple complementary, competing, or even contrasting ideologies and modes of practice may exist simultaneously in the same cultural sphere, and are negotiated through time. This project contributes to a growing literature on how animals and humans are intertwined in preindustrial societies conceptually as well as physically – good to think as well as good to eat, sacrifice, or depict.

TABLE OF CONTENTS

LIST OF FIGURES

Any images or figures without attribution are my own.

Chapter I. Introduction

Chapter II. The Dolenjska Hallstatt Culture and History of Research

Chapter III. Methods

Chapter IV. Analysis

Chapter V. Interpretation

Chapter VI. Conclusion

LIST OF TABLES

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I. Introduction

I.1. The Problem

The central questions of this dissertation are: What types of human-animal relationships characterized the Dolenjska Hallstatt culture, and how were these relationships intertwined with conceptions about animals in local cultural frameworks? The separation between nature and culture from an analytical perspective has constrained traditional archaeological thinking about ancient peoples. In particular, the place of animals as conceptually distinct from humans is often assumed in modern archaeological analyses, without reference to the reconstruction of the form and content of prehistoric human-animal relationships and the implications of these relationships for conceptions of animals in prehistory. Cultural relationships with and conceptions of the animal world may be especially difficult to comprehend from a modern perspective, since contemporary interactions with animals are far removed from those of prehistoric agro-pastoral contexts. This dissertation develops a holistic approach to investigate the place of animals in the Early Iron Age Dolenjska Hallstatt culture of southeastern Slovenia by engaging with both representational artifacts and faunal remains in archaeological contexts.

The Dolenjska Hallstatt culture is archaeologically identified with the Early Iron Age (circa 800-300 BCE) of southeastern Slovenia, in the modern regions of Dolenjska and Bela krajina. Iron Age peoples in this region utilized domesticated cattle, pig, sheep, goat, horse, and dog but they also made use of wild game in ways that were not solely subsistence based (Arnold

2010a; Bartosiewicz 1996:30, 33; Bökönyi 1974:433-436; Dular and Tecco Hvala 2007:210-213; Green 1992:44; Križ et al. 2009:25-27). The representation of a select subset of animals on particular artifacts, in contrast to other contemporary motifs that were primarily geometric, indicates that these animals likely had significance beyond their importance for local subsistence (Bakarić et al. 2006:11; Križ et al. 2009:138-9; Turk 2005:24).

Conceptions of the animal world are examined using quantitative and qualitative analyses of animal iconography, which appears on non-perishable media including ceramics, glass, amber, and metals. Analysis of the iconographic dataset is the primary focus of this study and provides new insight into ideologies relating to animals and the role of representational practices in this period. This animal imagery is compared to patterns of animal use reflected in faunal remains to more fully contextualize the importance of living animals. Drawing on multiple lines of evidence illuminates previously overlooked patterns linking cultural behaviors and ideologies, allowing a more nuanced interpretation of how the "natural world" was culturally constructed in the Slovenian Early Iron Age. The project contributes to a cross-disciplinary literature on how animals are embedded in preindustrial culture conceptually as well as physically (Armstrong Oma 2010; Arnold and Counts 2010; Hill 2014; Ingold 1980; Kalof 2007; Russell 2012; Sykes 2014).

I.2. Research Objectives

The dataset encompasses the archaeological remains of Early Iron Age human-animal relationships in the form of animal iconography and zooarchaeological material. These two lines of evidence are analyzed quantitatively and qualitatively to identify patterns in the representation and use of certain taxa. The analysis is structured to answer a series of empirical questions that

provide insight into the central questions posed above. These questions include:

1. In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets?

2. Are there any differences in the representation or treatment of certain animals based on taxon?

3. Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles?

The associations between animal iconography and animal remains need to be addressed in a comprehensive analysis with their contexts and their functions to begin to reconstruct the cultural conceptions that framed these materials in the Early Iron Age (Arnold and Counts 2010:19). While the creation of a regional database focused solely on animal iconography represents a significant contribution, the addition of a comparative zooarchaeological dataset demonstrates areas where representation and practice aligned and diverged, in addition to highlighting the complexity of prehistoric interactions with animals.

I.3. The Significance of Ancient Human-Animal Relationships

In Continental European archaeology, the archaeological evidence of human-animal relations is often conceptually divided in the process of analysis and interpretation by specialists – e.g., representation as symbolic and faunal remains as economic (Hill 2014:267-268; Pluskowski 2002:160). However, the most successful archaeological studies of human-animal relations and ancient ideologies related to animals have drawn on multiple lines of evidence that seem discrete at first glance. For example, Kristin Armstrong Oma (2007, 2013) delineated the probable meeting points that facilitated human-animal relations in Bronze Age Scandinavia and Iron Age Sicily with evidence from settlement and household structural organization and zooarchaeological remains. The juxtaposition of these regions demonstrated varying levels of

human-animal interaction and the deeper integration of animals into households in Bronze Age Scandinavia. Elinor Bevan (1986) compared ritual offerings in the form of animal representations and zooarchaeological remains at Greek sanctuaries to determine the association of certain animals and animal attributes with particular deities. Nerissa Russell and Stephanie Meece (2006) quantified and analyzed the relationship between animal depictions and faunal remains from installations and special deposits at Çatalhöyük, which allowed them to compare the contextual importance of certain taxa in ritual and daily life. These examples illustrate the feasibility of as well as the need for this project, which is the first study of its kind in this area of southeastern Europe.

This project provides insight into the nature of the intersection between humans, animals, and materials, and demonstrates the role of representational practices in mediating the construction and maintenance of human-animal relationships. Material culture, and animal representation in particular, is a mediator for the interactions and potential relationships between humans and animals. Archaeologically it is necessary to note this point since material culture may be all that remains of these relationships (Armstrong Oma 2007; Mlekuž 2007, 2013; Watts 2013). However an attention to the role of material culture is also essential in other, non-archaeological anthropological investigations to understand better how humans construct relationships with animals, which provides insight into how these processes are involved in the construction and mediation of relationships with other humans and with the environment at large (Bird-David 1999; de Castro 1998; Descola 2006; Hallowell 1960; Ingold 2000). The juxtaposition of representational practices and the remains of physical interactions with animals evidenced by the zooarchaeological remains provides insight into multiple aspects of ancient animal relations – the real and the ideal(ized). This highlights the multifaceted nature of human-

animal relationships and the fundamental role played by material culture in these interactions, where multiple complementary, competing, or even contrasting ideologies and modes of practice may exist simultaneously in the same cultural sphere, and are negotiated through time.

Ethnographically, fundamental differences are attested in the ways that people are conditioned to interpret the phenomenological realities that they encounter, and this was certainly the case in the past as well (Bird-David 1999, 2006; de Castro 1998; Descola 2006; Hallowell 1960; Nadasdy 2007; Willerslev 2007). The relationships that humans develop with non-human animals must be actively interrogated since they may not replicate modern divisions of nature:culture and human:animal:object. Instead it is necessary to understand the particular, culturally constructed relationships that humans have with animals, as well as how they conceive of animals. Depictions are one of the ways in which these relationships are materialized and negotiated, and may play a part in how ideologies of animals are expressed in different cultures. This project demonstrates how these disparate datasets may be combined to support a nuanced understanding of how prehistoric people conceived of their relationship to animals in one particular place and time, as well as their place within a culturally perceived world more generally.

I.4. The Environmental and Zoological Situation

The regions of Dolenjska and Bela krajina in modern Slovenia encompass a range of ecological niches that supported a multitude of fauna (Figure I.1). The Dolenjska region includes everything north of the Gorjanci hills, while Bela krajina is a very small region in the extreme southwest of the project area, bordered in the north by the Gorjanci hills and in the south by the Kolpa River, which is also the modern border with Croatia. Dolenjska and parts of Bela krajina

are characterized as temperate continental climate zones, while the remaining parts of Bela krajina are in the subpannonian climate zone, which is largely similar to the temperate continental zone but with a warmer spring and less rainfall per year (temperate continental yearly rainfall: 130-280 cm; subpannonian yearly rainfall: 120-130 cm; Perko 2001a:45-47). The northern part of Dolenjska, extending down to the Mirna River, is characterized as an Alpine landscape, which is extremely hilly and broken up by river valleys and ravines (Dular and Tecco Hvala 2007:44; Perko 2001b:71-73). South of the Mirna River is characterized as a Dinaric landscape, which consists of karst valleys and corrosion plateaus with modern heavy forest cover over two-fifths to three-quarters of the plateau areas (Perko 2001b:75-77). This is a relatively modern development, and based on paleoethnobotanical data this area was likely much less heavily forested in prehistory. Finally, in the extreme southeastern part of Dolenjska, the areas of Krško gričevje and Krška ravan are part of the Pannonian zone, a lowland area covered in marshy, heavy forest (Dular and Tecco Hvala 2007:46; Perko 2001b:73-75)

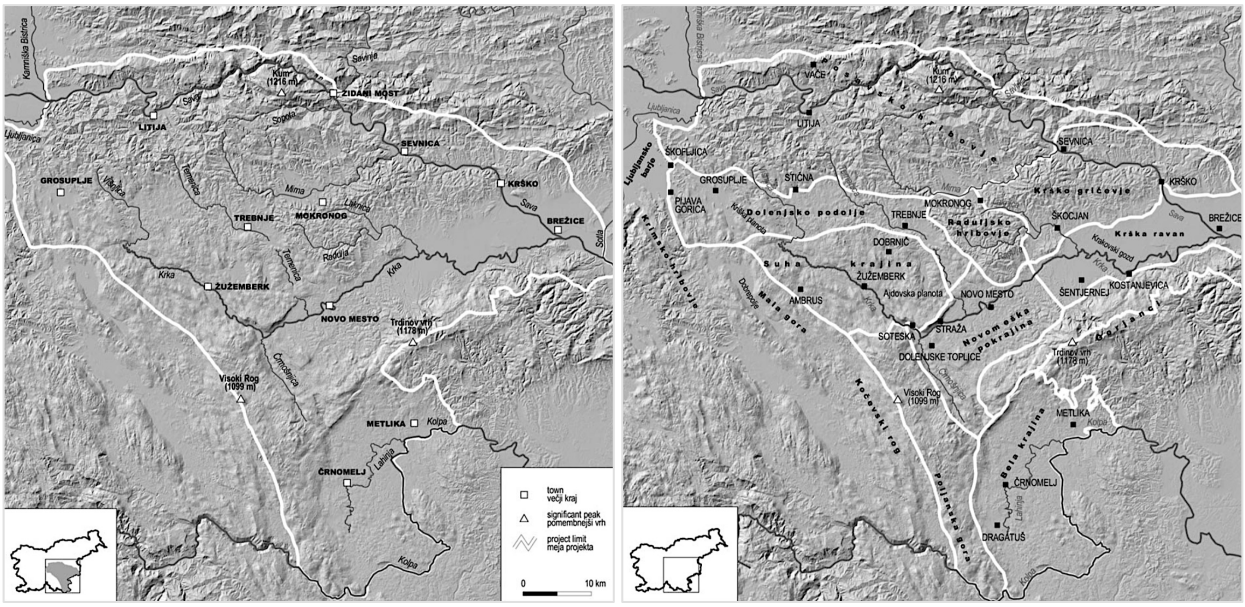

Figure I.1. Left: The geographical position of the study area, encompassing the modern regions of Dolenjska and Bela krajina (Dular and Tecco Hvala 2007:23 Fig. 1). Right: Natural boundaries and geographical sub-regions (Dular and Tecco Hvala 2007:44 Fig. 15).

Paleobotanical research indicates that in the Bronze Age there were significant vegetation changes that have been linked to several factors including changing climate, the introduction of metallurgy, and changing agricultural practices (Andrič 2004). Preferential cutting of beech trees for charcoal production for metallurgy as well as the abandonment of former pasturelands led to a significant increase in the number of fir trees, which colonized these previously deforested areas (Andrič 2004:524-525). It has been suggested that in the Bronze Age cattle were stabled rather than forest grazed due to colder winters in central Europe, and subsequently permanent pastures were developed (Andrič 2004:523, 525; Behre 1988, 1998; Behre and Jacomet 1991; Kalis et al. 2003; Knörzer 1991). This led to the abandonment of former forest pasturelands and the extensive landscape burning that had been required to clear these pasturelands, followed by the colonization of these areas by fir trees (Andrič 2004:525; Behre 1998; Clark et al. 1989; Rösch 1993, 1996). Landscape clearance associated with logging intensified throughout the Bronze Age and into the Iron Age to support increasing metallurgical and ceramic production (Andrič 2004:524).

The land clearance that characterizes the Bronze and Iron Ages was largely associated with industry, as well as a local subsistence economy dependent on a variety of domesticated flora and fauna. The primary domestic flora include several types of wheat, barley, rye, millet, field beans, vetch, peas, oats, lentils, turnips, cabbage, mustard seed, swede, and flax (Križ et al. 2009:95). Domestic fauna in the Early Iron Age included cattle, sheep, goats, pigs, dogs, horses, and probably chickens[1] (Bartosiewicz 1996:30, 33). Wild mammals that would have been present in the Iron Age include, but are not limited to, aurochs, red deer, roe deer, ibex, chamois,

[1] Remains of *Gallus gallus domesticus* are attested in neighboring regions in the Early Iron Age, but bird bones are rarely preserved in the acidic soils of Dolenjska, and the remains of chickens have not yet been positively identified (Bartoloni et al. 1987; Bartosiewicz 1996:30, 33; Benecke 1993:21; Bertani 1995; Gál 2012; Trentacoste 2014:64; West and Zhou 1988:525).

wild pig, brown bear, wolf, golden jackal, lynx, wildcat, badger, beaver, otter, fox, hare, hedgehog, stoat, red squirrel, bat, marten, rats, mice, and other rodents (Bökönyi 1974:433-436; Križ et al. 2009:25-27; Šafarek and Berden Zrimec 2015). Local birds included, but again, are not limited to, storks, skylarks, quails, partridges, pheasants, shrikes, buzzards, woodpeckers, doves, ducks and other waterfowl, several species of owls, and the white-tailed eagle. Finally, there were also amphibians,[2] reptiles, crustaceans, fish, and insects (Križ et al. 2009:25-7).

There are issues with extrapolating modern biodiversity back into prehistory; however, accurately reconstructing Iron Age biodiversity is complicated by the acidic soils in Dolenjska and Bela krajina that cause poor bone preservation, as well as the relatively recent integration of zooarchaeology into archaeological research as a standard practice (Bakarić et al. 2006:91; Bartosiewicz 1996:30, 1999b). To assuage concerns about the comparability of modern and prehistoric biodiversity, a list of species attested by zooarchaeological remains was compiled, dating from the Late Bronze Age to Late Iron Age (circa 1200-15 BCE; Appendix A, Table A.1).

The list is still relatively limited due to the aforementioned preservation issues, so a supplementary list of species attested in Eneolithic, Early Bronze Age, and Roman sites was developed, under the assumption that species present in both earlier or later periods were likely also present in the Iron Age (Appendix A, Table A.2). The best data comes from pile dwelling sites in the Ljubljana Marsh[3] because of the good preservation of bone in the anaerobic, slightly alkaline soils (Toškan 2009:56). Though this leads to an overrepresentation of fauna associated with marshland environments as opposed to forest and open field environments, it considerably expands our knowledge of local biodiversity, especially the variety of bird and fish species in this period.

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[2] Including *Proteus anguineus*, the so-called human fish.
[3] Slovene: Ljubljansko barje.

I.5. Theoretical Frameworks

Pursuing this work through the lens of representational practices and juxtaposing it to zooarchaeological analyses allows this project to build not only on the rich body of scholarship in human-animal studies and social zooarchaeology (e.g., Derrida 2008; Haraway 2003; Ingold 1988; Kalof 2007; Noske 1997; Overton and Hamilakis 2013; Russell 2012; Serpell 1996; Sykes 2014), but also on cross-disciplinary conversations about the cultural construction of nature and the anthropology of art (Alberti et al. 2011; Bird-David 1999; Coote and Shelton 1992; Descola 2006; Descola and Pálsson 1996; Durkheim 2008; Gell 1992, 1998; Ingold 2000; Layton 1991; Morphy 2007, 2009). The central question of this project focuses on prehistoric human-animal relations, and will engage with scholarship on the wild:domestic dichotomy, animal agency, and relationships between humans and animals (Armstrong Oma 2010; Bird-David 2006; Haraway 2003; Ingold 1980, 1988, 2000; Mlekuž 2007; Nadasdy 2007; Russell 2010, 2012; Willis 2005).

A focus on human-animal relations also contributes to research concerning whether the conceptual division between the natural and the cultural world is a modern phenomenon, or whether such a system structured the perceptions of ancient peoples as well (Alberti et al. 2011; Bird-David 1999; Descola 2006; Descola and Pálsson 1996; Durkheim 2008; Ingold 2000; Shapland 2013). The dataset is primarily composed of representational artifacts, and interpretations of these data build upon the literature that problematizes art as simply expressive of culture, and instead focuses attention on the multiple roles of art including: art as constitutive or reflective of, maintaining, or challenging to ideologies (Bailey 2005; Bradley 2009; Gell 1998; Gosden 2001; Layton 1991; Lesure 2005; Munn 1973; Wells 2012). The contribution of this project is that it demonstrates how these multiple conversations articulate in key ways, and may be productively engaged with through the analysis of prehistoric material culture.

I.5.A. Human-Animal Relationships

The interest in the relationship between nature and culture, especially in archaeology and anthropology in the last several decades, stems from increasing reflexivity about the positionality of Western scholars and the sciences, and how understandings of the world formerly taken for granted are actually cultural inheritances with long histories. This revelation has led to questions about many of our essential viewpoints, including our perception of a fundamental divide between nature and culture, and between humans, animals, and objects (Alberti et al. 2011:896; Mlekuž 2007:269; Nadasdy 2007:26; Pluskowski 2010:202; Shapland 2009:110). At this juncture it is productive to challenge the universality of our own cultural conceptions, and be open to the idea that there are significant differences in the ways people conceive of reality through a cultural lens, which in turn has material implications (Alberti et al. 2011:906, 910).

Recent scholarship has highlighted the post-Enlightenment genealogies of our discrete categorizations of nature and culture, as well as of humans, animals, and objects (Shapland 2009:110; Thomas 2000:82-84; Tilley 2004:23-24). This is a reflection of our modern ontological framework, and not reflective of the actual state of reality, or demonstrative of a fundamental rationality (Bird-David 1999:S68). Instead, rationality itself is a relative measure that is culturally determined, and we privilege our modern positivist rationality at the expense of alternate rational systems when we presuppose that alternate ontological perspectives such as animism and totemism are irrational or simply metaphorical (Brown and Walker 2008:297, 299; Ingold 2000:112, 2007:76).

Since the publication of Émile Durkheim's *The Elementary Forms of Religious Life* (1912), the role of animals in framing human conceptual schemes, as well as the cultural rationality of these perceptions has become an increasingly productive avenue of investigation

(Arnold and Counts 2010:15; Willis 2005:3). However, it was also one of the first scholarly attempts to propose a qualitative difference in the relationships between hunter-gatherers and animals, and agriculturalists and animals. The presumed qualitative difference in how hunter-gatherers versus agriculturalists relate to animals is an extension of the perceived dichotomy between nature and culture (Aftandilian 2007:3-4). In this scheme hunter-gatherers are themselves closer to nature (and thus more natural, or still in the "state of nature"; Bird-David 1999; Bradley 2001:261; Ingold 2000:75, 90; Locke 1988; J. Mason 1993:90; Rousseau 2010), whereas agriculturalists have come to be dominated by culture, and have used it to insulate themselves from the primordial concerns of the natural world (J. Mason 1993:146-50; Shepard 1998:85). However, creating further dichotomies where modes of subsistence equate to groups of people as "more natural" or "more cultural" is reductionist, and essentializes the multitude of ways in which cultural groups may conceive of themselves in relation to animals and the natural world at large. Narratives where human-animal relationships move from "trust" to "domination" in the transition to agriculture may hold true in some cases (Bradley 2001:262; Ingold 2000:61-76), but nonetheless need to be tested more widely before we can posit universals about how communities understood the animals with whom they interacted (Argent 2010:158-9; Armstrong Oma 2010:175-6). In addition, these narratives essentialize animals as a fundamental category, which may not be true in the modern sense, but also reduces the possibilities for relationships between humans and animals. Assuming relationships of domination between humans and animals is problematic, especially for the purposes of this case study from the Early Iron Age when domestication was already well established. Many scholars rightly point out the multiple qualitatively different relationships that may be developed with various domesticated animals, as well as with non-domesticates (Arbuckle 2012:303; Brea et al. 2010:125-126; Orton 2010:188;

Russell 2012:7). I take a relational perspective in the investigation of the Dolenjska Hallstatt human-animal interactions, with the aim of exploring the multiple possibilities for how varied conceptions of animals and interactions with them may have co-existed within the same cultural sphere.

A relational perspective on human-animal interactions must take into account both the actual interactions of humans and animals, as well as the culturally mediated ideas about animals. Too often, one or the other is preferenced, which elides the fact that ideologies and practice are recursively constituted (Bourdieu 2010; Giddens 1984). It is particularly compelling to study the way that humans conceptualize animals, because animals are sentient beings themselves, and so can act back. That is, they must be accounted for, and may be key subjects in determining a cultural perspective on non-human agency, intelligence, power, embodiment, and affect (Aldhouse-Green 2004:114; Argent 2010:157-160; Russell 2012:1; Shanks 1999:122-123). To do anthropological justice to this evocative potential of animals, the fallback position cannot be to perceive animals as objects being acted on, but instead the multiple possibilities for how animals were engaged with should be the concern (Orton 2010:189). However, this does not mean that my aim is to engage in an anthropology of animals. Following Russell (2012:5), it is necessary to understand animals as themselves to engage with further possibilities for how humans conceived of and related to animals in contexts other than our own (Argent 2010:161; Betts et al. 2012:624). Part of this is seriously entertaining the possibility that humans perceived subjectivity in non-human animals, and acted accordingly (Argent 2010:158).

The move to conceptualize animals as more than a source of calories has been of particular interest to anthropologists in the last few decades, and to zooarchaeologists more recently (Crabtree 1990; deFrance 2009; Russell 2012). The development of social

zooarchaeology as an area of study has brought many of the concerns of the broader field of human-animal studies into more mainstream zooarchaeological studies (Overton and Hamilakis 2013; Russell 2012; Sykes 2014). Studies of human-animal relationships demonstrate that the archaeological record can provide far more than subsistence profiles (Argent 2010; Armstrong Oma 2007; Arnold 2010a; Mlekuž 2013; Russell 2012). Animals fulfilled a variety of roles in the past: as pets, as sources of labor, in ritual, as hunting partners and prey, as symbols, as metaphors, in myth, and many more (Arnold and Counts 2010:15; Green 1992:6; Russell 2012:7). This highlights the social context of animal interactions, and makes a more multi-faceted investigation of the varied relationships between animals and humans possible (Arbuckle 2012:302, 311; Hodder 2012:77-80).

I.5.B. Anthropology of Art

Anthropological scholarship on art is central to my approach to depictions of animals. From this perspective, depictions are not merely passive materials for display and consumption, but may be involved in recursive relationships with those producing and consuming them in the materialization of concepts, ideologies, relationships, identities, and a number of other constructs (Alberti 2001:194; Aldhouse-Green 2004:2, 8; Bailey 1996:291, 2005:18-19, 2013:245; Borić 2005:47; Hanks 2010:176; Roberts 2011). The interpretation of depictions, representations, or other materials that are designated as art is another area where it is easy to fall into essentializing narratives if the concept itself is not explicitly defined and theorized. Here, I have chosen to use primarily "depiction" and "representation" rather than "art" to avoid some of the modern notions that come with the use of this term: art as expressive first and foremost, art as distinct from quotidian practice, art for art's sake, etc. (Ingold 2000:111). Nonetheless, anthropological

scholarship on art remains central to my approach to depictions. If there is anything discernable as style or aesthetics that can be named as such, there must be an emic or etic understanding of similarity or reference that is materialized and mutually comprehensible (Alberti 2001:191; Roberts 2011:86). This highlights the fact that the production of depictions is culturally dependent, and to be comprehensible to both the producers and audience it must be situated within a cultural sphere populated by knowledgeable actors (Alberti 2001:194; Gell 1998:153; Hanks 2010:175). This is the evocative aspect of what we consider art – "it simultaneously exists in both physical and metaphysical states…Interpretation can therefore be argued to function as the connection of current sensory experience to previous encounters viewers have made throughout their lives, which occurs in precisely the same way Bourdieu suggests the habitus functions" (Roberts 2011:88-9, citing Bourdieu 2010, Heidegger 1993). Any possibility of interpretability is predicated on the existence of shared emic conceptions, and a category that is apparent from an etic perspective as style or aesthetics can emerge (Alberti 2001:191, 193; Roberts 2011:89).

This understanding of depictions grounds my claim that though the production and consumption of art is enabled by shared understandings that were intangible in the first place, and are no longer extant, a sense of these emic understandings may still be accessible in the archaeological record (Alberti 2001:191; Roberts 2011:89). This is because culture constrains the possibilities for producers trying to convey comprehensible meanings, and so distinct modes of material expression will emerge (Roberts 2011:89). Studying the patterns of materialization represented in the archaeological record, it may be possible to reconstruct some of the bounds within which ancient producers and consumers of depictions were working, as the space in which certain ideologies were mutually comprehensible (Alberti 2001:191; Roberts 2011:89-91).

Archaeologists may reconstruct and analyze the lowest common denominator at which materialized concepts were communicated within a cultural sphere, and gain some insight into widely held ideologies (Alberti 2001:193).

I.6. Initial Hypotheses about Dolenjska Hallstatt Human-Animal Relationships

Prior to beginning data collection and analysis, I hypothesized that the Dolenjska Hallstatt peoples' conceptions of and attitudes toward animals were primarily based on the perceived sociality of local animals themselves, as well as the regularity with which people interacted with different species. By sociality I mean the perception that certain animals are more clearly social beings, analogous to people, and more suited to affiliative and otherwise meaningful relationships with each other or with humans. Mammals were anticipated to be preferred for depiction because of this higher degree of sociality, and their perceived closer relationship to humans. Avians should also have been preferred for depiction because of their familiarity, though because of their clear physical and behavioral differences from humans and other mammals they may have been perceived as further away on the spectrum of human to non-human. They were familiar, and yet clearly other, which made them good candidates for depiction in certain instances since they were suitable to embody mystical and possibly liminal attributes.

While this proposal suggested that certain animals appeared with increased frequency on artifacts due to their perceived sociality and their familiarity to the Dolenjska Hallstatt people, this was not meant to indicate that infrequently depicted animals were not known to the Dolenjska Hallstatt people, or were not meaningfully engaged with. Rather, it was expected that certain animals were useful for depiction because their familiarity meant that meaningful and

widely comprehensible messages could be embodied by their depiction: those animals that were most useful to display were the best known and understood. In addition, highly social animals like domesticates and other mammals were anticipated to be more suitable for depiction because of their sociality – they would have been more amenable for use in allegories and metaphors describing and communicating ideas because their social nature made them analogous to humans.

The initial hypotheses that stemmed from the proposed explanation above, as well as their material correlates, are discussed sequentially following the empirical research questions presented in the Research Objectives section above (section I.2).

1. *In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets?*

It was expected that depictions of animals would be most frequently associated with mortuary contexts, since these have produced the largest quantity of intact material culture used for display and communication. In the Dolenjska Hallstatt culture, the artifacts that were used frequently and apparently meaningful in life were consistently deposited with the deceased at death. Zooarchaeological remains from settlements in turn were not assessed in the course of this study (see section III.2.C), though faunal remains are most frequently associated with settlement contexts. This is because in day-to-day life it was the living animal and its products that were of primary importance to the Dolenjska people, and once the animal had been used its remains were not of great significance and could be disposed of as refuse in settlement contexts. However, of interest to this project is the fact that some animals were also deposited in mortuary or ritual contexts: meat offerings and horse burials are known from Early Iron Age contexts, particularly in the Eastern Hallstatt sphere (Dular 2007, Kmeťová 2013a, 2013b). Preliminary studies of

three cemeteries, Magdalenska gora, Brezje pri Trebelnem, and Kapiteljska njiva at Novo mesto demonstrated that animal remains from mortuary contexts were more prevalent than commonly realized (Frie 2013a, 2013b), and it was anticipated that a thorough study of so-called "stray finds" in mortuary contexts would highlight the prevalence of animal deposition in non-settlement contexts. The animal remains found in graves were expected to illuminate not only the importance of feasting in mortuary rituals, but also the more esoteric use of animals, both parts and wholes, in the enactment of appropriate funerary rites. Disparities between wild and domesticate remains, the presence/absence of various elements, and the contextual association of animal remains with a deceased individual would imply not only the differential significance of certain animal species and animal parts, but would also indicate that the various rituals involving animals were related to the social personae of the deceased themselves (Frie 2014).

It was hypothesized that in mortuary contexts there would be patterning among artifacts, materials, and taxa closely associated with the body versus those that were not. For example, it was anticipated that beads would be strongly associated with the body, since they were used for display and in some instances may have had a prophylactic function. Fibulae too were expected to be associated with the body, but possibly less intimately since they functioned to fasten clothes and were not in contact with the skin. For this reason they are considered potentially significant in signaling affiliation, wealth, status, or other pertinent social attributes and roles that were important to communicate visually. Vessels in turn (both metal and ceramic) were expected to be associated with presentations of food and drink deposited with the body. Animal depictions and faunal remains associated with vessels were thought to have more to do with social display than with the body or persona of the deceased. The material used for representing certain animals might also have been implicated in these meaningful choices – for example the preferential use

of amber and glass for ram's head beads, whereas metal was almost never used for the production of figural beads. Metal fibulae depicting animals in turn were rarely accentuated with glass or amber inlay, though the technology was available. However such choices were also considered with reference to local technologies and modes of production.

2. *Are there any differences in the representation or treatment of certain animals based on taxon?*

Due to the increased availability of and familiarity with domestic species, these animals were expected to have been preferred in both their use and depiction. However, it was not anticipated that there would necessarily be a one-to-one correlation between common domestic animals and representations of animals, since in the case of pigs and cattle it was already clear that their zooarchaeological abundance did not correspond to their frequency in depictions (Frie 2010a, 2010b). This might have been because the familiarity of certain domesticates, their attributes, and their close relationships with humans precluded their metaphorical potency for conceptualizing certain ideas. Wild species might have been more appropriate to embody particular ideas based on their perceived foreignness or exoticism. In addition, the relative rarity of wild animals in everyday life may have made them more appropriate for more socially potent activities such as rituals, feasts, and burials.

I hypothesized that the depictions of more familiar animals such as domesticates drew on and conveyed the more intimate knowledge of these animals and their attributes, both physical and behavioral. In turn, depictions of less familiar animals were expected to stress the most well known attributes of these animals, likely physical ones, to convey their meaning. I anticipated that there might be distinctions in indicating the sex of certain animals. Male animals would be more recognizable in representations due to both external genitalia and secondary sexual

characteristics such as horns and antlers. This attribute of being easily recognizable as sexed was expected to have been desirable since obviously male creatures could more effectively embody certain symbols and messages, and provide meaningful contrast when juxtaposed to female or unsexed animals.

3. *Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles?*

The more frequent association of depictions of animals with elites was predicted because of elites' increased ability to marshal varied resources to convey complex social messages, as well as the higher visibility of elites in the archaeological record. A particularly potent way to do this would have been through the use of depictions, which were likely widely comprehensible in this pre-literate society. However, it was necessary to ensure that the preservation and visibility bias toward elites in burials was not interpreted as an increased association of animal depictions with elites. To address this concern, elite burials were contextualized according to the wider suite of known burials from this area.

In terms of artifacts associated with animals, horse gear related to riding was expected to be associated with elites, based on the rarity and non-essential nature of those imported horses that were most appropriate for riding. In addition, wild animal remains were also anticipated to be more strongly associated with elites due to their relative rarity or proscribed character, which, like depictions, may have made them beneficial for assertions of difference or distinction.

It was hypothesized that there would be associations between distinct social roles within Dolenjska Hallstatt society and animal depictions or certain taxa based on their function or perceived attributes. Amber and glass have been associated with women and children in other areas of Hallstatt Europe, and this pattern seems to hold for the Dolenjska Hallstatt region as

well (Bakarić et al. 2006; Egg 2010; Frie 2010:45-51; Pauli 1975). This association has been attributed to perceived prophylactic properties of glass and amber. The possibility of prophylactic qualities is considered most convincing in cases when these materials are found in the form of single beads, which indicates that their primary purpose may not have been display. It was hypothesized that the animal head beads in amber and glass had apotropaic associations, which in these cases might have been associated with the attributes of the animal depicted (most often sheep) as well as the glass or amber itself. Other materials were too varied to propose a coherent meaning or association between particular social roles and species, though such patterns were expected to be revealed by the study.

Chapter II. The Dolenjska Hallstatt Culture and History of Research

II.1. History of Slovenian Archaeology

It is necessary to provide a brief overview of the development of Slovene archaeology, especially as it relates to excavations of Dolenjska Hallstatt sites in order to situate this study within a broader historical context. This study includes data from sites that were excavated in different periods, with different methodologies and scholarly goals. Reviewing these developments contextualizes the nature of the archaeological data, and provides a reference for why some sites were deemed "in sample" while others were designated "non-sample" based on when and how they were excavated, and also why a reliability index was used to categorize different find contexts (see sections III.2.A and III.3.C for discussion of these categorizations).

II.1.A. Austro-Hungarian Empire (1800-1918)

Antiquarian activities go back to the Renaissance in Slovenia; however, the foundations of Slovenian archaeology were laid when provincial museums and heritage protection services were established throughout the Austro-Hungarian Empire in the first half of the 19th century (Dular 2003:13-78; Dular and Tecco Hvala 2007:13-14; Novaković 2011:351). The Provincial Museum of Carniola[4] was established in 1821, and became a leader in archaeological exploration

[4] German: Krainisch Ständisches Museum. Renamed the Krainisches Landesmuseum – Rudolphinum in 1882, it has been the Narodni muzej Slovenije [National Museum of Slovenia] since 1921.

later in the century under the leadership of Karl Dežman[5] (Dular 2003:26-42; Novaković 2011:353-354). Some of the earliest identification and excavation of Dolenjska Hallstatt sites were by Dežman and Ferdinand Schulz, the conservator of the museum, in collaboration with Ferdinand Hochstetter of the *Prähistorische Kommission* of the *Akademie der Wissenschaften*[6] (Dular 2003:17-21; Dular and Tecco Hvala 2007:14-15).

Another important institution for early archaeological research was the Central Commission for the Study and Protection of Historic and Art Monuments,[7] which was a heritage service that had provincial offices throughout the Austro-Hungarian territories. One such provincial office was located in Ljubljana, with historian Simon Rutar as conservator. These officers created networks of local contacts that informed them about new discoveries as well as threats to heritage sites (Dular 2003:56-58; Novaković 2011:354-355). Another officer of the Central Commission was Alfons Müllner, who in the course of his career collected evidence from over 300 hillforts in Slovenia and attempted to date them based on associated ceramic finds (Dular 2003:54-56; Dular and Tecco Hvala 2007:14).

The two most important excavators from the late 19th and early 20th centuries in the context of this study were Jernej Pečnik and the Duchess of Mecklenburg.[8] Pečnik was a self-taught excavator who primarily worked with the Central Commission. He excavated for almost thirty years, and in that time focused his attention on many important site complexes in the Dolenjska region, including but not limited to Dolenjske Toplice, Brezje pri Trebelnem, Libna, Novo mesto, Magdalenska gora, Stična, and Vinkov vrh. It was primarily his excavations that provided the foundational Early Iron Age material at both the Provincial Museum of Carniola

[5] Also known by his Slovene name of Dragotin Dežman, and later under the Germanized name Carl Deschmann.
[6] The Prehistoric Commission of the Academy of Science was established in 1878, and played a major role in excavations in Slovenia (Dular and Tecco Hvala 2007:14).
[7] German: Kaiserlich-königlich Central-Commission zur Erforschung und Erhaltung der Baudenkmale.
[8] Full name: Princess Marie Gabriele Ernestine Alexandra von Windischgrätz.

and the Naturhistorisches Museum in Vienna – to this day these artifacts remain showpieces at both museums (Dular and Tecco Hvala 2007:15-16). His excavations are difficult to reconstruct because his excavation records are in the form of letters to various curators to whom he was trying to sell the archaeological material[9] – he would provide some details about the contexts (cremation or inhumation grave, hillfort, etc.) and list the associated artifacts (Dular 2003:42-49). Nonetheless, because he was such a prolific excavator, significant efforts have been made to reconstruct his excavations, especially of Hallstatt period cemeteries (e.g., Dular 2003; Gabrovec 2006; Gabrovec and Teržan 2008; Kromer 1959; Starè 1955; Tecco Hvala et al. 2004; Teržan 1976).

The Duchess of Mecklenburg was also a prolific excavator, investigating 20 sites in modern-day Slovenia between 1905 and 1914 (Dular 2003:71-78, 83; Dular and Tecco Hvala 2007:17; Greis 2006:5). However, her largest excavations were at Stična, Magdalenska gora, and Vinica, and altogether she excavated over 700 graves at these sites (Novaković 2011:355). She should be considered a hobbyist rather than a professional archaeologist; however, since her assistant Gustav Goldberg kept excavation records after 1906, many of the graves that she excavated can be reconstructed (Dobiat 1982; Gabrovec 2008:7-11; Greis 2006:23; Hencken 1978; Tecco Hvala 2012; Tecco Hvala et al. 2004; Wells 1981). The outbreak of World War I ended her excavation career, and subsequently the excavated artifacts were put in storage until 1935, when they were catalogued for auction and sold to the Peabody Museum of Archaeology and Ethnology at Harvard University[10] and the Ashmolean Museum at Oxford University[11] (Greis 2006; Hencken 1978; Mahr 1934; Tecco Hvala 2012; Tecco Hvala et al. 2004; Wells

[9] He sold most of his material to the Naturhistorisches Museum in Vienna and the Provincial Museum of Carniola (now the Narodni muzej Slovenije [National Museum of Slovenia]).
[10] Finds from Stična, Magdalenska gora, and Vinica.
[11] Finds from Vače.

1981). Some artifacts also ended up in Berlin and Marburg[12] after the Duchess gifted impressive artifacts to relatives and patrons[13] (Dobiat 1982; Greis 2006:33-35; Tecco Hvala 2012:15; Weiss 1999).

The imperial context of these early excavations as well as the goal to build large museum collections means that many of these early excavations are considered "problematic" or "unreliable" within the framework of this project because grave groups were reconstructed at a later point in time based on often incomplete archival material (see III.3.C for a full explanation of the reliability index). In addition, finds from many sites were broken up and sold to multiple institutions, which is why this material is spread throughout four countries.[14]

II.1.B. Kingdom of Yugoslavia (1918-1941)

This period is characterized by a general decline in archaeological activity. Without the support of the larger institutions of the previous imperial period, and due to the reorganization post-WWI, new archaeological excavation slowed with less money and less personnel devoted to heritage. The most notable research at the time was undertaken by Rajko Ložar, the curator of archaeology at the Narodni muzej Slovenije,[15] who published on some of the Early Iron Age collections (Ložar 1933, 1934, 1937a, 1937b; Novaković 2011:358).

II.1.C. Socialist Federal Republic of Yugoslavia (1945-1991)

Rebuilding after World War II was a major endeavor – the new Yugoslavia was

[12] At the Museum für Ur- und Frühgeschichte [Museum of Prehistory and Early History] in Berlin and in the lecture collection for the prehistoric seminar at the University of Marburg.
[13] Notably to Kaiser Wilhelm II of Germany.
[14] Slovenia: Narodni muzej Slovenije, Ljubljana; Austria: Naturhistorisches Museum, Vienna; Universalmuseum Joanneum, Graz; United Kingdom: Ashmolean Museum, Oxford; United States: Peabody Museum of Archaeology and Ethnology, Cambridge, MA.
[15] National Museum of Slovenia, formerly the Provincial Museum of Carniola.

impoverished, most archaeologists had left the country by the end of the war, and there were negative perceptions of archaeology due to its use to support Nazi and fascist regimes (Arnold 1990; Fazioli 2012; Novaković 2011:359). The communist ideology strongly supported modernization, specifically through research in the fields of science and culture. Archaeology was divided to serve three main aims: research, education, and heritage protection, and existing institutions were fit into this framework while new public institutions were also founded to support these goals (Novaković 2011:359-360). Important appointments were made at the Narodni muzej – Jože Kastelic was made director of the museum, and Stane Gabrovec was made head of the Archaeological Department, the latter becoming a major force in revolutionizing the image of the Early Iron Age in southeastern Europe. In 1945 the Office for the Protection and Research of Cultural and Natural Monuments[16] was founded and new laws were passed for the protection of sites. The Department of Archaeology at the University of Ljubljana was founded in 1946 to train the next generation of archaeologists, while the Archaeological Commission at the Academy of Sciences and Arts (SAZU)[17] was founded in 1947 to undertake research on the archaeological heritage of Slovenia. One of the duties of the Archaeological Commission at SAZU was the publication of *Arheološki vestnik*, the main archaeological journal of Slovenia, established in 1949. This tripartite division of archaeological research has been maintained until now, and these institutions are still leaders in archaeological research in Slovenia.

An important development in the following decades was the creation of the Archaeological Cadaster of Slovenia (ANSL), which recorded and mapped the known archaeological sites from all periods throughout the country, culminating in the publication of over 3,000 sites (ANSL 1975; Novaković 2011:362). During this time, the archaeological

[16] Renamed the Office for the Protection of Natural and Cultural Heritage.

[17] Now the Inštitut za arheologijo [Institute of Archaeology] at the Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti [Research Centre of the Slovenian Academy of Sciences and Arts].

research focus was largely within the traditional culture-historical framework, with the primary aim of defining and describing archaeological cultures, assessing chronological frameworks, and refining artifact typologies to better understand artifact distributions. Another key project of this time was publishing old cemetery excavations from the pre-WWI period, reconstructing the original grave contexts, and connecting the finds listed in archival records to the artifacts housed in museums in Slovenia and Austria (e.g., Guštin 1976; Kromer 1959; Starè 1955; Teržan 1976), a project that has continued to the present day (e.g., Dular 2003; Gabrovec 2006; Gabrovec and Teržan 2008; Tecco Hvala et al. 2004; Teržan in prep.).

The majority of excavations conducted during this period were for the protection of cultural heritage, rather than to answer academic questions (Dular and Tecco Hvala 2007:19-20). However, a notable exception is the excavations carried out at Stična – the hillfort of Cvinger, as well as Tumuli 5 and 48 – under Stane Gabrovec with the collaboration of the University of Marburg and the Smithsonian Museum[18] (Dular and Tecco Hvala 2007:18; Gabrovec 1994, 2006; Gabrovec and Teržan 2008; Novaković 2011:264).

II.1.D. Independent Slovenia (1991-Present)

After independence, Slovenia maintained the institutional structure established in the previous Yugoslav Republic period, though since then there has been an increasing emphasis on incorporating new technologies and scientific testing into archaeological research. Landscape research including the use of GIS, geophysics, and LIDAR have been especially productive, including the project to digitize the Archaeological Cadastre of Slovenia within the framework of a large GIS database available online as ARKAS (Novaković 2011:367; Tecco Hvala 1994).

[18] Cvinger was excavated in 1960, and from 1964-1967. Modern excavations at Tumulus 5 and Tumulus 48 were conducted over several campaigns in 1946, 1952-1953, and 1960-1964.

In this period, the Dolenjska Hallstatt culture has been the focus of several large-scale archaeological investigations and comprehensive publications (Djurić and Prešeren 2003; Dular 2003; Dular and Tecco Hvala 2007). An important project was the "Hillfort Settlements in the Dolenjska Region," which included a large-scale survey of Dolenjska hillforts, as well as the trenching of hillfort fortifications to assess changing settlement patterns over time in Early Iron Age Dolenjska and Bela krajina (see Dular and Tecco Hvala 2007 for more detail). As part of this project, Dolenjska and Bela krajina were the focus of pedestrian surveys from 1984 to 1997, as well as targeted excavations (Dular and Tecco Hvala 2007). Though the amount of archaeological data gathered from individual settlements is still limited, small-scale excavations were undertaken at 53 hillfort sites, significantly expanding the evidence available concerning this prominent settlement type (Dular and Tecco Hvala 2007:32-33).

In contrast to the vast number of hillfort sites, only two unfortified sites are known from the Early Iron Age. Both were discovered during survey and excavation preceding the Dolenjska highway construction in the early 2000s (Dular and Tecco Hvala 2007:122; Križ 2003; Svoljšak 2003), the most recent large-scale exposure of archaeological contexts in Slovenia (Djurić and Prešeren 2003; Dular and Tecco Hvala 2007:20). This large-scale highway development project necessitated significant survey and excavation in Dolenjska and Bela krajina as well. Compared to finds from other eras, there were relatively few new Early Iron Age sites, and most were uncovered near known hillforts (Djurić and Prešeren 2003; Dular and Tecco Hvala 2007:20).

II.2. Early Iron Age Slovenia

Slovenia is bracketed by the Adriatic Sea and the Alps and crosscut by lowland river valleys and the highland karst, which allowed distinct regional cultures to develop in the first

millennium BCE as Iron Age peoples exploited varied geographical pockets (Teržan 1999:101). In prehistoric times this was an important area at the confluence of several overland and sea routes connecting the Adriatic Sea, the Italian and Balkan peninsulas, the Amber Route to the north, and eastern regions via the Pannonian plain (Figure II.1; Mason 1996:1-9, 1999; Tecco Hvala 2012:364-366 Fig. 132).

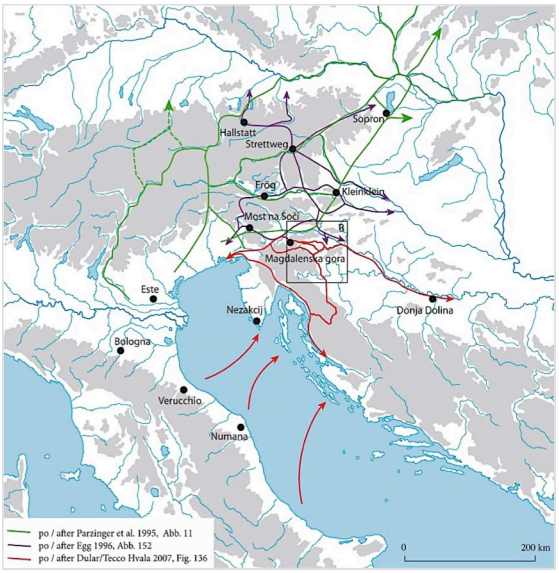

Figure II.1. Early Iron Age communication routes in southeastern Europe (Tecco Hvala 2012:364 Fig. 132).

Figure II.2. Map of Early Iron Age southeastern Europe (adapted from Egg 1996:275 Fig. 152; Dular and Božič 1999:100). The red dots are important sites in the Dolenjska Hallstatt area, while blue dots are important archaeological sites outside the Dolenjska Hallstatt region.

The coming of the Iron Age circa 800 BCE, typified by the Eastern Hallstatt cultural complex (Figure II.2), was a period of rapid change with the introduction of iron technology, population aggregation at large hillforts, the increasing elaboration of social hierarchies, and the shift to cremation and inhumation burials under large tumuli (Dular 1993, 2003; Gabrovec 1976, 1999:150-170; Tecco Hvala 2012:41, 47-48). The archaeological developments of the Bronze to Iron Age transition were widespread across central and eastern Europe in this period, when nascent social hierarchies became much more conspicuous, demonstrating increasing social tension and jockeying for power (Gabrovec 1966b:44-45, 1999:151-157; Teržan 1985, 2008). In other areas of Hallstatt Europe, the monumental tumuli of the Early Iron Age have been interpreted as the burial location of elite lineages, likely centered on chiefs (Arnold 1991, 2001, 2011; Burmeister 2000; Frankenstein and Rowlands 1978; Rieckhoff 2001:82). But the level of social distinction displayed by Slovenian tumuli is significantly less hierarchical, and the widely accepted explanation is that the majority of these tumuli were family barrows (*Sippenhügel*) that reflected lineage or clan based social units (Figure II.3; Dular and Tecco Hvala 2007:126, 247; Gabrovec 1966b:14, 43, 1974; Teržan 2008:191).

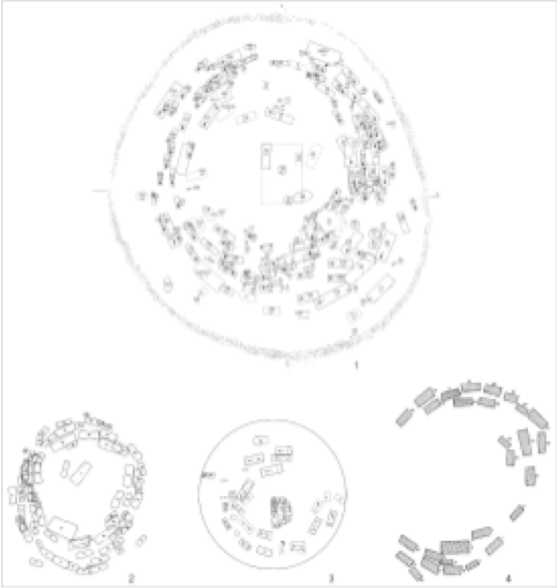

Figure II.3. Plans of Dolenjska Hallstatt tumuli: 1. Stična, Gomile Tumulus 48; 2. Novo mesto, Kapiteljska njiva Tumulus V; 3. Stična, Gomile Tumulus 5; 4. Novo mesto, Kandija Tumulus IV (Dular and Tecco Hvala 2007:125 Fig. 72).

In this period, extensive archaeological excavation and survey have demonstrated that the majority of the population inhabited fortified settlements and hillforts, surrounded by the aforementioned tumulus cemeteries (Dular 1993;

Dular and Tecco Hvala 2007; Gabrovec 1999:157-162). There were also dispersed farmsteads and hamlets, though these are much less well known archaeologically (Križ et al. 2009:89-90). These settlement and mortuary practices were shared by six distinct archaeological cultures in Slovenia, all defined as part of the larger southeast Alpine Hallstatt complex (Figure II.4; Gabrovec 1964-1965a:25-26, 1966b:5-9, 1999:150-151). The Dolenjska culture, in the modern regions of Dolenjska and Bela krajina in southeastern Slovenia, is the focus of this study, since it was a major cultural center where Hallstatt traits are most clearly elaborated, and is the most well attested archaeologically (Dular 2003; Dular and Tecco Hvala 2007; Križ et al. 2009:88-9).

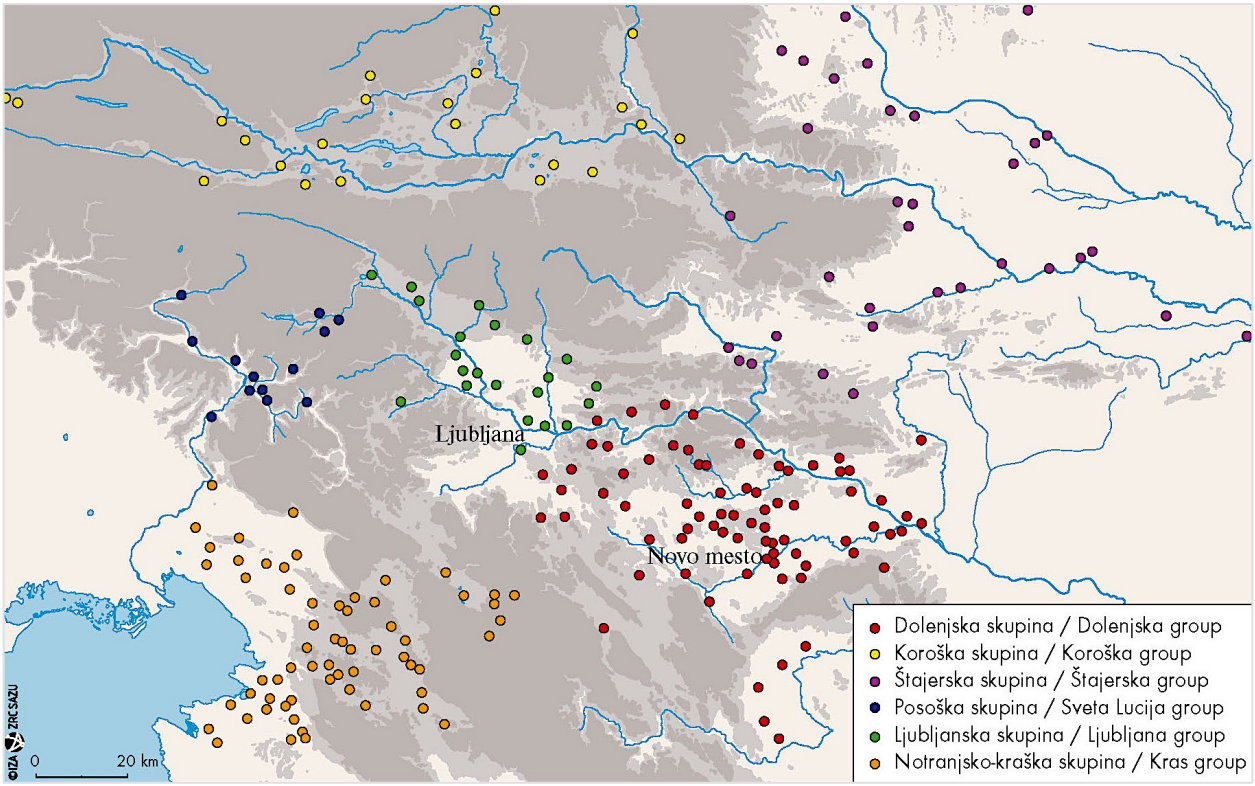

Figure II.4. Early Iron Age archaeological cultures in Slovenia. Sites associated with the Dolenjska group, marked in red, are the focus of this project (Križ et al. 2009:88).

II.3. The Dolenjska Hallstatt Culture

Relatively little is known about settlements and daily life in the Early Iron Age; however, more is known from cemeteries, which outnumber settlements six to one in the Dolenjska culture

area (Figure II.5; Dular 2003:108-109; Dular and Tecco Hvala 2007:41). These take the form of groups of tumuli surrounding settlements. Tumuli are large mounds containing several burials,[19] from less than 20 individuals to over 100, which were often used for several generations. However, despite their probable kin-based orientation, there is still significant disparity in the grave goods deposited with the deceased, and it has been proposed that this was a stratified society, with regional power centered at hillfort sites (Križ et al. 2009:89-90; Tecco Hvala 2012:378-384; Teržan 1985).

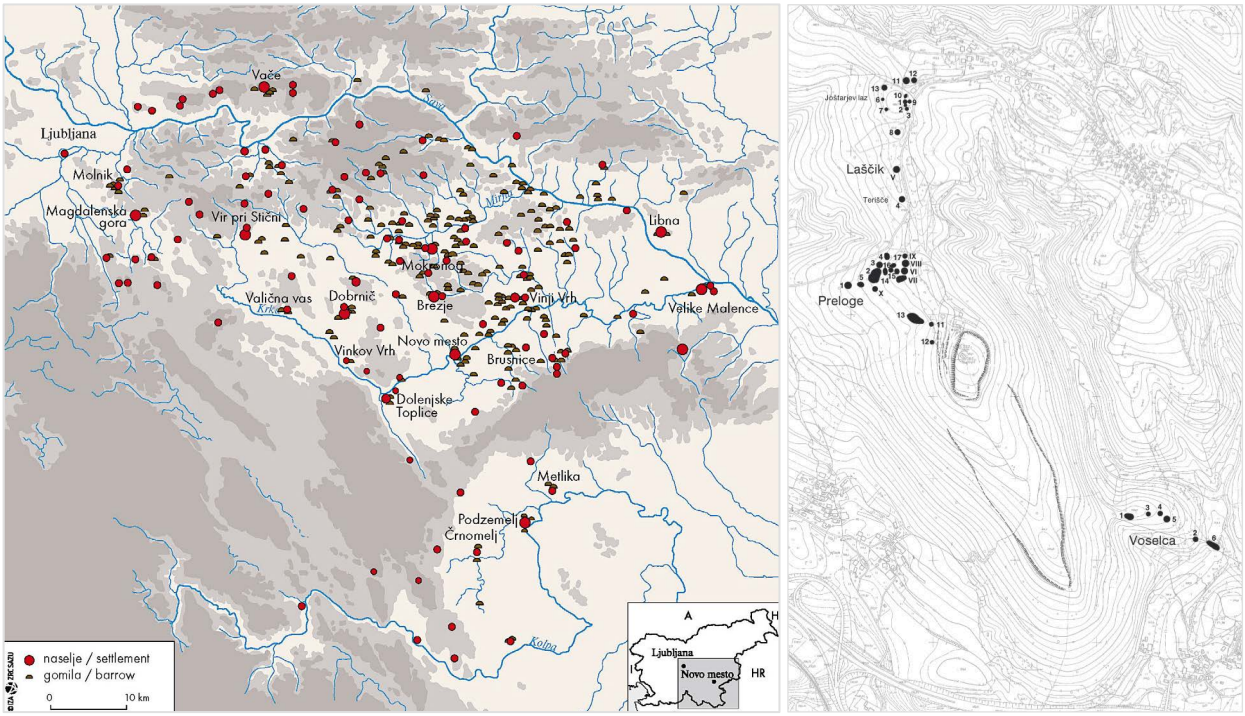

Figure II.5. Left: Map of Dolenjska Hallstatt settlements and the surrounding tumulus cemeteries (Križ et al. 2009:89). Right: Detail of the settlement of Magdalenska gora with the fortifications marked, surrounded by three tumulus cemeteries marked by black dots (Tecco Hvala 2012:16 Fig. 1).

Burial within these tumuli was not limited based on gender or age, though the burial of children is less common (Tecco Hvala 2012:371). Demographically, the tumuli do not seem to encompass the entirety of the population, so it is likely that other individuals were buried

[19] Inhumations are much more common than cremations in Dolenjska Hallstatt tumuli.

elsewhere, or perhaps not buried at all (Bakarić et al. 2006:91-93). Gender and age cannot be determined from skeletal remains in most cases, since osteological material does not preserve due to the highly acidic soil in Dolenjska and Bela krajina. Instead, grave goods are taken to indicate gender, and the size of graves and artifacts may suggest the presence of juveniles or children (Bakarić et al. 2006:91; Dular and Tecco Hvala 2007:212; Tecco Hvala 2012:376). The most visible grave goods are associated with wealthy burials, due to the higher frequencies of non-perishable artifacts in such contexts. These include ceramics, metal objects (vessels, personal ornaments, defensive gear, and weapons), glass, and amber (Bakarić et al. 2006:91-93; Teržan 1985). Ceramic vessels presumably contained food and drink, and even in burials with fewer ceramics the presence of food and drink offerings is assumed based on the positioning of artifacts (Križ, et al. 2009:111).[20]

In this period ritual expression was atechtonic, that is, there are no remains of structures marking ritual sites. The Early Iron Age in Dolenjska lacks identifiable votive or hoard depositions such as were common in the Late Bronze Age (Križ et al. 2009:81-85). In the Late Bronze Age deposits of metal artifacts, particularly jewelry, weapons, and agricultural tools, were made in rivers, caves and rock crevasses, and outside of cemeteries and settlements; however, to date similar deposits from the Early Iron Age are not readily identifiable in Dolenjska[21] (Gaspari 2003:47-48; Križ et al. 2009:81; Teržan 1999:119-124; Turk 2001). It is unclear whether natural places retained their previous significance and worship became less

[20] Residue analysis is also being conducted as part of the Encounters and Transformations in Iron Age Europe (ENTRANS) project that could confirm the presence of food offerings, however results have not yet been published (Armit et al. 2016).

[21] Andrej Gaspari does note that there are some fibulae, axes, spearheads, and bronze vessels that have been recovered from the Ljubljanica River that can be typologically dated to the later part of the Early Iron Age, though the actual date of deposition of these objects cannot be determined due to their context (Gaspari 2003:47-48, 2006). These are rare compared to the significant amount of material from the Late Bronze Age, Late Iron Age, and Roman period, so it is possible that Early Iron Age material was deposited as part of later depositional activities, especially since other activity of this type has not been identified in Dolenjska in the Early Iron Age period.

archaeologically visible, or if beliefs changed to such a degree with the coming of the Iron Age that these places no longer maintained their cultural significance. Votive deposition in rivers, caves, and other notable landscape features continued in neighboring regions in the Early Iron Age (Pavlin and Turk 2014; Teržan et al. 2016), so it is also possible that such activities continued in Dolenjska but have not yet been identified archaeologically.

The Dolenjska Hallstatt culture was identified as a distinct cultural group by Stane Gabrovec in 1964, and subsequent studies have maintained its cultural distinction and central importance among the southeast Alpine Hallstatt cultures (Dular 2003; Dular and Tecco Hvala 2007; Gabrovec 1964-1965a:25-26, 1966b:5-9). Gabrovec also developed the foundational chronology for the Dolenjska Hallstatt culture and connected it to neighboring Early Iron Age chronologies; this was further refined by his collaborators and students, in particular Otto-Herman Frey, Biba Teržan, and Janez Dular (Frey and Gabrovec 1971; Gabrovec 1973, 1999:162-164; Novaković 2011:363; Teržan 1976; Dular 2003). More recently dendrochronology and radiocarbon dates have resulted in some modifications to Gabrovec's chronology, aligning it more securely with the central European chronology (Figure II.6; Gleirscher 2006; Tecco Hvala 2012:48; Teržan 2008; Teržan and Črešnar 2014).

This project follows Janez Dular's update of Gabrovec's seminal chronology (Dular 2003; Gabrovec 1987). Dular used scientifically excavated graves to supplement the foundational graves of Gabrovec's chronology, which were mainly known from antiquarian excavations. By doing so, Dular was able to correct some issues with these chronologies due to the reliance on problematic early excavation contexts, and he was able to base the chronological framework on a larger number of graves, increasing the reliability of the dataset on which the chronology was based.

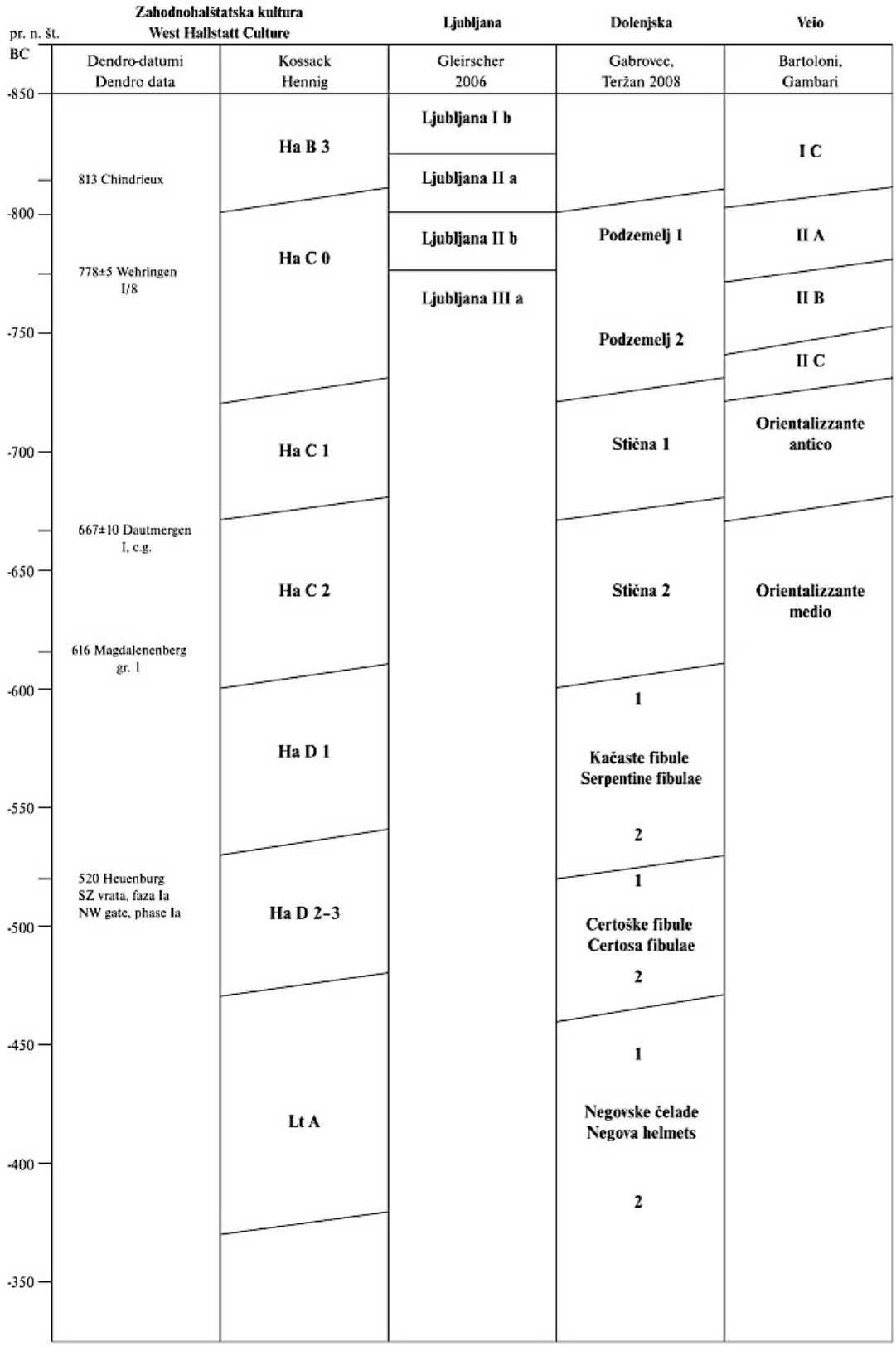

Figure II.6. Chronological framework of the Dolenjska Hallstatt culture, along with those of other southeastern European archaeological cultures (Tecco Hvala 2012:72 Fig. 11).

II.3.A. Podzemelj Phase (Ha C0, circa 800-720)

The presence of readily available iron ores on the ground surface in both Dolenjska and Bela krajina is considered an essential aspect of the rapid economic development of Dolenjska Hallstatt communities, which provided an important impetus for the increased wealth and archaeological visibility of the Early Iron Age. The high quality and quantity of local iron ores and iron products made them valuable commodities for exchange, bringing Dolenjska Hallstatt communities into widespread trade networks (see Figure II.1; Dular and Tecco Hvala 2007: 215-216; Križ et al. 2009:87-88).

The Podzemelj phase is characterized by the transition from Late Bronze Age (Urnfield) burial practices of cremation in urns to the characteristic Early Iron Age inhumations under tumuli. This transition manifests in the presence of both cremations and early inhumations at the same sites, as well as cremations under tumuli (Dular 2003:108-109; Dular and Tecco Hvala 2007:140). Characteristic grave goods show connections to the Urnfield period as well; men are buried with multi-knobbed dress pins and weapons,[22] while diagnostic female grave goods include iron knobbed fibulae and ring jewelry,[23] and bronze double-loop bow fibulae. Males and females were buried with ceramics including large urns, conical-necked vessels, amphorae, and footed vessels (Božič 2015b; Dular 2003:115-117). The Podzemelj phase is when status distinctions become readily apparent in mortuary contexts in the form of notable wealthy burials, especially of men with sets of weaponry and horse equipment (Božič 2015b; Dular 2003:116).

In terms of settlement there is a clear break from the Late Bronze Age. Hillfort and lowland settlements dating to the Late Bronze Age are largely abandoned, and new hillfort sites

[22] Short curved swords, bronze winged axes, iron lugged axes, spearheads, bowl helmets (Dular 2003:116).
[23] Iron jewelry is generally diagnostic of the beginning of the Early Iron Age. This is thought to be because iron was still a novelty and likely a prestigious material, which was adapted for use in traditional status markers. However, this became less common as time passed as it became clear that iron was much better suited to making weaponry and tools, and relatively difficult to make into personal ornaments (Križ et al. 2009:87).

are founded in the 8th century. While there were fewer hillforts overall in this phase, the size of the hillforts increased significantly – the average hillfort size in the Late Bronze Age was 1.1 hectares, increasing to 5.9 hectares in the 8th century (Dular and Tecco Hvala 2007:137-138).

II.3.B. Stična Phase (Ha C1-2, circa 720-600)

The Stična phase was the *floruit* of the Dolenjska Hallstatt communities. Late Bronze Age costume and burial practices had disappeared by this time, and increasing differentiation is visible in the grave goods (Teržan 1985). This phase is most famous for a series of exceptionally rich burials that reflect widespread contacts with neighboring cultures, especially close contacts with groups on the Italian peninsula (Dular 2003:117). Defensive gear is deposited in burials, including elaborate metal cuirasses and composite helmets topped with sphinxes (Figure II.7), demonstrating some acceptance of the Orientalizing motifs that were circulating in the broader Mediterranean world at this time. The first situla art also appears in this period on a bronze situla lid from Stična[24] and a bronze helmet from Magdalenska gora[25] (Dular 2003:117-118, 130; Križ 2012:56; Turk 2005:17-20). Other contacts are evident in the horse gear accompanying wealthy burials, which show connections to Thraco-Cimmerian cultures to the east via the Pannonian Plain (see Figure II.2; Dular 2003:118, 2007:474-475; Kmeťová 2013a). Personal ornaments associated with women become increasingly elaborate – large boat fibulae, three-knobbed fibulae, and both earrings and hair rings appear.

Figure II.7. Composite helmet with sphinxes. Vače, Ravne njive Grave 1883/11-1. Naturhistorisches Museum Wien inv. no. 7583.

[24] Stična, Gomile Tumulus 76, Grave with the Decorated Situla Lid.
[25] Magdalenska gora, Laščik Grave IV/1. This object is not included in the study since it only depicts humans.

Knobbed torcs and spiral bracelets in bronze and iron are also known (Dular 2003:118, 130). In the Stična 2 period Italic fibulae and local copies appear as well – fibulae with bone and glass overlay, as well as the first serpentine fibulae in Dolenjska (Dular 2003:130; Tecco Hvala 2014:159-160 Fig. 9C, 172).

Bronze vessels are also deposited in graves in this period. These are found in a variety of forms – traditional vessels harkening back to the Urnfield period, as well as Italian and Greek imports and local copies. Ceramic vessels indicate the same patterns – there are Apulian *kraters* at several sites and an *oinochoe* was even discovered in a grave at Stična, while many other sites have produced local copies of these imported vessel forms (Dular 2003:118).

II.3.C. Serpentine Fibulae Phase (Ha D1, circa 600-520)

The Serpentine Fibulae phase was a period of significant unrest that has been linked to episodic incursions of Scythians that threw Dolenjska Hallstatt communities into political and economic crisis (Dular 2003:131, 2007:475-476; Dular and Tecco Hvala 2007:90, 251-2; Tecco Hvala 2012:381; Teržan 1998:526-527, 2008:308). This unrest is evident in both settlement and mortuary contexts – hillforts in the northeastern areas of Dolenjska are abandoned, other hillforts have fortifications rebuilt following episodes of burning, and new, small hillforts are founded in former hinterlands (Dular and Tecco Hvala 2007:143-146, 251-252 Fig. 82; Tecco Hvala 2012:141-142; Teržan 1976:393, 1998:526-527). The relative wealth of the Stična phase with its elaborate burials and the earliest works of situla art is clearly interrupted, and situla art in this region disappears entirely for the duration of the Serpentine Fibulae phase.

Though very rich graves disappear, artifacts introduced in the Stična phase maintain their popularity – for women this takes the form of annular jewelry, i.e., bracelets, earrings, and hair

rings. New chronologically diagnostic personal ornaments also appear, and several continue to show Italian influences. The eponymous serpentine fibulae occur in great variety and are worn by both men and women. *Sanguisuga* fibulae and animal fibulae are also among the new forms – the latter have bows in the form of standing animal bodies, sometimes with an additional smaller animal on the foot of the fibula, and there seems to be a mix of fibulae imported from northern Italy as well as local production (Figure II.8; Dular 2003:135; Guštin 1974:95-100; Nascimbene 2009:160-165). The characteristic male outfit shows changes at this time – combinations of offensive weapons become more standardized, most commonly an axe and two spears. Cast bronze trilobate arrowheads appear that have also been associated with increasing eastern contacts (Dular 2003:135; Párducz 1965:292; Pydyn 1999:50). Double-crested helmets and rectangular sheet bronze belt plates also come into use in this period (Dular 2003:135).

Figure II.8. Fibulae depicting animals dated to the Serpentine Fibulae period. Top: Stična, Gomile Vas Vir isolated find. Peabody Museum 40-77-40/13960. Bottom: Vače, Reber Grave 20. Narodni muzej P 164.

Despite the apparent unrest, there were significant developments in local ceramic production. The manually operated potter's wheel was introduced, on which footed vessels, situlae, and bottles were produced. The combustion furnace also came into use, allowing the production of re-oxidized ceramics. Undecorated sheet bronze lids were sometimes used on these new ceramic vessel forms (Dular 2003:135).

D. Certosa Fibulae Phase (Ha D2-3, circa 520-460)

After the unrest of the Serpentine Fibulae period, there is a cultural renaissance in the Certosa Fibulae period with an explosion of figural art and a return to a more elaborate burial program. At this time there is also a shift in burials to increasing displays of violent potential with a new prominence of weapons in burials (Tecco Hvala 2012:141-142; Teržan 1985:95-96 Fig. 17, 1998:526-527, 2008:308, 319-320). Elite weapons burials peak in the Certosa Fibulae phase, as do burials with horses. An in-depth analysis of the grave goods from several important sites has led to the proposition that this pattern is explained by the development of a proto-military hierarchy with horsemen at the top as commanders, followed by infantrymen armed with two spears and an axe, and men with just one weapon at the bottom (Tecco Hvala 2012:141 Fig. 55; Teržan 1985:95-96 Figs. 16 and 17). This military hierarchy was likely strongly bound to the social hierarchy at the time, where prominent elites led bands of men connected to them through patronage, kin-relationships, and other personal ties (Dular 2016:80; Kristiansen 1999:181-182; Tecco Hvala 2012:379; Vankilde 2006:483).

Artifacts demonstrating foreign connections remain important – horse gear of the Szentes-Vekerzug type[26] was produced locally (Dular 2003:136, 2007:744), while Negova helmets were imported from northern Italy. Personal ornaments show continuity with preceding forms; cast bronze and bronze plate jewelry remained popular, particularly sheet bronze belt plates and belt fittings as well as earrings, though now these were often elaborated in the situla art style with incised and embossed figural scenes (Figure II.9; Dular 2003:136, 144; Turk 2005:23-40; Tecco Hvala 2007; 2012:177). Situla art in all forms peaks at this time, in quantity as well as quality (for more detail on situla art see section II.4.A; Dular 2003:143; Eibner

[26] This is a broadly considered "Scythian" horse gear from Hungary (Dular 2007:744; Egg 1996:160-179, 1999:335-337; Guštin and Teržan 1975:190-191; Párducz 1973:36; Werner 1988).

1981:296-284; Križ 2012:58-61; Turk 2005:23-40). This period is also marked by the inclusion of both decorated and undecorated sheet bronze drinking vessels including situlae, ribbed cists,[27] and cauldrons. Despite the advances in ceramic technology in the preceding Serpentine Fibulae phase, the Certosa Fibulae phase shows very little ceramic development and old forms continue to dominate (Dular 2003:143).

Figure II.9. Sheet bronze belt plate decorated in the situla art style. Vače, Reber Grave with the Mounted Warriors Belt. Naturhistorisches Museum Wien inv. no. 40141.

Figure II.10. Horse head crossbow fibulae. Brezje pri Trebelnem, Hojbi Grave VII/1. Naturhistorisches Museum Wien inv. no. 33925.

Beads and necklaces made of amber and glass also remain popular, though in this period the variety of forms increases and they become more elaborate. The eponymous Certosa fibulae appear at this time, and are produced in a large variety of forms and quickly become widespread. Significant for this study are the development of Certosa-style crossbow fibulae with forward-facing animal heads in the form of horses and rams (Figure II.10; Dular 2003:143). The weapons set consisting of an axe and two spears remains popular, as do trilobate arrowheads and horse gear deposited in graves (Dular 2003:136).

II.3.E. Negova Helmets Phase (LT A, circa 460-300)

There is a final shift at the very end of the Early Iron Age, in the Negova Helmets phase. In other areas of Hallstatt Europe, movement of so-called Celtic populations had already radically changed the social and material culture ushering in the La Tène period/Late Iron Age. These developments are delayed in the Dolenjska Hallstatt area, where evidence for significant

[27]Often referred to as c*ista a cordoni* in the archaeological literature.

incursions of Celtic peoples does not appear until around 300 BCE when the Taurisci moved into the region, though the unrest of the surrounding regions resonated in Dolenjska in this period (Božič 1987, 1991; Guštin 2011; Križ et al. 2009:142).

The Negova Helmets phase is characterized by the rapid expansion of burials with weapons, though the disparity in the quality and quantity of weapons in graves decreases. In fact, this period has been considered one of pauperization across the spectrum of material culture and in broader economic terms (Dular and Tecco Hvala 2007:252; Tecco Hvala 2012:141-142, 358-361; Teržan 1976:393, 1985:92, 95-96 Fig. 17). The elite warrior burials have vanished and there are fewer burials with horses, though now almost a third of male burials contain weapons (Tecco Hvala 2012:141-142). In this period we may be seeing the democratization of warrior status, where larger parts of the population were armed and the dramatic displays of warrior identity no longer maintained the same cultural currency as they did in previous periods.[28] It may also be that markers of warrior status common in the Certosa Fibulae phase had become so prevalent that by the Negova Helmets period there was a loss of exclusivity in these elements of the male warrior panoply, and a concomitant decrease in their utility and desirability for marking paramount status (Arnold 2001:21; Cannon 1989; Miller 1982:89; *sensu* Veblen 2007).

The standard weapon set containing an axe[29] and two spears also appears in the Negova Helmets phase, though towards the end of the period burials with just a single spear become increasingly common. The most elaborate military symbol is the Negova helmet, which at this time was locally produced rather than imported from Italy, and does seem to mark higher status individuals (Dular 2003:143). Sheet bronze belt plates and belt fittings remain popular, though openwork belt clasps also appear, showing the influence of La Tène styles (Dular 2003:144).

[28] This may suggest a shift from war as theater to real violence and internecine conflict, though since there is no robust bioarchaeological data this cannot be confirmed (Bettina Arnold, personal communication).
[29] Socketed axes come into use in this period, replacing shafthole and one-sided winged axes (Dular 2003:144).

Other La Tène-type objects appear in this period including swords, scabbards, and chain-link belts, though these items are locally produced rather than imported (Dular 2003:144, 150). However, despite the less frequent appearance of imported items, Dolenjska Hallstatt communities were clearly still in contact with the wider region.

Figure II.11. East Alpine animal head fibula. Magdalenska gora, Laščik Grave V/36. Peabody Museum inv. no. 34-25-40/8567.

Metal vessel sets including cists, cauldrons, and situlae also remain popular (Dular 2003:144). Situla art also continues in the Negova phase, however throughout this period it becomes much simpler and tends to depict scenes that consist solely of animals (Križ 2012:61; Turk 2005:41-45). Certosa fibulae remain in use, though the new very schematic East Alpine animal head fibulae[30] appear at this time (Figure II.11; Dular 2003:144; Tecco Hvala 2012:264-165).

II.4. Early Iron Age Iconography

The Hallstatt Early Iron Age was marked by a significant increase in representational art. Southeastern Europe was a center for the production of figural depictions on a large scale, notably at sites like Strettweg, Kleinklein, Sopron, Hallstatt, and Frög (see Figure II.2 for locations of important regional sites; Barth 1980; Dobiat 1985; Egg 1996; 2012; Gleirscher 2011; Reichenberger 1984). These impulses towards increasing figural imagery have been linked to broader developments in the region – particularly the circulation of the Orientalizing style of art that originated in the Near East, but quickly spread throughout the Mediterranean in the 7th

[30] These are often identified by their German name: *ostalpine Tierkopffibel.*

century, primarily through Phoenician and Greek colonization and trade (Frey 1998:98-99; Križ 2012:55-56; Turk 2005:14). It is believed that these artistic developments reached southeastern Europe via Etruscan and other northern Italian contacts, accounting for some remnants of Orientalizing motifs as well as lending a strong Etruscan character to many of the figural representations in Dolenjska and the surrounding areas (Egg 1996:45-53; Frey 1998:98-99; Gabrovec 1964-1965b; Križ 2012:55-56; Turk 2005:14).

II.4.A. Situla Art

Situla art refers to toreutic figural art in repoussé and chasing on bronze plate objects, primarily vessels, belt plates, and earrings (Figure II.12; Eibner 1981; Frey 1969; Kastelic 1965:v-vi; Križ 2012:55; Lucke and Frey 1962; Turk 2005:9-10). Situla art as a phenomenon is limited to the area around the *Caput Adriae* and spans the second half of the 7th century to the 4th century (Figure II.13). After a hiatus in the 6th century BCE, situla art peaks in Dolenjska in the 5th century, though more precise dating is difficult since quite often these items were in use for extended periods before being placed in graves (Eibner 1981; Frey 2011:283, 286; Kastelic 1965:xxii-xxiv; Križ 2012:56-58; Turk 2005:17-18, 22, 41).

Figure II.12. Situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej inv. no. P 4280 (photo by Tomaž Lauko, © Narodni muzej Slovenije).

The art is named for the vessels it is most commonly associated with, so-called *situlae*, which are sheet-bronze buckets used for the mixing and serving of alcoholic beverages. Both decorated and undecorated examples are associated with elite burial

assemblages (Križ 2012:55). Because of their archaeological contexts as well as the activities represented, these items have been posited to figure heavily in elite activities as well as to display them (Eibner 1981; Kastelic 1965; Križ 2012:55, 58-59; Kromer 1980:225-240; Lucke and Frey 1962). The repertoire of situla art scenes shows a limited number of activities including:

- Processions (armed and unarmed men; men and women bearing vessels, ceremonial regalia, or leading animals, wagons and riders; animals)
- Drinking scenes
- Competition (boxing matches, chariot racing)
- Musicians and dancers
- Sexual activity
- Hunting
- Plowing (Eibner 1981; Frey 2011; Križ 2012:58-59).

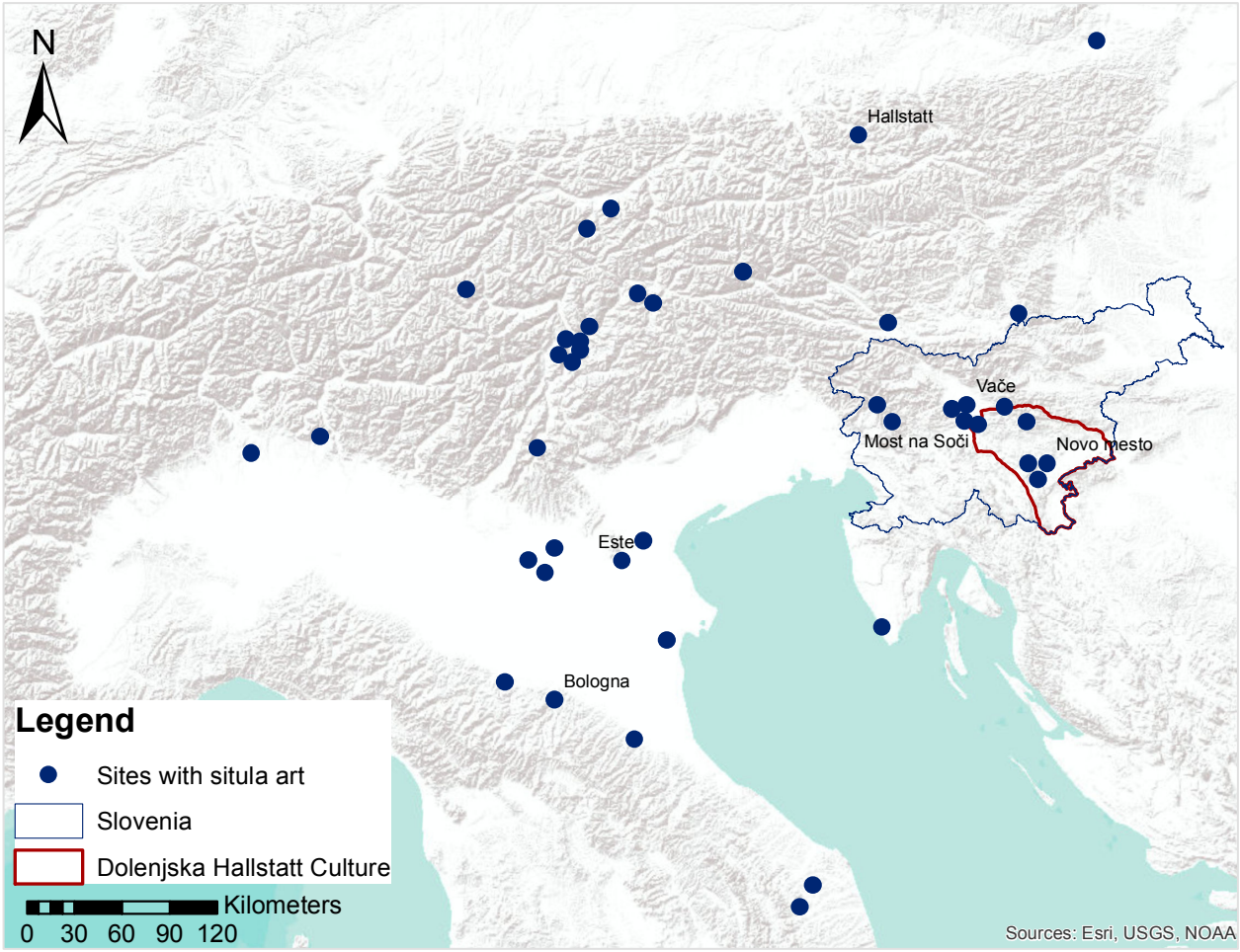

Figure II.13. Distribution of objects decorated in the situla art style (adapted from Turk 2005:9 Fig.1).

It has been debated how much these activities represent daily life or specific rituals, and whether any or all these activities are specifically elite in nature (Eibner 1981; Lucke and Frey 1962; Frey 1969; 2011:293; Kromer 1980). The elite scenes have been referred to as a "*Situlenfest,*" or Situla Festival, where enthroned men are depicted at the center of presentations of gifts and libations, processions, and competitions (Kastelic 1965:7-21; Kromer 1980). It has been proposed that these *Situlenfeste* may represent activities surrounding funerals of notable individuals, or alternatively important events from their lives (Kastelic 1965:xi; Lucke and Frey 1962:48-54).

The social roles of the men depicted are inferred from their activities as well as their clothing, and frequently a tripartite division is presented: princes, followers, and servers.[31] The social position of women in these scenes is less clear – women are most often shown as servers or engaged in sexual activity (Frey 1992:97). The *symplegma* scenes have been interpreted as scenes of *hieros gamos* or similar fertility ceremonies (Arnold 1999:81; Eibner 1981:270), but have also been used as evidence of the importance of women in structures of power, where alliance with an elite woman from a ruling lineage could grant her consort access to the throne[32] (Teržan 2004:226-227; Turk 2005:29-31). Finally, hunting scenes and agricultural scenes may show quotidian life, or represent activities that had to do with yearly renewal, though since there is no writing in this period, all such interpretations must remain speculative (Eibner 1981:267-269, 2001).

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[31] Princes are identified as sitting in thrones, being served, and wearing broad-brimmed hats or "Phrygian caps," the latter being specific to the Dolenjska region. Servers are shown serving food or drink, or carrying objects. Followers may be involved in a variety of activities, and are distinguished primarily by not being identifiable as princes or servers (Eibner 1981:265; Lucke and Frey 1962:17-29; Turk 2005:34-35).

[32] Quite literally in certain cases, as this interpretation was offered by Biba Teržan on the basis of a sex scene on a belt plate from Brezje pri Trebelnem Tumulus XII, Grave 1 – in this scene the woman sits on the throne while the man stands during intercourse, and in the subsequent scene the man sits on the throne alone. This has been interpreted as a symbolic transfer of power/rule via the sex act (Teržan 2004:226-227; Turk 2005:30-31).

These zoned depictions on situlae have been proposed to represent coherent narratives, with elites and their activities occupying the upper registers, and giving way in the lower registers to processions of animals (Križ 2012:59-61; Turk 2005:44). However, the animals are rarely explicitly theorized except in reference to the natural world, or in some cases the natural world as dominated by the depicted elites (Turk 2005:18, 31-33; 43-44). The animals that appear on situlae are primarily red deer stags, horses, and ibex, especially as part of the aforementioned processions. Other animals include rams, dogs, hares, birds, fish, and exotic and mythical animals like lions, griffins, and sphinxes (Križ et al. 2009:133; Turk 2005:24).

Later art on situlae is less elaborated, and the last examples have one register which is solely composed of ungulates, occasionally trailed by a predator (Figure II.14; Križ et al. 2009:133). The reduction in figural scenes on situlae has been described as "a great impoverishment" and a decline in the meaning of the situla art itself: "Everything indicates that Situla Art fell into a certain mannerism, a kind of decorativeness, where the desire for luxurious ornamentation was more important than the symbolic content itself" (Turk 2005:44, see also Križ 2012:131-132). This may be the case, though a more nuanced understanding of animals and their roles in Dolenjska Hallstatt culture suggests other reasons for the changing stylistic choices that were being made at the end of the Early Iron Age.

Figure II.14. Late figural situlae from Novo mesto, Kandija. Left to right: Kandija Grave II/6, Grave IV/3 Situla 2 and Situla 1 (Križ 2012:138).

II.4.B. Artifacts Depicting Animals

Animals are also depicted in the round on many other artifacts, including but not limited to fibulae and other personal ornaments, glass and amber beads, weaponry and defensive gear, metal vessels, and ceramics. There have been numerous studies of the types of artifacts that often depict animals, however here I will only touch on those that have more explicitly dealt with the animal imagery on these objects, since there is insufficient space to devote to a full review of all studies dealing with the types of artifacts included in this project. Most of these previous artifact studies have primarily sought to delineate their temporal and geographical distribution, since Slovene research has traditionally focused on answering culture-historical questions, and an investigation of the role of these animals and animal imagery was outside the scope of that research framework.[33]

The fibulae are the most numerous artifacts with animal imagery. The three most common types are animal fibulae (Figure II.15a and b), crossbow fibulae with forward-facing animal heads (Figure II.15c), and East Alpine animal head fibulae (Figure II.15d). Animal fibulae are the earliest, dated from the mid-6th to mid-5th centuries BCE (Guštin 1974:100). Animal fibulae are distinguished by a bow in the shape of the full animal body. Stane Gabrovec and Mitja Guštin noted that these fibulae forms were likely modeled on 7th century examples from the Este area (Gabrovec 1966a:28; Guštin 1974:95; Tecco Hvala 2012:259). Alexia Nascimbene (2009) further refined the distribution of this fibula type, and identified several variants, their distribution, and their dating in southeastern Europe. Several variants of this type of fibulae – particularly the cat-bird form[34] and the triga fibulae[35] – are thought to have been

[33] The main exceptions are studies of horses, though thus far these have focused on remains of horses in graves, rather than on depictions of horses (Dular 2007; Gruškovnjak 2016; Kmeťová 2013; 2013b; Kmeťová and Stegmann-Rajtár 2014).
[34] Type I.18, Variant C following Nascimbene (2009:160-165).

worn by women and children based on the associated finds in mortuary contexts (Nascimbene 2009:160-165, 168-172; Tecco Hvala 2012:259-260).

Figure II.15. Fibulae depicting animals. a-b) animal fibulae. a) Magdalenska gora, Preloge Grave 2/11. b) Kidričeva cesta (Zagorje ob Savi), unknown provenience. c) Crossbow fibulae with forward-facing animal heads. Brezje pri Trebelnem, Hojbi Grave VII/1. d) East Alpine animal head fibulae. Magdalenska gora, Preloge Grave IV/38 and isolated find from Tumulus VII.

Crossbow fibulae with forward-facing animal heads are a slightly later development, appearing near the end of the 6th century (Figure II.15c). They are a local product, and are an elaboration of the local Certosa fibulae that are ubiquitous in this period (Gabrovec 1966b:31 Map 3; Tecco Hvala 2012:263-264). East Alpine animal head fibulae[36] are the latest fibulae depicting animals to appear (Figure II.15d). These are extremely schematic, and date from approximately 475 to 400 BCE with a wide distribution in the eastern Alpine area and in the Pannonian plain (Gabrovec 1966a:31 Map 2; Nascimbene 2009:178-186; Tecco Hvala 2012:265).

One study has focused on the animal depictions on fibulae as a uniting characteristic, irrespective of the fibula form. Carola Metzner-Nebelsick examines fibulae depicting horses,[37] and concludes that the majority of these are associated with women's, or more rarely, children's

[35] Type I.20 following Nascimbene (2009:168-172).

[36] More often referred to using the German version of the name: *ostalpine Tierkopffibeln*.

[37] A small issue to note – certain fibulae that Metzner-Nebelsick identifies as horses in fact depict dogs or cats based on personal examination of these specific objects and similar fibulae. The mis-identified fibulae are mostly the animal fibulae depicting cats and dogs that have also been associated with women and children (Nascimbene 2009:160-165).

graves (2007). She traces their origin to 8th century Italy, from where they were first exported and then copied throughout the southeastern Europe. In addition to associating these fibulae with women generally, she also posits that these ornaments were largely restricted to elite women, and potentially indicated some ritual competence by referencing equine symbolism. She also notes that crossbow fibulae with forward-facing horse heads from Dolenjska do not have this strong female association, and appear with both men and women (Metzner-Nebelsick 2007:719).

Glass and amber artifacts depicting animals have also been thoroughly studied. The most common animal depictions in glass from Dolenjska are the so-called ram's head beads from the later part of the Early Iron Age (Figure II.16; Bakarić et al. 2006:125; Egg 2010; Haevernick 1974). These have been found at eleven sites in Slovenia and are believed to be a local phenomenon, though a connection has been proposed between these beads and similar ones from the Mediterranean that are associated with the Phoenicians and Carthaginians (Bakarić et al. 2006:125; Egg 2010). Marcus Egg undertook the most systematic study of these beads, and determined how they were produced, proposed a typology, and confirmed their dating to the 5th and 4th centuries (2010). He also noted that they appear almost exclusively in female graves (Egg 2010:534).

Figure II.16. Glass ram's head beads. Left: Magdalenska gora, Preloge Grave 13/97; Right: Novo mesto, Kapiteljska njiva Grave VII/28 (Križ 2012:28).

In contrast, zoomorphic amber beads were likely imported. Most depict avian heads, though there are a few amber ram's head beads that are very similar to the glass versions (Figure II.17). Figural amber is relatively rare in the Early Iron Age, considering the widespread popularity of amber in general. Figural amber was probably produced almost entirely in Italy, and three main production centers have been proposed – the Etruria-Latium area (Veii, Vetulonia, Satricum, Bologna), Picenium (Belmonte Piceno), and southern Italy (Negroni Catacchio 1993:191, 2009:203, 2011:58). The Etruscan and Picene production of figural amber both peaked in the later 6th and 5th centuries (Negroni Catacchio 2009:203-204, 2011:58). Birds, especially water birds, are relatively common images on figural amber artifacts, while ram's heads are less common (Causey 2011:92). In addition to amber ram's head beads from Dolenjska, amber ram's head beads are known from Atenica Tumuli I and II and Novi Pazar in Serbia, and from Adria-Ca'Garzoni in Emilia-Romagna, evidence of the widespread exchange networks through which these items were circulating (Egg 2010:532).

Figure II.17. Zoomorphic amber artifacts. Left: ram's head beads. Novo mesto, Kapiteljska njiva Grave V/35 (Križ 2012:24); center: double-avian head bead. Novo mesto, Kapiteljska njiva Grave VI/44 (Križ 2012:24); right: amber overlay originally from a fibula. Stična, Gomile Grave VI/7.

Recently, in an ambitious doctoral thesis Sebastian Becker updated Georg Kossack's seminal catalogue of bird imagery from the Late Bronze Age and Early Iron Age (Becker 2015; Kossack 1948; 1954). Becker focused solely on birds on metal artifacts (see Figure II.18 for

local examples), and surveyed fourteen countries in southeastern Europe and the Balkans. Because of the chronological and geographical extent of the study, there were interpretive limitations, but his main conclusions are that initial aviform imagery became prevalent in the Urnfield period (circa 1200 BCE) in areas northeast of the Alps, and by the Early Iron Age this imagery was popular throughout the study area. However at the end of the Early Iron Age this imagery had receded from the original areas northeast of the Alps and was concentrated in the sub-Alpine region (Becker 2015:117-123). Becker uses "branding" as his theoretical framework to interpret these patterns, and proposes that initially in the Urnfield period bird imagery was a symbol used to differentiate the elite male warrior (hence "branding"). However, over time the brand broke down as this imagery circulated more widely and appeared on more artifacts. Part of this expansion of the imagery was its new association with females via aviform personal ornaments, as well as bird imagery on bronze vessels. He proposes that earlier avian imagery was used to connect/brand premier elites over huge regions by referencing violence and warrior status, while later bird imagery reflects attempts to distinguish individuals on a local and smaller regional scale as a part of elite display via personal adornment and commensality (Becker 2015:220-221, 265-266).

Figure II.18. Avian imagery on bronze artifacts. Left: Situla from Magdalenska gora, Preloge Grave 2/a (photo by Tomaž Lauko, © Narodni muzej Slovenije). Center: Pendant from Brezje pri Trebelnem, Hojbi Grave XIII/6. Right: Belt plate from Vače, unknown provenience.

Another "animal"-focused study is Biba Teržan's assessment of sphinx imagery in the southeastern Alpine area (2012). She traces the origins of this Orientalizing imagery from the Near East and Mediterranean to Italian cultures in the 8th and 7th centuries (2012:171-172). She identifies changes the imagery underwent as it was adopted in the southeastern Alpine area, including in Dolenjska. Initially sphinx imagery appeared on composite helmets dating from the end of the 8th to the 7th century, and after a century sphinx imagery reappeared on a situla art belt plate dated to the 5th century (Figure II.19). Teržan argues that the foreign sphinx imagery embraced by Dolenjska Hallstatt peoples, specifically on composite helmets, indicates that the original Orientalizing form and concept of the sphinx as a female creature had shifted and that in the northern Adriatic the sphinx was perceived as a male demon associated with warriors, passed on via military artifacts including helmets (Teržan 2012:181, 190-192).

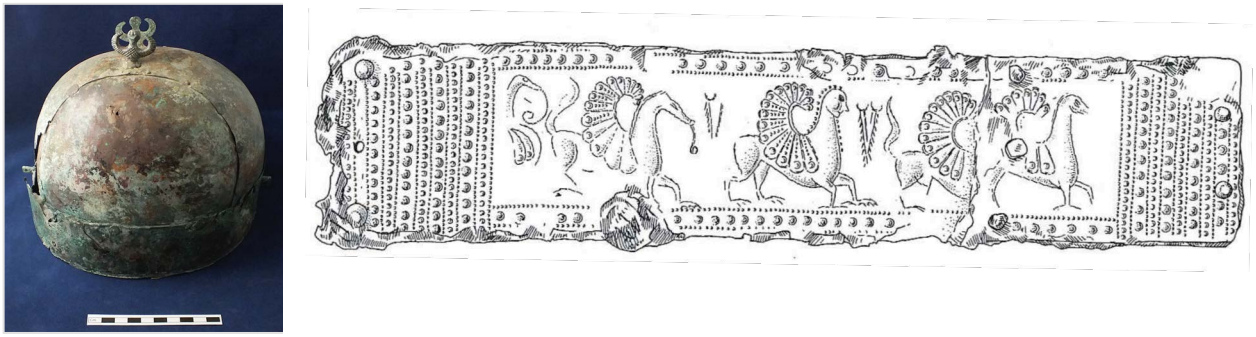

Figure II.19. Artifacts depicting sphinxes. Left: Composite helmet with sphinxes on the cap. Magdalenska gora, Preloge Grave IV/3. Right: Belt plate depicting mythical creatures. Magdalenska gora, Preloge Grave 2/13 (Tecco Hvala et al. 2004:Pl. 24 no. 3).

Animal depictions on ceramics are quite schematic, and more difficult to identify (Figure II.20). Single or double animal heads appear on the handles and shoulders of vessels, and are often so stylized that it is only occasionally possible to determine whether horns or ears are being depicted (A. Dular 1978; Dular 1982; Tankó 2005). Anja Dular undertook a study of Late Bronze Age and Early Iron Age ceramics depicting animals. She noted that these vessels

appeared in the Urnfield period in Slovakia and in the Czech Republic, and by the beginning of the Early Iron Age had appeared further south at sites like Kaptol, Šmarjeta, Sopron, and Este (A. Dular 1978:89-90). These early animal head vessels have more clearly elaborated features, including horns and snouts. However, later vessels become increasingly stylized. Dolenjska is notable for having animal vessels that date primarily to the second half of the Early Iron Age, particularly very stylized depictions (circa 600-300 BCE; A. Dular 1978:90). Károly Tankó also assessed a sub-set of ceramics with zoomorphic appliqués, so-called "horn-handled bowls" (2005). He identified a Novo mesto type that he dated to the late 6th and early 5th centuries (Figure II.20c), distributed in Slovenia, Croatia, and parts of Bosnia and Herzegovina (Tankó 2005:154-156). He attributes the appearance of this vessel type throughout southeastern Europe to increasing Scythian influence[38] in this period (Tankó 2005:157-158).

Figure II.20. Ceramic vessels with zoomorphic appliqués from Novo mesto, Kapiteljska njiva. Left: Grave XVI/26, center: Grave XIV/45, right: Grave X/10.

II.5. Previous Zooarchaeological Research

Much of the history of zooarchaeological work in Slovenia is related to investigations of the pile dwelling sites in the Ljubljansko barje. The excellent preservation at these sites allowed

[38] Vekerzug culture in archaeological terms.

the first systematic application of zooarchaeological methods in the 1980s (Novaković 2011:366). Prior to this, analysis of animal bones was often carried out by paleontologists and veterinarians, and limited to the identification of interesting finds (Bartosiewicz 1999b:311). Some of the earliest zooarcheological analysis was carried out by Sándor Bökönyi, who became interested in Slovenian material after analyzing the horse bones from Magdalenska gora and Stična from the Mecklenburg Collection at the Peabody Museum of Archaeology and Ethnology at Harvard University (1968; see next section for more detail). This led to collaboration with Stane Gabrovec on the new excavations at the hillfort site of Cvinger near Vir pri Stični (Bartosiewicz 1999b:311-312; Bökönyi 1994).

In 1980 László Bartosiewicz began working with Slovenian archaeologists, analyzing high-priority faunal remains on periodic research visits to Slovenia (Bartosiewicz 1999b:312). It is important to note that early zooarchaeological research was analytically limited due poor preservation conditions and collection methods in the late 20th century. Earlier excavations focused on easily identifiable, large or interesting bone fragments, and less care was taken in terms of noting the exact stratigraphic position of these finds. Later, as the utility of zooarchaeological analysis became more widely accepted, more care was taken with the recovery of animal bones, and in certain cases dry or water sieving was employed to obtain smaller fragments (Bartosiewicz 1999b:313). However, these practices are still not universal and are dependent on the nature of the excavation (salvage or academic), the pace of excavation and available labor, as well as funding.

In 1999, Borut Toškan was hired by the Institute of Archaeology at ZRC SAZU to head the new Archaeozoological Laboratory.[39] Since then he has served as the first and only full-time

[39] *Arheozoološki laboratorij.*

zooarchaeologist in Slovenia, and has analyzed materials from all periods from excavations throughout Slovenia.

II.5.A. Zooarchaeological Research on the Dolenjska Hallstatt Culture

Zooarchaeological investigation in Slovenia to date, particularly in Dolenjska, has been uneven. Until recently there has been relatively limited excavation at settlement sites (Bartosiewicz 1999b:315; Dular and Tecco Hvala 2007:28-34). In addition, the soil in Dolenjska is highly acidic, and so preservation of bone is poor to nonexistent in most areas (Bartosiewicz 1996:30). A final issue is the small number of trained zooarchaeologists in Slovenia, and because of its relatively low priority in publications no detailed synthetic faunal studies have been undertaken to date (but see Bartosiewicz 1999b for the most recent overview). The number of identifiable specimens (NISP) is quite low for Dolenjska Hallstatt culture sites, between 36 and 4493 (Figure II.21; Bartosiewicz 1996:30; Dular and Tecco Hvala 2007:210). Though several settlements have had some zooarchaeological analysis undertaken, the reporting on most of these sites is focused on aggregate patterns, particularly the proportions of domestic species (Bartosiewicz 1991, 1996, 1999b). The original data from these studies is currently inaccessible, and so analysis of animal bones from settlement contexts has been excluded from this study. However, the hillfort site of Cvinger near Vir pri Stični, with the highest NISP of 4493, has provided over two thirds of all animal remains

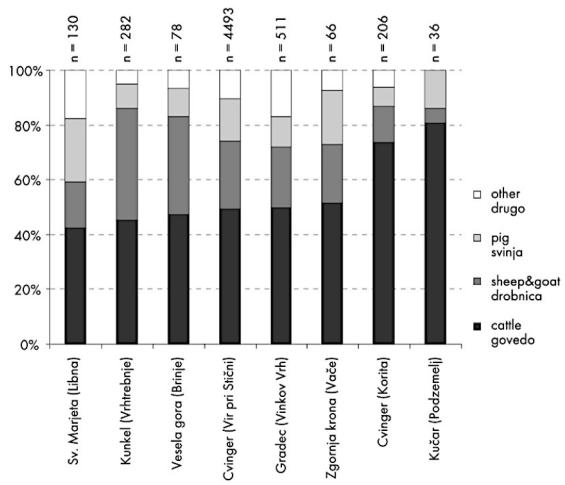

Figure II.21. Proportions of domestic species at settlements on the basis of NISP (Dular and Tecco Hvala 2007:211 Fig. 120).

excavated in Dolenjska. The report from Cvinger provides detailed contextual, taxonomic, element, and age information, and is the most reliable zooarchaeological sample to date (Bökönyi 1994; Dular and Tecco Hvala 2007:210). Despite the significant size of the settlement[40] it is representative of broader trends in animal use at hillforts (see Figure II.21). Thus it is used as a proxy for animal use at settlements, particularly in comparisons to the mortuary faunal data in the present study (Dular and Tecco Hvala 2007:191).

In this period the pastoral economy was primarily dependent on stockbreeding (Bakarić et al. 2006:89). This is demonstrated both by zooarchaeological remains associated with settlements, and palynological and charcoal evidence for land clearance (Andrič 2004; Dular and Tecco Hvala 2007:210). Most of the animals in the zooarchaeological record are of relatively small stature and vary phenotypically, indicating that specialized breeding was not yet practiced (Bartosiewicz 1999b:315; Bökönyi 1974:85, 1994; Dular and Tecco Hvala 2007:211-212). Cattle (*Bos taurus*) consistently represent at least half the zooarchaeological remains at settlements (Figure II.22; Bartosiewicz 1996:30, 32). Cattle remains show significant variability, even within this relatively small region, with variations in body size, as well as in the size and shape of the horns (Bökönyi 1994:195-197). The age profiles demonstrate that cattle were used for meat as well as secondary products such as traction, leather, and milk (Dular and Tecco Hvala 2007:211-212). Pigs (*Sus domesticus*[41]) were generally

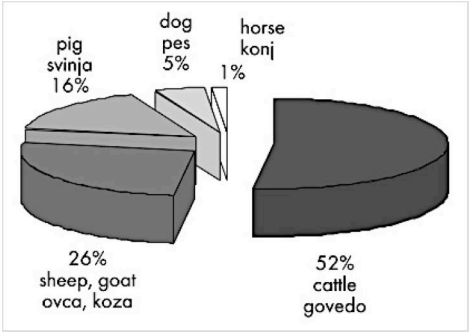

Figure II.22. Proportions of domestic animal remains at Cvinger near Vir pri Stični (Dular and Tecco Hvala 2007:212 Fig. 121).

[40] Cvinger near Vir pri Stični covers an area of 19.8 ha compared to the average hillfort size of 2-4 ha (Dular and Tecco Hvala 2007:191).

[41] *Sus domesticus,* rather than the American *Sus scrofa domesticus,* is used in this study to adhere to European conventions and clearly differentiate domestic pigs from their wild forbears (Reitz and Wing 2008:291-292 Table 9.1).

the second most common domesticate, and also of relatively small size. The prevalence of pig in this region has been attributed to the presence of deciduous forests and proximity to river valleys (Bartosiewicz 1996:33, 1999b:315). Sheep (*Ovis aries*) and goat (*Capra hircus*) were also utilized for meat, milk, wool, and hide. In contrast to other parts of Europe in the Early Iron Age, the percentages of sheep and goat are relatively similar (Bökönyi 1994:196; Dular and Tecco Hvala 2007:211-2; Križ et al. 2009:95).

Other domesticates, such as horse (*Equus caballus*) and dog (*Canis familiaris*), were not apparently used for subsistence in this period, since there are very few juvenile remains associated with settlements,[42] and the frequency of remains varies significantly from one site to another (Bartosiewicz 1991:199; Bökönyi 1994:202). Dogs were likely used for hunting and herding, though evidence for such activity comes solely from situla art (Dular and Tecco Hvala 2007:212; Eibner 2001; Križ 1997:28; Turk 2005:31, Figs. 43-45). Horses were probably used for traction as well as riding. There were at least two varieties, local horses of the so-called "western group," which were smaller and used as working animals, as well as larger horses most often associated with tumulus burials. Sándor Bökönyi's 1968 study of Iron Age horses from central and eastern Europe remains the seminal work, in which he identified the "western group" as local, in contrast to the larger specimens of the "eastern group" that were likely imported from the east. These larger eastern horses were probably for riding, and seem to have been associated with the local elite (Bökönyi 1964:233; 1968:18; 1994:200; Dular 2007; Križ et al. 2009:95).

A reliance on hunting is not well attested in the zooarchaeological record and it does not appear to have been a major subsistence activity. Remains of wild animals consistently make up less than 5% of the zooarchaeological material in settlements (Bartosiewicz 1991:199, 203;

[42] The juvenile phase is considered the prime age for slaughtering most meat-bearing animals.

Bökönyi 1974:85; Dular and Tecco Hvala 2007:212). However, red deer antler is relatively well represented, though it could have been collected as a raw material in the spring after animals shed their antlers (Bartosiewicz 1985:109, 1991:203, 1996:34, 1999b:315, 318). Despite consistently low representation overall, red deer (*Cervus elaphus*), wild boar (*Sus scrofa*), and roe deer (*Capreolus capreolus*) were hunted most consistently (Figure II.23). Other animals were hunted as well, including wolf, aurochs, bear, ibex, foxes, hare, and probably birds, both for meat as well as furs and other primary products (Dular and Tecco Hvala 2007:212). Fish were also consumed in this region, which is attested by finds of fish hooks in graves and representations of nets in situla art, though no physical remains have been preserved (Dular 1979:Pl. 10 nos. 6-8; Dular and Tecco Hvala 2007:213; Križ 1997:28).

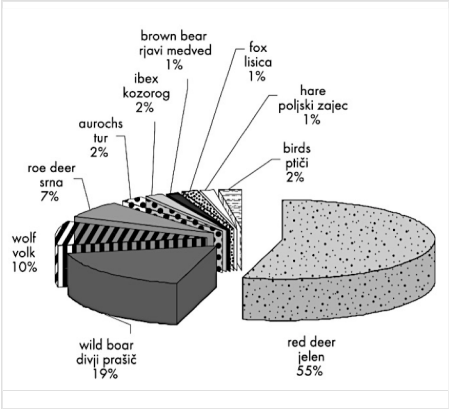

Figure II.23. Quantitative proportions of wild animal bones at Cvinger near Vir pri Stični (Dular and Tecco Hvala 2007:213 Fig. 122).

This pattern where wild animal remains account for less than 5% of the zooarchaeological material characterizes not only Slovenia, but also much of Early Iron Age Europe (Bökönyi 1974:85; Grant 1984:102-119; Green 1992:44, 52, 55). The most likely explanations for this low reliance on wild animals for subsistence relate to the possible restriction of hunting to elites (Arnold 2010a; Green 1992:52; Krausse 1990; Rebay-Salisbury 2012:99; Rieckhoff 2001:83; Sievers 1982:61; Turk 2005:31-33; for contrary opinions see Hansen 2013 and Trebsche 2013), or the significant deforestation that had occurred by this time, which pushed large game animals far from habitation sites (Arnold 2010a:200; Green 1992:44, 52, 55). Despite the low frequency of wild animal remains in the zooarchaeological record, they feature

prominently in the iconography of the Early Iron Age, especially in situla art. This apparent disconnect indicates that using zooarchaeological remains as the primary indicator of human-animal relations may be misleading, since the Dolenjska Hallstatt peoples were clearly interacting with animals in varied and complex ways.

II.5.B. Non-Zooarchaeological Studies of Faunal Material

Other studies of animal remains were not undertaken in the framework of zooarchaeological analyses, but have treated the animal remains as analogous to artifacts to track their distribution and frequency. In 2007, Janez Dular published a study of the distribution of Early Iron Age horse burials in the Dolenjska Hallstatt culture. He compiled a list of 44 instances of horse burials, both published and unpublished, and assessed the completeness of the remains (whole body, head, solely teeth, unknown), the dating of these depositions, contextual associations, and particularly tried to determine when these graves were likely associated with a human burial. He concluded that there were horse burials throughout the Early Iron Age, though they peaked in the Certosa Fibulae phase (circa 520-460 BCE) and remained at a high level in the Negova Helmets phase (circa 460-300 BCE; Dular 2007:745-746). The bone preservation and records were often poor, but he was able to determine that whole horse bodies and groups of elements were most common, implying the initial deposition of whole horse bodies. He also noted that depositions of solely horse crania appeared, and least common were single bones and teeth (Dular 2007:739-740 Fig. 1). He also notes a strong association of horse burials with male graves, particularly men buried with helmets and weapons, the one clear exception being a female grave from Novo mesto, Kapiteljska njiva Grave XVI/34 (Dular 2007:739-743, 746).

Petra Kmeťová also studied the deposition of horse remains in grave contexts throughout

the Eastern Hallstatt complex (2013a, 2013b). Her findings confirm the existence of this practice throughout the Early Iron Age and in many parts of the Eastern Hallstatt cultural complex. She focuses on the association of horses with elite individuals as a status symbol, and hypothesizes that there may even have been a class of equestrian individuals, similar to the Roman *equites* and Venetic *ekupetaris* (Kmeťová 2013b; Kmeťová and Stegmann-Rajtár 2014:162). In addition, she connects the sacrifice and burial of horses during funerary events to Indo-European belief systems where a horse, or horse and wagon, carried the deceased to the afterlife, a practice that was part of the social transition from elite to heroicized ancestor (Kmeťová 2013b:77-78).

The only systematic study of animal remains was undertaken by Luka Gruškovnjak as part of a diploma thesis (2016). He compiled a list of all graves with animal bones from the six Early Iron Age cultures in Slovenia (see Figure II.4). He identified significant differences in the treatment of animal remains and their deposition in mortuary contexts in the different archaeological cultures. In Dolenjska he noted that horse remains had been most systematically recorded and collected, but nonetheless seemed to be the most common animals deposited in graves. He also recognized that these horse burials tended to cluster in one particular tumulus at each site at Stična, Magdalenska gora, Brezje pri Trebelnem, and Libna, though the burials could date to different chronological periods. He interpreted this as evidence of the existence of aristocratic families who may have been involved in equestrianism or horse breeding (Gruškovnjak 2016:448). Other sites tended to have tumuli with solely one horse burial, which was interpreted as a status indicator, and potentially a reflection of Indo-European belief systems transferred via increasing eastern contacts with Scythians and other nearby groups (Gruškovnjak 2016:448). His findings show that remains of other animals from grave contexts are incomplete and likely underrepresented due to poor preservation. He interprets them as food offerings in the

case of single elements or groups of bones, and amulets in the case of teeth and claws. The animals represented include cattle, sheep, pig, dog, deer, wild boar, bear, and wolf, and he notes that the presence of wild animals is much higher than in the other Early Iron Age cultures, which he attributes to the greater importance of hunting in the Dolenjska Hallstatt culture (Gruškovnjak 2016:448-449). The Dolenjska Hallstatt faunal remains he discusses are also included in this dataset to provide a comparison between the physical remains of animals deposited in mortuary contexts and the representations of animals in those same contexts, via methods discussed in the next chapter.

Chapter III. Methods

III.1. Questions Addressed by the Project Methods

The methods detailed in this chapter were developed to answer two primary questions: What types of human-animal relationships characterized the Dolenjska Hallstatt culture, and how were these relationships embedded in local cultural frameworks? The methods were structured to provide insight into the primary questions posed above by answering a subset of empirical questions. These questions include:

1. In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets?
2. Are there any differences in the representation or treatment of certain animals based on taxon?
3. Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles?

III.2. The Dataset

III.2.A. Sites Surveyed and Sources of Information

The project includes a total of 68 sites from the regions of Dolenjska and Bela krajina that are dated to the Early Iron Age. This is composed of a sample of scientifically excavated sites that encompasses 23 settlements and 24 mortuary sites (referred to as "sample sites" in the text), and an additional 21 mortuary sites excavated in the late 19th and early 20th century ("non-

sample sites" throughout; Figure III.1, Table III.1).[43] It should be noted that individual sites are usually discussed as part of larger site complexes, since often there were several cemeteries surrounding a hillfort and occasionally also a subsidiary, unfortified settlement. There are fifteen such complexes in the dataset that includes 49 sites (Table III.1), as well as 19 sites that are not part of a larger complex in the study.

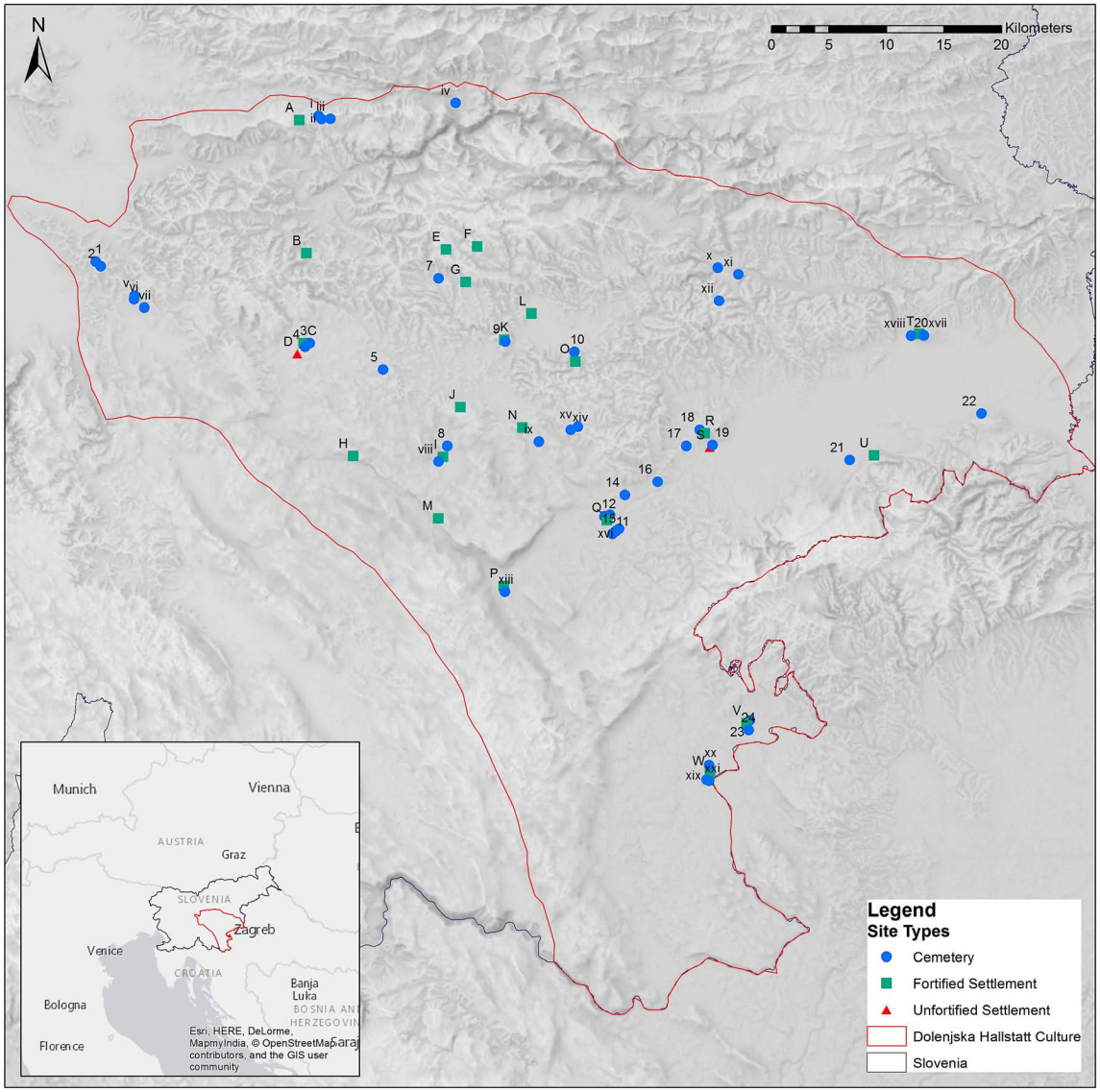

Figure III.1. Map of project sites. The key is listed in Table III.1. The letters label settlements, the Arabic numerals indicate sample cemeteries, and the roman numerals indicate non-sample cemeteries.

[43] There are a few sites with both antiquarian and later scientific excavation. They are listed under the "in sample" sites for consistency. However, graves excavated by antiquarians are identified in the Context table as "non-sample" (see section III.3.C). These sites include Kapiteljska njiva, Kučar, Špiler at Libna, and Gomile at Stična.

Table III.1. List of sites in the study. They are listed geographically, broadly west to east and north to south. The IDs correspond to the map in Figure III.1 above.

Complex	ID	Site	Place	Type of Site	Citations
Molnik	1	Roje near Orle	Orle	Flat Cemetery	Puš 1984; Tecco Hvala forthcoming; Tomazo-Ravnik 1984
	2	Grmada	Podmolnik	Tumulus Cemetery	Puš 1983, 1986, 1987, 1991; Tecco Hvala forthcoming
---	A	Gradišče near Dešen	Dešen	Fortified Settlement	Pavlin and Dular 2007
Vače	i	Ravne njive	Vače	Tumulus Cemetery	Starè 1955
	ii	Apno	Klenik	Cemetery	Starè 1955; Vuga 1985
	iii	Reber	Klenik	Flat Cemetery; Tumulus Cemetery	Starè 1955; Vuga 1986, 1988
---	iv	Kidričeva cesta	Zagorje ob Savi	Flat Cemetery	Gabrovec 1966a
Magdalenska gora	v	Laščik	Zgornja Slivnica	Tumulus Cemetery	Hencken 1978; Tecco Hvala 2012; Tecco Hvala et al. 2004
	vi	Preloge	Zgornja Slivnica	Tumulus Cemetery	Hencken 1978; Tecco Hvala 2012; Tecco Hvala et al. 2004
	vii	Voselca	Hrastje	Tumulus Cemetery	Tecco Hvala 2012; Tecco Hvala et al. 2004
---	B	Gradišče near Vintarjevec	Vintarjevec	Fortified Settlement	Stare 1999
Stična	C	Cvinger nad Virom pri Stični	Vir pri Stični	Fortified Settlement	Gabrovec 1994; Grahek 2016
	3	Dole	Pristavlja vas	Flat Cemetery	Gabrovec 1994; Možina 1983
	4	Gomile near Stična	Griže pri Stični	Tumulus Cemetery	Dular 2003; Gabrovec 2006; Gabrovec and Teržan 2008; Wells 1981
	D	Marjanov hrib	Studenec	Unfortified Settlement	Svoljšak 2003
---	5	Medvedjek	Veliki Gaber	Tumulus Cemetery	Breščak 1982, 1990
---	6	Škodetov pruh	Volčje njive	Tumulus Cemetery	Gabrovec 1956
---	7	Roje near Moravče pri Gabrovki	Moravče pri Gabrovki	Flat Cemetery; Tumulus Cemetery	Vuga 1977, 1979
---	E	Zagrac	Vodice pri Gabrovki	Fortified Settlement	Dular et al. 2003
---	F	Špičasti hrib	Dole pri Litiji	Fortified Settlement	Dular et al. 2003
---	G	Kostjavec	Tihaboj	Fortified Settlement	Dular et al. 2003
---	H	Gradišče near Valična vas	Valična vas	Fortified Settlement	Dular and Breščak 1996; Križ 1990b
Dobrnič	8	Koželjeva hosta	Reva	Tumulus Cemetery	Križ 1991c, 1992b
	I	Cvinger near Korita	Korita	Fortified Settlement	Dular et al. 1995b
	viii	Gomile near Dobrava	Dobrava	Tumulus Cemetery	Parzinger 1988-1989; Stare 1973a
---	J	Kunkel	Vrhtrebnje	Fortified Settlement	Dular et al. 1991
Trbinc	K	Kincelj	Trbinc	Fortified Settlement	Dular et al. 1991
	9	Devce	Trbinc	Cemetery	Vuga 1982; Vuga and Josipovič 1981
---	L	Vesela gora	Brinje	Fortified Settlement	Dular et al. 1991
---	M	Gradec near Vinkov vrh	Vinkov vrh	Fortified Settlement	Dular et al. 1995b
---	N	Sv. Ana	Vrhpeč	Fortified Settlement	Dular et al. 1991; Tecco Hvala 1990; Udovč 2007
---	ix	Ajdovski gradec	Vranje	Cemetery	Logar 1980
Mokronog	10	Sv. Križ	Beli Grič	Flat Cemetery; Tumulus Cemetery	Breščak 1987; Svoljšak 1990
	O	Križni vrh	Beli Grič	Fortified Settlement	Dular et al. 1991
Boštanj	x	Gorenjčeve groblje	Dolenji Boštanj	Tumulus Cemetery	Guštin 1974
	xi	Grmašca	Lukovec	Tumulus Cemetery	Guštin 1974
	xii	Kosmatec	Preska	Tumulus Cemetery	Guštin 1974

Complex	ID	Site	Place	Type of Site	Citations
Dolenjske Toplice	P	Cvinger near Dolenjske Toplice	Dolenjske Toplice	Fortified Settlement	Dular and Križ 2004
	xiii	Branževec 2	Sela pri Dolenjskih Toplicah	Tumulus Cemetery	Teržan 1976
Brezje pri Trebelnem	xiv	Hojbi	Brezje pri Trebelnem	Tumulus Cemetery	Dular and Križ 1990; Kromer 1959
	xv	Gomile near Brezje pri Trebelnem	Brezje pri Trebelnem	Tumulus Cemetery	Dular and Križ 1990; Kromer 1959
Novo mesto	11	Kandija [Znančeve njive]	Novo mesto	Tumulus Cemetery	Knez 1986
	12	Kapiteljska njiva	Novo mesto	Flat Cemetery; Tumulus Cemetery	Knez 1986, 1993; Križ 1997a, 1997b, 2000, 2005, 2013, in prep
	13	Mestne njive	Novo mesto	Flat Cemetery	Knez 1966, 1984; Križ 1991b, 1992a, 1995, 1996, 2001
	Q	Marof	Novo mesto	Fortified Settlement	Knez 1974, 1982, 1986
	14	Mačkovec	Novo mesto	Tumulus Cemetery	Breščak 1985; Udovč 2009
	xvi	Malenškova njiva	Novo mesto	Tumulus Cemetery	Guštin and Teržan 1975
	15	Zagrebska cesta	Novo mesto	Tumulus Cemetery	Breščak 1979; Knez 1985, 1986
---	16	Starograjska hosta	Otočec	Tumulus Cemetery	Križ 1989, 1990a
Veliki Vinji vrh	17	Ivanec	Družinska vas	Tumulus Cemetery	Breščak and Udovč 2007; Dular, A. 1991; Križ 1991a; Mason 2001; Stare 1973b; Udovč 2008
	18	Laze	Vinji Vrh	Tumulus Cemetery	Belak 1990; Dular, A. 1991; Križ 1993
	R	Veliki Vinji vrh	Bela Cerkev	Fortified Settlement	Dular et al. 2000; Križ 2007; Mason and Merc 2010; Mason and Udovč 2007; Svoljšak 1994-1995
	S	Vovk	Bela Cerkev	Unfortified Settlement	Križ 2003
	19	Dolge njive 2	Bela Cerkev	Tumulus Cemetery	Mason 2003
Libna	T	Sv. Marjeta	Libna	Fortified Settlement	Dular 2006; Guštin 1976
	20	Špiler	Libna	Tumulus Cemetery	Dular 2006; Guštin 1976; Knez and Škaler 1968; Škaler 1968-1969
	xvii	Deržaničev gozd	Libna	Tumulus Cemetery	Dular 2006; Guštin 1976
	xviii	Volčanškova gomila	Krško	Tumulus Cemetery	Dular 2006; Guštin 1976
---	21	Gomile near Sajevce	Sajevce	Tumulus Cemetery	Guštin and Preložnik 2005
---	U	Stari grad	Stari grad v Podbočju	Fortified Settlement	Guštin et al. 1993
---	22	Gomile near Velike Malence	Velike Malence	Tumulus Cemetery	Guštin 1996; Stare 1960-1961
Metlika	23	Hrib	Metlika	Tumulus Cemetery	Grahek 2004, 2014
	V	Metlika	Metlika	Fortified Settlement	Breščak 1992; Dular 1985d, 1985e
	24	Borštek	Metlika	Flat Cemetery	Dular 1979, 1985b
Podzemelj	W	Kučar	Podzemelj	Fortified Settlement	Dular 1978; Dular et al. 1995a
	xix	Gomilica	Škrilje	Tumulus Cemetery	Barth 1969; Dular 1978, 1985c
	xx	Steljnik	Grm	Tumulus Cemetery	Barth 1969; Dular 1978
	xxi	Vir	Škrilje	Tumulus Cemetery	Barth 1969; Dular 1978, 1985f

The "in sample" sites included in the study were chosen based on several criteria: chronological identification as Early Iron Age, cultural identification as Dolenjska Hallstatt,

scientific excavation after World War II,[44] and analysis and publication of contexts and artifacts from the site. Sites that fit these criteria were selected from Janez Dular and Sneža Tecco Hvala's 2007 monograph, *South-Eastern Slovenia in the Early Iron Age: Settlement – Economy – Society / Jugovzhodna Slovenija v starejši železni dobi: Poselitev – gospodarstvo – družba,* which provides an exhaustive list of known settlements and their associated mortuary sites in the Dolenjska Hallstatt cultural area (see section II.1.D for discussion of this study). This study also included most of the sites discovered during the major excavation boom of 1998-2003 (Dular and Tecco Hvala 2007:34). While additional sites have been identified and excavated since the publication of this work, there are relatively few. The sites fitting the first three criteria were then checked in the Archaeological Cadastre of Slovenia (ARKAS; see http://iza.zrc-sazu.si/En/Arkas.html), which is an online database listing all known archaeological sites in Slovenia, to determine their current excavation and publication status.

Resources related to the 21 non-sample mortuary sites were also surveyed, since there is a large corpus of artifacts depicting animals that was excavated unsystematically in the late 19th and early 20th centuries. Archival material related to these excavations have been systematically studied and published by Slovenian archaeologists,[45] and the original excavations have been reconstructed when possible so that some contextual information may still be gleaned for these animal images or zooarchaeological remains. There are two primary reasons to include the finds from non-sample sites. First, the finds from these antiquarian excavations constitute the foundation of Slovenian archaeology, and the artifacts from them are often fundamental parts of the local relative chronology. Second, there are ongoing questions about the reliability of the

[44] World War II is considered a dividing period between antiquarian and unsystematic excavation campaigns in Slovenia, and the development of the modern, scientifically oriented discipline (Dular And Tecco Hvala 2007:24; see Novaković 2011:353-369 for a thorough summary of the development of archaeology in Slovenia).

[45] Particularly the *Catalogi et Monographiae* series published by the Narodni muzej Slovenije and the *Opera* series published by the Institute of Archaeology at ZRC SAZU.

reconstructed contextual information from these earlier excavations (Božič 2009; Tecco Hvala 2012:28). Comparing the artifacts from the sample versus non-sample sites may demonstrate similar patterns in scientifically excavated and reconstructed contexts indicating that reconstructions are relatively reliable, or there may be some key divergences in the reconstructed contexts indicating that they should be treated with caution.

Finally, there were a few sites that were not systematically analyzed or formally included in the study due to being unpublished or in the midst of re-analysis. However, some pertinent artifacts from these sites and their associated contexts, when known, were recorded for comparison to the formal dataset. Such artifacts were recorded because of their similarity to project artifacts, so that a more clear understanding of artifact variability, context, and distribution could be obtained. These sites were used solely to assess presence/absence of certain artifacts and compare discrete objects depicting animals to other items in the formal dataset, and are not part of the detailed analysis undertaken with the formal iconographic dataset.[46]

Published catalogues, excavation reports, and unpublished archaeological documentation were surveyed in the course of this project. The published material was obtained in Ljubljana at the Narodni muzej and the Institute of Archaeology at ZRC SAZU.[47] Unpublished site reports and archival materials were obtained from the Dolenjski muzej (Novo Mesto, Slovenia), the Naturhistorisches Museum Wien (Vienna, Austria), the Peabody Museum of Archaeology and Ethnography (Cambridge, MA, USA), and the Ashmolean Museum (Oxford, UK), as well as from the authors of unpublished PhD projects and in-progress monographs (Dr. Brina Škvor Jernejčič – Dvorišče SAZU; Dr. Petra Vojakovič – Tribuna; Dr. Sneža Tecco Hvala – Molnik;

[46] Comparison of artifacts depicting animals is primarily limited to the Dolenjska Hallstatt area. While comparisons may be occasionally drawn to animal imagery from other areas of southeastern Europe, the scope of this project is too large for systematic extra-regional comparisons.

[47] Inštitut za arheologijo, Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti [Research Centre of the Slovenian Academy of Sciences and Arts].

Dr. Biba Teržan – Vače). Of these sites, only Molnik and parts of Vače are part of the project dataset, while the other sites were assessed for comparable artifacts and zooarchaeological deposits.

III.2.B. Artifacts Depicting Animals

The animal representations surveyed in the course of this project were found exclusively on portable artifacts. These include animal or animalistic depictions in the situla art style (two-dimensional representations), as well as three-dimensional representations made of metal, ceramic, glass, and amber.

These artifacts were personally examined by the author whenever possible, so that descriptive information could be added to the database (see section III.3.D for a discussion of the artifact form in the database), and also so that they could be measured and photographed. Artifacts were examined at the Narodni muzej (Ljubljana, Slovenia), Mestni muzej (Ljubljana, Slovenia), Dolenjski muzej (Novo mesto, Slovenia), Belokranjski muzej (Metlika, Slovenia), Posavski muzej Brežice (Brežice, Slovenia), the Naturhistorisches Museum Wien (Vienna, Austria), Universalmuseum Joanneum (Graz, Austria), Ashmolean Museum (Oxford, UK), and the Peabody Museum of Archaeology and Ethnology (Cambridge, MA, USA).

III.2.C. The Zooarchaeological Dataset

The documented zooarchaeological remains from mortuary sites were recorded at the same time as the artifacts depicting animals. No new zooarchaeological analyses were conducted due to both poor preservation and partial recovery of zooarchaeological material. Instead, published and unpublished zooarchaeological reports compiled in the data collection phase were

analyzed to gain a comprehensive understanding of the interaction with animals reflected at mortuary sites, which was compared to the patterns evident in the representational artifacts. The original project proposal was to compare both settlement and mortuary faunal remains, however original zooarchaeological reports were not accessible for many settlements and so it was decided to focus exclusively on the mortuary dataset which had better contextual information.

The extant zooarchaeological analyses from Early Iron Age sites are usually limited to the identification of the taxon, elements present, and occasionally NISP and MNI in newer publications (Bartosiewicz 1991, 1996, 1999b; Bökönyi 1968, 1994). However, it is extremely rare for taphonomic or cultural modifications, siding, pathology, sex, or age to be noted. Because of this, fine-grained zooarchaeological analysis was not suitable for this study, and instead a focus on presence/absence analyses, aggregate analyses, and comparison to the iconographic dataset was the extent of zooarchaeological analysis in this study (see section III.4 below for more detail). Given the current state of zooarchaeological research in the area and the scope of the project, this was the most suitable approach to take.

III.3. Data Collection and Recording

Information collected from the aforementioned sources related to the iconographic and zooarchaeological datasets was recorded in a Microsoft Access relational database. This database was designed so that these discrete bodies of evidence could be queried and analyzed within and between datasets based on variables such as taxa, site, time period, and contextual associations.

The benefit of using a relational database is that it is possible to run queries based on the variables recorded and create lists and reports based on the results. These may be simple queries such as isolating a subset of artifacts based on the site where they were found, or more complex

queries using multiple variables, for example generating a list of female graves containing artifacts depicting birds, and then organizing them chronologically. For this study, the ability to create cross-tabs, which compare two variables and indicate the number of times these variables co-occur (e.g., species and artifact type, or gender and species represented), is especially useful. All of the fields in each table may be queried in simple terms – that is based on whether they are filled in or not, their content, etc. However, a subset of fields are set up to be used in more complex queries such as cross-tabs. The fields suitable for more complex querying are discussed in more detail in the following sections.

Published and unpublished data were gathered by the author, followed by museum visits for in-person analysis and photographic recording of the artifacts. All data collection was undertaken in Slovenia, Austria, the United Kingdom, and the United States in collaboration with local archaeologists and in the museums where the artifacts were housed. No materials were damaged in the course of these analyses, nor did any artifacts leave the country where they were housed.

III.3.A. Database Organization and Relationships

The Microsoft Access database is organized hierarchically, and is composed of several linked tables (Figure III.2). The overarching table that connects to all the other major tables is the Site table (Figure III.3). This table contains information about the sites surveyed in the course of the project (see the next section for detailed discussions of each table). Next is the Context table (Figure III.4), which includes information about the contexts associated with these artifacts depicting animals and zooarchaeological finds. This can be either information about the graves where pertinent materials were recovered from mortuary contexts, or trenches, houses, features,

etc. associated with settlements. Site and context link both subsequent tables – Artifact and Zooarch (Figures III.6 and III.9). The Artifact table records information about discrete artifacts depicting animals. This includes descriptive information, information about where the artifact is housed, as well as links to drawings and photographs of the object. The Zooarch table is similar to the artifact table in terms of the type of information captured (descriptive information, where the bones are housed, photos, etc.), but geared toward information pertinent to broader zooarchaeological analyses.

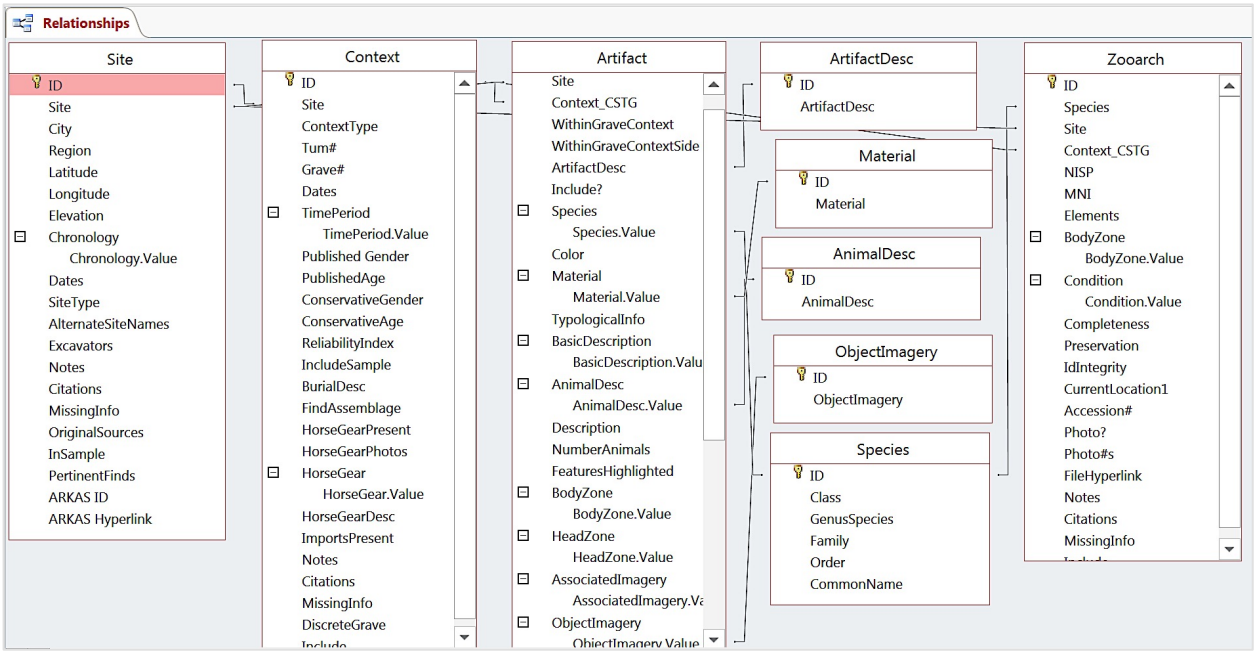

Figure III.2. Screenshot of the relationship between the tables in the Microsoft Access database.

The other tables visible in Figure III.2 include Artifact Description, Material, Animal Description, Object Imagery, and Species – these are subordinate linked tables used for filling in specific fields in the Artifact and Zooarch tables. Artifact Description is simply a table listing Early Iron Age artifacts by type (e.g., fibula, pendant, belt plate, helmet, situla) so that when initially categorizing an artifact in the Artifact table it is possible to choose from a consistent list of artifacts. Material is similar, but lists materials such as bronze, glass, amber, ceramic, etc. that

can be chosen to describe the artifact. The Animal Description table is used to describe the specific animals depicted on an artifact, and is linked to the drop-down Animal Description field on the Artifact form, while the Object Imagery table is linked to the Object Imagery field on the Artifact form, and is used to describe other motifs (any that are not specifically zoomorphic) that appear on the artifact. Species in turn is a larger table that lists taxonomic information such as class, order, family, genus, species, and common name. This table contains a variety of species local to southeastern Slovenia that can be selected when determining the animal(s) depicted on an artifact, or the species represented by the zooarchaeological material. This ensures consistency between the two tables so that later taxonomic comparisons could be made.

III.3.B. Site Recording

The Site table contains information about all 68 sites included in the project, and is the table that links all the other tables in the database (Figure III.3).

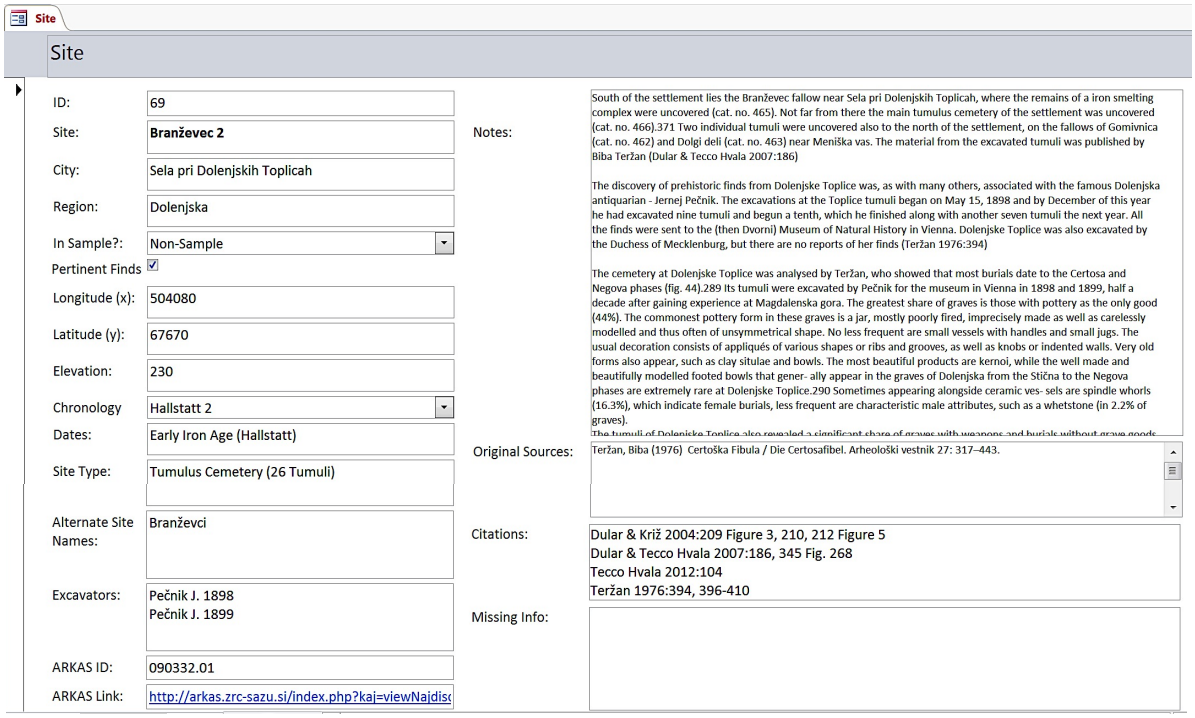

Figure III.3. Form for recording information contained in the Site table.

Information recorded in the Site form includes:

- ID: an automatically generated unique number to differentiate sites.
- Site: name of the site.
- City: closest modern city.
- Region: contains Dolenjska or Bela krajina to differentiate the primary geographical regions over which the Dolenjska Hallstatt archaeological culture extended.
- In Sample?: drop-down used to record whether or not the site is part of the "sample" sites, or is solely recorded for comparative purposes. The choices are:
    - In Sample: sites in the project excavated post-WWII.
    - Mixed-Sample & Non-Sample: sites that have contexts excavated by antiquarians prior to WWII, as well as contexts that were scientifically excavated post-WWII.[48]
    - Non-Sample: sites that were excavated prior to WWII.
    - Comparative Only: sites recorded solely to facilitate comparing particular artifacts that were not in the formal iconographic dataset.
- Pertinent Finds?: Checkbox used to record whether any artifacts depicting animals or zooarchaeological remains are noted in publications or reports of excavations.
- Longitude, Latitude and Elevation: used for mapping purposes; coordinates are listed using the Slovenian National Coordinate System since this is the system used in ARKAS,[49] the national database used to record the location and known information about archaeological sites.
- Chronology: a drop-down menu used to record the broad dating of the site (following Dular

[48] Gomile at Stična is a classic example – there were many campaigns by antiquarians in the late 19th and early 20th century, as well as systematic excavations from the 1940s to the 1960s (Wells 1981, Gabrovec 2006; Gabrovec and Teržan 2008).
[49] Archaeological Cadastre of Slovenia; see http://iza.zrc-sazu.si/En/Arkas.html.

and Tecco Hvala 2007:68, 71-72):

  - Urnfield 1 (ca. 1200-1050 BCE)
  - Urnfield 2 (ca. 1050-800 BCE)
  - Hallstatt 1 (ca. 800-600 BCE)
  - Hallstatt 2 (ca. 600-300 BCE)
  - La Tène (ca. 300-Roman arrival).

- Dates: a write-in field used to record more specific dating information provided in publications.
- Site Type: a write-in field recording the type of site, e.g., hillfort, tumulus cemetery, flat cemetery.
- Alternate Site Names: used to record additional site names. This is necessary because when Slovenia was part the Austro-Hungarian Empire the names of many sites were Germanized. Artifacts from antiquarian excavations that are housed in Austrian and UK museums are often still inventoried under these older names. Other sites have been published under multiple names, so it is necessary to track all possible permutations of the most common site name. The main site names recorded in this project followed Dular and Tecco Hvala 2007,[50] since they worked to standardize site names to reduce future confusion.
- Excavators: records the excavator(s) and the excavation date(s).
- ARKAS ID & Link: records the identification number assigned to the site in the Archaeological Cadastre of Slovenia (ARKAS), and links directly to the specific webpage for the pertinent site on the ARKAS website.

[50] All site names follow conventions in Dular and Tecco Hvala (2007), except for the site of Kandija/Znančeve njive in Novo mesto. The site name Kandija is used throughout this thesis, because the site has been extensively published by the Dolenjski muzej under the name Kandija. Dular and Tecco Hvala use the site name Znančeve njive since it was originally recorded that way in ARKAS; however, because that name is very rarely used in publications of the site itself, in this instance the local name was used.

- Notes: Write-in field used to record general information about the site, usually in the form of quotes or summaries from site publications for later reference.
- Original Sources: Records the full citation of any original publications or excavation reports about the site.
- Citations: Used to record in-text citations for information contained in the Notes field.
- Missing Info: Field used to record any information that is missing or anything that should be followed-up on at a later point in time.

The data fields recorded in this form that may be used as variables for queries as part of a broad chronological analysis, site type (mortuary versus settlement sites), in sample (reliable versus antiquarian excavations), and pertinent finds (distinctions between where animal imagery and zooarchaeological finds are and are not present).

III.3.C. Context Recording

The context table was built to record pertinent information about the types of locations where animal imagery and zooarchaeological remains were recovered (Figure III.4). It was designed to contain details about both mortuary or settlement contexts, as well as information useful in aggregate analyses (for example, whether the context contained horse gear, or contained imported artifacts).

Information recorded in the Context form includes:

- ID: An automatically generated unique number to differentiate contexts.
- Site: This is a linked field in a drop-down format, where the appropriate site may be chosen from the project sites in the Sites table.

Context

Context

ID: 1

Site: Kapiteljska njiva

Context Type: Tumulus

Context ID (Tumulus #): III

Grave #: 12

Published Gender: Probable Male

Published Age: Probable Adult

Conservative Gender: Probable Male

Conservative Age: Probable Adult

Reliability Index: Reliable

Included in Sample?: In Sample

Dates: ACF: Grave is Negova 2 - Evidence seems to point to heirlooms from the Certosa phase (belt plate) combined in a burial that must date to c. 400 BCE or slightly later

Time Period: Negova 2 / Lt A

Description: Graves III/12 and III/22 stand out amonst the 56 graves in Barrow III in terms of metal grave goods. They belong to the category of so-called Hallstatt princely graves...The grave contained two iron axes, a footed ceramic vessel, horse-riding equipment, a Situla Art style decorated bronze situla...The horse-riding equipment is represented by an iron horse bit...The grave contained a tin-lead alloy applique in the form of a horse-headed swastika, in addition to the bit and psalia...Grave III/12 also contained two artefacts, decorated in the Situla Art style. The bronze situla with a central figural frieze...[and a] bronze belt (Križ 1997:24-28). The grave was cut into natural yellowish orange sandy clay and filled with darker greyish brown sandy clay. It formed part of a group, together with graves III/4, III/8 and III/7. Grave III/4 cut grave III/12, whilst graves III/7 and III/8 lay directly beside it. The north-western part of the grave was cut by a recent trench. The sub-rectangular grave pit was 120 cm wide and over 300 cm long. Carbonised coffin fragments were found above and below the grave goods. These comprised a bronze situla, iron horse gear, a bronze belt, lead-alloy swastika and a ceramic vessel. Two massive iron axes were also found partly in the grave and partly in the recent trench.
Grave goods:
1. Orange-brown fired, black painted, footed ceramic bowl with everted rim
2. Iron horse bit and cheek-pieces. L: 20 cm, D: 22 cm. Acc.no. P2157
3. Iron socketed axe, part of a wooden haft extant in socket
4. Iron looped socketed axe with split socket
5. Three glass beads (two blue and one crushed green)

Find Assemblage: Photos\Novo mesto\Kapiteljska njiva\Tumulus III\Grave 12\Kriz1997-Tun

Horse Gear Present? ☑

Horse Gear: Bit, Cheekpiece(s), Phalera(e)

Horse Gear Photos: Photos\Novo mesto\Kapiteljska njiva\Tumulus III\Grave 12\DM-P2157-HorseBit&Psalia

Horse Gear Description: Dolenjski muzej P2157
Two-part bit, linked by a loop, which terminates in two semicircular psalia with attachment loops and rivets (Križ 1997:28).

ACF: for phalera notes see object description

It dates to the 5th century BC and belongs to the Scythian Szentes-Vekerzug type

Imports Present ☐

Notes: Barrow III - The barrow contained 56 Early Iron Age inhumation graves, was circular in plan and 22-24 m in diameter. It covered at least ten Late Bronze Age flat cremation graves. The barrow mound had been destroyed by longterm ploughing and erosion processes, which meant that the sections showed only two layers... Barrow III was also disturbed by a Second World War trench, which ran in an arc from north to southeast. A second section of trench ran from this trench towards the southwest. The trench damaged or destroyed graves III/23, III/12, III/4, III/7, III/1, III/51 and III/47 (Križ 1997:19).

Citations: Križ 1997:19, 24-8, 58, 122 T. 36, 123 T. 37, 124 T. 38, 125 T. 39, Appendix 2, Appendix 3, Appendix 4
Turk 2005:29 Figure 38, 32 Figure 44, 55-56 Cat. Nos. 43-44 Figures 84-85

Missing Info:

Figure III.4. Form for recording information contained in the Context table.

- Context Type: Write-in field used to differentiate the type of context; e.g., graves in tumulus contexts, flat graves, settlement contexts, etc.
- Context ID (Tumulus ID): This is a write-in field containing the context identifier as it was published – it may be the tumulus number or name, or it may be a trench or house identifier, etc.
- Grave #: Contains the grave number or other grave identifier. This and the other gray fields are used specifically to capture additional details of grave contexts, and are filled in with "Not Applicable" (or N/A) when a non-mortuary context is described.

The other fields that are shown in gray concern the age and gender (or sex, in rare cases) of the individuals in grave contexts. A distinction was made between published gender and age and a more conservative gender and age attribution. Skeletal remains are rarely present in Dolenjska Hallstatt graves due to acidic soils, so most often artifacts are used to determine the

probable gender and age of the deceased individual (Bakarić et al. 2006:91; Dular and Tecco Hvala 2007:212; Tecco Hvala 2012:376). Though identifying gender on the basis of grave goods is inherently problematic without the use of other lines of evidence such as osteological analysis, in other Dolenjska Hallstatt cemeteries where skeletal remains have been preserved and analysed, it has been possible to confirm that certain artefacts are strongly associated with gender, and may conservatively be used as a proxy when other evidence is not available (Angel 1968; Dolinar-Osole 1956; Gabrovec 1956; Gabrovec 2006; Hencken 1978; Tecco Hvala et al., 2004; Teržan 1985). This study includes many artifacts that have been used in some cases to identify gender (e.g., bracelets, beads), so to avoid circular reasoning a more conservative assemblage of artifacts was used for gender designation (Bakarić et al. 2006:91; Dular and Tecco Hvala 2007:212; Tecco Hvala 2012:376; Teržan 1985, 2008). The Published Gender and Published Age fields are used to capture the gender and age determined by the excavator or other authors discussing these graves. The conservative gender and age designations in this study relied on a smaller subset of artifacts and other parameters to assess gender and age for the whole dataset. The goal was to ensure a consistent assessment of gender and age across all categories of evidence. When osteological analysis had been undertaken, conservative gender and age categories use that information. The parameters for assessing gender and age in the absence of osteological analysis are as follows:

- Gender Attribution
    - Probable Male
        - Weapons: axes, spears, arrowheads, swords (Tecco Hvala 2012:137-143; Teržan 1985, 2008:233-245)
        - Defensive Gear: armor and helmets (Tecco Hvala 2012:137-143)

        - Razors (Tecco Hvala 2012:137)
        - Whetstones (Tecco Hvala 2012:341).
    - Probable Female
        - Anklets (Tecco Hvala 2012:290)
        - Textile equipment: Spindle whorls, loom weights, and needles (Primas 2007; Tecco Hvala 2012:342; Teržan 1996)
        - Earrings[51]/hair rings (Tecco Hvala 2007; 2012:237-333).
- Age Attribution
    - Probable Child
        - To be designated "probable child" a grave may demonstrate a small grave cut (1.35 m or less in length).[52]
        - Probable sub-adult age is also recorded when a skeleton is noted as a child's skeleton in excavation records, based on the assumption that sub-adult size, unfused epiphyses, etc. were correctly observed by the excavator.
    - Probable Adult
        - "Normal" size grave cut (over 1.35 m in length).
        - Probable adulthood is assumed when simply a skeleton is noted in excavation records, based on the assumption that anything unusual in the skeletal remains (i.e., sub-adult size, unfused epiphyses) was noted by the excavator.

[51] While there are a number of earrings depicting animals in the dataset, earrings are nonetheless used to determine probable gender since earrings are exclusively associated with females, and there are many aniconic earrings that can be used to determine gender for graves in the dataset. The decision was made to preserve earrings as a gendered artifact (acknowledging the risk of circular reasoning) since in previous studies they have been shown to be an exclusively female artifact (Tecco Hvala 2007). They also provide a balance to the number of diagnostically male artifacts – excluding earrings would falsely bias the sample towards male graves since many graves in the study are gendered female on the basis of the presence of undecorated earrings.

[52] Undersize jewelry (bracelets smaller than 6.5 cm; Tecco Hvala [2012:290]) have also been used to identify probable sub-adult burials, however these items could also be funerary gifts, so in this study probable sub-adult age was not determined solely on the basis of small jewelry.

In addition, Male and Female were differentiated from Probable Male and Probable Female to indicate cases where there were skeletal remains present that were assessed anthropologically to determine sex, while Probable Male and Probable Female indicate gender, as determined by the associated artifacts. This is also the case for age, where probable indicates that artifacts and other parameters were used to assess the probable age of the deceased, versus a more reliable assessment made on the basis of skeletal remains.

- Published Gender: Published Gender is a drop-down menu that contains:
    - Male – osteologically sexed male.
    - Probable Male – male gender on the basis of grave goods.
    - Female – osteologically sexed female.
    - Probable Female – female gender on the basis of grave goods.
    - Indeterminate – gender could not be determined on the basis of grave goods or skeletal remains.
    - Double Grave – Probable Male and Male – a double burial, determined to be the burial of two male gender individuals on the basis of grave goods.
    - Double Grave – Probable Male and Female – a double burial, determined to be the burial of a female gendered individual and a male gendered individual on the basis of grave goods.
    - Not Indicated – not indicated in the publication or report whether the author believed the individual to be male or female.[53]
    - Not Applicable – Used in cases where the context captured in the Context table is *not* a mortuary context. However, in mortuary contexts "Not Applicable" is also used to

[53] This only appears as a choice in the Published Gender field.

indicate that there was no human individual in the grave (i.e., the grave of solely an animal) or if the context recorded is a stray find context that cannot be associated with the grave of a particular individual.

- Published Age:
    - Adult – 20+ based on osteological analysis.
    - Probable Adult – probable adult based on size of the grave cut and/or size of associated personal ornaments (in actual human chronological terms this would correspond to a post-pubescent individual nearing average adult size – mid-teens and above).
    - Sub-adult – 14-19 based on osteological analysis. There is no corresponding "probable sub-adult" category since it would not be possible to distinguish a probable sub-adult from a probable adult on the basis of the size of the personal ornaments or the grave cut, since sub-adults have passed puberty and so are within a broadly adult size range, and so can only be identified osteologically.
    - Probable Child – probable child based on the size of the grave cut, excavator's assessment, and in some cases also the small size of the associated personal ornaments. This catchall category is meant to capture those individuals who were of sub-adult size, presumably those in their early teens and younger.[54]
    - Indeterminate – age could not be determined on the basis of grave goods, the size of the grave cut, or skeletal remains.
    - Not Indicated – age of the individual was not indicated by the author.[55]
    - Not Applicable – used in cases where the context captured in the context table is *not* a

[54] There is no corresponding "child" category or other osteological age grades younger than sub-adult since none have been identified in any of the graves in the project.
[55] This only appears as a choice in the Published Gender field.

mortuary context. However, in mortuary contexts "Not Applicable" is also used to indicate that there was no human individual in the grave (i.e., the grave of solely an animal) or if the context recorded is a stray find context that cannot be associated with a particular grave.

- Conservative Gender: a drop-down menu that contains the same categories as those listed under Published Gender (except Not Indicated), but that were filled-in according to the more conservative criteria for determining gender detailed above.
- Conservative Age: a drop-down menu that contains the same categories as those listed under Published Age (except Not Indicated), but that were filled-in according to the more conservative criteria for determining age detailed above.
- Reliability Index: This field is used to indicate that a context is "reliable" – that is, it was excavated by modern methods and the context can be clearly reconstructed. This is distinguished from what I have called "problematic" and "unreliable" grave contexts – these latter categories are largely used for the pre-WWII excavations that have been reconstructed from old excavation notes and museum records. This allows individual contexts to be assessed and questioned based on their reliability. There are three levels to the reliability index:
    - Reliable: contexts excavated using modern methods that were recorded in detail so that the context can be clearly reconstructed.
    - Problematic: all excavations prior to WWII are automatically labeled problematic since they were not excavated with modern methods, and the publications of these excavations were not written by the original excavators but instead were reconstructed from whatever notes and records were left.

- Unreliable: Contexts are flagged as "unreliable" when those who reconstructed the graves have noted the lack of excavation records related to certain contexts, or when they have identified disagreements in old records, original excavation notes, or in later museum inventories. Stray find contexts are also noted as "unreliable" since due to some disturbance or other mitigating factor their original depositional context cannot be accurately reconstructed.

- Included in Sample?: This field is similar to the "In Sample?" drop-down in the Site table. It is replicated at the Context level because there are sites that were excavated in several campaigns, some excavations by antiquarians prior to WWII, and later further investigated with modern excavation methods (the cemeteries around Stična are the primary example).
    - In Sample: contexts in the project excavated post-WWII.
    - Non-Sample: contexts that were excavated prior to WWII.
    - Comparative Only: contexts recorded solely to facilitate comparing particular artifacts that were not in the formal iconographic dataset.
- Dates: Write-in field used to record any dating information provided in publications and reports.
- Time Period: Drop-down field that lists the particular Dolenjska Hallstatt chronological periods (Tecco Hvala 2012:47 Fig. 11, after Gleirscher 2006 and Gabrovec and Teržan 2008), their corresponding central European chronological periods (Kossack 1959), and the absolute dates commonly associated with these periods (Figure III.5). This field is used to assign a date to contexts whenever possible, to

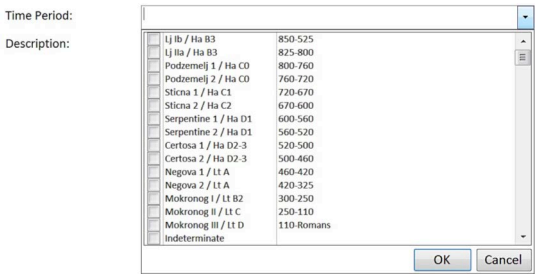

Figure III.5. Screenshot of the drop-down field "Time Period" in the Context table.

be used in chronological analyses.

- Description: Write-in field used for transcribing the details of the context including its dimensions, associated finds, and other pertinent information.
- Find Assemblage: Hyperlink to an image of all the finds from the context, most often in the form of a plate from the original site publication.
- Horse Gear Present?: Checkbox used for simple recording of whether any horse gear was present in the context.
- Horse Gear: Drop-down list of the horse gear elements known from Dolenjska Hallstatt contexts. The choices are: Unknown, Bit, Cheek Piece(s), Phalera(e), Button(s), Ring(s), Strap Distributor(s), and Spur(s).
- Horse Gear Photos: Hyperlink to any photographs or drawings of the horse gear contained in the context.
- Horse Gear Description: Write-in field used to record particulars of the horse gear, such as dimensions, the type, any chronological associations, etc.
- Imports Present: This checkbox is simply used to indicate the presence or absence of non-local items in the context. Non-local is defined as any imported raw material (e.g., amber) or anything produced outside the Dolenjska Hallstatt area, usually identified as an import in publications by other scholars. This field is used as a proxy to identify probable higher-status contexts, since non-local items are commonly associated with elite contexts (Frey and Gabrovec 1971; Gabrovec 1992a, 1992b, 1999; Teržan 1977, 1985, 1995, 1997; Wells 1981).
- Notes: This field simply contains notes that made about these contexts, but is also used to contain information that other scholars have published about these contexts that are not explicitly a description of the context.

- Citations: Contains citations for any information contained in the Dates, Description, or Notes field.
- Missing Info: Field used to record any information that is missing or anything needed to be followed-up on at a later point in time.

The Context table facilitates the recording of several variables that are used for inter- and intrasite analysis, as well as broad analyses of contextual associations of animal imagery and zooarchaeological remains. These include all gender and age fields,[56] the reliability index, time period to assess chronological patterns, the presence of horse gear, as well as the types of horse gear, and finally the presence of imports.

III.3.D. Artifact Recording

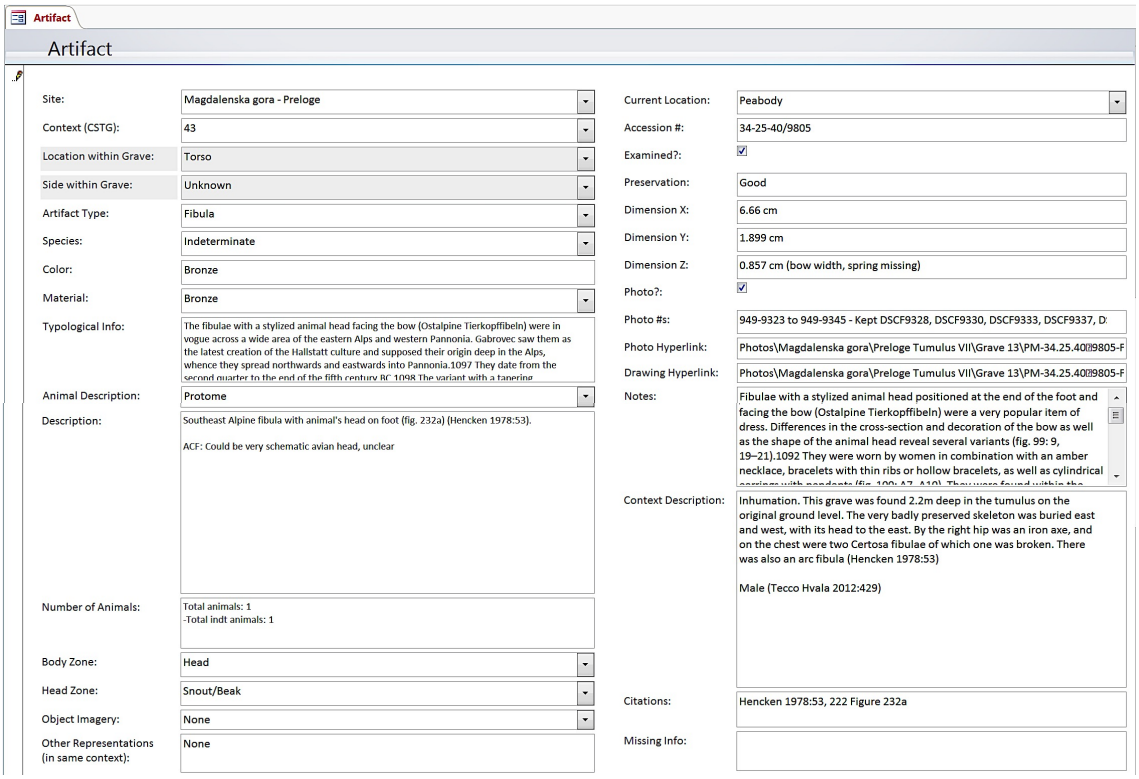

Figure III.6. Form for recording information contained in the Artifact table.

[56] Both conservative and published can be compared overall, as well as compared to each other.

The artifact table records descriptive information about each artifact a whole, details about the way animals are depicted, as well as the presence of other non-animal motifs on the artifact in question (Figure III.6).

Fields in the Artifact table include:

- Site: this is a linked field in a drop-down format, where the appropriate site may be chosen from the project sites populating the Sites table.
- Context (CSTG): This drop-down field links the artifact to its find context (Figure III.7). It is displayed as four columns, and is abbreviated as CSTG because of the identifying information contained in the four columns: Context, Site, Tumulus, Grave. The first is the Context ID,[57] the second is the Site ID,[58] the third is the Tumulus # (or other context identifier),[59] and the final one is the grave number.[60] This facilitates choosing the correct Context without going back to the Context table to identify the appropriate Context ID.

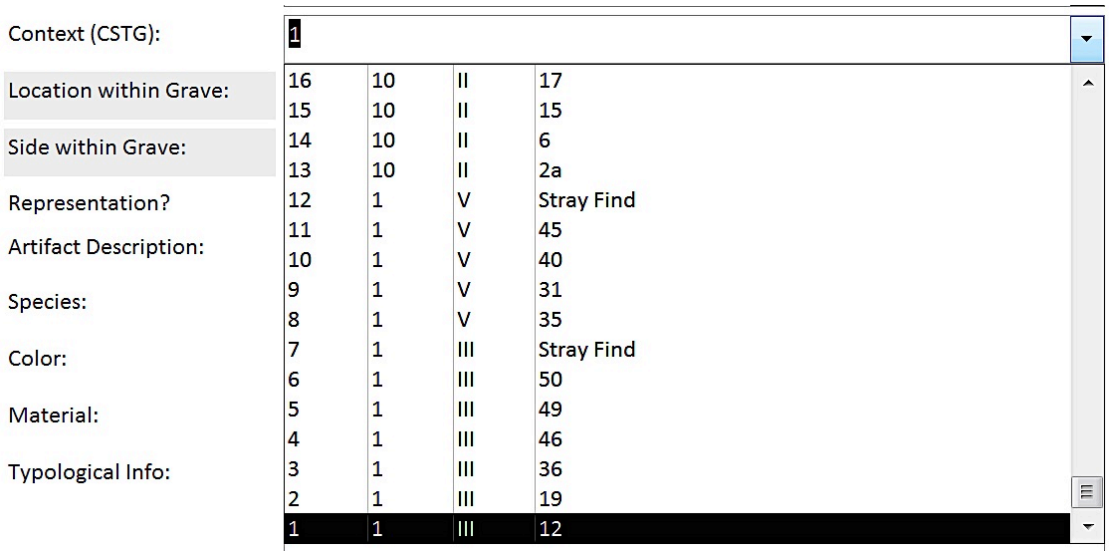

Figure III.7. Screenshot of the Context (CSTG) dropdown field. The highlighted context, Context 1, read from left to right translates to: Site 1 (Kapiteljska njiva), Tumulus III, Grave 12.

[57] See Context form description in the previous section.
[58] See Site form description in section III.3.B.
[59] Shows information contained in the "Context ID (Tumulus #)" field on the Context table (see Figure III.4).
[60] Grave # field on the Context table (see Figure III.4).

- Location and Side within Grave: These two fields in gray are intended for grave contexts; they are filled in "Not Applicable" for artifacts from non-mortuary contexts. These two fields are used to capture the exact location of the artifact within the grave and its relationship to the deceased in the grave. Options for Location are: Unknown, Not Indicated, Head, Torso, Arm, Hand, Leg, Foot, Top, Bottom, Side, Urn, Carbonized Area, Not Applicable. Options for Side are: Unknown, Not Indicated, Left, Right, Medial, Not Applicable. All location and side information are given with reference to the position of the individual within the grave.
- Artifact Description: This drop-down field provides a list of artifacts common to the Dolenjska Hallstatt culture (e.g., fibula, earring, belt plate, scabbard, etc.). This field is auto-filled from the Artifact Description table described in section III.3.A.
- Species: This drop-down field provides a list of local species (e.g., horse, hare, brown bear, etc.), as well as non-species such as "Mammal – Indeterminate" and "Ungulate – Indeterminate," that are used to capture varying levels of specificity when identification to the species or genus is not possible. Multiple species may be chosen in this field for complex artifacts depicting multiple animals. This field is auto-filled from the Species table described in section III.3.A.
- Color: This write-in field is used to record the color(s) of the artifact.
- Material: This drop-down field provides a list of common materials for Dolenjska Hallstatt artifacts (e.g., amber, glass, bronze, iron, etc.). Multiple materials may be chosen for composite artifacts made of several materials. This field is auto-filled from the Material table described at the beginning of this section.
- Typological Info: This is a write-in field used to capture any typological or chronological information about the artifact. This is the information provided by authors of site reports and

publications, supplemented by information from typological studies.

- Animal Description: this multiple-choice field is used for describing the animal(s) depicted in simple terms that can be queried later. The choices include: Protome, Full Body, Body Suggested, Circle-and-Dot,[61] Sexed, Moving, Eating, Predation (animal-animal predation), Hunting (animal-human hunting), With Rider, Procession, Harnessed, Cultural Material on Body, Unknown.
- Description: Write-in field used to describe the artifact. Includes published descriptions, as well as my own additional notes about the artifact.
- Number of Animals: Write-in field used to detail quantity of animals total, as well as quantity of different species. These data were captured for future analyses, not for use in the current project.
- Body Zone: multiple-choice field used to indicate the parts of the animal depicted. Choices include: Head, Trunk, Upper Limbs, Lower Limbs, Limbs (Indt), Genitals, Tail, Unknown. Unknown was used in cases where an artifact was damaged and it was not possible to determine all body parts originally depicted.
- Head Zone: multiple-choice field used to indicate the parts of the head depicted. Choices include: Eyes, Snout; Beak; Snout/Beak, Nose; Mouth, Teeth, Tongue, Horns/Antlers, Ears, Indeterminate Horns/Ears, Hair/Mane/Fur/Feathers, Unknown. Unknown was used in this field as well in cases where an artifact was damaged and it was not possible to determine all the facial elements originally depicted.
- Object Imagery: Multiple-choice field used to record other images and motifs on the artifact (in addition to the animals) to determine when animal iconography is associated with other

[61] To indicate when a circle-and-dot motif is present on an animal.

types of imagery. Choices include: Circle-and-Dot,[62] Humans, Animals,[63] Feasting, Boxing, Chariot, Wagon, Procession,[64] Music, Sex, None, Unknown.

- Other Representations (in same context): Write-in field used to record the presence of multiple artifacts depicting animals in the same context.
- Current Location: Lists the museum or institution where the artifact is housed.
- Accession #: Lists the accession or inventory number provided by the institution where the artifact is housed.
- Examined?: Checkbox used to indicate whether the author personally examined the artifact.
- Preservation: Write-in field used to record the current state of the object (e.g., fragmented, heavy patina, restored, etc.).

Figure III.8. Measurement recording conventions for common artifacts in this study. Left to right: fibula, earring, phalera (horse gear), ram's head bead, pendant, helmet.

[62] To track the appearance of the circle-and-dot motif when it is not physically depicted on the animal.

[63] Used to indicate artifacts depicting multiple animals.

[64] Distinguished as processions of humans, not of solely animals or of humans and animals as captured in the Animal Description field.

- Dimension X, Y, Z: Records the dimensions of the artifact. In general, X = Length, Y = Height, Z = Width. Dimensions are recorded as shown in Figure III.8.
- Photo?: checkbox used to indicate whether this artifact was photographed during in-person analysis.
- Photo #s: Write-in field used during analysis to record the photo identifiers of the series of photos taken during physical examination of the artifact (e.g., DSCF####-DSCF####), as well to indicate which photos were kept and edited for use in later analysis and publication.
- Photo Hyperlink: Hyperlink to the file containing artifact photographs – both my own research photographs, as well as any published photographs from other sources.
- Drawing Hyperlink: Hyperlink to the artifact drawing(s) from site reports and publications.
- Notes: This field contains notes made about the artifact, as well as information that other scholars have published about these artifacts that are not solely a description of the artifact.
- Context Description: This is a field that mirrors what is written in the Description field on the Context table, so that a description of the artifact's context is readily available without going back to the Context table.
- Citations: Contains citations for any information contained in the Dates, Description, or Notes field.
- Missing Info: Field used to record any information that is missing or anything that should be followed-up on at a later point in time.

The Artifact table has several fields recording variables that can be used in queries to illuminate broad patterns in the iconographic artifact dataset. These include the contextual fields (site and context), as well as information about the specific artifacts (artifact description and material) and species depicted. The fields explicitly describing the animal imagery are used to

compare modes of depicting animals. Artifact Imagery is used to assess associations between animal depictions and other figural depictions or geometric motifs.

III.3.E. Recording Zooarchaeological Remains

Zooarch

Zooarch

Site:	Medvedjek
Context (CSTG):	379
Species:	Horse - Domestic
NISP:	4 [not counting teeth since in jaw]
MNI:	1
Elements:	Teeth Mandible (l&r) Maxillae (l&r)
Body Zone:	Head
Condition:	Normal
Completeness:	Cranium
Preservation:	Partial
Id Integrity:	Unknown
Current Location:	Dolenjski muzej
Accession #:	P 4797
Photo?:	☑
Photo #s:	DSCF6011-6088
Photo Hyperlink:	Photos\Medvedjek\Grave 36\DM-P4797-HorseSkeleton
Notes:	For now, there are only three known cases where a bridled horse was buried. More often (= 8 times), cauldrons with cruciform attachments were found in horse graves or graves with remains of horses. It is obvious that these vessels were closely linked, at least in some cases, with the ritual of horse burial (Dular 2007:745)
Context Description:	GRAVE 36 Description of the grave: Grave pit was only partly visible, grave in the middle of quadrant IV. Structural elements were not observed. grave goods: 1) Grey-brown pot. h. 8.2 cm, diam. 12 cm. Inv. No. P4791. 2) Fragment bottom and walls of pot black. Approx. h. 11.5 cm, r. pr. the bottom 14 cm. Inv. No. P4792. 3) Fragment mouth of a brown cup. Approx. h. 5.4 cm, p. pr. 13.5 cm. Inv. No. P4793. 4) Fragment bottom red brown cup. Approx. h. 4 cm, r. pr. bottom 9.1 cm. Inv. No. P4794. 5) Fragments of brown black cup with a handle. h. 12.8 cm, r. Pr. 14 cm. Inv. No. P4795. b) A bronze cauldron with 3 double cross-type attachment. Handles terminating with stylized horse
Citations:	Dular 2007:745
Missing Info:	ACF: check photos of teeth against comparatives to assure horse. Likely contextually, but want to be sure

Figure III.9. Form for recording information contained in the Zooarch table.

The zooarchaeology table is used to record zooarchaeological remains associated with mortuary contexts (Figure III.9). It is set up to follow conventions of zooarchaeological analysis to capture information about what skeletal elements are present, their condition, the Number of Identifiable Specimens (NISP), and the Minimum Number of Individuals (MNI) represented by the remains. Because of this, records in the database are divided by the taxon present in a single context, rather than the remains of one individual animal from that context. For example, if a grave context had bones of horses and bones of cattle, then there would be one record for the horse bones and another record for the cattle bones, and the cattle bone record might indicate an MNI of three. The only exceptions are for horse burials analyzed by Dr. Sándor Bökönyi in his

1968 study of horses, since in a few cases he worked to separate the bones belonging to individual horses in graves where multiple horses were interred. In these cases discrete records were used to record the individual horses, to capture the details of Bökönyi's analysis.

Fields in the Zooarch table include:

- Site: this is a linked field in a drop-down format, where the appropriate site may be chosen from the project sites populating the Sites table.
- Context (CSTG): This drop-down field links the artifact to its find context (see Figure III.7). It is displayed as four columns, and is abbreviated as CSTG because of the identifying information contained in the four columns: Context, Site, Tumulus, Grave. The first is the Context ID,[65] the second is the Site ID,[66] the third is the Tumulus # (or other context identifier),[67] and the final one is the grave number.[68]
- Species: This drop-down field provides a list of local species (e.g., horse, hare, brown bear, etc.), as well as non-species such as "Mammal – Indeterminate" and "Ungulate – Indeterminate," that are used to capture varying levels of specificity when identification to the species or genus is not possible. This field is auto-filled from the Species table described in section III.3.A.
- NISP: When noted in the publication or report, the number of identifiable specimens is recorded in this field as a count of the number of elements plus the number of fragments. However it is extremely rare for NISP to be presented in publications if there is no specialist zooarchaeological report for the site, so often this field simply reads "Unknown."
- MNI: The minimum number of individuals indicates the number of discrete animals that

[65] See Context form description in the previous section.
[66] See Site form description in section III.3.B.
[67] Shows information contained in the "Context ID (Tumulus #)" field on the Context table (see Figure III.4).
[68] Grave # field on the Context table (see Figure III.4).

would account or the skeletal remains. However, as is the case for NISP, MNI is rarely indicated unless there is a zooarchaeological report, and this field often reads "1?" since the default MNI for any animal remains is one animal.

- Elements: This write-in field is used to record the specific elements identified, ideally with details such as which parts of the element are represented, as well as the side. However, in cases where less specific information is available this will simply indicate whatever is listed in the report or publication; e.g., "the skeleton of a horse."
- Body Zone: multiple-choice field used to indicate the parts of the animal present. Choices include: Head, Trunk, Upper Limbs, Lower Limbs, Limbs (Indt), Unknown. This way, even if it is not clear exactly which bones were present (i.e., the record reads "the leg of a cow") some information may be captured and compared across records despite the varying level of detail available for zooarchaeological remains.
- Condition: The Condition drop-down field is used to capture any cultural or taphonomic modifications noted for the remains. The choices include: Fragmented, Burnt, Cut, Pierced, Gnawed, Fossilized, Incised, Painted, Lead Filled, Normal, Unknown.
- Completeness: The Completeness drop-down field captures whether the remains are those of a whole animal versus solely animal parts. The choices include: Whole, Partial, Cranium, Tooth/Teeth, Horn/Antler, Claw, Unknown.
- Preservation: This is a write-in field used to capture the current preservation of the remains. In cases where the remains were personally examined or photographs were accessible I have recorded the state of preservation. However, more often this is not known since new zooarchaeological analysis was not part of the project, so this field reads "unknown."
- ID Integrity: This drop-down field records the integrity of the skeletal identification based on

the level of expertise of the identifier or analyst. Since this is a very mixed dataset, it is necessary to differentiate between reliably identified remains versus those identified in the field or during antiquarian excavations. The choices are "Specialist" which is used when a zooarchaeologist identified the remains, "Field" for when the excavator noted animal remains, but no further analysis was undertaken, and "Unknown" when it is not clear whether the excavator identified the animal remains or whether someone else identified them when the bones were sent to a museum for storage.

- Current Location: Lists the museum or institution where the zooarchaeological remains are housed.
- Accession #: Lists the accession or inventory number provided by the institution where the remains are housed, when indicated in publications or reports.
- Photo?: checkbox used to indicate whether the author photographed the remains.
- Photo #s: Write-in field used during analysis to record the photo identifiers of the photos taken in cases when the remains were rarely viewed[69] (e.g., DSCF####-DSCF####), as well to indicate which photos were kept and edited for use in later analysis and publication.
- Photo Hyperlink: Hyperlink to the file containing photographs of the osteological material – both my own research photographs, as well as any published photographs from other sources.
- Notes: This field simply contains notes made about the zooarchaeological remains, but is also used to contain information that other scholars have published about these remains that are not solely a description of the bones.
- Context Description: This is a field that mirrors what is written in the Description field in the Context table, so that a description of the artifact's context is readily available without going

[69] I only examined teeth and claws that had been used as pendants.

back to the Context table.

- Citations: Contains citations for any information contained in the Description or Notes field.
- Missing Info: Field used to record any information that is missing or anything that should be followed-up on at a later point in time.

Since the zooarchaeological dataset was used primarily in aggregate for comparison with patterns in animal representation, there are only a few fields that were used as variables in queries and other broader analyses. These fields are the contextual fields (Site and Context), and those fields recording the basic characteristics of the animal deposit (Species, Body Zone, Condition, Completeness). These variables indicate patterning in the contexts of animal deposits as well as the types of animal deposits – in terms of the species chosen, the parts deposited, and the condition in which they were deposited. The many other fields in this table are primarily for data capture so that any available details were recorded and could be referenced during analysis and presentation of the material.

III.4. Data Analysis

III.4.A. Quantitative Analyses

Quantitative analyses of the iconographic and zooarchaeological data are carried out at multiple scales (inter- and intrasite) using several variables.[70] Associations between variables are explored through queries in the Access database, which were described in the previous sections on the various database forms. The original project proposal called for statistical analyses; however, the immense variability of the full dataset meant that statistical analysis was no longer the most appropriate method. Instead comparison of proportions and percentages and other more

[70] The variables appropriate for quantitative analysis were described above in the sections focused on the Site, Context, Artifact, and Zooarch forms.

general quantitative measures were utilized that were more useful to capture the nuances of patterning within the data.

No new zooarchaeological analyses were conducted due to the poor preservation and incomplete recovery of zooarchaeological material. Instead, published and unpublished zooarchaeological reports from mortuary sites compiled in the data collection phase were systematically analyzed to gain a comprehensive understanding of interaction with animals as reflected in the archaeological record, which is compared to the patterns evident in the artifacts depicting animals. Due to the nature of the dataset and the low quantity of recovered faunal remains, the creation of presence/absence tables is the focus of analysis. I also determine rank order abundance to better understand the presence and importance of different taxa between datasets (Grayson 1984:96-99. 131-151; Lyman 2008:72-78).

Rank order abundance can be calculated using MNI (minimum number of individuals) or NISP (number of identifiable specimens), and simply represents the frequencies of taxa (Lyman 2008:22). First the abundance of each taxa is determined (number in the dataset, counted as MNI or NISP), then their percentage of the dataset is determined, which is the relative abundance (Reitz and Wing 2008:115). Rank order abundance represents the ordinal organization of taxonomic importance based on relative abundance. Measures of relative abundance are informative of broad dietary importance, as well as temporal patterns, geographical and status differences in animal exploitation (Peres 2010:26).

III.4.B. Qualitative Analyses

The qualitative analyses are based on descriptive categorization of faunal remains and artifacts depicting animals and photographs of the latter. Representational practices including

stylistic and typological choices, whether sex or age is indicated, what activities the animals are engaged in, and other choices made by the producers are all investigated since they may indicate local preferences for or perceptions of these animals. All analyses stemmed from the inherently qualitative assessment of taxa in both representation and the zooarchaeological remains. Because of this, the following sections are structured to explain how the empirical questions listed at the beginning of this chapter are addressed qualitatively.

III.4.B.i. In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets?

The depositional contexts of iconographic and zooarchaeological materials are assessed through information captured in the Context form. This contextual information includes the categorization as settlement versus mortuary contexts broadly, as well as more refined contextual data such as who was interred in the grave for mortuary contexts, or where in the settlement the materials were excavated. Since the Context form is the same for both artifacts depicting animals as well as zooarchaeological remains, contextual patterning can be compared within as well as between these two datasets. Importantly, the context form also captures a detailed description of the depositional context, transcribed directly from site reports, as well as photos and plans of the context, and the full artifact assemblage associated with that context when available. All of this detailed information allows a more nuanced look at patterning in depositional contexts that might be missed in a purely qualitative analysis based on the selective coding of the context (settlement vs. mortuary; male vs. female; adult vs. child; etc.).

Chronological patterning is also assessed for the contexts in the dataset. Categorization by time period is a qualitative assessment based on previous studies of the chronological position of certain contexts, and is captured in the Context form in the Time Period field. Though the

most fine-grained local time periods are used to categorize different contexts whenever possible (e.g., Stična 1, Stična 2), this study will focus on the distinction between the first and second halves of the Early Iron Age, also discussed as the Early Hallstatt period (800-600 BCE) and Late Hallstatt period (600-300 BCE) following Dular and Tecco Hvala (2007:68-69). The broader chronological assessment is the focus because many artifacts and contexts cannot be securely dated to a single time period, or there is disagreement about the nuances of their dating, so resolving fine chronological questions can become problematic and beyond the scope of this project. Instead, the focus on differences between the beginning and the end of the Early Iron Age will expose areas where there are distinctions and discontinuities, which may be assessed with finer chronological analysis in a future study.

III.4.B.ii. Are there any differences in the representation or treatment of certain animals based on taxon?

Taxonomic classification proceeded from the assumption that the most likely animals that would be represented would be local species. A list of species attested in the zooarchaeological record of Slovenia, from the period of the Early Bronze Age to the Roman period was created to provide an assessment of which animals were being interacted with in earlier and later time periods (see Appendix A). This was supplemented with known local species that were not archaeologically attested in Slovenia. Absence of evidence of these animals is not necessarily evidence of their absence, since osteological remains are not always preserved in acidic soils and sieving is not common archaeological practice in this area, so many smaller species are missing from the archaeological record. In addition, very few settlement contexts have been thoroughly

excavated,[71] so the full spectrum of zooarchaeological material associated with settlements is not well known. This supplementary list used to build the Species table in the Access database was developed using local and regional wildlife guides, as well as broader zooarchaeological manuals (Bökönyi 1974:433-436; Chinery 1987; Gorman 2008; Križ et al. 2009:25-27; Kryštufek 1991; Kryštufek and Janžekovič 1990; Štangelj and Ivanovič 2014; Reitz and Wing 2008:Appendix 1; Šafarek and Berden Zrimec 2015).

The species represented on artifacts were assessed morphologically, and whenever possible a species from the list in the Species table was chosen. Often however, identification to the specific genus or species was not possible, so broader categories were added to the Species table, still adhering to taxonomic conventions. Some examples of broader categories are "Bird – Indeterminate," "Ungulate – Indeterminate," "Large Mammal," "Small Mammal," "Mammal – Indeterminate." Very occasionally, hybrid images combining physical attributes of several animals were identified, usually matching creatures from Greek mythology, which necessitated the addition of "Sphinx" and "Pegasus" to the species list. The category "Indeterminate" was also added to the Species table for instances when the artifact was too damaged or the image was too schematic to make a reliable taxonomic determination. This is also a common category in zooarchaeological analyses when a bone fragment is too small or too damaged for identification, or lacks key diagnostic features.

This species list was used primarily for the iconographic dataset, however it followed taxonomic conventions so that it could also be applied to the zooarchaeological dataset, facilitating the comparison of the two. Identification in the zooarchaeological dataset followed the specialist identifications noted in zooarchaeological reports, or the identification made by the

[71] Most often fortifications have been trenched (see Dular and Tecco Hvala 2007:28-30).

excavator in publications and site reports since no new zooarchaeological analysis or identification was undertaken in the course of this project (see the description of the ID Integrity field in section III.3.E).

The sex of the animals is also discussed within the taxonomic assessment, since it is expected to vary by species. The representation of sexed animals on artifacts is assessed based on the depiction of genitalia and other secondary sexual attributes, specifically horns and antlers. Sex is rarely identified in the zooarchaeological sample, so there is no broad assessment of the differential treatment of sex in this dataset. The species assessment in turn can be used for comparison both within and between the iconographic and zooarchaeological datasets.

III.4.B.iii. Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles?

Social roles that can be identified include gender and broad age grades, while status may tentatively be identified on the basis of the quantity and quality of grave goods, as well as the presence of imports. The presence/absence recording of imports in the Context form is employed, and used as a proxy for status, since imports are widely taken as an indicator of elevated social status due to their restricted circulation (Frey and Gabrovec 1971; Gabrovec 1992a, 1992b, 1999; Teržan 1977; 1985; 1995; 1997; Wells 1981). However, it is important to note that imports are identified in this study on the basis of studies by other scholars, or due to the presence of clearly non-local materials (e.g., amber). There is also difficulty determining the origins of certain artifacts since they were deposited across a broad region that encompassed several archaeological cultures, particularly around the northern Adriatic, and it is unclear whether certain objects were imported or locally made.

The presence of horse gear is also recorded with the contextual information, since horses

appropriate for riding have been viewed as an expression of elite or warrior status (Bökönyi 1964; 1968; Dular 2007; Kmeťová 2013b; Koch 2010; Pare 1989; 1992; Teržan 2011). However, graves with horse gear will be analyzed as a unit, as well as compared to other apparently high status graves. This is to investigate whether the burial of horse gear with an individual indicates a particular type of status, possibly related to equestrian and other specific forms of human-horse interaction, or if it does in fact align broadly with high status in general as has been previously supposed (Bökönyi 1964; 1968; Dular 2007; Kmeťová 2013b; Koch 2010; Pare 1989, 1992; Teržan 2011).

Chapter IV. Analysis

Sixty-eight sites were surveyed in the course of this project, 23 settlements and 45 cemeteries (Appendix B). Artifacts depicting animals were found at 31 sites (46% of the total sites), only two of which were settlements. There is an inverse relationship between the presence of animal iconography at settlements and cemeteries – artifacts depicting animals are present at only 9% of the project settlements, but appear in 64% of the cemeteries. However, it is important to keep in mind that settlements have been less extensively excavated than cemeteries, and the primary focus of settlement excavations has been on the fortifications rather than the internal structures (Dular and Tecco Hvala 2007; see section II.1.D). The settlement with the most objects depicting animals is Cvinger nad Virom pri Stični, part of the Stična complex, which has yielded six such artifacts to date. This site is also the most thoroughly excavated, and it is likely that other settlements may contain more artifacts depicting animals that have not yet been recovered (Dular and Tecco Hvala 2007; Gabrovec 1994; Grahek 2016). Six artifacts is still a small amount compared to the associated cemetery of Gomile, also in the Stična complex, where 73 artifacts with animal images were identified (Gabrovec 2006; Gabrovec and Teržan 2008). In turn, faunal remains were recovered from 15 cemeteries, which is 33% of the mortuary sample.

IV.1. Artifacts Depicting Animals

The 31 sites with artifacts representing animals produced a total of 398 artifacts

associated with 226 discrete contexts, and an additional 42 artifacts recovered as stray finds (Tables IV.1 and IV.2). Two hundred and twenty of these contexts are graves, while six are settlement features. The average number of contexts with artifacts depicting animals per site is seven, with a range from zero true contexts (sites with solely stray finds) to a high of 50 graves with animal imagery at Preloge in the Magdalenska gora complex. The average number of artifacts per site in turn is 14, with a low value of one and a high value of 103, also at the site of Preloge.

Table IV.1. Presence/absence of artifacts depicting animals at project sites. Sites are listed organized geographically following the map in Figure III.1.

Complex	**Site**	**Type of Site**	**Artifacts Depicting Animals**	
			Present	*Absent*
Molnik	Roje (near Orle)	Flat Cemetery		X
	Grmada	Tumulus Cemetery	X	
---	Gradišče (near Dešen)	Fortified Settlement		X
Vače	Ravne njive	Tumulus Cemetery	X	
	Apno	Cemetery		X
	Reber	Flat Cemetery; Tumulus Cemetery	X	
---	Kidričeva cesta (Zagorje)	Flat Cemetery	X	
Magdalenska gora	Laščik	Tumulus Cemetery	X	
	Preloge	Tumulus Cemetery	X	
	Voselca	Tumulus Cemetery	X	
---	Gradišče (near Vintarjevec)	Fortified Settlement		X
Stična	Cvinger nad Virom pri Stični	Fortified Settlement	X	
	Dole	Flat Cemetery		X
	Marjanov hrib	Unfortified Settlement		X
	Gomile (near Stična)	Tumulus Cemetery	X	
---	Medvedjek	Tumulus Cemetery	X	
---	Škodetov pruh (Volčje njive)	Tumulus Cemetery	X	
---	Roje (near Moravče pri Grabovki)	Flat Cemetery; Tumulus Cemetery		X
---	Zagrac	Fortified Settlement		X
---	Špičasti hrib	Fortified Settlement	X	
---	Kostjavec	Fortified Settlement		X
---	Gradišče (near Valična vas)	Fortified Settlement		X
Dobrnič	Koželjeva hosta	Tumulus Cemetery		X
	Cvinger near Korita	Fortified Settlement		X
	Gomile near Dobrava	Tumulus Cemetery	X	

Complex	Site	Type of Site	Artifacts Depicting Animals	
			Present	*Absent*
---	Kunkel	Fortified Settlement		X
Trbinc	Kincelj	Fortified Settlement		X
	Devce	Cemetery		X
---	Vesela gora	Fortified Settlement		X
---	Gradec (near Vinkov vrh)	Fortified Settlement		X
---	Sv. Ana	Fortified Settlement		X
---	Ajdovski gradec	Cemetery	X	
Mokronog	Sv. Križ	Flat Cemetery; Tumulus Cemetery		X
	Križni vrh	Fortified Settlement		X
Boštanj	Gorenjčeve groblje	Tumulus Cemetery	X	
	Grmašca	Tumulus Cemetery	X	
	Kosmatec	Tumulus Cemetery	X	
Dolenjske Toplice	Cvinger	Fortified Settlement		X
	Branževec 2	Tumulus Cemetery	X	
Brezje pri Trebelnem	Hojbi	Tumulus Cemetery	X	
	Gomile	Tumulus Cemetery		X
Novo mesto	Kandija	Flat Cemetery; Tumulus Cemetery	X	
	Kapiteljska njiva	Flat Cemetery; Tumulus Cemetery	X	
	Mestne njive	Flat Cemetery		X
	Marof	Fortified Settlement		X
	Mačkovec	Tumulus Cemetery	X	
	Malenškova njiva	Tumulus Cemetery	X	
	Zagrebška cesta	Tumulus Cemetery	X	
---	Starograjska hosta	Tumulus Cemetery		X
Veliki vinji vrh	Ivanec	Tumulus Cemetery		X
	Laze	Tumulus Cemetery		X
	Veliki Vinji vrh	Fortified Settlement		X
	Vovk	Unfortified Settlement		X
	Dolge njive 2	Tumulus Cemetery		X
Libna	Sv. Marjeta	Fortified Settlement		X
	Deržaničev gozd	Tumulus Cemetery	X	
	Špiler	Tumulus Cemetery	X	
	Volčanškova gomila	Tumulus Cemetery	X	
---	Gomile (near Sajevce)	Tumulus Cemetery		X
---	Stari grad (at Podbočju)	Fortified Settlement		X
---	Gomile (near Velike Malence)	Tumulus Cemetery		X
Metlika	Hrib	Tumulus Cemetery	X	
	Metlika	Fortified Settlement		X
	Borštek	Flat Cemetery		X
Podzemelj	Kučar	Fortified Settlement		X
	Gomilica (Škrilje)	Tumulus Cemetery	X	
	Steljnik (Grm)	Tumulus Cemetery	X	
	Vir (Škrilje)	Tumulus Cemetery	X	
Totals	**68 sites**	**23 settlements; 45 cemeteries**	**31**	**37**

Table IV.2. Number of contexts with artifacts depicting animals and quantities of these artifacts recovered from project sites. Brackets indicate the number of artifacts recovered as stray finds, while numbers outside of brackets indicate artifacts from intact contexts.

Complex	**Site**	**Type of Site**	**Number of:**	
			Contexts	*Artifacts*
Molnik	Grmada	Tumulus Cemetery	1	1
Vače	Ravne njive	Tumulus Cemetery	1	1
	Reber	Flat Cemetery; Tumulus Cemetery	5	6
---	Kidričeva cesta (Zagorje)	Flat Cemetery	1	2 [3]
Magdalenska gora	Laščik	Tumulus Cemetery	6	12
	Preloge	Tumulus Cemetery	50	99 [4]
	Voselca	Tumulus Cemetery	5	6
Stična	Cvinger nad Virom pri Stični	Fortified Settlement	5	6
	Gomile (near Stična)	Tumulus Cemetery	33	58 [15]
---	Medvedjek	Tumulus Cemetery	3	9
---	Škodetov pruh (Volčje njive)	Tumulus Cemetery	-	[1]
---	Špičasti hrib	Fortified Settlement	1	1 [1]
Dobrnič	Gomile (near Dobrava)	Tumulus Cemetery	1	1
---	Ajdovski gradec	Cemetery	1	1
Boštanj	Gorenjčeve groblje	Tumulus Cemetery	1	1
	Grmašca	Tumulus Cemetery	2	2
	Kosmatec	Tumulus Cemetery	2	2
Dolenjske Toplice	Branževec 2	Tumulus Cemetery	19	30
Brezje pri Trebelnem	Hojbi	Tumulus Cemetery	14	19
Novo mesto	Kandija	Flat Cemetery; Tumulus Cemetery	14	24 [2]
	Kapiteljska njiva	Flat Cemetery; Tumulus Cemetery	45	97 [3]
	Mačkovec	Tumulus Cemetery	4	5 [1]
	Malenškova njiva	Tumulus Cemetery	2	5
	Zagrebška cesta	Tumulus Cemetery	-	[1[72]]
Libna	Deržaničev gozd	Tumulus Cemetery	-	[2]
	Špiler	Tumulus Cemetery	1	1 [9[73]]
	Volčanškova gomila	Tumulus Cemetery	3	4
Metlika	Hrib	Tumulus Cemetery	2	2
Podzemelj	Gomilica (Škrilje)	Tumulus Cemetery	2	2
	Steljnik (Grm)	Tumulus Cemetery	1	1
	Vir (Škrilje)	Tumulus Cemetery	1	1
Totals	**31 sites**	**2 settlements; 29 cemeteries**	**226**	**398 [42]**

Three sites stand out for the extremely high number of artifacts depicting animals recovered: Preloge at Magdalenska gora with 103 artifacts, Kapiteljska njiva in the Novo mesto complex with 100, and Gomile in the Stična complex with 73 (Figure IV.1). Once the finds from the associated sites within the same complex are taken into account, Novo mesto overtakes

[72] This site is included because the finds were recovered during a salvage excavation and reliably recorded; however half of the grave had been destroyed by construction, so the full grave inventory is not known (Knez 1985, 1986).

[73] There are a high number of artifacts considered stray finds from Špiler because early excavations at this site only noted locations within the tumuli where groups of artifacts were recovered, and it has not been possible to determine when these locations correspond to full graves versus artifact clusters (Guštin 1976).

Magdalenska gora as the complex with the largest number of artifacts recovered, though the Novo mesto complex is composed of a larger number of sites. These complexes are among the most thoroughly excavated in the Dolenjska Hallstatt culture area, but they are nonetheless considered to be important Early Iron Age centers based on the quantity and quality of finds compared to other sites, and the high number of artifacts associated with them is not solely due to excavation bias (Dular and Tecco Hvala 2007:157-195).

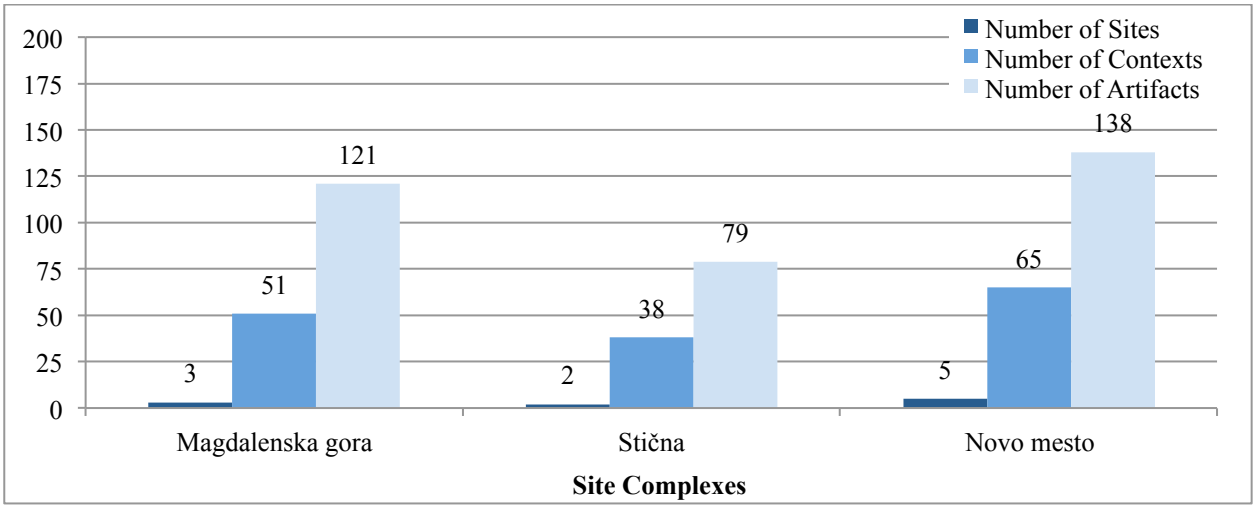

Figure IV.1. Site complexes with the highest numbers of artifacts depicting animals.

Demographic associations of these artifacts can be assessed via the mortuary dataset. There are a total of 220 grave contexts with animal iconography; 55 are identified as graves of probable males, 62 as probable female graves, and ten are considered double graves, three of two probable males and seven of a probable male and female. There are 93 graves for which gender cannot be determined on the basis of the associated artifacts, in most cases due to a lack of artifacts diagnostic of gender, but also due to the occasional presence of both male and female diagnostic artifacts.[74] For the latter it is unclear whether the mix of gendered artifacts is related to

[74] Vače, Reber Grave 1881/1; Magdalenska gora, Preloge Graves 2/38 and Grave X/14; Libna, Volčanškova gomila Grave 1889-1890/i; Brezje pri Trebelnem, Hojbi Grave VII/1.

an unrecognized double burial, the presence of opposite gender grave gifts, or less clear gender divisions than are assumed for this archaeological culture and that are the premise for gender determination in this project (see section III.3.C). There are an additional 41 artifacts categorized as stray finds from mortuary contexts that cannot be securely associated with a complete grave.

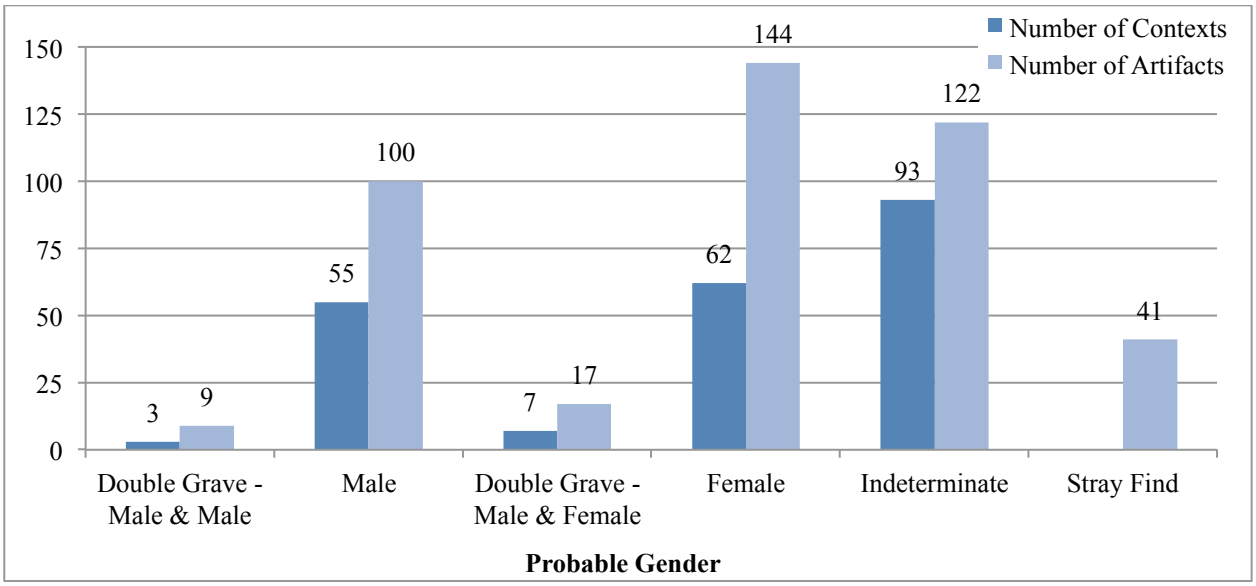

Figure IV.2. Probable gender of the deceased in grave contexts containing artifacts depicting animals.

As discussed in section III.3.C, age determination is more difficult in this dataset, and children are tentatively identified on the basis of sub-adult skeletal remains recorded by excavators or a grave cut less than 1.35 meters long, sometimes in conjunction with undersized personal ornaments. Only nine sub-adult graves with animal imagery were identified, associated with a total of eleven artifacts (Figure IV.3). One hundred and two graves were identified as probable adults, while probable age could not be determined for 109 graves, in most cases due to a lack of data concerning the dimensions of graves excavated prior to WWII. Because there are so few graves associated with probable children, analyses of species and artifacts according to age will only be presented in cases where there are probable children in that specific subset of data.

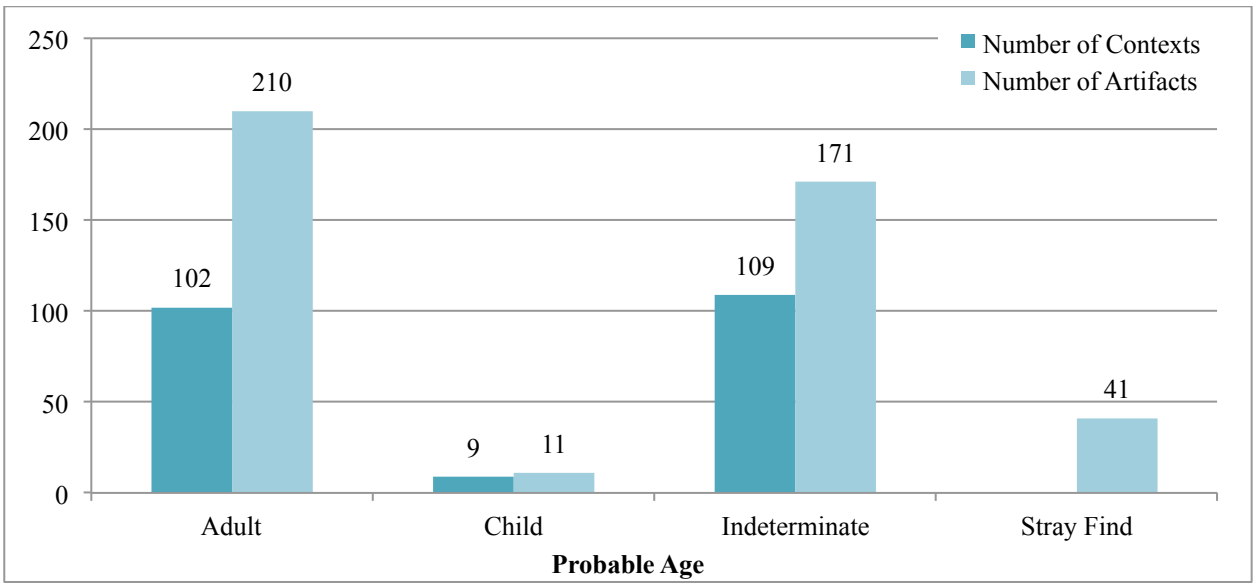

Figure IV.3. Probable age of the deceased associated with grave contexts containing artifacts depicting animals.

IV.2. Species Depicted

Taxonomic classification of the different animals depicted was based primarily on morphological features, but in certain cases was supplemented by iconographic analysis (Panofsky 1939). For example, distinguishing dogs from other canids was in part based on identifying features such as the up-swung, curling tails, shortened muzzles, and floppy ears that distinguish many domestic dogs from their wolf ancestors (Clutton-Brock 1999:51-53). However, in cases where such features were not readily apparent or could not be securely identified, contextual clues from the imagery itself were used – dogs often appear in the company of people, especially men in hunting scenes. Other canids, probable wolves, were defined by their association with deer and other large prey with no humans in the scene. Canid was the blanket wild animal category used when features that would distinguish a dog morphologically or contextually were not apparent. Canids rather than wolves was used for taxonomic definition, since while most images may feature wolves, especially those where large prey are depicted, in scenes without contextual clues it cannot be determined whether wolves,

foxes, or even golden jackals[75] may be depicted (Chinery 1987:42-43). Particulars of the taxonomic assessment for each category will be given at the beginning of each sub-section.

There are 184 artifacts depicting an identifiable domesticate (42%), 154 depicting a wild animal (35%), four depicting a mythical creature (1%), and 137 artifacts depicting a taxonomically indeterminate animal (31%; Figure IV.4).[76] Birds are the most frequently depicted animal, and far outnumber any other wild animals; all other wild animal species are depicted on fewer than 20 artifacts. Sheep are the next most frequent animal – identifiable as sheep based on the depiction of the distinctive forward-curling horns. Animals that can only be identified as mammals are the next most commonly depicted, followed by horses. Completely indeterminate animals appear on 43 artifacts, while all other species appear on 20 or fewer artifacts. No domestic pigs have been identified, though it is clear from the zooarchaeological record that they were important for subsistence.

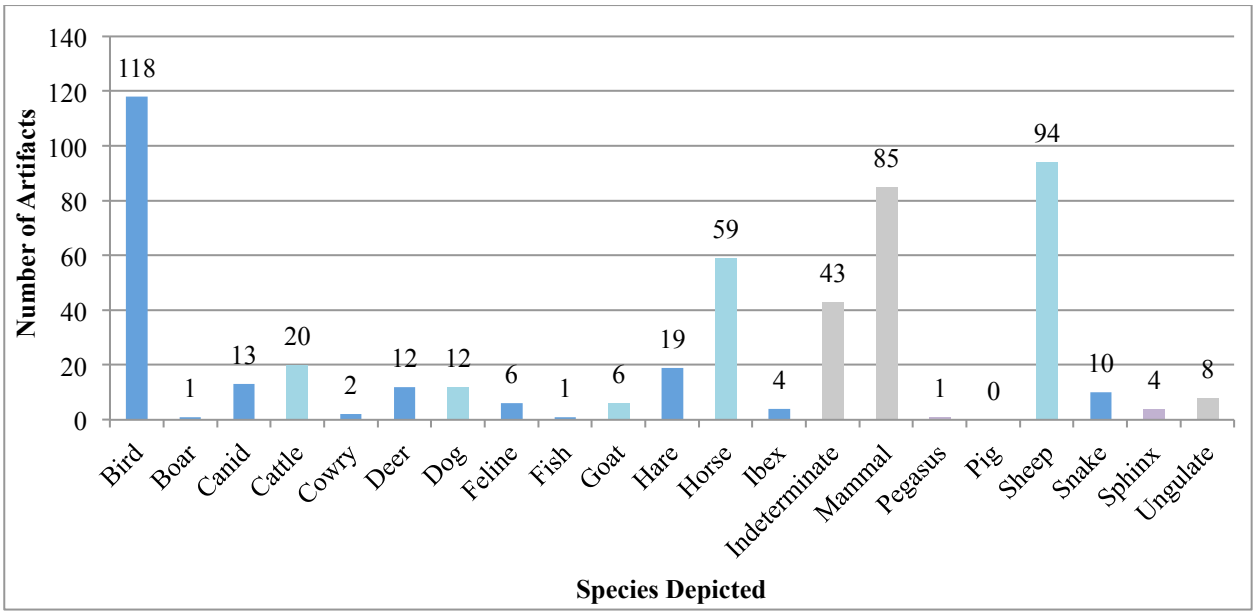

Figure IV.4. Breakdown of species depicted in the dataset. Light blue indicates domesticates, blue is wild animals, purple are mythical creatures, and grey are the taxonomically indeterminate depictions.

[75] Locally known as šakal dogs.

[76] Note that the percentages do not add up to 100% since there were often multiple animals depicted on a single artifact.

Table IV.3. Number of species represented on different artifact types. Darker colors are used to indicate higher quantities.

	Personal Ornament									Martial Gear			Feasting Vessels					Other		Horse Gear		
Species	Fibula	Bead	Button	Pendant	Earring	Torc	Bracelet	Anklet	Belt	Helmet	Dagger	Scabbard	Situla	Bronze Vessel	Bronze Lid	Ceramic Vessel	Ceramic Lid	Scepter	Bone Figurine	Bridle Button	Phalera	**Totals**
Bird	37	5		6	1			3	8		1	1	32	20	2	2						**118**
Boar									1													**1**
Canid	3				4				3				3									**13**
Cattle	1			1												6	2			10		**20**
Cowry				2																		**2**
Deer									4				6									**12**
Dog	6								5				2									**13**
Feline	5								1													**6**
Fish									1													**1**
Goat									2				4									**6**
Hare			1		14				3													**18**
Horse	30			1					4	1			8		1	1	1	1	2		10	**59**
Ibex													3		1							**4**
Pegasus									1													**1**
Pig																						**0**
Sheep	3	89											2			1						**94**
Snake						3	6		1													**10**
Sphinx									1	3												**4**

Table IV.4. Number of indeterminate species represented on different artifact types. Darker colors indicate higher quantities.

	Personal Ornament					Feasting Vessels			Other			
Species	Fibula	Bead	Earring	Torc	Belt	Situla	Ceramic Vessel	Ceramic Lid	Ceramic Rattle	Firedog	Indeterminate	**Totals**
Indt.	28		8		3	1	2		1			**43**
Mammal	3	4	7	1	3	1	49	13		2	2	**85**
Ungulate					2	5		1				**8**

Further distinctions arise when the species represented are parsed by artifact type (Tables IV.3 and IV.4). Birds appear on a wide variety of artifacts, but are most prevalent on personal

ornaments (60 artifacts) and ceramic and bronze feasting vessels (56 artifacts). Among these, fibulae, situlae, and other bronze vessels are most common. Though sheep are the second most common animal depicted, they appear primarily on ram's head beads with 89 examples, though they also appear on three fibulae and three feasting vessels (Table IV.3). Indeterminate mammals also appear on a wide variety of objects, though they are most common on ceramic vessels and lids (Table IV.4). Horses also appear on a wide variety of artifacts, particularly personal ornaments (35 total), feasting vessels (11 total), and horse gear (10 total). They are most often represented on fibulae, with 30 examples in the dataset (Table IV.3). A detailed analysis of each of the different species depicted is presented in the following sections (IV.2.A and IV.2.B), and a detailed analysis of the various artifact types is presented in section IV.4.

IV.2.A. Domestic Animals

Artifacts representing domestic animals were identified at 25 sites in 93 total contexts (Table IV.5). Of those 93 contexts, 81 were graves, two were from settlements, and ten were stray find contexts. One hundred and eighty-three artifacts depict a domestic animal. As was the case in the full sample, the sites with the most artifacts depicting domesticates were Preloge at Magdalenska gora, Gomile at Stična, and Kapiteljska njiva at Novo mesto.

Artifacts depicting domestic animals appear in similar numbers in male and female graves – 25 probable male graves and 24 probable female – though there are more artifacts associated with the female graves (Figure IV.5). Domestic animal imagery was identified in more probable adult graves, and only three probable children's graves with these artifacts were identified (Figure IV.6). The artifacts in all three children's graves are fibulae.

Table IV.5. Contexts with artifacts representing domestic animals. In sample indicates reliable finds excavated after WWII, while non-sample are from the 21 cemeteries excavated by antiquarians (see section III.2.A).

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Mortuary Contexts			Settlement
					In Sample	Non-Sample	Stray Find	
Molnik	Grmada	17/10	Indt/Adult	1	X			
Vače	Ravne njive	1883/11-1	♂/Indt	1		X		
	Reber	1881/1	Indt/Indt	1		X		
		Grave with the Mounted Warriors Belt	♂/Adult	1		X		
		Flat Grave/14	Indt/Adult	1		X		
---	Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	1		X		
		Unknown	---	2			X	
Magdalenska gora	Laščik	V/31	♂/Adult	1		X		
		V/36	♀/Adult	1		X		
		V/43	Indt/Indt	1		X		
	Preloge	2/a	♀/Adult	1		X		
		2/b	♂/Adult	3		X		
		2/c	♀/Child	1		X		
		2/p	♀/Adult	1		X		
		2/11	Indt/Child	1		X		
		2/13	♂/Adult	10		X		
		2/17	Indt/Indt	1		X		
		2/38	Indt/Adult	1		X		
		2/46	♂/Adult	1		X		
		2/58	♂/Adult	2		X		
		13/53	Indt/Adult	1		X		
		13/97	♀/Adult	11		X		
		13/150	Indt/Adult	2		X		
		IV/16	♂/Adult	1		X		
		IV/30a	♀/Adult	1		X		
		IV/34	♀/Indt	1		X		
		IV/38	Indt/Adult	1		X		
		VI/30	♀/Indt	1		X		
		VII/Isolated Find	---	1			X	
		X/48	Indt/Adult	1		X		
	Voselca	2/11	Indt/Indt	2		X		
Stična	Cvinger nad Virom pri Stični	Trench 11	---	1	X			X
	Gomile	5/11	♂♀/Indt	2	X			
		5/Isolated Find	---	1			X	
		48/9(?)	---	1			X	
		48/72	♂/Adult	1	X			
		48/98	♀/Indt	1	X			
		48/99	♂/Indt	4	X			
		48/104	♂/Adult	1	X			
		IV/47	♀/Indt	1		X		
		V/8	Indt/Indt	1		X		
		VI/12	♀/Adult	12		X		
		VI/Isolated Find	---	1			X	
		VII/1	Indt/Indt	1		X		
		VIII/1	Indt/Child	1		X		
		Vas vir/11	♂/Indt	1		X		

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Mortuary Contexts			Settlement
					In Sample	Non-Sample	Stray Find	
---	Medvedjek	I/17	♀/Indt	7	X			
---	Škodetov pruh (Volčje njive)	Tločrt Gomile/Stray finds above graves 3 & 4	---	1			X	
---	Špičasti hrib	Trench 1/Layer 2	---	1				X
Dobrnič	Gomile	14/15	Indt/Indt	1		X		
Boštanj	Grmašca	Mali Lukovec/4	♀/Indt	1		X		
	Kosmatec	Gomila pri Zlatem teletu/26	Indt/Indt	1		X		
Dolenjske Toplice	Branževec 2	II/23	♂/Indt	1		X		
		V/33	♂/Indt	2		X		
		XI/8	♀/Indt	1		X		
		XI/21	♂/Indt	2		X		
Brezje pri Trebelnem	Hojbi	VII/1	Indt/Adult	3		X		
		XIII/8	♂/Adult	1		X		
		XIII/30	Indt/Adult	1		X		
		XIII/49	♂/Adult	1		X		
Novo mesto	Kandija	II/5	♂/Indt	2	X			
		II/6	♂/Indt	1	X			
		III/33	♀/Indt	2	X			
		IV/3	♂♀/Adult	3	X			
	Kapiteljska njiva	A/30	Indt/Indt	1		X		
		B/64	♀/Indt	2		X		
		II/24	Indt/Adult	1	X			
		III/12	♂/Adult	3	X			
		III/46	Indt/Indt	1	X			
		III/49	♀/Adult	1	X			
		III/50	Indt/Adult	1	X			
		IV/2	♀/Adult	1	X			
		V/31	Indt/Indt	5	X			
		V/35	♀/Adult	11	X			
		V/40	Indt/Adult	2	X			
		V/Stray Find	---	1			X	
		VI/4	Indt/Adult	2	X			
		VI/16	♀/Adult	1	X			
		VI/26	♀/Adult	7	X			
		VI/Stray Find	---	1			X	
		VII/28	♂/Adult	6	X			
		VIII/2	♀/Adult	1	X			
		XIV/7	♂/Adult	1	X			
		XIV/41	♂/Adult	5	X			
		XVI/26	Indt/Adult	1	X			
		XXIX/2	♀/Adult	1	X			
		XXXVI/20	♂♀/Adult	2	X			
	Mačkovec	I/1	♀/Adult	1	X			
	Malenškova njiva	Malenškova gomila/2	♂/Indt	2		X		
	Zagrebška cesta	Stray Find	---	1			X	
Libna	Špiler	III/Find 26	---	1			X	
Podzemelj	Steljnik (Grm)	I/19(u)	Indt/Indt	1		X		
	Vir (Škrilje)	I/9	Indt/Indt	1		X		
Totals	**25**	**93**		**183**	**32**	**49**	**10**	**2**

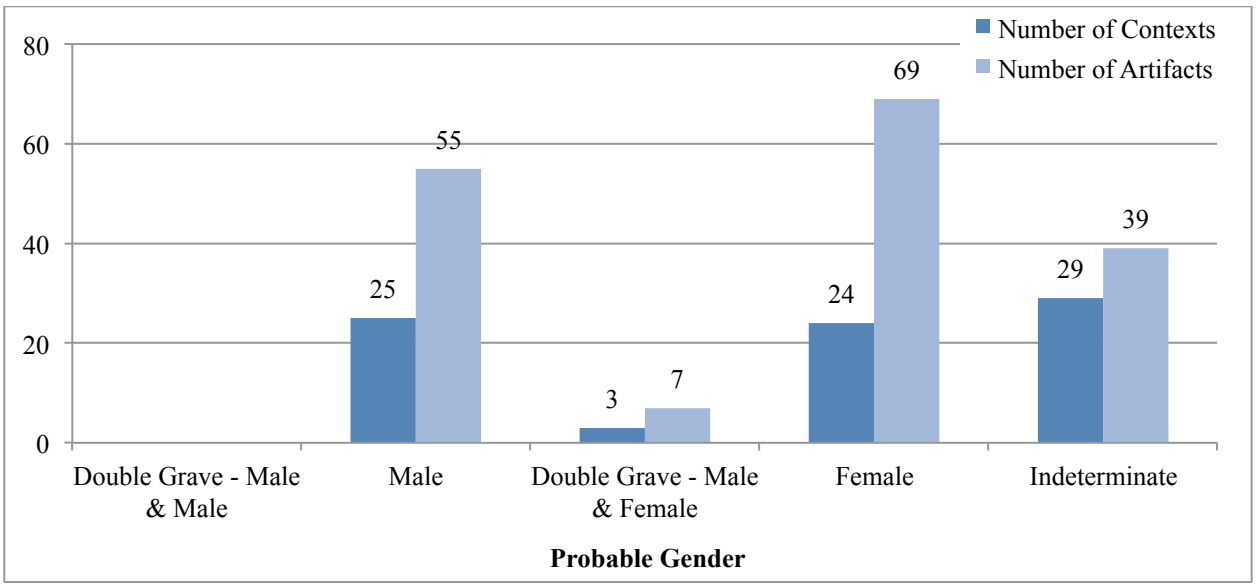

Figure IV.5. Probable gender of the deceased associated with grave contexts containing artifacts depicting domestic animals.

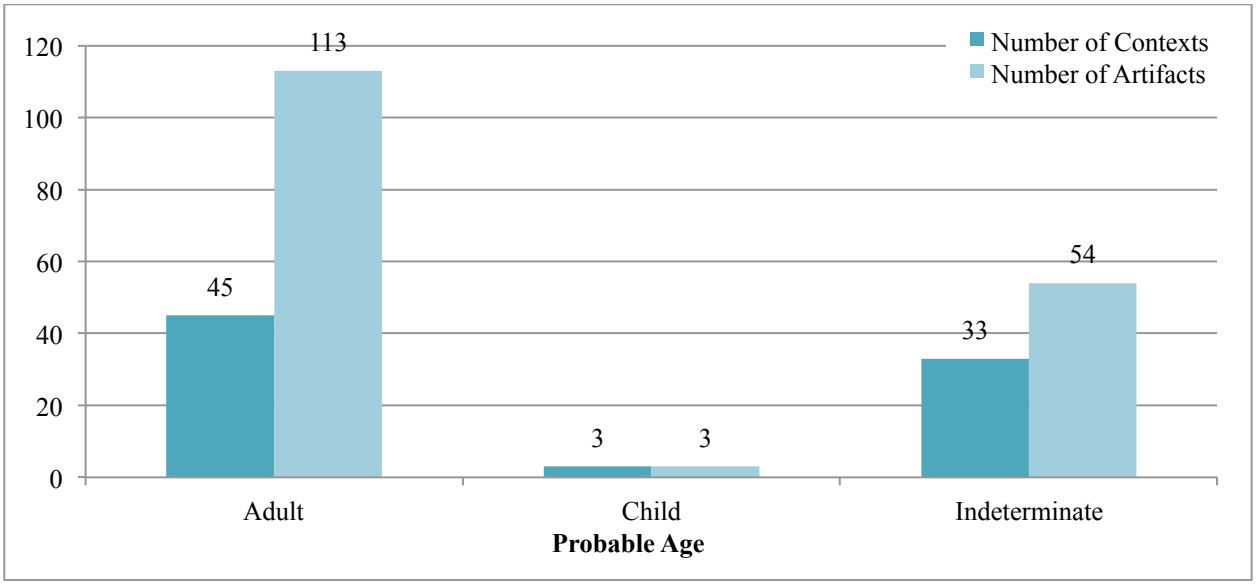

Figure IV.6. Probable age of the deceased associated with grave contexts containing artifacts depicting domesticates.

Artifacts depicting domesticates show some gendered patterns of distribution in mortuary contexts (Table IV.6). Males and females both have fibulae, ram's head beads, and situlae, though females have almost five times more ram's head beads. Other items are apparently exclusive to males or females. Male graves contain belt plates, a helmet, and horse gear depicting domestic animals, while female graves contain pendants, a scepter, and a bronze lid.

Table IV.6. Number of artifacts depicting domestic animals, divided according to the probable gender of the associated grave context.

	Double Grave – Male & Male	Male	Double Grave – Male & Female	Female	Indeterminate	N/A
Belt Plate		7			1	
Fibula		7		7	20	6
Figurine (bone)					1	
Helmet		1				
Horse Gear		19			1	
Lid (bronze)				1		
Lid (ceramic)		1				1
Pendant				2		
Ram's Head Bead		11	5	53	14	5
Scepter				1		
Situla		5	2	3	1	
Vessel (ceramic)		2		2	3	1

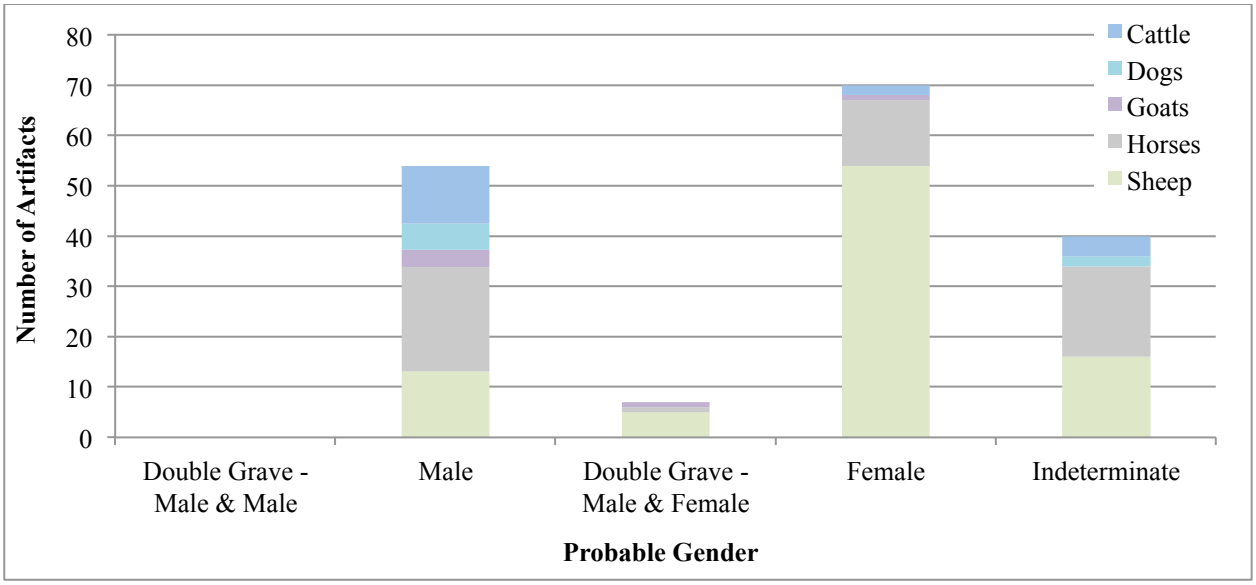

Figure IV.7. Domestic species represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

The domestic species depicted also show some gendered associations (Figure IV.7). Males are more strongly associated with artifacts depicting goats, and to a lesser degree horses. Females in turn are strongly associated with depictions of sheep. The only domestic animal that does not appear with both genders is the dog, which is found in male and indeterminate graves.

Although it is plausible that either of the two indeterminate graves with dog imagery could have belonged to females, it is simply not possible to determine the genders of the deceased based on the available data.

Age cannot be assessed in great detail for the domestic dataset – only three contexts are associated with probable children, and all three contained fibulae. Probable adults are associated with the full range of artifacts, and graves where age could not be assessed also contained a wide variety of artifacts.

Table IV.7. Number of contexts and artifacts depicting domesticates. Note that the context column does not add up, since single graves contained multiple artifacts depicting a domestic animal. Stray finds are not included.

Artifact	# Contexts	# Artifacts	Average
Belt Plate	8	8	1.00
Bridle Buttons	1	10	10.00
Ciborium	1	1	1.00
Fibula	28	36	1.29
Figurine	1	1	1.00
Helmet	1	1	1.00
Horn-Handled Bowl	1	1	1.00
Lid (bronze)	3	3	1.00
Lid (ceramic)	1	1	1.00
Pendant	2	2	1.00
Phalera	6	10	1.67
Ram's Head Bead	26	83	3.19
Rhyton	1	1	1.00
Scepter	1	1	1.00
Situla	8	10	1.25
Vessel (ceramic)	4	4	1.00
Totals	**83**	**172**	**2.07**

Most artifacts depicting domestic animals were unique items in graves (Table IV.7). Fibulae depicting domesticates occasionally occurred in pairs, as did phalerae. Ram's head beads were the only items that were frequently found in sets within graves.

IV.2.A.i. Cattle

Cattle are identified morphologically, primarily based on the shape of the head and horns. While hornless cattle did exist in prehistory, they were much less frequent than horned varieties (Bökönyi 1974:108-109). Prehistoric European cattle are distinguished from aurochsen by horn morphology:

Figure IV.8. Istrian cattle at Kamenjak National Park in Croatia.

cattle have smaller horns, a wider variety of horn forms, and horns tend to be more laterally oriented on the head instead of projecting forward (Figure IV.8; Bökönyi 1974:108). Distinguishing between cattle and aurochsen based on representations alone can still be difficult, since there is wide variation in the horn size and shape within both species, and we do not know the full range of variation that existed in this region in prehistory. However, in cases where there was some doubt, cattle is considered the more conservative assessment since cattle are extremely prevalent at this time and are the main subsistence animal, while aurochsen are present to a much more limited extent (see section II.5.A). One example in the dataset has more massive horns that may suggest identification as aurochs (Figure IV.9), however the horns are not outside the range of possibility for cattle, so the more conservative species identification as cattle was utilized.

Figure IV.9. Cattle protome from a ceramic vessel. Hojbi at Brezje pri Trebelnem, Grave XIII/30. Naturhistorisches Museum Wien inv. no. 34220.

Table IV.8. Contexts with artifacts representing cattle.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Magdalenska gora	Preloge	2/13	♂/Adult	10	Tin-lead bridle buttons
		2/58	♂/Adult	1	Ceramic horn-handled bowl
Stična	Gomile	48/98	♀/Indt	1	Bronze pendant
		Vas Vir/11	♂/Indt	1	Ceramic lid
Boštanj	Kosmatec	Gomila pri Zlatem teletu/26	Indt/Indt	1	Ceramic vessel
Brezje pri Trebelnem	Hojbi	XIII/30	Indt/Adult	1	Ceramic vessel
Novo mesto	Kapiteljska njiva	XVI/26	Indt/Adult	1	Ceramic vessel
	Mačkovec	I/1	♀/Adult	1	Ceramic ciborium
	Zagrebška cesta	Stray Find	---	1	Ceramic lid
Libna	Špiler	III/Find 26	---	1	Ceramic vessel
Podzemelj	Vir (Škrilje)	I/9	Indt/Indt	1	Bronze fibula
Totals	**9**	**11**		**20**	

Artifacts depicting cattle were found at nine sites from 11 contexts – nine true graves and two stray find contexts (Table IV.8). They tend to be singular items, the exception being a set of ten lead buttons depicting cattle protomes found in Grave 2/13 at the site of Preloge at Magdalenska gora. These are believed to be decorative buttons from a horse bridle, which likely indicates that they were all originally part of a single artifact[77] (Figure IV.10; Tecco Hvala 2012:159).

Figure IV.10. Lead cattle protome bridle button. Magdalenska gora, Preloge Grave 2/13. Naturhistorisches Museum Wien inv. no. 22109.

These items appear in three male graves and one female grave (Figure IV.11). There are many more individual objects depicting cattle associated with the probable male graves; however this pattern is skewed due to the single male grave with ten bridle buttons. There are no artifacts depicting cattle associated with probable children. Cattle artifacts were identified in five probable adult graves and three graves where age could not be determined.

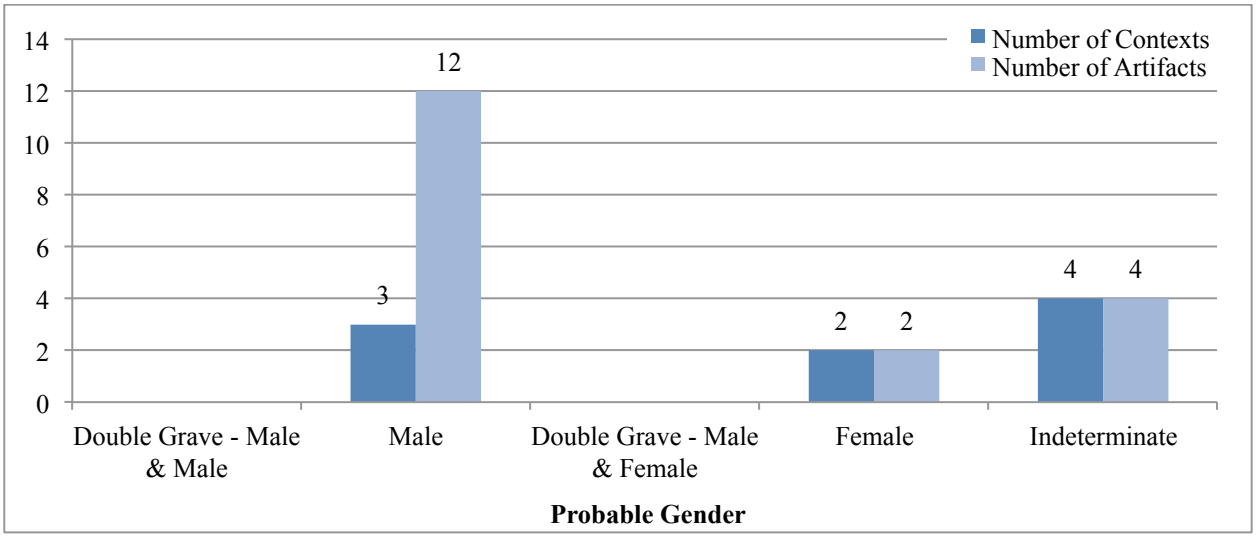

Figure IV.11. Probable gender of deceased associated with grave contexts containing artifacts depicting cattle.

[77] All artifacts in the study are assessed individually, even if originally they may have been part of a single composite artifact such as a bridle in the case of bridle buttons or phalerae, or a necklace or other jewelry in the case of beads. This is the more conservative approach, since without the organic material holding such items together, we cannot confirm whether such items were part of a single artifact or multiple artifacts.

Most of the artifacts depicting cattle are ceramic vessels that appear in both male and female graves, including a horn-handled bowl, ciborium, and ceramic lids (Figure IV.12). There are also the aforementioned lead buttons, a single bronze serpentine fibula, and a bovine pendant. The sample is relatively small, and there is no clear depositional pattern according to gender.

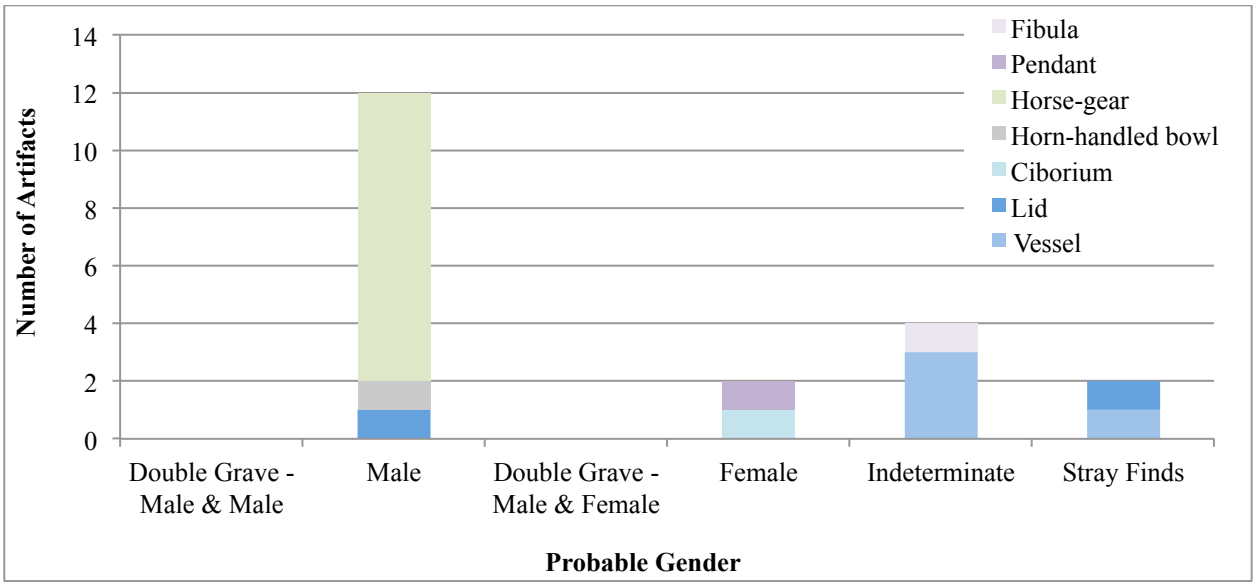

Figure IV.12. Cattle depicted on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

IV.2.A.ii. Sheep

Sheep were identified on the basis of their unique horn morphology – the horns sweep backward before curling forward around the ears, particularly in rams (Figure IV.13; Clutton-Brock 1999:70-75). In this period both rams and ewes were primarily horned throughout southeastern Europe, though unusually the remains of a hornless sheep were identified at the Cvinger hillfort near Stična, indicating that some variation existed (Bökönyi 1974:180-181, 1994:197).

Figure IV.13. Ram and hornless ewes in Cyprus (Photo by Kevin Garstki).

Sheep were the second most common animal

depicted, on 94 total artifacts from 33 contexts (Table IV.9). Twenty-eight contexts are graves, one is a settlement context, and four are stray find contexts. Most of the artifacts depicting sheep are from the site of Kapiteljska njiva at Novo mesto, primarily in the form of glass ram's head beads. This is consistent with previous research, since Novo mesto has been proposed as a center for glass production in the Early Iron Age, particularly of ram's head beads (Bakarić et al. 2006:11; Egg 2010:534; Haevernick 1974; Križ and Turk 2003:78; Križ et al. 2009:139-139).

Table IV.9. Contexts with artifacts representing sheep.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1881/1	Indt/Indt	1	Bronze situla
Magdalenska gora	Preloge	2/b	♂/Adult	2	Bronze crossbow fibulae
		13/97	♀/Adult	11	Glass ram's head beads
		IV/34	♀/Indt	1	Glass ram's head bead
		X/48	Indt/Adult	1	Bronze crossbow fibula
Stična	Gomile	5/11	♂♀/Indt	2	Amber ram's head beads
		IV/47	♀/Indt	1	Ceramic rhyton
		V/8	Indt/Indt	1	Glass ram's head bead
		VI/12	♀/Adult	12	Glass ram's head beads
		VI/Stray Find	---	1	Glass ram's head bead
		VII/1	Indt/Indt	1	Glass ram's head bead
Medvedjek	Medvedjek	I/17	♀/Indt	7	Glass ram's head beads
---	Škodetov pruh (Volčje njive)	Tločrt Gomile/Stray finds above graves 3 & 4	---	1	Glass ram's head bead
---	Špičasti hrib	Trench 1/Layer 2	---	1	Glass ram's head bead
Brezje	Hojbi	VII/1	Indt/Adult	1	Bronze ram's head bead
Novo mesto	Kandija	IV/3	♂♀/Adult	1	Glass ram's head bead
	Kapiteljska njiva	II/24	Indt/Adult	1	Glass ram's head bead
		III/12	♂/Adult	1	Bronze situla
		III/49	♀/Adult	1	Glass ram's head bead
		IV/2	♀/Adult	1	Glass ram's head bead
		V/31	Indt/Indt	5	Glass ram's head beads
		V/35	♀/Adult	11	Glass ram's head beads
		V/40	Indt/Adult	2	Glass ram's head bead
		V/Stray Find	---	1	Glass ram's head bead
		VI/4	Indt/Adult	2	Amber ram's head beads
		VI/16	♀/Adult	1	Glass ram's head bead
		VI/26	♀/Adult	7	Glass ram's head beads
		VI/Stray Find	---	1	Glass ram's head bead
		VII/28	♂/Adult	6	Glass ram's head beads
		VIII/2	♀/Adult	1	Glass ram's head bead
		XIV/41	♂/Adult	5	Glass ram's head beads
		XXXVI/20	♂♀/Adult	2	Glass ram's head beads
Podzemelj	Steljnik (Grm)	I/19(u)	Indt/Indt	1	Glass ram's head bead
Totals	**10**	**33**		**94**	

Artifacts depicting sheep are overwhelmingly associated with probable female graves (Figure IV.14). These artifacts appear nearly three times more often in identifiable female graves than male graves, and female graves contain nearly four times the number of artifacts depicting sheep. No artifacts depicting sheep have been found in graves of children to date.

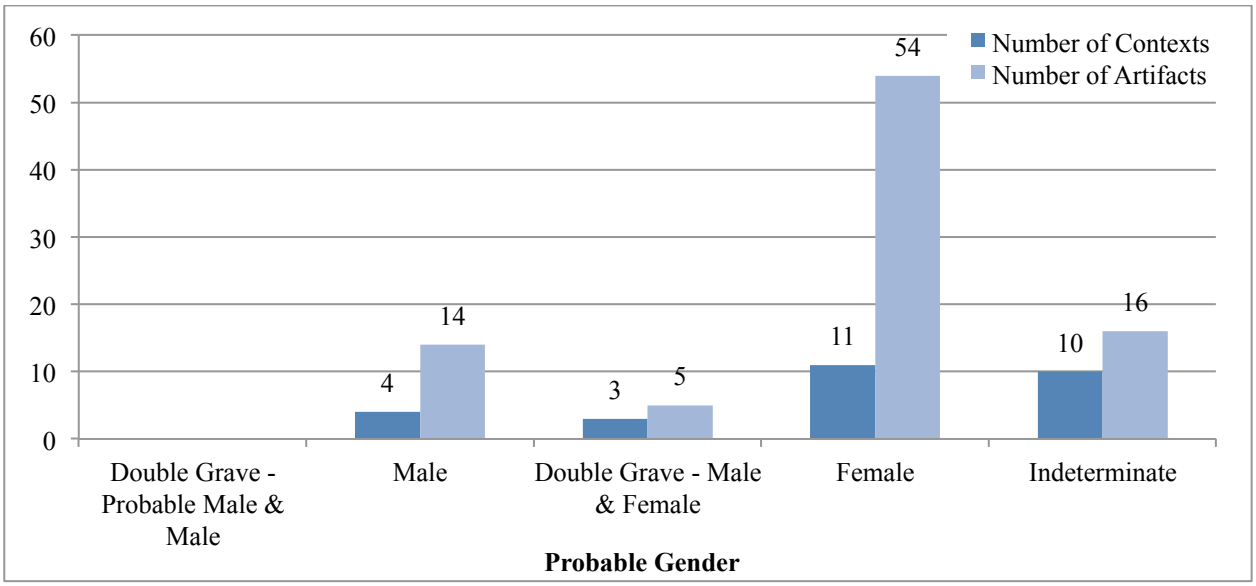

Figure IV.14. Probable gender of deceased associated with grave contexts containing artifacts depicting sheep.

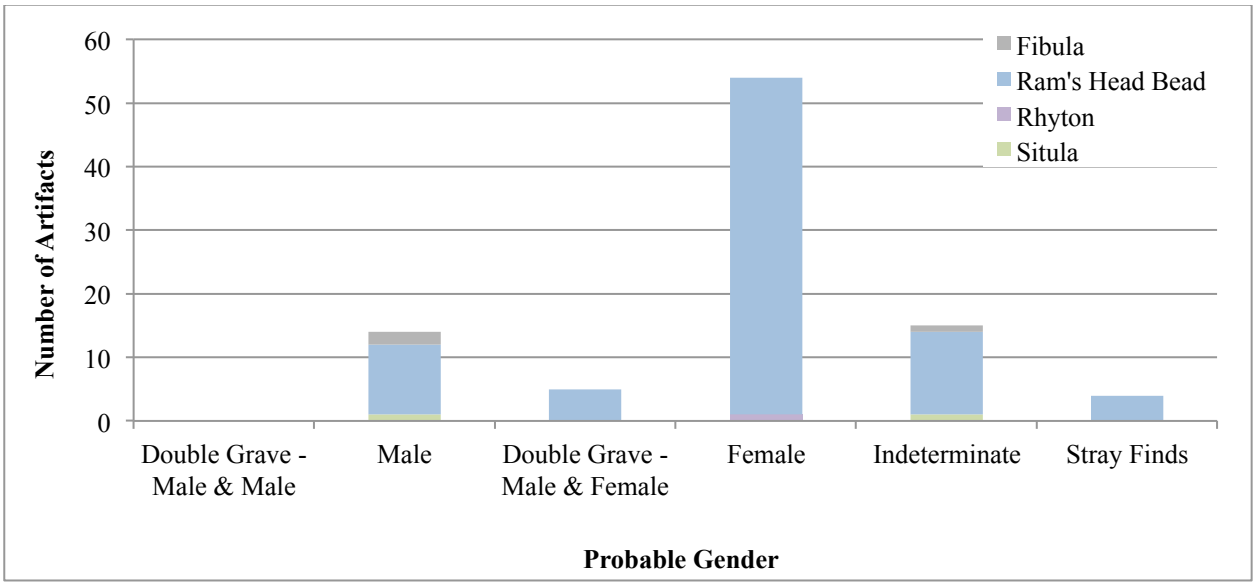

Figure IV.15. Sheep represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

There are additional distinctions in the artifacts depicting sheep deposited with probable males and females (Figure IV.15). There are relatively few artifacts that depict sheep apart from the aforementioned glass ram's head beads. It has been noted that these are strongly associated with female graves (Egg 2010:534); however two probable male graves from Kapiteljska njiva in Novo mesto, Graves VII/28 and XIV/41,[78] contain a total of 11 ram's head beads. It is unclear whether these two graves should be considered an exception, since even the sample of female graves with ram's head beads is relatively small at ten graves.

The only other artifact depicting a sheep associated with a probable female grave is an extremely unusual rhyton from Grave IV/47 at Gomile near Stična (Figure IV.16). This was certainly an import, likely from the eastern Adriatic, though there are also Greek and Apulian examples known (Hoffmann 1966; Wells 1981:66). Crossbow Certosa fibulae with sheep heads are associated with the grave of a probable male, as well as an indeterminate grave. This same gendered distribution is demonstrated by situlae depicting sheep. The sample is too small to determine whether these items are primarily associated with males. There is also an unusual bronze ram's head bead from Hojbi at Brezje pri Trebelnem Grave VII/1, though the gender of the deceased could not be determined.


Figure IV.16. Rhyton from Gomile at Stična, Grave IV/47. Peabody Museum inv. no. 40-77-40/13526.

Most artifact types depicting sheep appear alone, though there is a pair of fibulae in one grave. Ram's head beads can be deposited alone, or in sets of up to 12. There are 22 intact graves with a total of 82 ram's head beads, yielding an average of 3.73 beads per grave.

[78] Both currently unpublished (Dolenjski muzej original documentation).

IV.2.A.iii. Goats

Goats were also identified primarily on the basis of their horn morphology. Female goats have scimitar-shaped, backswept horns, while the male goats have a distinctive torqued horn (Figure IV.17; Clutton-Brock 1999:76, 79). Often there is difficulty identifying these animals as goats because of the unusual horn shape for males, since depictions in profile distort the shape of the horn. In situla art depictions of goats the horns are often s-shaped, sweeping back from the head (Figure IV.18). Another difficulty in identifying these animals as domestic goats is that they rarely appear in scenes with humans. Such depictions have occasionally been identified as representing "mountain goats," which are ibex or chamois in Slovenia and have entirely different horn shapes (Chinery 1987:53-54; see section IV.2.B.vi). Though it is possible that there were feral goat populations in ancient times that are depicted on such situlae, the conservative identification as domestic goats is supported by a situla from Vače Grave I/3[79] depicting a herd of goats followed by a shepherd (Figure IV.18).

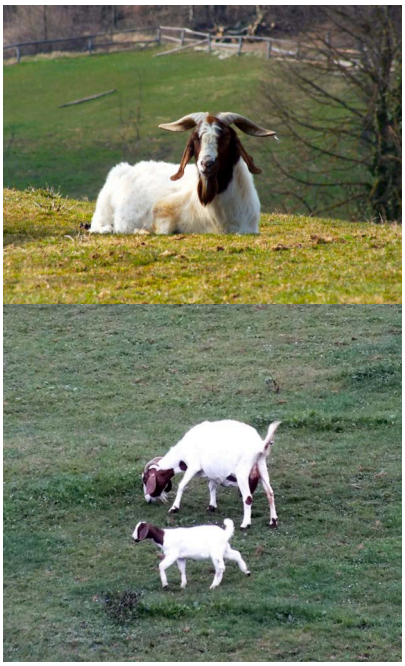

Figure IV.17. Sexually dimorphic horn morphology in male and female goats. Top: billy goat; bottom: nanny goat and kid.

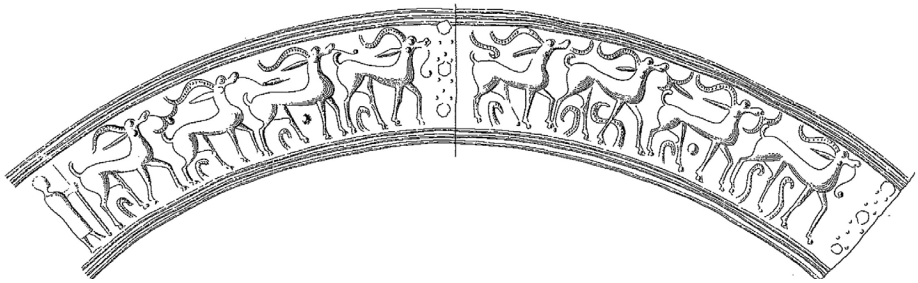

Figure IV.18. Scene from a situla found in Grave I/3 near Vače depicting a shepherd and his goats. Ashmolean Museum inv. no. AN1935.362 (Turk 2005:72 Fig. 109).

[79] This situla is not formally a part of this study, since most of the graves known from antiquarian excavations around Vače are still in the process of reconstruction and publication (Teržan in prep).

There are relatively few objects depicting goats – only six were identified, from six grave contexts (Table IV.10). Goat imagery is strongly gendered male based on the associated grave contexts, but not exclusively (Figure IV.19). There is one female grave with an artifact depicting a goat. No graves of children are associated with goat depictions to date.

Table IV.10. Contexts with artifacts representing goats.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Magdalenska gora	Preloge	2/a	♀/Adult	1	Bronze situla
		2/58	♂/Adult	1	Bronze belt plate
Brezje pri Trebelnem	Hojbi	XIII/8	♂/Adult	1	Bronze belt plate
Novo mesto	Kandija	II/6	♂/Indt	1	Bronze situla
		IV/3	♂♀/Adult	1	Bronze situla
	Kapiteljska njiva	XIV/7	♂/Adult	1	Bronze situla
Totals	**4**	**6**		**6**	

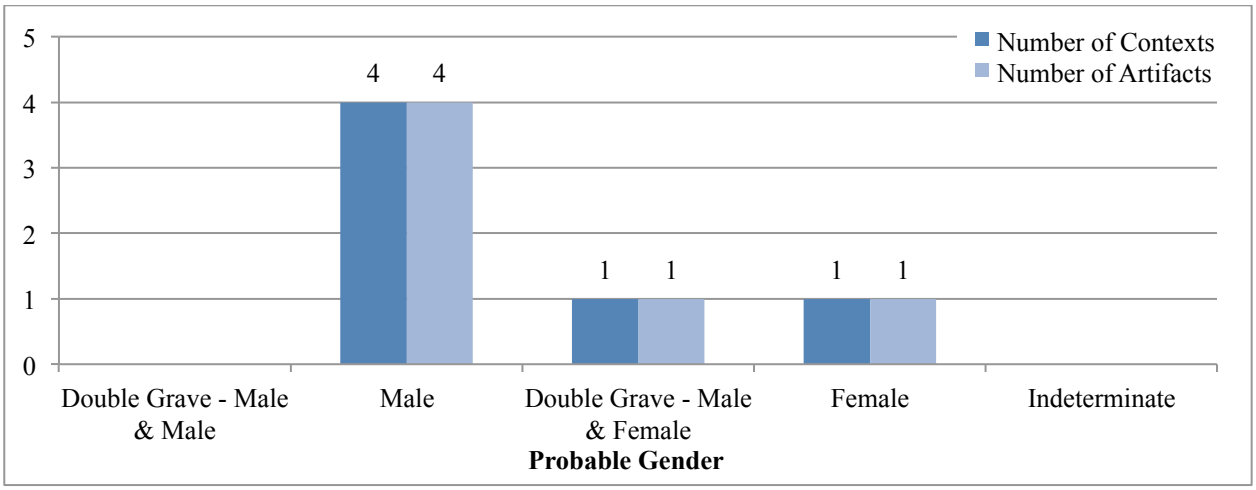

Figure IV.19. Probable gender of deceased associated with grave contexts containing artifacts depicting goats.

Only two types of artifacts have goats depicted on them – belt plates and situlae, and all are decorated in the situla art style (Figure IV.20). The situlae appear in two male graves, the female grave, and the male-female double grave. The belt plates were deposited in two male graves. Though the sample of belt plates with goat imagery is too small to confirm a strong association with males, the association of belt plates with males in this region is well known (Tecco Hvala 2012:173-176).

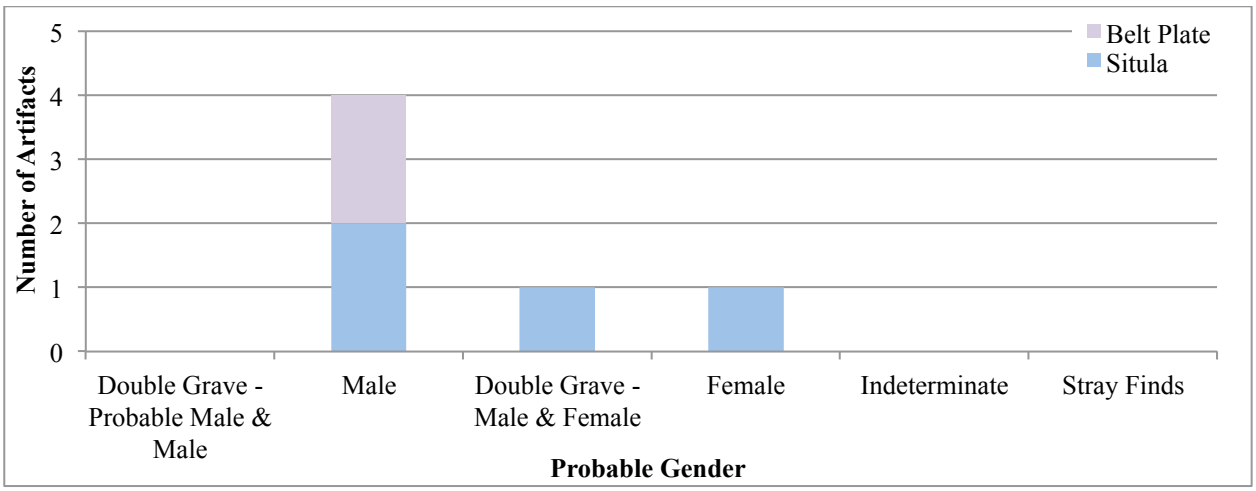

Figure IV.20. Goats represented on artifacts from mortuary contexts, divided by probable gender of the deceased.

IV.2.A.iv. Pigs

No images of domestic pigs have been identified in the dataset. A single artifact with an image of a boar has been identified, and its categorization as a wild boar rather than domestic pig will be discussed in section IV.2.B.ii.

IV.2.A.iv. Horses

Horses were identified morphologically based on the long, flat face, upturned ears, and their unique manes and long tails (Figure IV.21). Horse imagery accounts for the second highest number of artifacts depicting domesticates, 59 total (Table IV.11). Depictions of horses are present at 13 sites from 46 contexts – 43 graves and three stray finds. No equine imagery has been recovered from settlement contexts in the dataset. The Magdalenska gora complex of sites has produced the highest number of contexts and artifacts depicting horses – 19 and 22 respectively. This is more than double the number of contexts from Novo mesto, which contains the second highest quantity of equine artifacts.

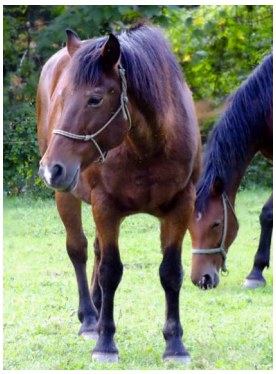
Figure IV.21. Domestic horses.

Table IV.11. Contexts with artifacts representing horses.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Ravne njive	1883/11-1	♂/Indt	1	Bronze helmet
	Reber	1881/1	Indt/Indt	1	Bronze situla
		Flat grave/Grave with Mounted Warrior's Belt	♂/Adult	1	Bronze belt plate
		Flat Grave/14	Indt/Adult	1	Bone figurine
---	Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	1	Bronze belt plate
Magdalenska gora	Laščik	V/31	♂/Adult	1	Tin-lead phalera
		V/36	♀/Adult	1	Bronze fibula
		V/43	Indt/Indt	1	Bronze fibula
	Preloge	2/a	♀/Adult	1	Bronze situla
		2/b	♂/Adult	1	Bronze situla
		2/c	♀/Child	1	Bronze fibula
		2/p	♀/Adult	1	Bronze lid
		2/11	Indt/Child	1	Bronze fibula
		2/17	Indt/Indt	1	Bronze fibula
		2/38	Indt/Adult	1	Tin-lead phalera
		2/46	♂/Adult	1	Bronze belt plate
		13/53	Indt/Adult	1	Bronze fibula
		13/150	Indt/Adult	2	Bronze fibulae
		IV/16	♂/Adult	1	Tin-lead phalera
		IV/30a	♀/Adult	1	Bronze fibula
		IV/38	Indt/Adult	1	Bronze fibula
		VI/30	♀/Indt	1	Bronze fibula
		VII/Isolated Find	---	1	Bronze fibula
	Voselca	2/11	Indt/Indt	2	Bronze fibulae
Stična	Gomile	5/Isolated Find	---	1	Bronze fibula
		48/9 (?)	---	1	Bronze fibula
		48/72	♂/Adult	1	Ceramic vessel
		48/99	♂/Indt	4	Bronze phalerae
		Vas Vir/11	♂/Indt	1	Ceramic lid
Dobrnič	Gomile	14/15	Indt/Indt	1	Bronze fibula
Boštanj	Grmašca	Mali Lukovec/4	♀/Indt	1	Bronze fibula
Dolenjske Toplice	Branževec 2	II/23	♂/Indt	1	Bronze situla
		V/33	♂/Indt	2	Tin-lead phalerae
		XI/8	♀/Indt	1	Bronze pendant
		XI/21	♂/Indt	2	Bronze fibulae
Brezje pri Trebelnem	Hojbi	VII/1	Indt/Adult	2	Bronze fibulae
		XIII/49	♂/Adult	1	Bronze fibula
Novo mesto	Kandija	II/5	♂/Indt	2	Bronze fibulae
		III/33	♀/Indt	2	Bronze situlae
		IV/3	♂♀/Adult	1	Bronze situla
	Kapiteljska njiva	A/30	Indt/Indt	1	Bronze fibula
		B/64	♀/Indt	2	Bronze fibulae
		III/12	♂/Adult	3	Bronze situla; bronze belt plate; tin-lead phalera
		III/46	Indt/Indt	1	Bronze fibula
		III/50	Indt/Adult	1	Bronze fibula
		XXIX/2	♀/Adult	1	Bronze scepter
Totals	**13**	**46**		**59**	

Males are more frequently associated with equine imagery than females, and probable male graves contained nearly double the number of artifacts depicting horses (Figure IV.22). However, in this sub-sample a relatively high number of contexts could not be gendered, which adds an element of uncertainty to the gendered distribution of equine representations. Two probable children's graves contained equine imagery, in both cases a fibula depicting a horse.

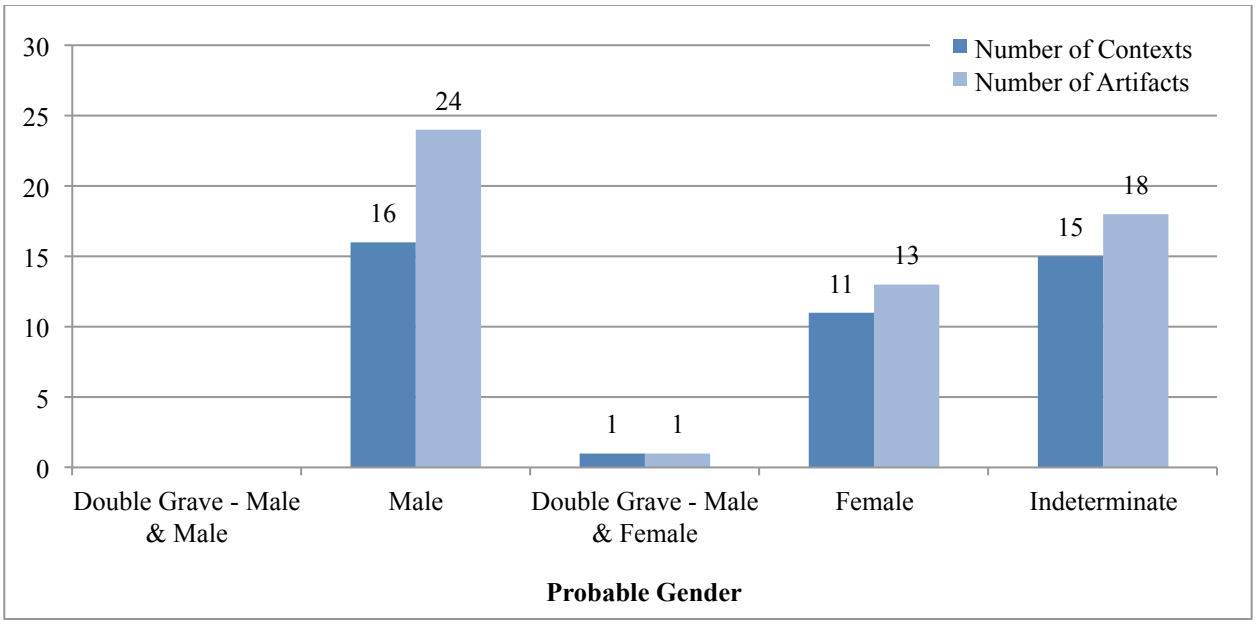

Figure IV.22. Probable gender of deceased associated with grave contexts containing artifacts depicting horses.

There are a wide variety of artifacts depicting horses, and in many cases it is unclear whether they were distributed along gender lines since they are unique objects or there are relatively few of them (Figure IV.23). For example, the pendant, scepter, and bronze lid are found solely in female graves, but they are unique items in this sample. Scepters are considered to be strongly associated with females in other studies (Križ et al. 2009:123; Tecco Hvala 2012:334-341; see section IV.4.E.i). Helmets for men are similar – there is only a single helmet depicting a horse associated with a man in this study, though helmets in general are considered exclusive to men (see section IV.4.B). More clearly gendered objects are belt plates and phalerae

for men, while female graves do not contain a large number of exclusively gendered horse artifacts. Fibulae and situlae depicting horses clearly crosscut gender, and fibulae are the most common, with 30 examples in the study.

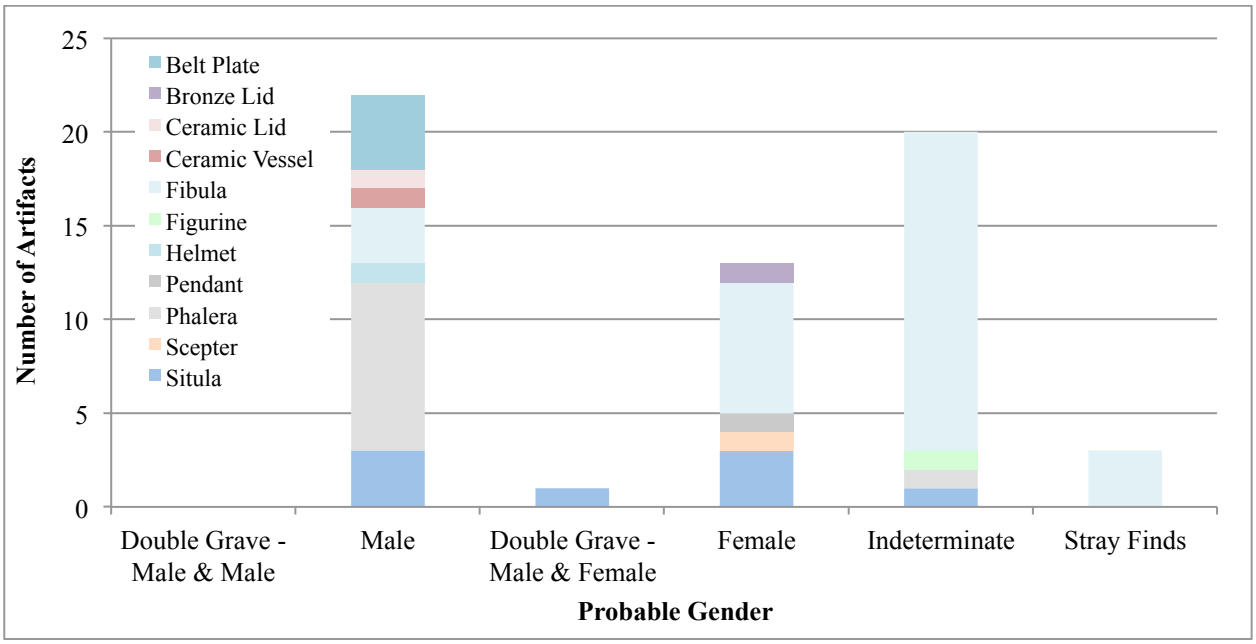

Figure IV.23. Horses represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

As is the case with many other artifacts depicting animals, the majority of objects depicting horses were deposited as singular items (Table IV.12). Horse fibulae were occasionally deposited in pairs, and a pair of situlae was found in one case. Phalerae were most often deposited as single items, though one grave contained an unmatched pair, and another contained four matching phalerae.

Table IV.12. Number of contexts and artifacts with depictions of horses. Note that the context column does not add up, since single graves contained multiple artifacts depicting a horse. Does not include stray finds.

Artifact	# Contexts	# Artifacts	Average
Belt Plate	4	4	1.00
Fibula	21	27	1.29
Figurine (bone)	1	1	1.00
Helmet	1	1	1.00
Lid (bronze)	1	1	1.00
Lid (ceramic)	1	1	1.00
Pendant	1	1	1.00
Phalera	6	10	1.67
Scepter	1	1	1.00
Situla	7	8	1.14
Vessel (ceramic)	1	1	1.00
Totals	**43**	**56**	**1.30**

IV.2.A.v. Dogs

As noted in section IV.2, dogs were distinguished from wild canids morphologically based on upswung, curling tails, a shortened face, and in some cases the floppy ears that are features of domestication (Clutton-Brock 1999:51-53). In cases where such distinguishing traits were not readily identifiable, iconographic analysis was used to distinguish between the two – dogs are associated with humans, often in hunting scenes, while canids appear with other wild animals or alone.

Table IV.13. Contexts with artifacts representing dogs.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Molnik	Grmada	17/10	Indt/Adult	1	Bronze belt plate
---	Kidričeva cesta (Zagorje)	Milač house/Grave with the Belt Plate	♂/Adult	1	Bronze belt plate
		Unknown	---	2	Bronze fibulae
Stična	Cvinger nad Virom pri Stični	Trench 11	---	1	Bronze fibula
	Gomile	48/104	♂/Adult	1	Bronze belt plate
		VIII/1	Indt/Child	1	Bronze fibula
Dolenjske Toplice	Branževec 2	II/23	♂/Indt	1	Bronze situla
Brezje pri Trebelnem	Hojbi	XIII/8	♂/Adult	1	Bronze belt plate
Novo mesto	Kapiteljska njiva	III/12	♂/Adult	2	Bronze situla; bronze belt plate
	Malenškova njiva	Malenškova gomila/2	♂/Indt	2	Bronze fibulae
Totals	**8**	**10**		**13**	

Thirteen artifacts depicting dogs are known from ten contexts at eight sites (Table IV.13). Eight of these contexts are graves, one is a stray find, and one is associated with a settlement. None of these artifacts were found in probable female graves (Figure IV.24). Five of the graves containing dog imagery are probable male graves, and in two cases the gender of the deceased could not be determined. One fibula depicting a dog came from the grave of a probable child. Only three types of artifacts depict dogs – fibulae, belt plates, and situlae (Figure IV.25). All three artifact types are associated with probable males, while the probable child's grave with a

dog fibula is categorized as indeterminate gender. Seven of the contexts contained a single object depicting a canine, while one grave contained a matched set of fibulae each depicting a dog.

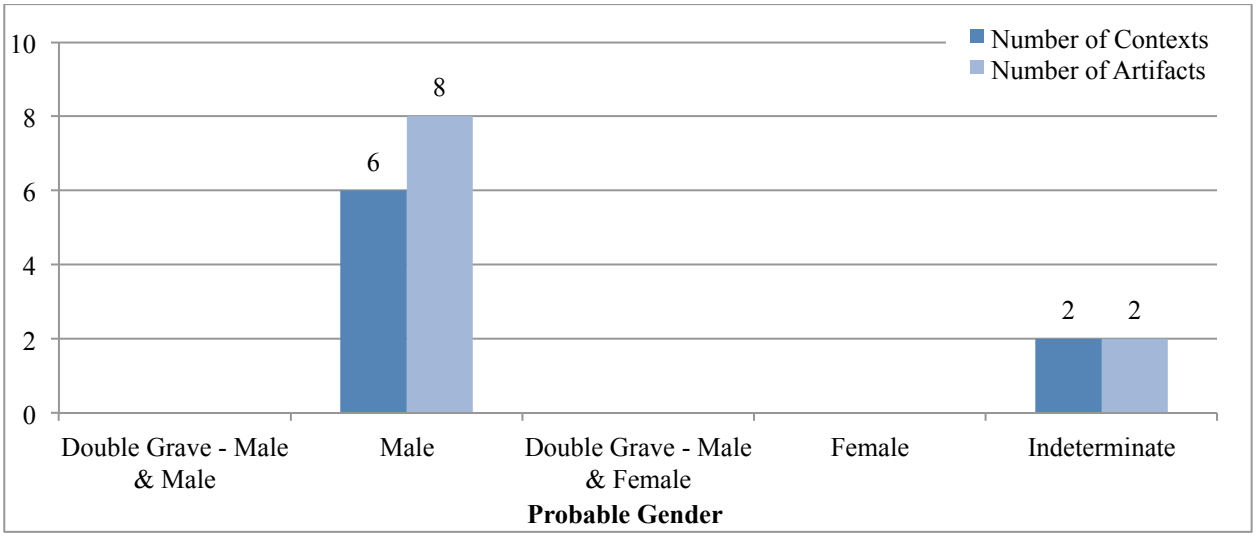

Figure IV.24. Probable gender of the deceased associated with grave contexts that contained artifacts depicting dogs.

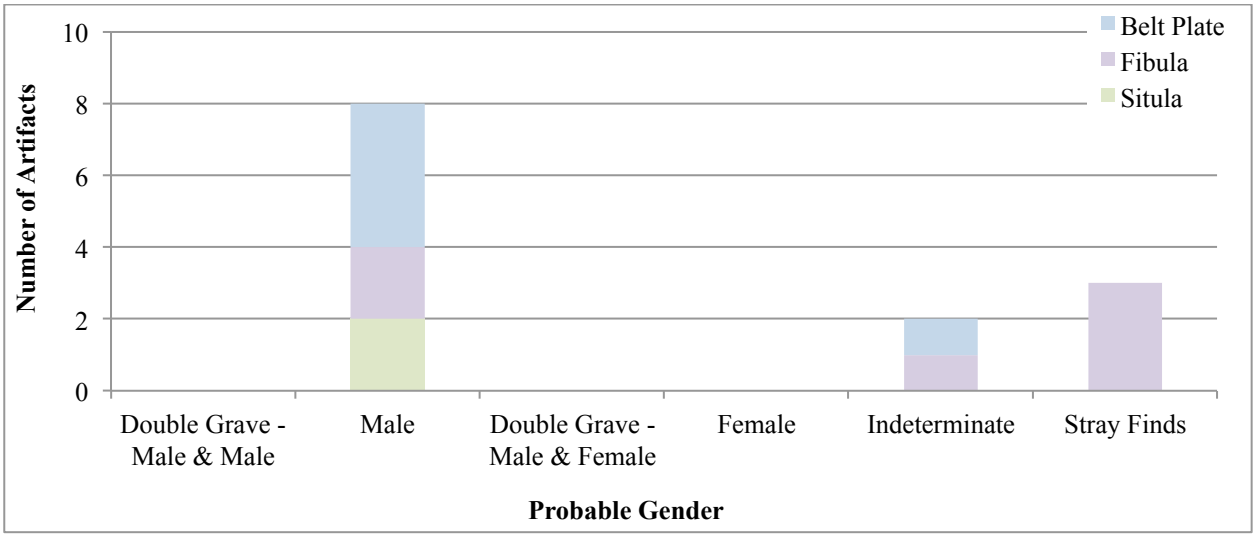

Figure IV.25. Dogs represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

IV.2.B. Wild Animals

One hundred and fifty-five artifacts depicting wild animals were identified in 104 contexts at 20 sites (Table IV.14). Ninety-two of these contexts are graves, two are settlement

contexts, and ten are stray find contexts. The same three site complexes dominate the sample: Magdalenska gora has 26 contexts and 46 artifacts; Stična has 23 contexts and 32 artifacts, while Novo mesto has slightly fewer contexts with wild animal depictions at 18, but has almost as many artifacts as Stična with 31.

Table IV.14. Contexts with artifacts representing wild animals.

Site Complex	**Site**	**Context**	Probable Gender/Age	# Artifacts	Mortuary Contexts			Settlement
					In Sample	Non-Sample	Stray Find	
Molnik	Grmada	17/10	Indt/Adult	1	X			
Vače	Reber	1881/1	Indt/Indt	1		X		
		1889/1	♂/Indt	1		X		
		Flat Grave 20	♂/Adult	1		X		
---	Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	2		X		
		Milač House/ Unknown	---	3			X	
Magdalenska gora	Laščik	V/6-7-7a	♂/Adult	3		X		
		V/19-20	♂♂/Adult	1		X		
		V/29	♂♂/Adult	5		X		
	Preloge	2/a	♀/Adult	2		X		
		2/b	♂/Adult	1		X		
		2/c	♀/Child	1		X		
		2/o	Indt/Child	2		X		
		2/p	♀/Adult	1		X		
		2/11	Indt/Child	1		X		
		2/13	♂/Adult	1		X		
		2/46	♂/Adult	1		X		
		2/58	♂/Adult	1		X		
		2/67	♀/Indt	1		X		
		13/55	♂♀/Indt	1		X		
		13/95	Indt/Indt	1		X		
		13/117	♀/Adult	6		X		
		13/119	♂/Adult	1		X		
		13/Individual Finds	---	1			X	
		II/2a	♀/Indt	1		X		
		II/15	Indt/Indt	1		X		
		IV/19	♀/Indt	5		X		
		IV/32	♂/Indt	2		X		
		VII/Isolated Find	---	1			X	
		X/50	Indt/Adult	1		X		
		X/71	Indt/Adult	1		X		
	Voselca	2/6	♀/Adult	1		X		
Stična	Cvinger nad Virom pri Stični	Trench 11	---	1				X
	Gomile	28 or 29/Cremation Grave (?)	♀/Indt	1		X		
		48/9 (?)	---	1			X	
		48/33	♂/Indt	1	X			
		48/102	♀/Adult	1	X			

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Mortuary Contexts			Settlement
					In Sample	Non-Sample	Stray Find	
		48/104	♂/Adult	1	X			
		48/119-120	♀/Indt	3	X			
		48/Find 23	---	1			X	
		76/Grave with the Decorated Situla	♂/Indt	1		X		
		125/ Find, 7, 9, and 10 = Grave	Indt/Indt	1		X		
		II/3	Indt/Indt	1		X		
		II/4	Indt/Indt	1		X		
		II/6	Indt/Adult	1		X		
		IV/10	Indt/Indt	1		X		
		IV/32	♂♀/Adult	1		X		
		V/14	---	1			X	
		V/18	♂/Indt	1		X		
		VI/7	Indt/Indt	1		X		
		VI/8	Indt/Indt	1		X		
		VI/30	♂/Indt	1		X		
		VII/7	Indt/Indt	1		X		
		VIII/2	Indt/Indt	1		X		
		Vas Vir/Isolated Find	---	7			X	
---	Medvedjek	I/36	Indt/Indt	1	X			
---	Špičasti hrib	Surface Find	---	1				X
---	Ajdovski gradec	Hallstatt Grave/1	♀/Indt	1		X		
Dolenjske Toplice	Branževec 2	II/2	♀/Indt	1		X		
		II/14	Indt/Indt	1		X		
		II/16	♀/Indt	4		X		
		II/23	♂/Indt	1		X		
		II/30	♀/Indt	2		X		
		V/9	♂/Indt	1		X		
		V/17	♂♀/Indt	2		X		
		V/33	♂/Indt	1		X		
		V/34	♂/Indt	1		X		
		V/36	♂/Indt	1		X		
		XI/21	♂/Indt	1		X		
		XIII/16	Indt/Indt	1		X		
Brezje pri Trebelnem	Hojbi	VII/1	Indt/Adult	1		X		
		VII/8	♀/Indt	1		X		
		VII/12	Indt/Adult	2		X		
		VII/16	♂/Indt	2		X		
		VII/28	Indt/Adult	1		X		
		VII/35	Indt/Adult	1		X		
		XII/51	Indt/Adult	1		X		
		XIII/6	♀/Adult	1		X		
		XIII/8	♂/Adult	1		X		
Novo mesto	Kandija	I/22	♀/Indt	1	X			
		II/6	♂/Indt	1	X			
		III/2	♂/Indt	1	X			
		III/31	Indt/Indt	1	X			
		III/33	♀/Indt	1	X			
		IV/3	♂♀/Adult	3	X			
		IV/22	Indt/Indt	1	X			

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Mortuary Contexts			Settlement
					In Sample	Non-Sample	Stray Find	
Novo mesto	Kapiteljska njiva	I/5	♀/Adult	1	X			
		III/12	♂/Adult	2	X			
		V/35	♀/Adult	3	X			
		VI/44	Indt/Adult	2	X			
		VII/19	♂♂/Adult	3	X			
		VIII/5	♂/Adult	1	X			
		XIV/7	♂/Adult	1	X			
		XVI/12	Indt/Child	1	X			
		XXXIII/19	♀/Adult	3	X			
	Malenškova njiva	Malenškova gomila/2	♂/Indt	2		X		
		Malenškova gomila/3	♂/Indt	3		2		
Libna	Deržaničev gozd	1942 (?)/Stray Find	---	1			X	
	Špiler	II/1	♂/Indt	1	X			
		III/Find 30	---	2			X	
		III/Find 38	---	1			X	
	Volčanškova gomila	1889-1890/k	Indt/Indt	2		X		
Metlika	Hrib	I/18	Indt/Child	1	X			
		I/80	♀/Indt	1	X			
Totals	**20**	**104**		**155**	**25**	**72**	**10**	**2**

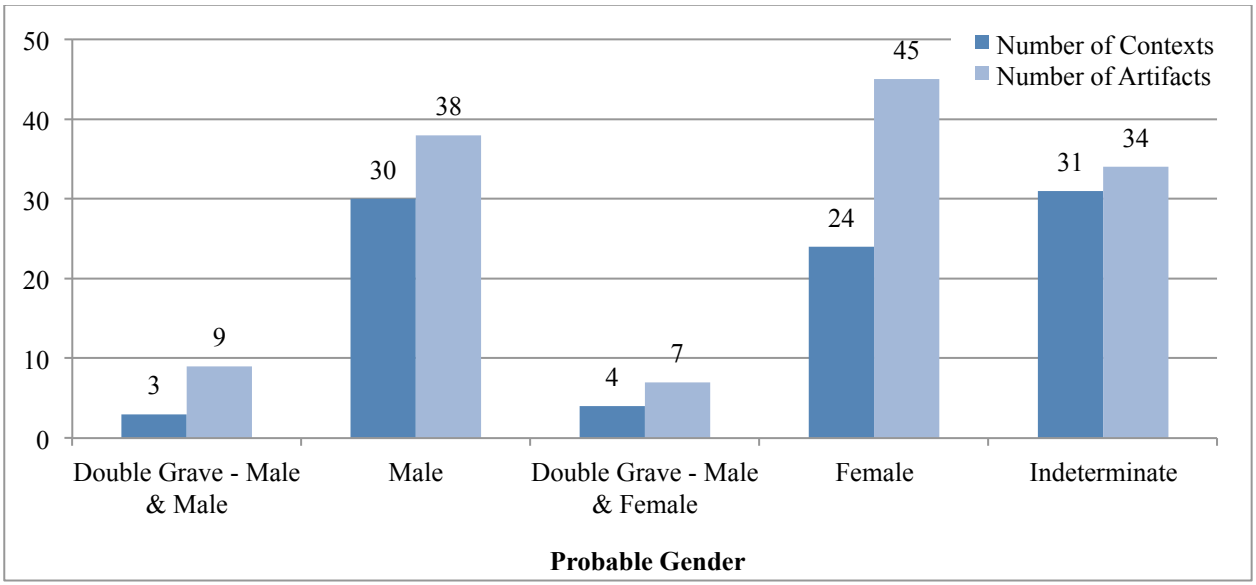

Figure IV.26. Probable gender of the deceased in grave contexts containing artifacts depicting wild animals.

There were more male graves with wild animal imagery, though there were more artifacts depicting wild animals associated with female graves (Figure IV.26). There were equal numbers

of double graves containing wild animal imagery, though the double burials of males contained more artifacts. There were also a very large number of graves where probable gender could not be determined. Depictions of wild animals were found primarily with probable adult graves, when the probable age of the deceased could be determined (Figure IV.27). There were five graves identified as children, with six associated artifacts. There were however a large number of graves where age could not be determined.

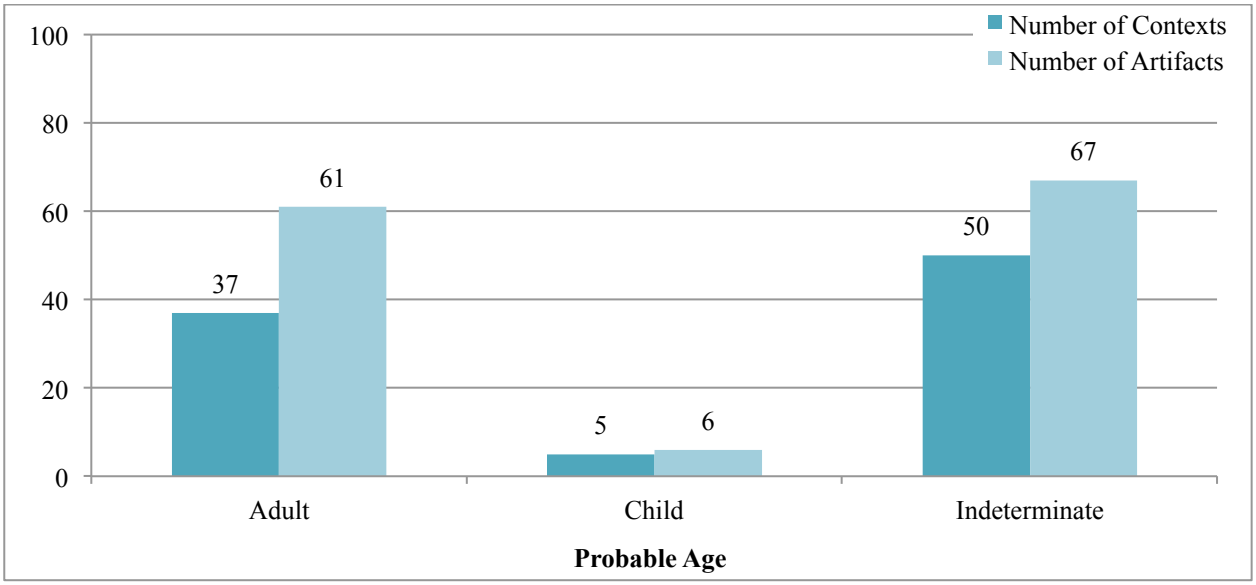

Figure IV.27. Probable age of deceased associated with grave contexts containing artifacts depicting wild animals.

There are a wide variety of artifacts depicting wild animals, though there are fewer strong gendered patterns since there are many singular or rare objects (Table IV.15). Belts remain exclusive to males, while cists are not identified with probable females and thus may be associated with males, though the sample is not robust enough to determine if this is a representative pattern. Earrings are exclusive to females, as are anklets, though this is expected since these items are used to gender graves (see section III.3.C). Beads, ceramic vessels, and pendants may be associated with females, though the sample is too small to say definitively.

Fibulae were deposited with both males[80] and females, though more frequently with females. Bracelets and torcs, as well as bronze feasting vessels – cauldrons, situlae, and lids – were found with both males and females.

Table IV.15. Numbers of artifacts depicting wild animals divided according to the probable gender of the deceased from the associated grave context.

	Double Grave – Male & Male	Male	Double Grave – Male & Female	Female	Indeterminate	N/A
Anklet				3		
Bead				3	2	
Belt	1	11			1	
Bracelet	1	1		1	3	
Button						1
Cauldron	2	4	1	1	5	2
Cist	1	2	1			
Dagger					1	
Earring				19		
Fibula		2	1	8	15	16
Lid (bronze)		1		2		
Pendant				2	1	1
Scabbard	1					
Situla	3	15	3	3	7	
Torc		1		1		1
Vessel (bronze)					1	
Vessel (ceramic)				1	1	

There were also some gendered patterns in the wild animals depicted (Figure IV.28). Fish, ibex, and boar were found with males rather than females, though in the case of fish and boar, these were single artifacts so the gendered association may be incidental. Hares were the only animals much more strongly associated with females than males. There were only two artifacts depicting hares associated with males, both were belt plates. Birds, canids, felines, deer, and snakes were found with both probable males and females, in relatively similar proportions.

[80] The only two fibulae depicting wild animals associated with a male were a matched pair of fibulae found in Malenškova gomila, Grave 2. This tumulus was excavated in 1905 and 1906, and the excavations were reconstructed from archival material and published in 1975, so it is possible that these fibulae were incorrectly attributed to this probable male grave (Guštin and Teržan 1975).

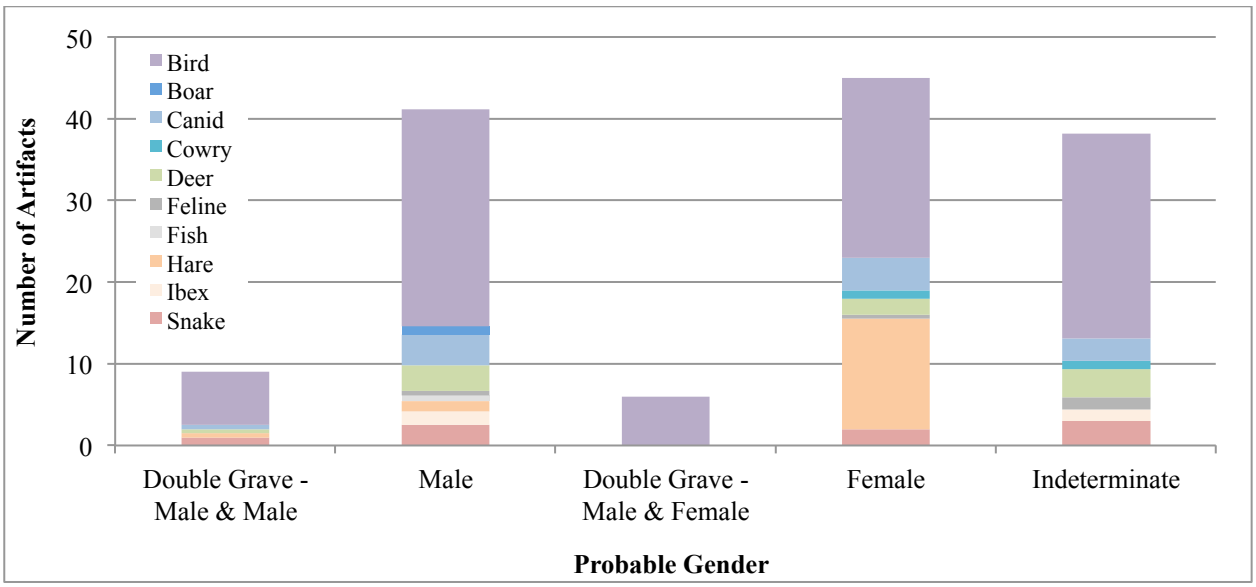

Figure IV.28. Wild animal species represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

Most artifacts depicting wild animals were deposited as single items (Table IV.16). Fibulae however were occasionally deposited in pairs, while earrings were most often deposited in sets of two or four. In one grave two cauldrons were deposited together, while there were several graves with multiple situlae. It should also be noted that many graves contained sets of different types of bronze drinking vessels, such as a situla along with a cist or a cauldron. Occasionally burials have elaborate bronze vessel sets consisting of three vessels – interestingly, all of these are double graves[81] and in each case two of the vessels are of the same type with a distinct

Table IV.16. Number of contexts and artifacts depicting wild animals. The context column does not add up since some graves contained multiple artifacts depicting a wild animal.

Artifact	# Contexts	# Artifacts	Average
Anklet	1	3	3.00
Bead	2	5	2.50
Belt	13	13	1.00
Bracelet	6	6	1.00
Cauldron	12	13	1.08
Cist	4	4	1.00
Dagger	1	1	1.00
Earring	6	19	3.17
Fibula	21	26	1.24
Horn-Handled Bowl	1	1	1.00
Lid (bronze)	3	3	1.00
Pendant	3	3	1.00
Scabbard	1	1	1.00
Situla	27	32	1.85
Torc	2	2	1.00
Vessel (bronze)	1	1	1.00
Vessel (ceramic)	1	1	1.00
Totals	**92**	**134**	**1.46**

[81] Magdalenska gora, Laščik Grave V/29; Novo mesto, Kandija Grave IV/3; Novo mesto, Kapiteljska njiva Grave VII/19.

third vessel (i.e., two situlae and a cauldron or cist, or two cauldrons and a situla).

IV.2.B.i. Birds

Birds were most identifiable in this dataset based on the presence of beaks and wings on representational artifacts (Figure IV.29). Early in the project, it was anticipated that different species of birds would be identifiable; however, ultimately most of the avian depictions were very schematic, or did not have enough identifying features to narrow them down to a single likely species. Most birds were solely identified as "bird – indeterminate" to indicate the species was not determinable. It was also possible to identify general water birds ("water bird – indeterminate"), which encompassed all water birds, for example swans, geese, ducks, etc. Small water birds were also distinguished, identifying those with shorter necks and smaller bodies such as ducks and other members of the genus *Anas*, as opposed to larger, longer-necked species such as swans and geese. Four pendants depicting chickens were identified, specifically roosters, on the basis of their distinctive combs, as well as the sickle feathers of their tails (Figure IV.30). These originated from Grave VI/7 at the site of Gomile near Stična, from a grave dated to the Stična 2 period, or late 7th century (Tecco Hvala 2012:69). There are some potential questions since this grave is considered unreliable, and this is a relatively early date for chicken depictions. Chickens do not become widespread in southeastern and central Europe until after the fourth century BCE, though securely dated chicken bones have been found

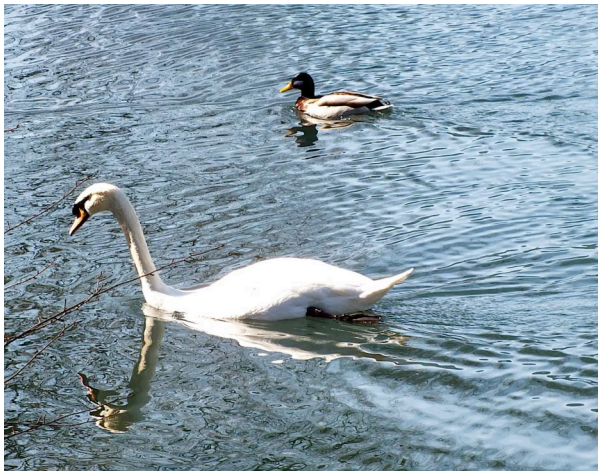

Figure IV.29. A swan and a duck at Lake Bled in Slovenia.

as early as the ninth century BCE in Italy at the cemetery of Castel Gandolfo and at sites on the Po Plain in the eighth century (Bartoloni et al. 1987; Bertani 1995; Trentacoste 2014:64). Chicken remains have also been identified at the Hungarian sites of Balassagyarmat-Káposztások and Ludányhalászi-Sóderbánya in contexts dated to the Late Bronze Age/Early Iron Age transition (Gál 2012). Slightly later chicken remains are attested at the Heuneburg in Germany in the 6th century, so their presence in southeastern Europe in the Early Iron Age is plausible (Benecke 1993; Schatz and Stephan 2008; West and Zhou 1988). Though currently no chicken remains dating to the Early Iron Age have been identified in Slovenia, two chicken bones were found at the hillfort of Cvinger, also at Stična, in layers dating to the Late Iron Age (Bartosiewicz 1996: 30, 33; Bökönyi 1994:191), and most recently chicken remains were found in a Late Iron Age grave from Vir near Stična (Toškan and Grahek, personal communication 2015).

Figure IV.30. Top: Rooster pendants from Stična, Gomile Grave VI/7. Peabody Museum inv. no. 40-77-40/13675-13678. Bottom: Rooster (Sykes 2012:160).

Birds are the most frequently depicted animals on artifacts. They appear on a total of 118 artifacts from 16 sites (Table IV.17). Eighty contexts produced avian depictions: 70 graves, one settlement context, and nine stray find contexts. As usual, the site complexes of Magdalenska gora, Stična, and Novo mesto contained the largest number of avimorphic artifacts. The Magdalenska gora complex yielded 21 contexts and 28 artifacts depicting birds; Stična had only 18 contexts, but a larger number of artifacts with 31, and Novo mesto had 17 contexts and 28 artifacts.

Table IV.17. Contexts with artifacts representing birds.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1881/1	Indt/Indt	1	Bronze situla
		1889/1	♂/Indt	1	Bronze belt plate
		Flat Grave 20	♂/Adult	1	Bronze fibula
---	Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	1	Bronze situla
		Unknown	---	2	Bronze fibulae
Magdalenska gora	Laščik	V/6-7-7a	♂/Adult	3	Bronze belt hook; bronze situla; bronze cauldron
		V/19-20	♂♂/Adult	1	Iron and bronze scabbard
		V/29	♂♂/Adult	3	Bronze situla; bronze cauldrons
	Preloge	2/a	♀/Adult	2	Bronze situlae
		2/b	♂/Adult	1	Bronze situla
		2/c	♀/Child	1	Bronze fibula
		2/o	Indt/Child	2	Bronze fibulae
		2/p	♀/Adult	1	Bronze lid
		2/11	Indt/Child	1	Bronze fibula
		2/13	♂/Adult	1	Bronze belt plate
		2/46	♂/Adult	1	Bronze belt plate
		2/58	♂/Adult	1	Bronze belt plate
		13/55	♂♀/Indt	1	Bronze situla
		13/95	Indt/Indt	1	Bronze situla
		13/119	♂/Adult	1	Bronze situla
		II/2a	♀/Indt	1	Bronze earring
		II/15	Indt/Indt	1	Bronze fibula
		IV/32	♂/Indt	2	Bronze situla; bronze cauldron
		VII/Isolated Find	---	1	Bronze fibula
		X/71	Indt/Adult	1	Bronze fibula
	Voselca	2/6	♀/Adult	1	Ceramic vessel
Stična	Cvinger nad Virom pri Stični	Trench 11	---	1	Bronze fibula
	Gomile	28 or 29/Cremation Grave (?)	♀/Indt	1	Bronze cauldron
		48/9(?)	---	1	Bronze fibula
		48/102	♀/Adult	1	Bronze fibula
		48/119-120	♀/Indt	3	Bronze anklets
		48/Find 23	---	1	Bronze cauldron
		125/Find 7, 9 and 10 = Grave	Indt/Indt	1	Bronze dagger
		II/3	Indt/Indt	1	Bronze cauldron
		II/4	Indt/Indt	1	Bronze vessel
		II/6	Indt/Adult	1	Bronze cauldron
		IV/32	♂♀/Adult	1	Bronze fibula
		V/14	---	1	Bronze cauldron
		V/18	♂/Indt	1	Bronze cauldron
		VI/7	Indt/Indt	5	Amber fibula; bronze pendants
		VI/8	Indt/Indt	1	Bronze cauldron
		VI/30	♂/Indt	1	Bronze belt plate
		VIII/2	Indt/Indt	1	Bronze cauldron
		Vas Vir/Isolated Find	---	7	Bronze fibulae

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
---	Medvedjek	I/36	Indt/Indt	1	Bronze cauldron
Dolenjske Toplice	Branževec 2	II/14	Indt/Indt	1	Bronze situla
		II/23	♂/Indt	1	Bronze situla
		V/9	♂/Indt	1	Bronze cist
		V/17	♂♀/Indt	2	Bronze situla; bronze cauldron
		V/33	♂/Indt	1	Bronze cauldron
		V/34	♂/Indt	1	Bronze situla
		V/36	♂/Indt	1	Bronze situla
Brezje pri Trebelnem	Hojbi	VII/12	Indt/Adult	2	Bronze fibulae
		VII/16	♂/Indt	2	Bronze situlae
		VII/35	Indt/Adult	1	Bronze fibula
		XII/51	Indt/Adult	1	Bronze situla
		XIII/6	♀/Adult	1	Bronze pendant
		XIII/8	♂/Adult	1	Bronze belt plate
Novo mesto	Kandija	I/22	♀/Indt	1	Bronze fibula
		II/6	♂/Indt	1	Bronze situla
		III/31	Indt/Indt	1	Ceramic horn-handled bowl
		III/33	♀/Indt	2	Bronze situlae
		IV/3	♂♀/Adult	3	Bronze situlae; bronze cist
		IV/22	Indt/Indt	1	Bronze situla
	Kapiteljska njiva	I/5	♀/Adult	1	Bronze fibula
		III/12	♂/Adult	2	Bronze belt plate; bronze situla
		V/35	♀/Adult	3	Amber beads
		VI/44	Indt/Adult	2	Amber beads
		VII/19	♂♂/Adult	3	Bronze situlae, bronze cist
		VIII/5	♂/Adult	1	Bronze situla
		XIV/7	♂/Adult	1	Bronze situla
		XVI/12	Indt/Child	1	Bronze fibula
		XXXIII/19	♀/Adult	3	Bronze fibulae; bronze lid
	Malenškova njiva	Malenškova gomila/2	♂/Indt	2	Bronze fibulae
		Malenškova gomila/3	♂/Indt	2	Bronze situla; bronze cist
Libna	Deržaničev gozd	1942(?)/Stray Find	---	1	Bronze pendant
	Špiler	II/1	♂/Indt	1	Bronze situla
		III/Find 30	---	2	Bronze fibulae
		III/Find 38	---	1	Bronze fibula
	Volčanškova gomila	1889-1890/k	Indt/Indt	2	Bronze fibulae
Totals	**16**	**80**		**118**	

Depictions of avians were more frequently associated with males than with females, though they appeared frequently with both genders, as well as in many graves for which gender

could not be determined (Figure IV.31). Avimorphic artifacts were primarily associated with probable adults and individuals for whom age could not be determined. However, five artifacts depicting birds were identified in four probable children's graves. As with other species, all artifacts depicting birds found in association with children were fibulae.

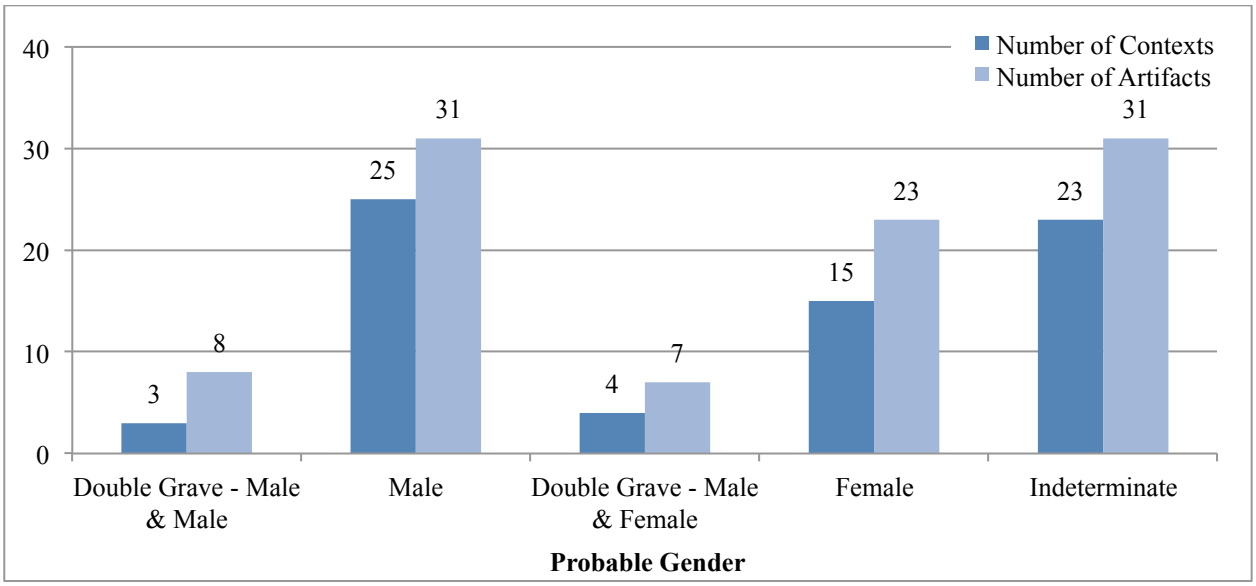

Figure IV.31. Probable gender of the deceased associated with grave contexts containing artifacts depicting birds.

There are limited gendered patterns in the distribution of artifacts depicting birds (Table IV.18). Several types of artifacts are found with both genders: fibulae, cauldrons, and situlae. In other cases only a single artifact can be associated with an identifiable gender so patterning cannot be confirmed, as in the case of pendants, earrings, scabbards, bronze vessels and lids, and ceramic vessels. Beads and anklets depicting birds are more strongly associated with females in terms of the number of artifacts, though in both cases these items all come from a single grave. However, anklets are strongly associated with females in general, and are considered an artifact diagnostic of gender (see section III.3.C; Tecco Hvala 2012:290). In turn, belts and possibly cists seem to be exclusive to male graves.

Table IV.18. Numbers of artifacts depicting birds divided according to the probable gender of the deceased.

	Double Grave – Male & Male	Male	Double Grave – Male & Female	Female	Indeterminate	N/A
Anklet				3		
Bead				3	2	
Belt		8				
Cauldron	2	4	1	1	5	2
Cist	1	2	1			
Dagger					1	
Earring				1		
Fibula		2	1	7	12	15
Lid (bronze)				1		
Pendant				1	4	1
Scabbard	1					
Situla	3	16	3	4	6	
Vessel (bronze)				1	1	
Vessel (ceramic)				1	1	

The species of bird depicted cannot be determined for the majority of artifacts (Figure IV.32). One hundred and two artifacts depict avians that are broadly categorized as birds of indeterminate species, 12 artifacts depict ducks, six depict indeterminate water birds, and the four aforementioned pendants depict chickens.

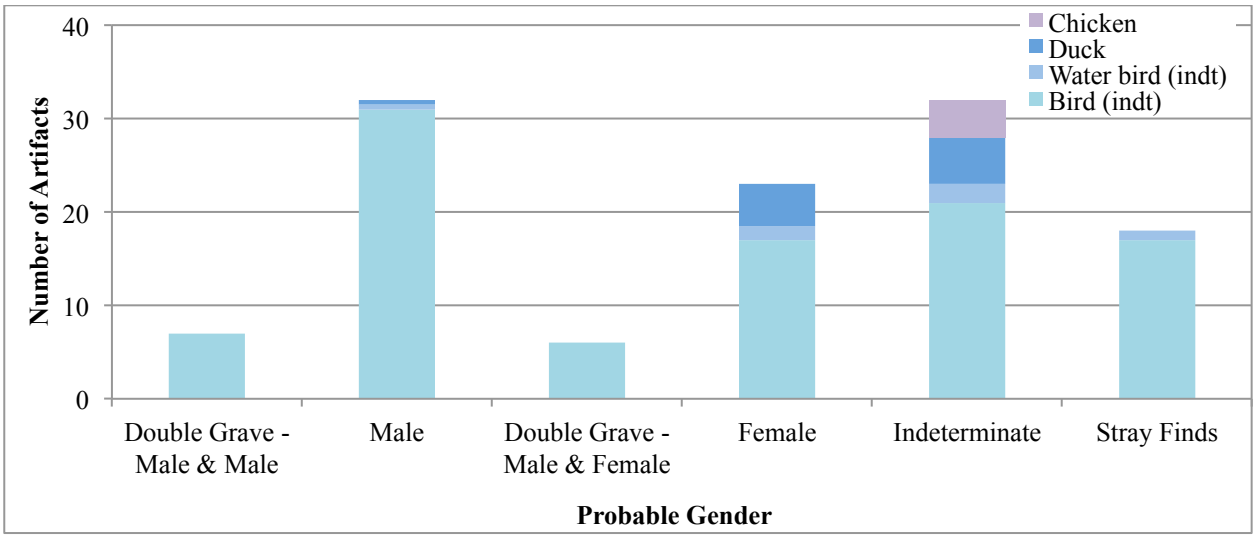

Figure IV.32. Avian species represented on artifacts, divided according to the probable gender of the deceased.

Many artifacts depicting birds are single items (Table IV.19). Fibulae and situlae are occasionally deposited in pairs, while pendants, beads, and anklets are deposited in sets of three or four in some contexts.

Table IV.19. Number of contexts and artifacts depicting birds, excluding stray finds. The context and artifacts columns do not add up since single graves contained multiple artifacts birds, and some artifacts depicted multiple types of birds.

Artifact	# Contexts	# Artifacts	Average
Anklet	1	3	3.00
Bead	2	5	2.50
Belt	7	7	1.00
Cist	4	4	1.00
Cauldron	12	13	1.08
Dagger	1	1	1.00
Earring	1	1	1.00
Fibula	17	22	1.29
Lid (bronze)	2	2	1.00
Pendant	2	5	2.50
Scabbard	1	1	1.00
Situla	27	33	1.22
Vessel (bronze)	1	1	1.00
Vessel (ceramic)	2	2	1.00
Totals	**71**	**100**	**1.41**

IV.2.B.ii. Wild Boar

Members of the genus *Sus* are rare in Slovenian Early Iron Age art. Only one example is identified in the dataset as *Sus scrofa*, or wild boar, on the basis of a distinct ridge of bristles that runs down the backs of wild boars (Figure IV.33; Clutton-Brock and Wilson 2002:324). In this case, the combination of the depiction of the boar and the presence of a dog indicate a probable hunting scene (Figure IV.34). The belt plate is from Grave 48/104 at Gomile near Stična, which is the burial of a probable male adult on the basis of presence of a helmet and axe in the grave, as well as the size of the grave cut (Gabrovec and Kruh 2006:79-80).

Figure IV.33. Wild boar (*Sus scrofa*) (© Gerhard Schulz/Biosphoto; ARKive).

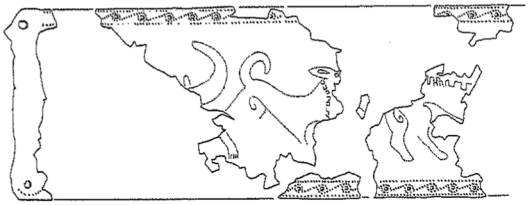
Figure IV.34. Belt plate from Stična, Gomile Grave 48/104. The boar is the partially preserved animal on the right followed by a dog. Note the bristles running along the back of the boar. Narodni muzej inv. no. P 13534 (Gabrovec 2006:336 Pl. 62 no. 2).

Only one other image of a boar is known from this area, from a site near Vače, though this artifact was not included in this study since its

provenience is unknown (Starè 1955:30; Turk 2005:50). It is another belt plate, this one depicting two boars facing each other, as well as another facing a feline (Figure IV.35). In this case the identification as a boar rather than a domestic pig is based on the fact that all other animals on the belt plate are wild animals.

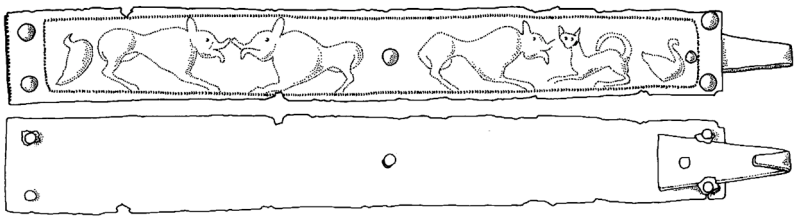

Figure IV.35. Belt plate from Vače, grave context unknown. Narodni muzej, inv. no. P 75 (Turk 2005:50 Fig. 72).

IV.2.B.iii. Canids

Figure IV.36. Local canid species. Left to right: Gray wolf (*Canis lupus*), red fox (*Vulpes vulpes*), golden jackal (*Canis aureus*) (© image producers indicated on image, ARKive).

Wild canids are distinguished from domestic dogs based on the lack of features that often accompanied domestication – curling tail, floppy ears, and the shorter muzzle (Clutton-Brock 1999:51-53). However, these features are not always readily identifiable and do not characterize all domestic dogs. Since this is the case, iconographic analysis was used to categorize dogs versus wild canids for this study: dogs are shown with people, while canids are associated with other wild animals. Canids rather than canines is used, since these representations are quite schematic and may not only represent wolves, but also foxes or golden jackals, which are other wild canids indigenous to the region (Figure IV.36; Chinery 1987:42-43).

Table IV.20. Contexts with artifacts representing wild canids.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1881/1	Indt/Indt	1	Bronze situla
Magdalenska gora	Preloge	13/117	♀/Adult	4	Bronze earrings
		13/Individual Finds	---	1	Bronze fibula
		X/50	Indt/Adult	1	Bronze fibula
Stična	Gomile	VI/30	♂/Indt	1	Bronze belt plate
Dolenjske Toplice	Branževec 2	XI/21	♂/Indt	1	Bronze belt plate
		XIII/16	Indt/Indt	1	Bronze fibula
Novo mesto	Kapiteljska njiva	III/12	♂/Adult	1	Bronze belt plate
		VII/19	♂♂/Adult	1	Bronze situla
		XIV/7	♂/Adult	1	Bronze situla
Totals	**5**	**10**		**13**	

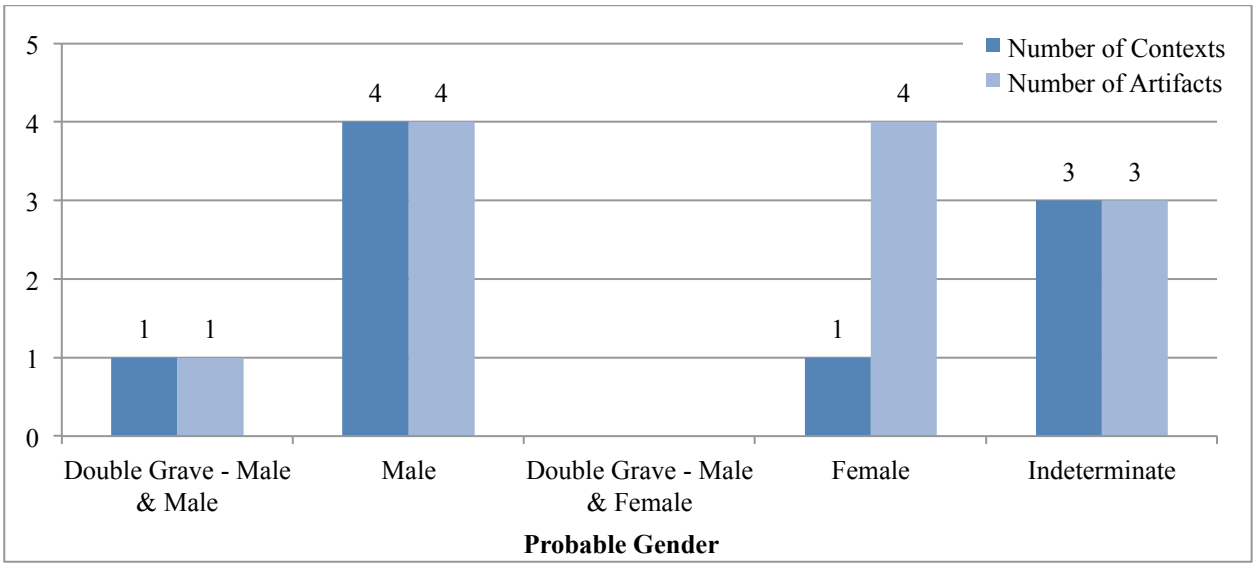

Figure IV.37. Probable gender of the deceased associated with grave contexts containing artifacts depicting canids.

Canids are identified in ten contexts from five sites, nine of which are graves while one is a stray find (Table IV.20). Thirteen artifacts were identified in the study. More probable male graves were associated with these finds; however, while there was only one female grave containing canid artifacts, this single grave contains only one less artifact than all the male graves combined (Figure IV.37). The artifacts associated with this female grave are a matching set of four earrings from Magdalenska gora, Preloge Grave 13/117, each divided into four panels that depict the same schematic crouched canid (Figure IV.38). No graves containing canid imagery are associated with children.

Canids were depicted on a limited range of artifacts including the aforementioned earrings, as well as fibulae, belt plates, and situlae (Figure IV.39). All except the fibulae have depictions in the situla art style. The female grave contained the earrings, while the male graves contained situlae and belt plates. The fibulae are associated with graves for which gender is not determinable, and one was a stray find. These artifacts are the only pieces depicting a canid in each grave, with the exception of the set of four earrings.

Figure IV.38. Canid earrings from Grave 13/117 at Preloge, Magdalenska gora. Naturhistorisches Museum Wien 27784 (Tecco Hvala et al. 2004:Pl. 105 nos. 2 and 4).

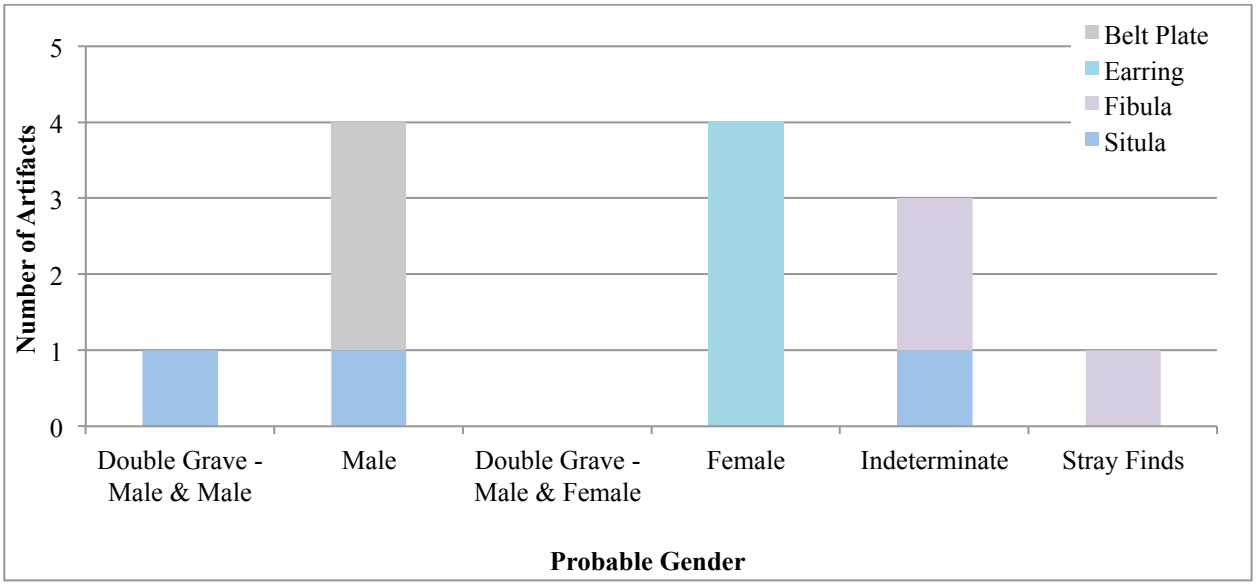

Figure IV.39. Canids represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

IV.2.B.iv. Felines

All feline images were categorized as wild felines, since it has not been confirmed that domestic cats were present in Slovenia in the Early Iron Age. Domestic cat remains have been identified in Early Iron Age contexts in Italy, possibly as early as the eighth century BCE at Fidene (de Grossi Mazzorin 1997), and more securely in the somewhat later sites of Ficana and

Cures Sabini (de Grossi Mazzorin 1989; Ruffo 1988; Trentacoste 2014:65). Domestic cats also occasionally appear in Etruscan art, though even then they are limited to high status contexts such as banquet scenes in elite tomb art (Ashmead 1994; Trentacoste 2014:65). Feline imagery in this dataset does not show felines in the company of humans, but solely with other wild animals, further supporting the idea that wild animals are being depicted. Wild felines native to this region include European wildcats (*Felis silvestris*) and the Eurasian lynx (*Lynx lynx*; Chinery 1987:51-52). Lynx can be morphologically distinguished from wildcats in representations due to their shorter tails and distinctive ear tufts (Figure IV.40; Chinery 1987:52).

Figure IV.40. Top: European wildcat (*Felix sylvestris*); bottom: Eurasian lynx (*Lynx lynx*) (© image producers indicated on images; ARKive).

Table IV.21. Contexts with artifacts representing wild felines.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Magdalenska gora	Preloge	2/o	Indt/Child	2	Bronze fibulae
		2/58	♂/Adult	1	Bronze belt plate
		II/15	Indt/Indt	1	Bronze fibula
Novo mesto	Kandija	I/22	♀/Indt	1	Bronze fibula
Libna	Špiler	III/Find 38	---	1	Bronze fibula
Totals	**3**	**5**		**6**	

Six artifacts depicting felines were identified in five contexts from three sites (Table IV.21). Four of these contexts were graves, one was a stray find. Feline imagery was associated with one probable male grave and one probable female grave, so these artifacts may not be distributed according to gender, or the sample is too small to discern such patterning (Figure IV.41). However, the artifact associated with the male grave was a unique belt plate depicting a

lion, while all the other artifacts were fibulae, so it may be that feline fibulae are not associated with men – though a more robust sample will be needed to test this idea. A matched pair of feline fibulae was associated with the grave of a probable child of indeterminate gender, though other artifacts were associated with probable adults, so age is apparently not strongly associated with the distribution of feline artifacts either.

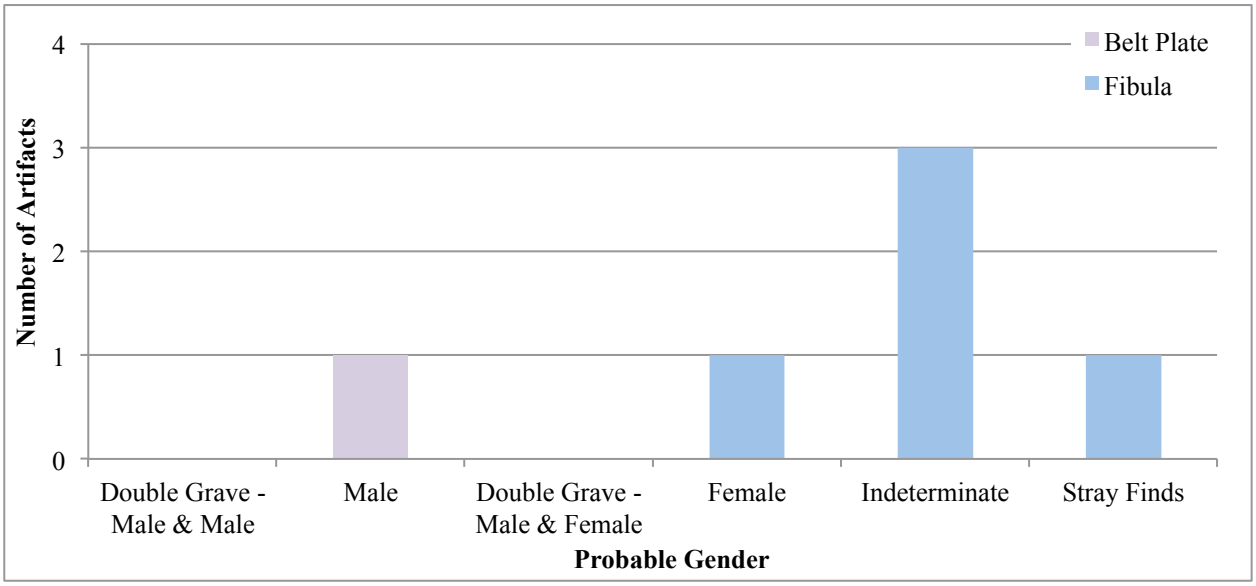

Figure IV.41. Felines represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

All of the artifacts except one are fibulae. The fibulae are all the same type, Type I/18 Variant A according to Alexia Nascimbene's typology, and date from the end of the sixth to the mid-fifth century BCE (Figure IV.42; Nascimbene 2009:67, 160-165). The belt plate depicting a wild feline is unusual – it is considered one of the oldest belt plates, dating from the end of the Serpentine Fibulae or beginning of the Certosa Fibula phase (Tecco Hvala 212:177; Turk 2005:73). It is exceptional not only for the early date, but also for the depiction of the hindquarters of a lion, identified on the basis of the unique tufted tail (Figure IV.43). Lions are not native to Slovenia or the surrounding regions, but lions appear periodically in Etruscan and

other Italian artwork as part of the Orientalizing tradition in the seventh and sixth centuries BCE (Boardman 1993:15-16; Spivey 1997:40-41).

Figure IV.42. Cat bird fibula from a probable child's grave. Magdalenska gora, Preloge Grave 2/o. Narodni muzej inv. no. P 4002.

IV.2.B.v. Deer

Deer were identified morphologically. Stags were identified based on the presence of antlers, while hinds could be distinguished from other ungulates in the dataset due to their lack of horns in the case of sheep and goats, and the absence of manes and long tails in the case of horses (Figure IV.44). Based on the antler morphology in Dolenjska Hallstatt situla art depicting larger, more curved antlers, many of the deer are red deer (*Cervus elephus*) rather than roe deer (*Capreolus capreolus*).

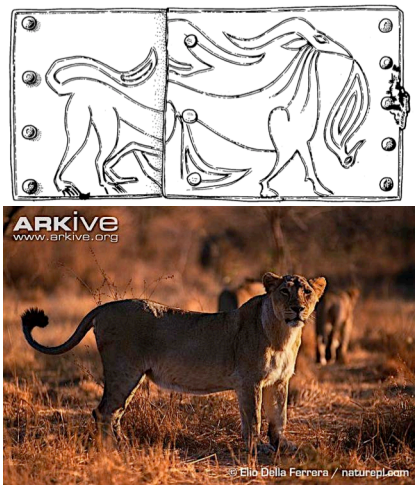

Figure IV.43. Top: Belt plate depicting the hindquarters of a lion (left) from Magdalenska gora, Preloge Grave 2/58. Naturhistorisches Museum Wien, missing (Tecco Hvala et al. 2004: Pl. 53 no. 1). Bottom: Lion (*Panthera leo*) (©Elio Della Ferrera/naturepl.com; ARKive).

Twelve artifacts depicting deer were identified in the dataset, from 12 contexts at ten sites (Table IV.22). All of the contexts are graves. All complexes except one contain only a single item depicting deer. The exception is Magdalenska gora, which has four graves with deer iconography. Deer imagery is identified in both male and female graves, though it is more prevalent in male graves (Figure IV.45). No graves containing deer iconography could be identified as burials of probable children.

Figure IV.44. Red deer stag and hind (*Cervus elaphus*) (© Mark Hamblin/ gettyimages.com; ARKive.)

Table IV.22. Contexts with artifacts representing deer.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Molnik	Grmada	17/10	Indt/Adult	1	Bronze belt plate
Vače	Reber	1881/1	Indt/Indt	1	Bronze situla
---	Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	1	Bronze belt plate
Magdalenska gora	Laščik	V/6-7-7a	♂/Adult	1	Bronze situla
		V/29	♂♂/Adult	1	Bronze belt plate
	Preloge	2/a	♀/Adult	1	Bronze situla
		13/55	♂♀/Indt	1	Bronze situla
Stična	Gomile	IV/10	Indt/Indt	1	Bronze fibula
---	Ajdovski gradec	Hallstatt Grave 1	♀/Indt	1	Bronze fibula
Dolenjske Toplice	Branževec 2	II/23	♂/Indt	1	Bronze situla
Brezje pri Trebelnem	Hojbi	XIII/8	♀/Indt	1	Bronze belt plate
Novo mesto	Kapiteljska njiva	III/12	♂/Adult	1	Bronze situla
Totals	**10**	**12**		**12**	

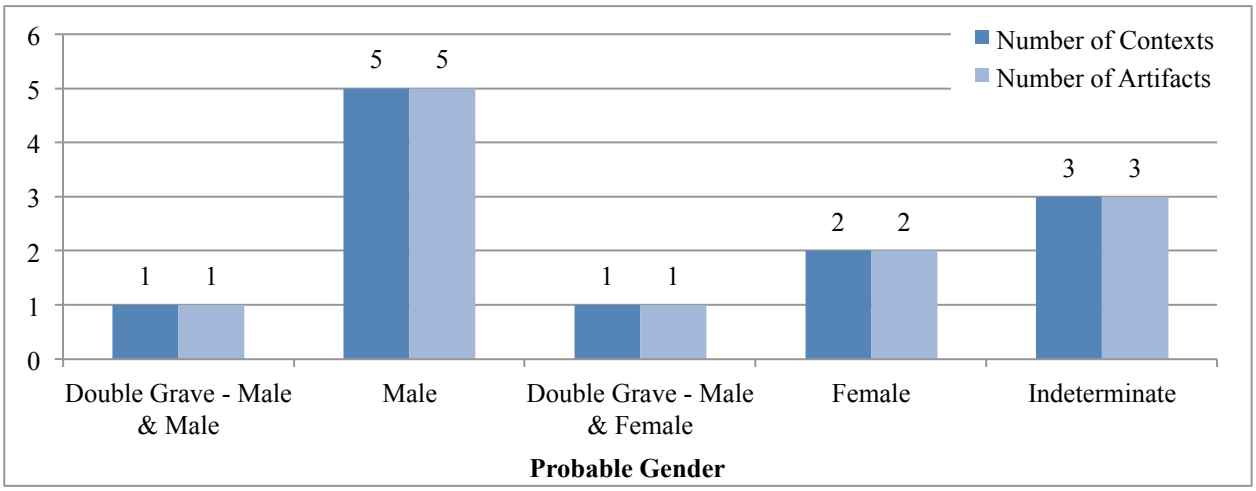

Figure IV.45. Probable gender of deceased associated with grave contexts containing artifacts depicting deer.

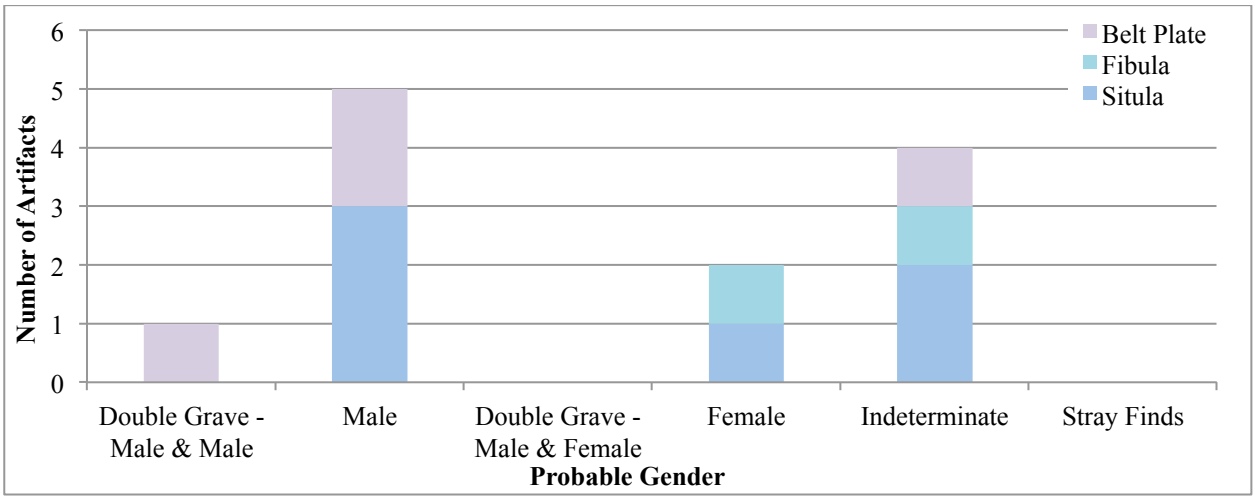

Figure IV.46. Deer represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

As has been the case with other species representations, belt plates with animal imagery were restricted to male graves (Figure IV.46). Of the two fibulae depicting deer, one was found with a female and the other in a grave for which gender could not be determined. It may be that deer fibulae were primarily associated with females, though this dataset is not robust enough to test this hypothesis. These fibulae are unique items; they are versions of the animal head crossbow Certosa fibulae, most of which depict horses, or more occasionally sheep (Figure IV.47). These fibulae are notable for additional reasons – they depict deer with their tongues sticking out, perhaps indicating that the deer are bellowing as they do during mating season, or that their tongues are stuck out panting in exhaustion, which is also a behavior associated with mating season (Figure IV.48; Clutton-Brock and Wilson 2002:337). It is also possible that the visible tongues indicate deceased deer, or are apotropaic, since monsters and demons are depicted with their tongues sticking out in Orientalizing scenes (Counts and Toumazou 2006). These two fibulae match each other exactly, down to the addition of circle-and-dot punch decoration on the bow and face of the deer. This is rare, since other apparently matched crossbow fibulae are often distinguished by slight differences in bow decoration through the addition of incisions or ridges at the ends of the bow. Despite the fact that these fibulae match each other, and are thus far unique items, they were found at two different sites – one in Grave 1 at Ajdovski gradec, and the other in Grave IV/10 at Gomile in the Stična complex.

Figure IV.47. Left: deer head crossbow fibula from Hallstatt Grave 1 at Ajdovski gradec. Narodni muzej inv. no. P 14724. Right: deer head crossbow fibula from Stična, Gomile Grave IV/10. Peabody Museum inv. no. 40-77-40/13299.

IV.2.B.vi. Ibex

Ibex were identified based on their distinctive scimitar-shaped, ridged horns (Figure IV.49; Clutton-Brock and Wilson 2002:377). Ibex are currently high mountain species found in the Alps. However, remains of ibex were found in Early Iron Age settlement contexts and were certainly encountered in prehistory, presumably through hunting. It has also been proposed that in prehistoric times prior to significant human population expansion ibex may have inhabited low mountain ranges (Bökönyi 1994:191).

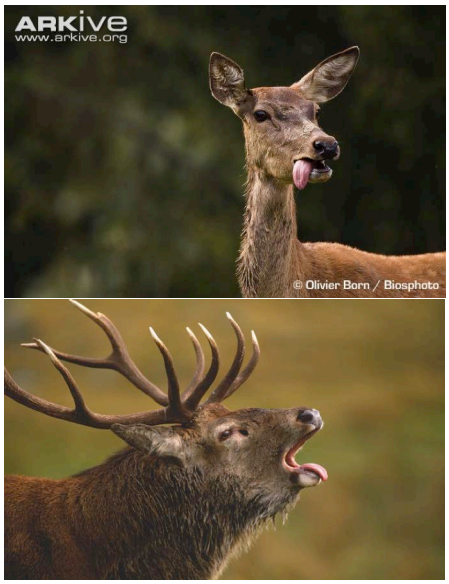

Figure IV.48. Top: Red deer hind panting. Bottom: Red deer stag bellowing (© image producers indicated on images; ARKive).


Figure IV.49. Alpine ibex (*Capra ibex*) (Šafarek and Berden Zrimec 2015:182).

Only four artifacts in the dataset have depictions of ibex, and each is associated with a different grave context and site (Table IV.23). Females were not clearly associated with ibex – two graves containing ibex depictions are those of probable males, one is a double grave of a male and female, and it was not possible to identify the gender of the last grave (Figure IV.50). No artifacts representing ibex were associated with the graves of probable children.

Table IV.23. Contexts with artifacts representing ibex.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1881/1	Indt/Indt	1	Bronze situla
Magdalenska gora	Laščik	V/6-7-7a	♂/Adult	1	Bronze situla
	Preloge	13/55	♂♀/Indt	1	Bronze situla
Stična	Gomile	76/Grave with the Decorated Situla	Indt/Indt	1	Bronze lid
Totals	**4**	**4**		**4**	

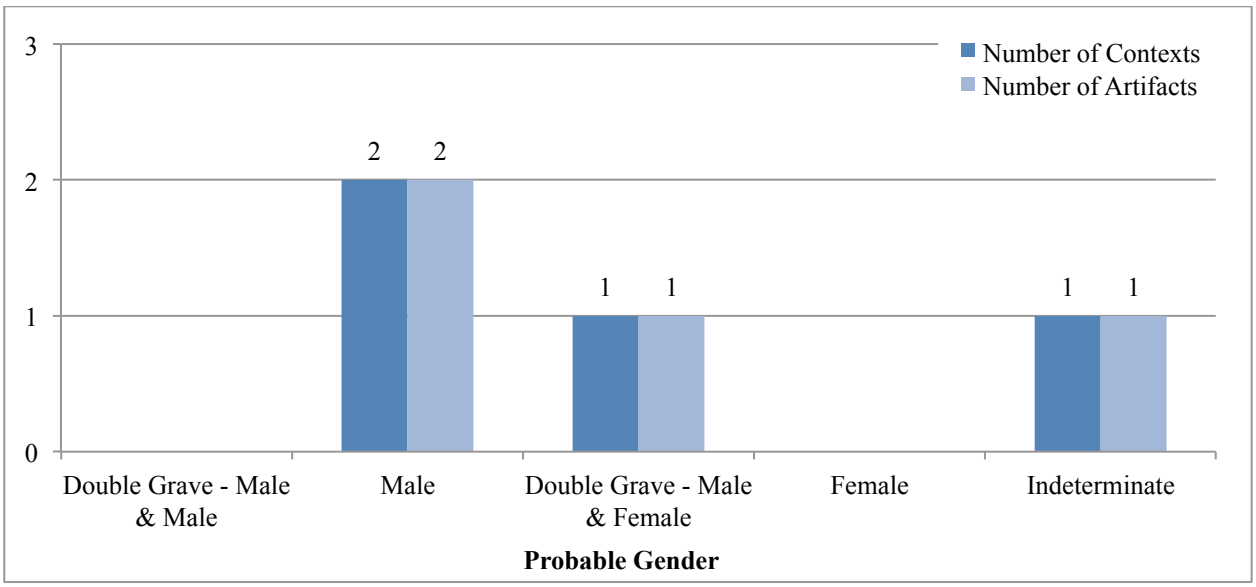

Figure IV.50. Probable gender of deceased associated with grave contexts containing artifacts depicting felines.

All depictions of ibex appear on bronze vessels decorated in the situla art style (Figure IV.51). Three of these items are situlae, and one is a bronze lid. The bronze lid is one of the earliest known examples of situla art in the Dolenjska Hallstatt region, dating to the Stična period (Figure IV.52; Dular 2003:122 Fig. 68; Tecco Hvala 2012:115; Turk 2005:19, 47).

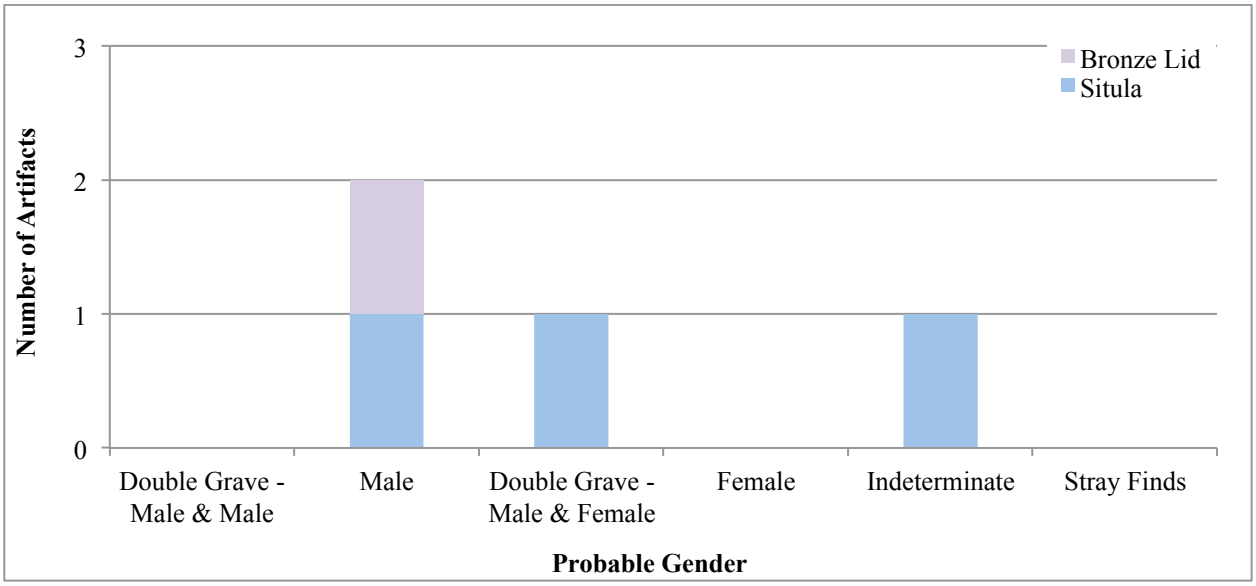

Figure IV.51. Ibex represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

IV.2.B.vii. Hare

The lagomorphs depicted in Dolenjska Hallstatt contexts were identified as hares (*Lepus spp.*) rather than European rabbits (*Oryctolagus cuniculus*) because until the Roman period European rabbits were restricted to the Iberian Peninsula and southern France (Clutton-Brock 1999:180). Hares are distinguished from other small animals in the dataset by their large, upright ears (Figure IV.53).

Artifacts depicting hares were identified in ten contexts at seven sites (Table IV.24). Nine of these contexts were graves, while one was a stray find context from a settlement. Nineteen artifacts were identified in the dataset. Artifacts depicting hares were more strongly associated with female graves than male graves (Figure IV.54). There are no artifacts depicting hares that could be associated with graves of probable children.

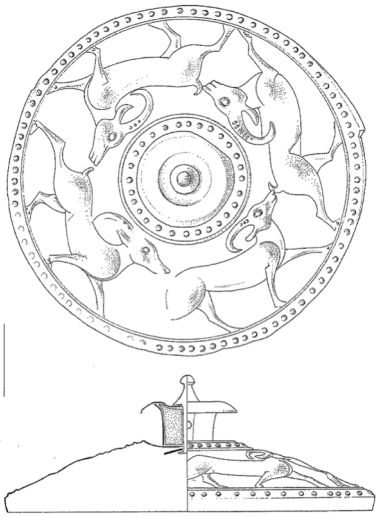

Figure IV.52. Bronze lid from a situla. Stična, Gomile Tumulus 76, Grave with the Decorated Situla. Narodni muzej inv. no. P 6948/1 (Gabrovec 2006:405 Pl. 131, no. 2).

Figure IV.53. Brown hare (*Lepus europaeus*) (© Robert Maier/The Bruce Coleman Collection; ARKive).

Table IV.24. Contexts with artifacts representing hares.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1889/1	♂/Indt	1	Bronze belt plate
Magdalenska gora	Laščik	V/29	♂♂/Adult	1	Bronze belt plate
	Preloge	13/117	♀/Adult	2	Bronze earrings
		IV/19	♀/Indt	5	Bronze earrings
---	Špičasti hrib	Surface Find (Hillfort)	---	1	Bronze button
Dolenjske Toplice	Branževec 2	II/2	♀/Indt	1	Bronze earring
		II/16	♀/Indt	4	Bronze earrings
		II/30	♀/Indt	2	Bronze earrings
Novo mesto	Kapiteljska njiva	III/12	♂/Adult	1	Bronze belt plate
Totals	**6**	**9**		**18**	

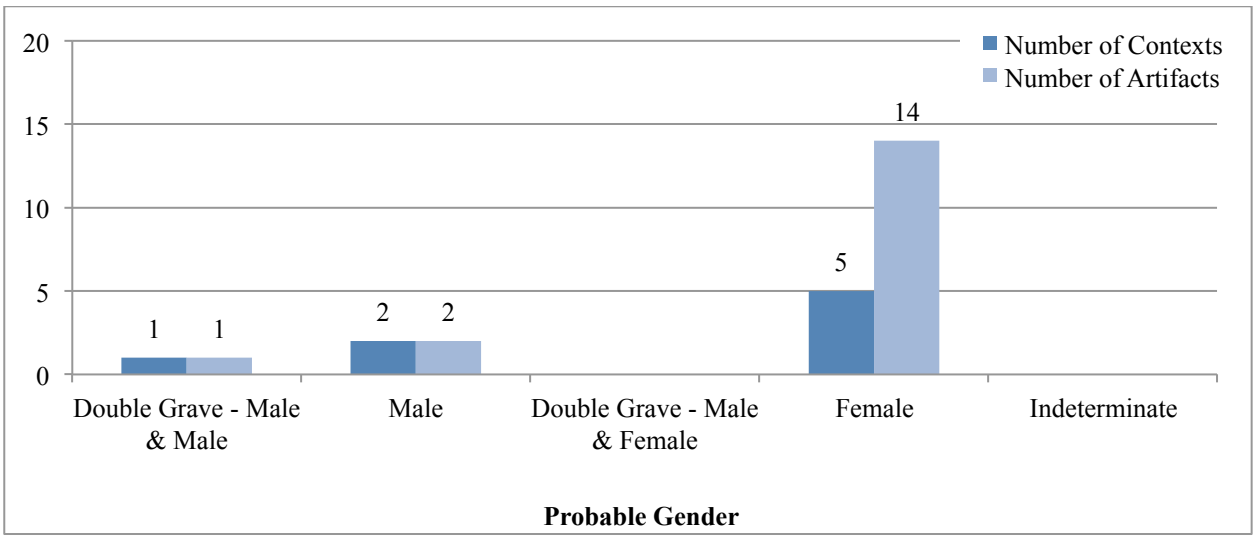

Figure IV.54. Probable gender of deceased associated with grave contexts containing artifacts depicting hares.

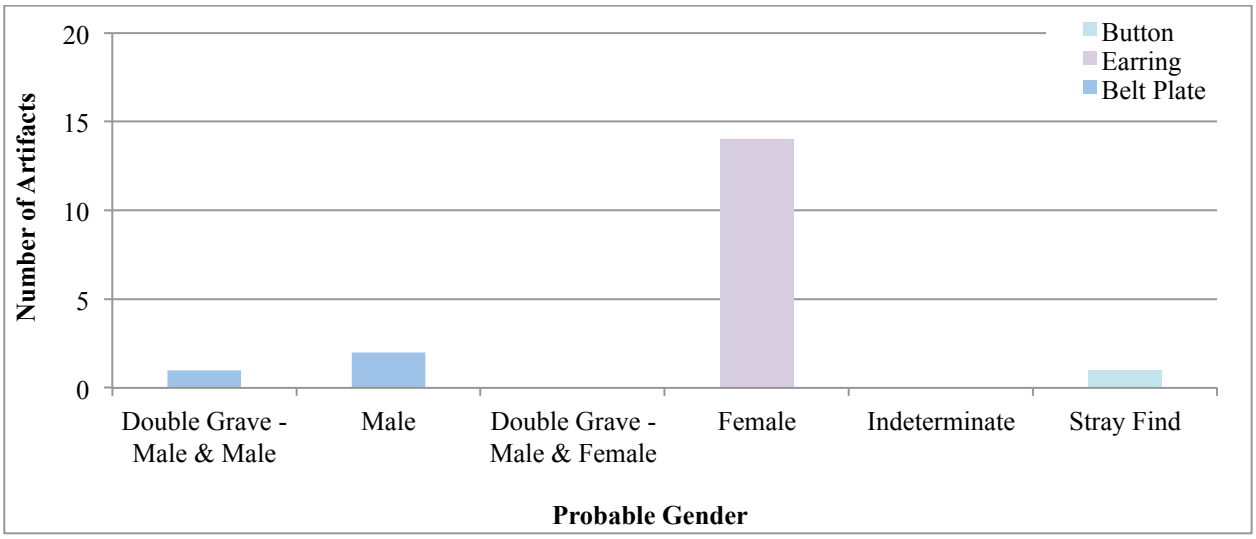

Figure IV.55. Hares represented on artifacts, divided according to the probable gender of the deceased.

Only three types of artifacts depict hares, and two are mutually exclusive according to gender (Figure IV.55). Five female graves contained 14 earrings depicting hares, and there is a single button depicting a hare that was a stray find from a hillfort context. The three items from male graves depicting hares were belt plates, all of which are quite different. The one from Grave III/12 at Kapiteljska njiva near Novo mesto depicts a hunting scene where a man is advancing on a hare in some sort of net or snare (Figure IV.56a). The second is a repaired belt plate from

Magdalenska gora, Laščik Grave V/29, depicting a hare running ahead of hinds (Figure IV.56b). The final belt plate is from the recently reconstructed Grave 1889/1 at Reber in the Vače complex (Figure IV.56c; Dular 2016:61). This belt plate is considered to be an import from the Veneto region based on similarities to belt plates in that region, as well as the form of belt construction. It has also been suggested that the bronze plate was originally part of a situla that was cut out and repurposed as a belt plate (Preložnik and Guštin 2012:120-123; Starè 1954:43). The belt plates were each the only items depicting hares in their respective graves, while the earrings were deposited in groups of two to five, averaging 2.8 earrings per grave.

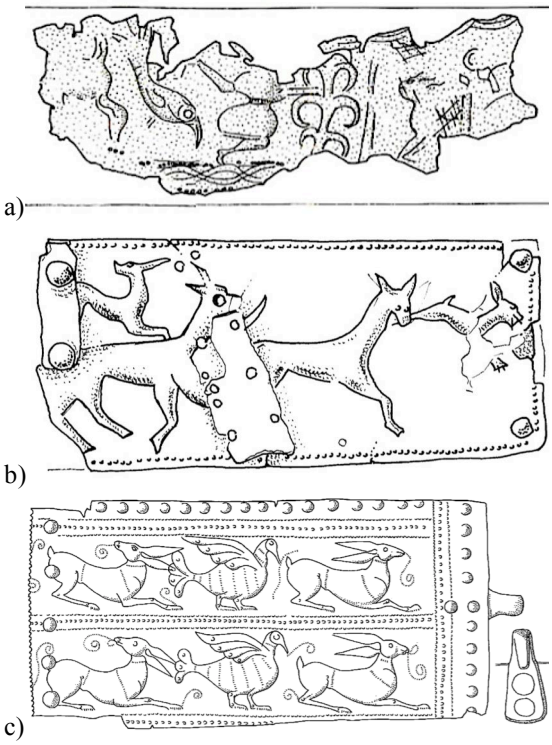

Figure IV.56. a) Close-up of belt plate from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. P 2162 (Križ 1997:Appendix 4). b) Belt plate from Magdalenska gora, Laščik Grave V/29. Peabody Museum inv. no. 34-25-40/8516 (Tecco Hvala 2012:72 Fig. 66). c) Belt plate from Vače, Reber Grave 1889/1. Narodni muzej inv. no. P 80 (Turk 2005:49 Fig. 71).

Figure IV.57. Four-lined snake (*Elaphe quatuorlineata*) (© Chris Mattison/ www.photoshot.com; ARKive).

IV.2.B.viii. Snake

Snakes were identified by their long, limbless bodies, and their triangular heads (Figure IV.57). Nine artifacts depicting snakes were identified in the dataset, from ten contexts at six sites (Table IV.25). Nine of these contexts were graves, and one was a stray find. There were no contexts containing snake imagery associated with settlements. Each context had only a single artifact depicting a snake.

Table IV.25. Contexts with artifacts representing snakes.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
---	Kidričeva cesta (Zagorje)	Milač House/Unknown grave	---	1	Bronze torc
Magdalenska gora	Laščik	V/29	♂♂/Adult	1	Bronze bracelet
	Preloge	2/46	♂/Adult	1	Bronze belt plate
		2/67	♀/Indt	1	Bronze torc
Stična	Gomile	VII/7	Indt/Indt	1	Bronze bracelet
		48/33	♂/Indt	1	Bronze torc
Brezje pri Trebelnem	Hojbi	VII/1	Indt/Adult	1	Bronze bracelet
		VII/8	♀/Indt	1	Bronze bracelet
		VII/28	Indt/Adult	1	Bronze bracelet
Novo mesto	Kandija	III/2	♂/Indt	1	Bronze bracelet
Totals	**6**	**10**		**10**	

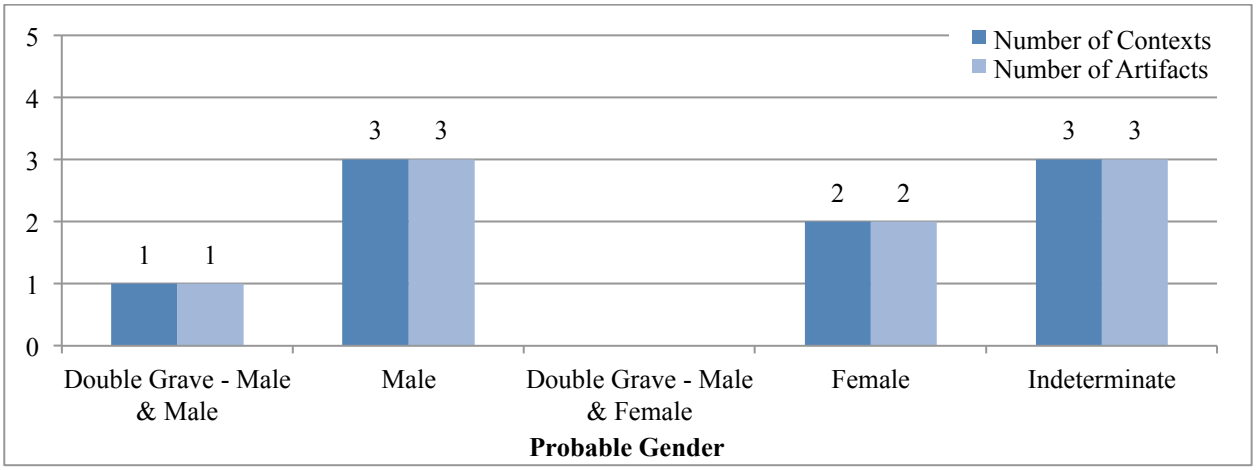

Figure IV.58. Probable gender of deceased associated with grave contexts containing artifacts depicting snakes.

Both male and female graves contained artifacts depicting snakes, though there were only two female graves with snake imagery (Figure IV.58). Males were more strongly associated with snake imagery – there were three single male graves, and one double grave of two males containing an artifact depicting a snake. Most artifacts depicting snakes are annular jewelry – torcs and bracelets (Figure IV.59). These are relatively schematic, and in many cases depict two-headed snakes, sometimes elaborated with circle-and-dot eyes and incisions along the body that suggest a patterning of scales (Figure IV.60). There is also a single belt plate from Grave 2/46 at Preloge near Magdalenska gora that depicts a snake in the mouth of a bird (Figure IV.61). Snake imagery was not associated with any burials of probable children in the dataset.

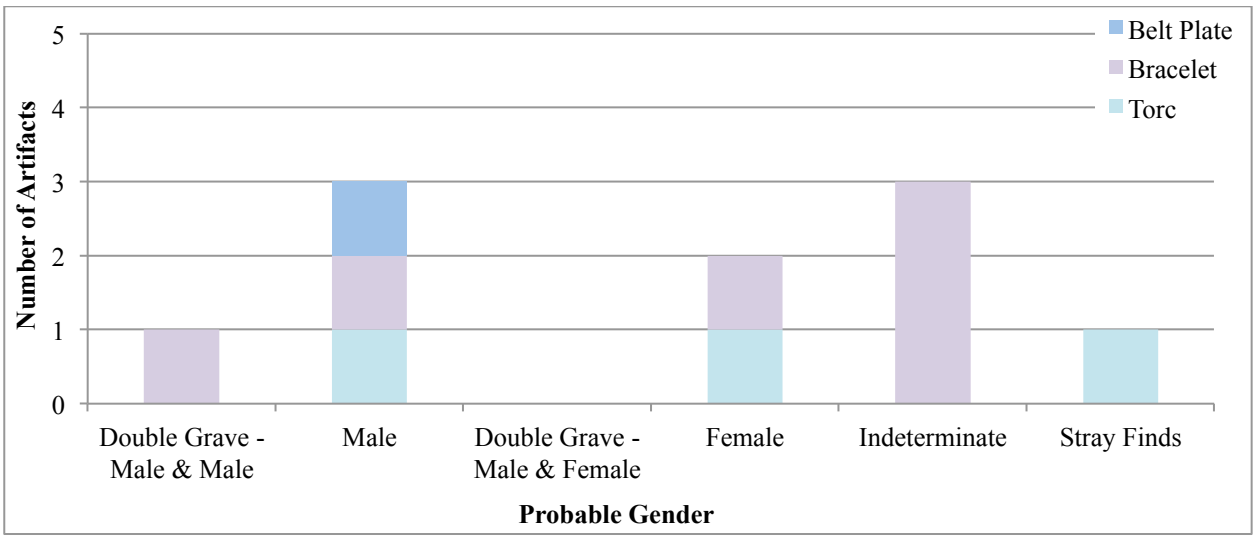

Figure IV.59. Snakes represented on artifacts from mortuary contexts, divided according to the probable gender of the deceased.

IV.2.B.ix. Fish

There is only one example of an artifact depicting a fish from the Dolenjska Hallstatt area. This is on a belt plate from Grave III/12 at Kapiteljska njiva near Novo mesto, showing two nude men fishing (Figure IV.62). They are holding a net spread between them that contains two fish. Grave III/12 is that of a probable male adult, however since there is only one example of an artifact depicting fish, it is impossible to say whether there are any gender or age-based patterns in the use or deposition of such artifacts.

Figure IV.60. Bracelet from Brezje pri Trebelnem, Hojbi Grave VII/8. Naturhistorisches Museum Wien inv. no. 33957.

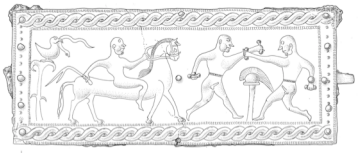

Figure IV.61. Belt plate from Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien inv. no. 22962 (Tecco Hvala et al. 2004:Plate 41 no. 1).

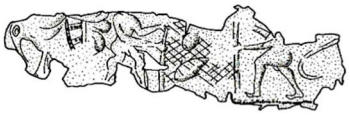

Figure IV.62. Close-up of belt plate from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. P 2162 (Križ 1997:Appendix 4).

IV.2.B.x. Cowry

There are only two artifacts depicting cowry shells in the dataset. These are three-dimensional bronze pendants, both from

Tumulus I at Hrib near Metlika. These bronze cowry shells are believed to be from the area of Picenum on the east coast of Italy (see Figure II.2; Grahek 2004:154 Fig. 42, 178). Grave 18 contained a single cowry pendant, and gender could not be determined according to the conservative estimation used in this study, though in the original publication it is presented as the grave of a female child due to the small size of the annular jewelry, and the set of annular bracelets (Grahek 2004:177-178). Grave 80 contained an elaborate pendant with chains from which six bronze cowry shells are suspended, attached to a fibula by bronze wire earrings[82] (Figure IV.63). This was also a female grave, though conservative age could not be determined for this grave. However, the original publication proposes that Grave 80 is that of an adult female,[83] the mother of the individual buried in Grave 18, on the basis of the relatively close spatial positioning of the two graves, the bronze cowry shell pendants within them, and the wealth of the other grave goods (Grahek 2004:178). These two items are unusual imports, and their deposition in the same tumulus suggests some relationship between the individuals in Graves 18 and 80. Whether this pattern may also be gendered cannot be determined due to the small size of the dataset, but it seems that these cowry shell pendants should be assessed individually since they are such unique items.

Figure IV.63. Pendant with cowry shells. Metlika, Hrib Grave I/80. Belokranjski muzej inv. no. A 592.

[82] The bronze wire earrings used for suspension are no longer kept with the pendant, and were not photographed.

[83] The publication of this grave as an adult may be problematic. The grave was damaged and it was not possible to determine the full size of the grave cut. In addition, the bracelets associated with this grave are 5.4 and 5.3 cm respectively, which is well below the size of 6.5 cm that has been used to indicate child-sized jewelry (Grahek 2004:170; Tecco Hvala 2012:290).

IV.2.C. Mythical Animals

Mythical animals are rare in Dolenjska Hallstatt art compared to local species. Only two mythical species could be identified, the sphinx and pegasus, and both are considered to be imports or copies of Italic artifacts showing broader Orientalizing influences (Križ et al. 2009:133; Turk 2005:24). Four artifacts are known from four grave contexts at three sites (Table IV.26). None of these artifacts are associated with settlements. All the graves are categorized as probable male graves on the basis of their associated artifacts (Figure IV.64), however it must be noted that helmets are used to identify probable males, since the vast majority of helmets do not have animal imagery and are thus far securely associated with males in the archaeological record (Tecco Hvala 2012:137-143).

Table IV.26. Contexts with artifacts representing mythical creatures.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Ravne njive	1883/11-1	♂/Indt	1	Bronze helmet
Magdalenska gora	Preloge	2/13	♂/Adult	1	Bronze belt plate
		IV/3 [Mecklenburg[84]]	♂/Adult	1	Bronze helmet
Brezje pri Trebelnem	Hojbi	XII/37	♂/Adult	1	Bronze helmet
Totals	**3**	**4**		**4**	

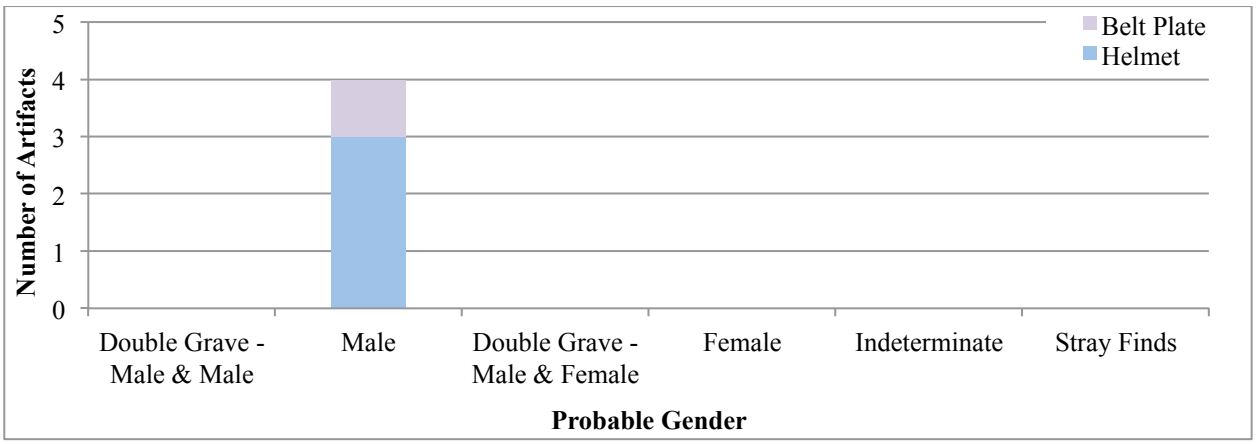

Figure IV.64. Mythical animals on artifacts from mortuary contexts, divided according to probable gender.

[84] This grave is distinguished as Magdalenska gora, Preloge Grave IV/3 [Mecklenburg] because Tumulus IV at Preloge was also excavated by Jernej Pečnik, who designated a Grave 3 in his excavations (Hencken 1978:18; Tecco Hvala et al. 2004:25, 50. 141). Both the Duchess of Mecklenburg's Grave 3 and Pečnik's Grave 3 contained artifacts depicting animals, and the name in brackets is necessary to distinguish the two.

The three helmets are all composite helmets, topped with two sphinxes[85] (Figure IV.65). These helmets date to the Stična period (late 8th-7th century BCE), and the sphinx imagery demonstrates familiarity with and some use of Orientalizing imagery, likely through Italian contacts (Križ 2012:56; Teržan 2012; Turk 2005:17-20). The belt plate is later, and dates to the Certosa Fibulae period (5th century). It depicts a procession of creatures – a bird-headed animal,[86] and two pegasi with a sphinx in between them (Figure IV.66). It is likely that this belt plate is an import from the Veneto region on the basis of the figural design and decoration of studs and small bosses at the terminals; however, the rivets at either end match local styles, so it is also possible that this is a local copy of a Venetic design (Preložnik and Guštin 2012:122-124).

Figure IV.65. Helmet from Vače, Ravne njive Grave 1883/11-1. Naturhistorisches Museum Wien inv. no. 7583.

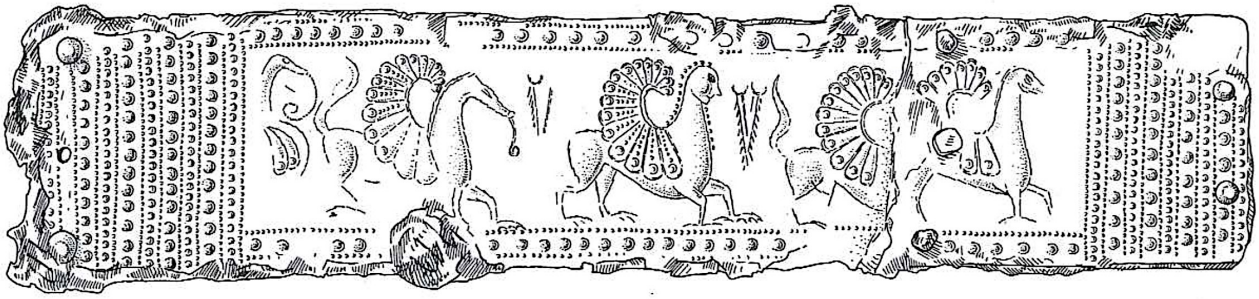

Figure IV.66. Belt plate depicting mythical creatures. Magdalenska gora, Preloge Grave 2/13 (Tecco Hvala et al. 2004:Pl. 24 no. 3).

IV.2.D. Indeterminate Animals

Animals were categorized as indeterminate for two main reasons – artifacts were too damaged to discern the details of the depiction, or the depictions were extremely schematic and

[85] It is possible that these figures referred to as sphinxes were intended to represent sirens (bird-human hybrids). However, sphinxes is used here to maintain consistency with other discussions of these figures and since there is not enough of the body depicted to differentiate between the two.

[86] This may be a griffin but the full body is not visible so the conservative identification is simply "bird."

distinguishing features were not present. There are a large number of animal depictions that are not readily identifiable – 137 total (31% of the iconographic dataset; Table IV.27). These artifacts come from 108 contexts at 19 sites. Ninety of these are grave contexts, five are settlement contexts, and 13 are stray find contexts. The Novo mesto complex has the most contexts and finds with indeterminate animals with 39 contexts and 51 artifacts – 37% of the entire indeterminate sample.

Figure IV.67. Situla from Novo mesto, Kandija Grave III/33. Dolenjski muzej inv. no. 821 (Križ 2012:70).

Figure IV.68. Horn-handled bowl from Magdalenska gora, Preloge Grave IV/3 [Pečnik]. Naturhistorisches Museum Wien inv. no. 55491.

Figure IV.69. Eastern Alpine animal head fibula. Novo mesto, Kapiteljska njiva Grave XIV/54. Dolenjski muzej inv. no. P 5552.

The two main reasons for the difficulty of identification – damage and schematic representations – can be divided according to artifact category. Large sheet bronze artifacts including belts and situlae are very susceptible to taphonomic damage that has destroyed certain parts of the images (Figure IV.67). Other artifacts have highly schematic depictions – especially ceramics. The unidentifiable mammal head is a very common motif – it is a plastic depiction of what is clearly a mammal's head highlighting two vertical projections that may be horns or ears, and a snout. There are rarely other details on these protomes. These occur on firedogs, rattles, lids, various ceramic vessels, and glass beads (Figure IV.68). The most schematic artifacts are the Eastern Alpine animal head fibulae, which simply have a foot that looks like a bent animal head facing the bow of the fibula (Figure IV.69).

Table IV.27. Contexts with artifacts depicting indeterminate species of animals.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Vače	Reber	1881/1	Indt/Indt	1	Bronze helmet
Magdalenska gora	Laščik	V/6-7-7a	♂/Adult	1	Bronze situla
	Preloge	2/a	♀/Adult	1	Bronze situla
		2/31	Indt/Adult	1	Ceramic vessel
		2/32	Indt/Adult	1	Ceramic horn-handled bowl
		2/34	Indt/Adult	1	Ceramic horn-handled bowl
		2/44	Indt/Indt	1	Ceramic horn-handled bowl
		2/58	♂/Adult	1	Bronze belt plate
		13/10	♂/Indt	2	Ceramic craters
		13/55	♂♀/Indt	2	Bronze helmet; bronze situla
		13/65	Indt/Adult	1	Bronze fibula
		13/160	♀/Adult	6	Bronze earrings
		13/Individual Finds	---	1	Bronze fibula
		IV/3 [Pečnik]	♀/Indt	1	Ceramic horn-handled bowl
		IV/19	♀/Indt	2	Bronze earring; bronze fibula
		IV/24	Indt/Indt	2	Indeterminate iron and glass objects
		VI/8	Indt/Indt	1	Bronze fibula
		VI/33a	Indt/Indt	1	Bronze fibula
		VI/34	Indt/Adult	1	Bronze fibula
		VII/13	♂/Adult	1	Bronze fibula
		VII/30	♀/Indt	1	Bronze earring
		VIII/4	Indt/Indt	1	Bronze fibula
		X/36	♂/Adult	1	Bronze fibula
		X/43	♀/Indt	4	Bronze earrings
		X/76	♂/Adult	1	Bronze fibula
	Voselca	1/1	Indt/Indt	1	Bronze torc
		2/17	Indt/Indt	1	Bronze fibula
		2/21	Indt/Indt	1	Bronze fibula
Stična	Cvinger nad Virom pri Stični	Trench 7/House	---	1	Ceramic firedog
		Trench 11	---	1	Bronze fibula
		Trench 14/ Complex 6	---	1	Ceramic horn-handled bowl
		Trench 19/House 3	---	1	Ceramic firedog
		Trench 20/ Complex 8	---	1	Ceramic horn-handled bowl
	Gomile	V/2	Indt/Child	2	Glass beads
		V/8	Indt/Indt	1	Glass bead
		VI/21	Indt/Adult	1	Ceramic horn-handled bowl
		VIII/1	Indt/Child	1	Bronze fibula
		48/27	♀/Adult	1	Bronze and bone fibula
		48/102	♀/Adult	1	Bronze fibula
		48/104	♂/Adult	2	Bronze belt plate; ceramic horn handled bowl
		48/114	Indt/Indt	2	Ceramic lid; ceramic vessel
		48/121	♀/Subadult	1	Glass bead
		48/Find 168	---	1	Ceramic horn-handled bowl
		Vas Vir/Isolated Find	---	2	Ceramic horn-handled bowl; ceramic vessel

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
---	Medvedjek	I/8	♀/Indt	1	Bronze fibula
Boštanj	Gorenjčeve groblje	Grave 1	♀/Indt	1	Bronze and glass fibula
	Kosmatec	Gomila pri Zlatem teletu/ 20	Indt/Indt	1	Ceramic vessel
Dolenjske Toplice	Branževec 2	II/23	♂/Indt	1	Bronze situla
		II/30	♀/Indt	2	Bronze earrings
		II/35	♂♀/Adult	1	Ceramic horn-handled bowl
		V/2	♂/Indt	1	Ceramic vessel
		V/43	Indt/Indt	1	Ceramic vessel
		X/7	Indt/Indt	1	Bronze vessel
		XI/12	♀/Indt	1	Bronze earring
		XI/21	♂/Indt	1	Bronze belt plate
		XIII/6	♂/Indt	1	Iron fibula
Brezje pri Trebelnem	Hojbi	XII/67	♀/Adult	1	Bronze fibula
		XIII/8	♂/Adult	1	Bronze belt plate
		XIII/51	Indt/Indt	1	Bronze fibula
Novo mesto	Kandija	I/3	Indt/Indt	1	Ceramic vessel
		I/31	♂/Indt	1	Ceramic lid
		I/Stray Find	---	1	Ceramic vessel
		II/3	♂/Indt	1	Ceramic horn-handled bowl
		III/3	♀/Indt	2	Ceramic lids
		III/31	Indt/Indt	1	Ceramic horn-handled bowl
		III/33	♀/Indt	1	Bronze situla
		III/Stray Find	---	1	Ceramic vessel
		IV/1	♂/Indt	1	Ceramic vessel
		IV/3	♂♀/Adult	3	Bronze fibulae; ceramic horn-handled bowl
		IV/28	Indt/Indt	1	Bronze fibula
	Kapiteljska njiva	A/4	Indt/Indt	2	Ceramic vessels
		I/15	♀/Adult	1	Ceramic horn-handled bowl
		I/27	Indt/Indt	1	Ceramic lid
		I/34	Indt/Adult	1	Ceramic horn-handled bowl
		III/12	♂/Adult	1	Bronze belt plate
		III/19	♀/Adult	3	Ceramic horn-handled bowl; ceramic lids
		III/36	♀/Adult	1	Ceramic horn-handled bowl
		III/Stray Find	---	1	Ceramic horn-handled bowl
		V/45	Indt/Adult	1	Ceramic vessel
		VI/4	Indt/Adult	1	Bronze fibula
		VI/11	♂/Adult	1	Ceramic lid
		VI/34	♀/Adult	2	Ceramic horn-handled bowl; ceramic lid
		VII/20	♀/Adult	1	Ceramic kernos
		X/11	Indt/Indt	1	Ceramic horn-handled bowl
		X/17	♀/Adult	1	Ceramic vessel
		XIV/7	♂/Adult	1	Bronze situla
		XIV/33	♀/Adult	1	Ceramic lid
		XIV/45	♂/Adult	3	Bronze fibula; ceramic lids
		XIV/54	♀/Indt	1	Bronze fibula
		XXIV/4	Indt/Adult	1	Bronze belt
		XXIV/10	Indt/Child	1	Ceramic horn-handled bowl
		XXXIII/19	♀/Adult	1	Bronze fibula
		XXXIII/26	Indt/Adult	3	Bronze fibulae; ceramic lid

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifacts
Novi mesto	Mačkovec	I/7	Indt/Indt	1	Ceramic lid
		I/10	Indt/Adult	2	Ceramic ciboria
		I/12	♂/Adult	1	Ceramic vessel
		I/Stray Find	---	1	Ceramic vessel
	Malenškova njiva	Malenškova gomila/3	♂/Indt	1	Bronze belt plate
Libna	Deržaničev gozd	II/Unknown	---	1	Ceramic vessel
	Špiler	III/Find 2	---	1	Glass bead
		III/Find 9	---	1	Ceramic vessel
		III/Find 29	---	1	Ceramic vessel
		III/Find 31	---	1	Ceramic vessel
		III/Stray Find	---	1	Ceramic vessel
	Volčanškova gomila	1889-1890/g	Indt/Indt	1	Ceramic horn-handled bowl
		1889-1890/m	♂/Indt	1	Ceramic horn-handled bowl
Podzemelj	Gomilica (Škrilje)	II/12(m)	Indt/Indt	1	Ceramic vessel
		II/34(j)	Indt/Indt	1	Ceramic rattle
Totals	**19**	**108**		**137**	

The animals that are more schematic or more damaged and thus cannot be securely identified are relatively evenly dispersed between male and female graves (Figure IV.70 and Table IV.28). Female graves have slightly more, but graves where gender cannot be determined have the most. There are four probable sub-adult graves containing artifacts depicting unknown species; they contain five artifacts – three animal head beads, a fibula, and a horn-handled bowl (Figure IV.71).

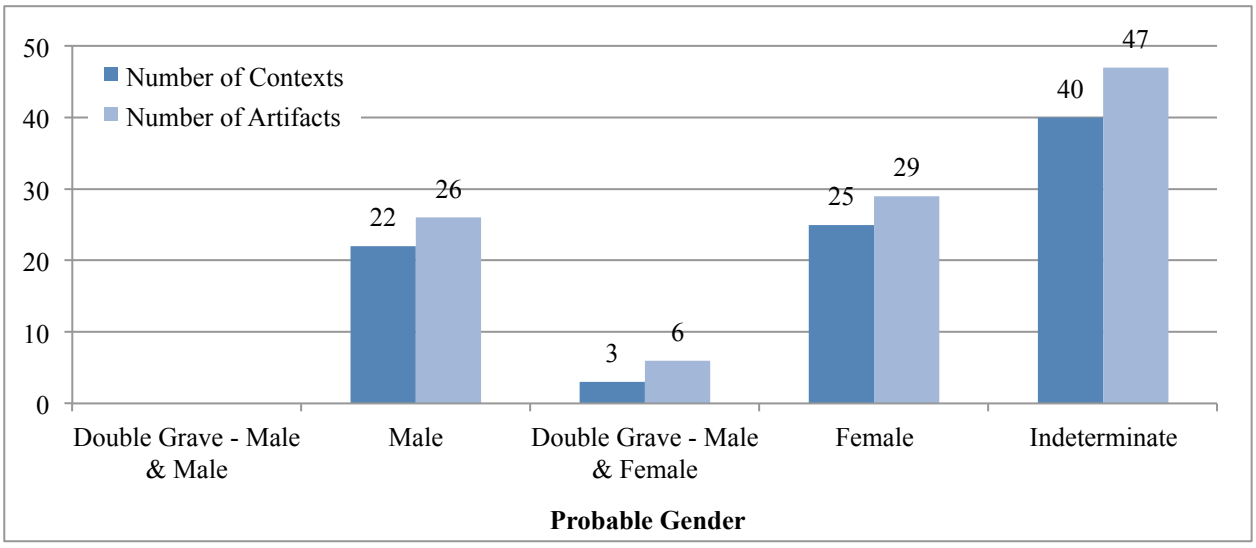

Figure IV.70. Probable gender of deceased associated with grave contexts containing artifacts depicting indeterminate species.

Table IV.28. Numbers of artifacts depicting unknown animals divided according to find context.

	Double Grave – Male & Male	Male	Double Grave – Male & Female	Female	Indeterminate	Stray Find	Settlement
Bead				1	3	1	
Belt		6			1		
Ciborium (ceramic)					2		
Crater (ceramic)		2					
Earring				15			
Fibula		5	2	8	14	1	1
Firedog							2
Helmet					2		
Horn-Handled Bowl (ceramic)		3	2	5	9	3	2
Indeterminate[87]					2		
Kernos (ceramic)				1			
Lid (ceramic)		4		6	4		
Situla		4		2	2		
Rattle					1		
Torc					1		
Vessel (ceramic)		3		1	9	9	

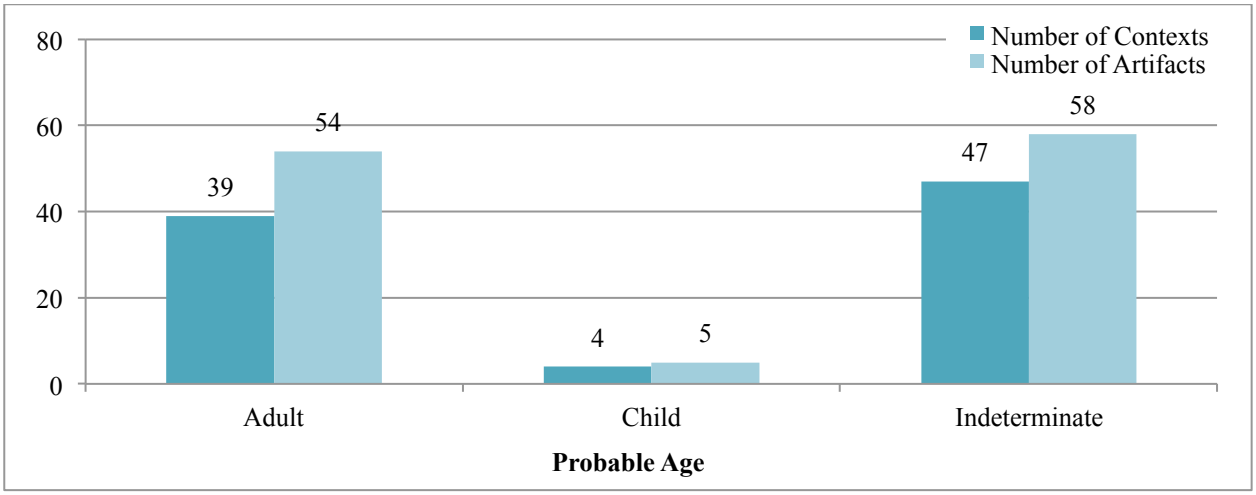

Figure IV.71. Probable age of deceased associated with grave contexts containing artifacts depicting unknown species of animals.

The division of indeterminate species into "ungulate," "mammal," and "indeterminate" largely follows the damaged/schematic divide. The ungulates were identified on the basis of identifiable hooves – often the species could not be determined since the more diagnostic

[87] There are two unique zoomorphic glass-wrapped iron rods from Magdalenska gora, Preloge Grave IV/24. It is not clear what these artifacts were used for. They are discussed in section IV.4.E.iv.

elements, the tail and head, were damaged or missing. "Mammals" are most often the unidentifiable mammal protomes that may be anything from a badger or pine marten, to a dog or a bear. The "indeterminate" artifacts are most often the extremely schematic Eastern Alpine animal head fibulae. There are no clear gendered patterns to their distribution (Figure IV.72).

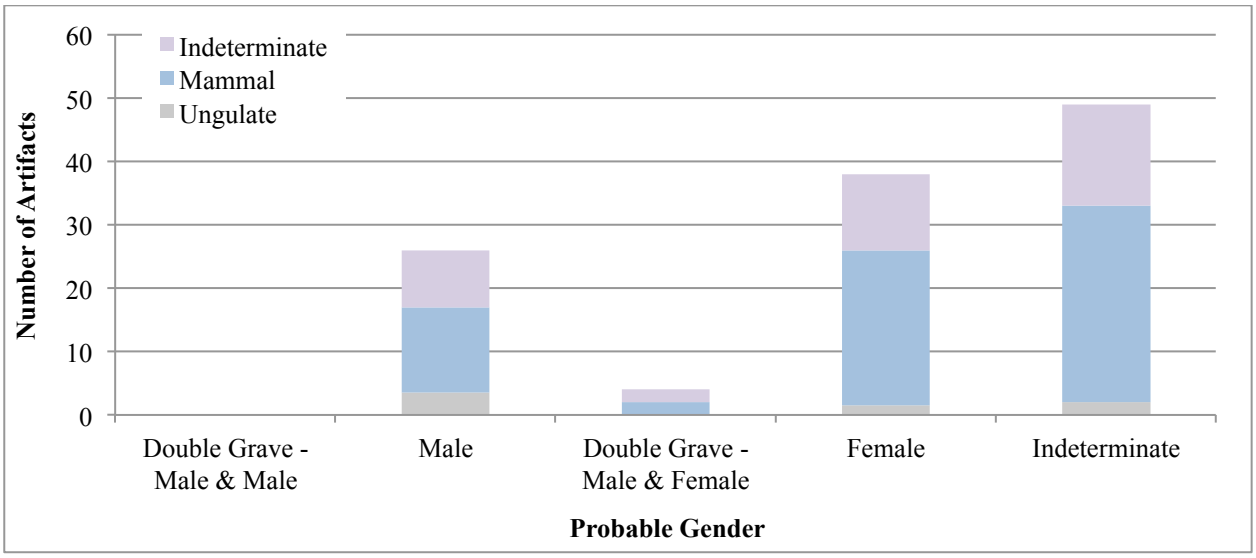

Figure IV.72. Indeterminate animals on artifacts from mortuary contexts, divided according to probable gender.

Most of these artifacts are single items in a grave context (Table IV.29). The primary exception is earrings, which are often deposited in pairs or sets. In three instances a pair of lids are associated with the same grave – all three pairs are from Novo mesto. Those from Kapiteljska nijva III/19, XIV/45, and XXXIII/26 are thought to have been made by the same potter (Križ 2013:55 Fig. 50).

Table IV.29. Number of contexts and artifacts depicting indeterminate animals, excluding stray finds.

Artifact	# Contexts	# Artifacts	Average
Bead	3	4	1.33
Belt	7	7	1.00
Ciborium	1	2	2.00
Crater	1	2	2.00
Earring	6	15	2.50
Fibula	28	30	1.07
Firedog	2	2	1.00
Helmet	2	2	1.00
Horn-Handled Bowl	21	21	1.00
Indeterminate	1	2	2.00
Kernos	1	1	1.00
Lid	11	14	1.27
Rattle	1	1	1.00
Situla	6	6	1.00
Torc	1	1	1.00
Vessel	12	13	1.08
Totals	**95**	**124**	**1.31**

IV.3. Depicting Animals

Different animals are represented at different levels of completeness, engaged in different activities, and in scenes with other animals as well as with humans. The next two sections present patterning in physical representation, activities, and the co-occurrence between different species and with humans.

IV.3.A. Animal Imagery

The variable modes of physical representation and activities depicted are presented in the following sub-sections, divided based on species as well as artifact to explore variation that may be related to modes of representing different animals versus representational choices related to the artifact itself (Tables IV.30 and IV.31).

Table IV.30. Representation of different species in terms of their physical qualities and their activities. Darker colors are used to indicate higher numbers of artifacts.

	Physical Attributes					Activities and Accouterments										
Species	Protome	Full Body	Body Suggested	Circle-and-Dot	Sexed	Moving	Eating	Predation	Hunting	Procession	Harnessed	With Rider	Cultural Material on Body	Ornament	Unknown	**Totals**
Bird	51	62	14	7	4	9	2	14		9				3	3	**118**
Boar								1							1	**1**
Cattle	20		1													**20**
Canid	3	10				1	1	1		3					1	**13**
Cowry		2														**2**
Deer	2	10	2	2	12	5	3	2	3	4	1		1		2	**12**
Dog		12						8	4				1		3	**12**
Feline		5						5							1	**6**
Fish									1							**1**
Goat		6			6	6	4	1		4						**6**
Hare	1	17		1		2	1		1	1						**18**
Horse	39	20	22	4		11	1		1	7	15	10	5		10	**59**
Ibex		4			3	3	3	1		2	1					**4**
Pegasus		1				1				1						**1**
Pig																**0**
Sheep	92	2		1	1	2				2	1					**94**
Snake	8	2	8	4		1		1								**10**
Sphinx		1	3			1				1						**4**

Table IV.31. Representation of animals' physical qualities and their activities, divided according to artifact type. Darker colors are used to indicate higher numbers of artifacts.

	Physical Attributes					Activities and Accouterments										
Artifact	Protome	Full Body	Body Suggested	Circle-and-Dot	Sexed	Moving	Eating	Predation	Hunting	Procession	Harnessed	With Rider	Cultural Material on Body	Ornament	Unknown	**Totals**
Anklet		3														**3**
Bead	96	1	9	2											6	**98**
Belt		16	1		5	9	4	4	3	4	3	3	2		2	**16**
Bracelet	5	1	5	4											1	**6**
Bridle Button	10															**10**
Button	1			1												**1**
Dagger	1															**1**
Earring		28													6	**34**
Fibula	69	31	33	3	2	1		12			2				6	**102**
Figurine (bone)		1									1	1				**1**
Firedog	2	1														**2**
Helmet		2	3													**5**
Indeterminate	2															**2**
Lid (bronze)		3			1	2				2	1				1	**3**
Lid (ceramic)	14	2			1											**14**
Pendant	1	9		4	4										1	**10**
Phalera	10		3				1						4		1	**10**
Rattle (ceramic)	1	1														**1**
Scabbard	1			1												**1**
Scepter		1														**1**
Situla	18	16			9	13	8	2	2	13	8	6	1	3	6	**32**
Torc	4		3													**4**
Vessel (bronze)	20														1	**20**
Vessel (ceramic)	58	3		1												**61**

The final category in both tables, "unknown," is a proxy for damage obscuring the animal imagery. It is not discussed in detail, except to note that there are a large number of damaged artifacts, and parts of the original depictions are no longer known.

IV.3.A.i. Protome

Over 70% of the artifacts in the dataset represent animal protomes, indicating that the head was the most important aspect of the animal for representational purposes. This was most common in depictions of sheep due to the high number of ram's head beads (Figure IV.73).

Using bird and horse protomes to adorn artifacts was also quite common. Bird images most often appear in stylized form on the handle terminals of bronze vessels such as situlae, cists, and cauldrons (Figure IV.74), while horse protomes appear most often on fibulae. Horse-head fibulae may also have part of the body implied by the shape of the foot and bow (Figure IV.75). Ceramic vessels also have a high number of protomes. However, most often these are the indeterminate mammals discussed in section IV.2.D (see Figure IV.70).

Figure IV.73. Ram's head bead from Špičasti hrib, Trench 1, Layer 2. Narodni muzej inv. no. 23058.


Figure IV.74. Close-up of handle terminal from a situla. Magdalenska gora, Laščik Grave V/6-7-7a. Peabody Museum inv. no. 34-25-40/8418.

Figure IV.75. Horse-head crossbow fibula from Novo mesto, Kapiteljska njiva Grave III/46. Dolenjski muzej inv. no. P 2300.

IV.3.A.ii. Full Body

Animals are represented with their full bodies on just over 25% of artifacts. Birds are the animals most often represented in their entirety, on 62 artifacts. They are followed by horses and hares, though in much smaller numbers – on 20 and 17 artifacts respectively. Though they appear on fewer artifacts in general, goats, dogs, and felines are represented exclusively by their whole bodies. This is also the case for pegasi, which are found on a single object, so a pattern cannot be confirmed.[88] Deer and canids largely appear with their full bodies depicted, though there are a few unusual fibulae that solely depict their heads.

[88] Cowry are also represented exclusively by their entire shells, though this seems logical since they would likely not have been identifiable in partial representations.

IV.3.A.iii. Circle-and-Dot

Figure IV.76. Close-up of a belt plate ornamented with stamped circles-and-dots and water birds. Vače, unknown provenience. Narodni muzej inv. no. P 74.

The circle-and-dot motif, also referred to as sun-wheel or concentric circle motifs, are often considered representations of the sun (Figure IV.76). This study tracks their appearance on artifacts depicting animals (see section IV.4.F.i), as well as on the animals themselves. Veneration of the sun is considered an aspect of Late Bronze Age beliefs and likely Early Iron Age ones as well, part of a shared Indo-European cosmology. The movement of the sun has been associated with various animals in European prehistory – primarily water birds and horses, but also snakes and fish in Scandinavia (Armstrong Oma 2007: 32-33; 2013; Becker 2014:137-148; Harding 2000:167-169; Kaul 1998; Kossack 1954, 1999; Kuzmina 2006:264).

The circle-and-dot motif appears relatively infrequently on the bodies of animals. Most often this symbol serves as the eye of the animal– and it is debatable whether in such cases it is a sun symbol, or references the structure of an eye with the pupil surrounded by iris and sclera, though the same circle-and-dot motif is used in other areas that are not eyes. Though they were not included in this study as circle-and-dot motifs – the eyes of ram's head beads (and their nostrils) also appear as concentric circles of alternating dark and light glass (see Figure IV.73). If these were included in the study, there would be a significantly larger number of animals with circle-and-dot imagery depicted on their bodies.

Circle-and-dot imagery is equally common on horses, birds, and snakes – on four artifacts each, which aligns with Flemming Kaul's findings about animals associated with sun symbolism in Scandinavia (Kaul 1998:199-246). The bird artifacts are a matching set of rooster

pendants (see Figure IV.30), as well as a set of amber beads (Figure IV.77), and the chape of a scabbard.[89] The horses with circle-and-dot motifs include three phalerae[90] and one fibula[91] (Figure IV.78). The snakes with circle-and-dot motifs are all bracelets,[92] and circle-and-dots are used as eyes or on the "body" of the snake (Figure IV.79). A matching set of crossbow deer head fibulae are also ornamented with concentric circles (see Figure IV.47), and there is an imported rhyton with this motif as the eye[93] (see Figure IV.16), and finally a button in the form of a hare with circle-and-dot eyes.[94]

Figure IV.77. The left and right amber beads have circle-and-dot eyes. Novo mesto, Kapiteljska njiva Grave V/35. Dolenjski muzej inv. no. P 2494 (Križ 2012:106).

Figure IV.78. Horse head phalera. Magdalenska gora, Laščik Grave V/31. Peabody Museum inv. no. 34-25-40/8550.

Figure IV.79. Close-up snake headed bracelet with circle-and-dot eyes from Novo mesto, Kandija Grave III/2. Dolenjski muzej inv. no. P 716.

IV.3.A.iv. Sexed

The sexed category refers to whether the sex of the animal can be determined morphologically. Most often this is based on the presence of antlers or horn shape, though there are four objects where animals are

[89] Magdalenska gora, Laščik Grave V/19-20. Peabody Museum inv. no. 34-25-40/8477.

[90] Dolenjske Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien inv. no. 56999. Magdalenska gora, Laščik Grave V/31. Peabody Museum inv. no. 34-25-40/8550. Magdalenska gora, Preloge Grave IV/16. Peabody Museum inv. no. 34-25-40/8192.

[91] Boštanj, Grmašča Mali Lukovec Grave 4. Naturhistorisches Museum Wien inv. no. 67513.

[92] Stična, Gomile VII/7. Peabody Museum inv. no. 40-77-40/13831. Brezje pri Trebelnem, Hojbi Grave VII/1. Naturhistorisches Museum Wien inv. no. 33911. Brezje pri Trebelnem, Hojbi Grave VII/8. Naturhistorisches Museum Wien inv. no. 33957. Novo mesto, Kandija Grave III/2. Dolenjski muzej P 716.

[93] Gomile at Stična, Grave IV/47. Peabody Museum inv. no. 40-77-40/13526.

[94] Špičasti hrib, surface find. Narodni muzej P23161.

depicted with male genitalia. Three depictions of genitalia are found on situlae – the ones from Vače and Magdalenska gora[95] are extremely similar in both style and imagery, and were likely made by the same artisan. The animals depicted are a ram and an indeterminate ungulate[96] (Figure IV.80). There is an additional situla from Magdalenska gora[97] with a depiction of an ithyphallic deer (Figure IV.81). There is also a ceramic lid with a line drawing of an ithyphallic animal, though species cannot be determined.[98]

Figure IV.80. Detail of a situla depicting a ram with visible genitalia. Vače situla, Reber Grave 1881/1. Narodni muzej inv. no. P 581 (Turk 2005:35 Fig. 52).

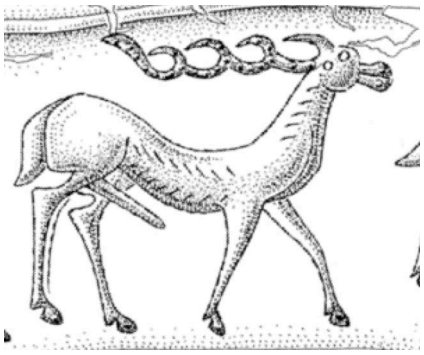

Figure IV.81. Ithyphallic red deer from a situla. Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280 (Turk 2005:29 Fig. 37).

The sex of deer can be determined based on the presence or absence of antlers. While it is possible that deer without antlers are depictions of stags in late winter after shedding their antlers, this is less plausible since these antlerless deer most often appear with stags that do have antlers. The sex of goats and ibex can also be determined by their horns, though in this case it is by the size and shape. Male goats have a torqued horn, in contrast to female goats that have a straight scimitar-shaped horn (Bökönyi 1974:190-192). Male ibex in turn have much more massive horns than the females (Clutton-Brock and Wilson 2002:377). Depictions of goats almost exclusively demonstrate this torqued horn shape, while depictions of ibex have very large horns; it seems that males were preferred for these depictions. The four examples of sexed birds

[95] Vače Situla - Vače, Reber Grave 1881/1. Narodni muzej P 581. Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien inv. no. 27550.
[96] The head is missing, and it cannot be determined whether it is a deer or an ibex. It is likely not a horse since it has a short tail.
[97] Magdalenska gora, Preloge Grave 2/a. Narodni muzej inv. no. P 4280.
[98] Novo mesto, Kandija Grave III/3. Dolenjski muzej inv. no. P 735.

are the previously discussed rooster pendants – in this case sex can be determined on the basis of the distinctive comb, which is pronounced in roosters (see section IV.2.B.i).

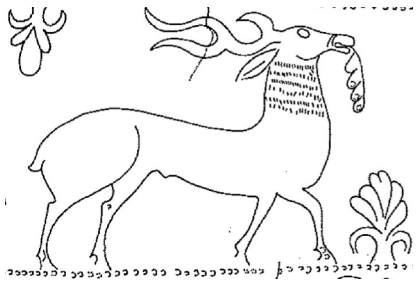

Figure IV.82. Stag eating leaves on a belt plate from Molnik, Grmada Grave 3/10. Mestni muzej Ljubljana inv. no. 510 (Turk 2005:32 Fig. 45).

IV.3.A.v. Eating

Animals are identified as eating when they have some material hanging from their mouths. This is often very schematic, and there is only a single depiction that is clearly vegetation (Figure IV.82). Other depictions show what could be grasses or grains, or simply depict scrollwork, which could represent sound coming from an animal's mouth, and not food at all (Figure IV.83, also see Figure IV.56c). Since it is not possible to say definitively which is correct and if there is truly a distinction, such depictions are discussed together.

Figure IV.83. Detail of a situla depicting goats eating, or possibly making noise. Novo mesto, Kandija Grave II/6. Dolenjski muzej inv. no. P 543 (drawing courtesy of the Dolenjski muzej).

Ungulates are the animals most often depicted eating – goats[99] and deer[100] appear on four artifacts, while ibex[101] appear on three. Only one horse is depicted eating, represented on a phalera, and it appears to have a human foot in its mouth.[102] There is a canid depicted in the same manner on a situla from Vače (Figure IV.84). The human leg in the mouth of a beast, or a carnivorous horse in this case, is a motif that is shared with Etruscan and Greco-Thracian art

[99] Belt plate from Magdalenska gora, Preloge Grave 2/58. Missing from the Naturhistorisches Museum Wien. Situla from Novo mesto, Kandija Grave II/6. Dolenjski muzej P 543. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 237. Situla from Novo mesto, Kapiteljska njiva Grave XIV/7. Dolenjski muzej P 4624.

[100] Belt plate from Molnik, Grmada Grave 3/10. Mestni muzej Ljubljana inv. no. 510. Vače situla from Vače, Reber Grave 1881/1. Narodni muzej P 581. Situla from Magdalenska gora, Laščik Grave V/6-7-7a. Peabody Museum 34-24-40/8418. Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164.

[101] Vače situla from Vače, Reber Grave 1881/1. Narodni muzej P 581. Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550. Situla from Magdalenska gora, Laščik Grave V/6-7-7a. Peabody Museum 34-24-40/8418.

[102] Magdalenska gora, Preloge Grave 2/38. Naturhistorisches Museum Wien 22912.

(Frey 1981; Pare 2012:156; Tuck 2010:217). There is one belt plate with a more realistic depiction of a bird eating a snake.[103] Finally, there is a single belt plate depicting hares and birds[104] with very abstract scrollwork emerging from their mouths, and from the joints of the limbs of the hares, which supports the case that not all these images are of vegetation being consumed (see Figure IV.56c).

Figure IV.84. A canid with a human leg in its mouth. Vače situla from Vače, Reber Grave 1881/1. Narodni muzej inv. no. P 581 (Turk 2005:35 Fig. 52).

Figure IV.85. Fibula depicting a possible predation scene involving a dog and a bird. Kidričeva cesta, unknown provenience. Narodni muzej inv. no. P 4346.

IV.3.A.vi. Predation

Predation scenes involve a predator stalking or in the process of catching prey. The most common prey in the dataset is birds, while the most common predators are dogs and felines. Most of the predation scenes come from animal fibulae depicting a dog or feline standing behind a small bird (Figure IV.85), and since both dogs and felines will attempt to catch birds in their immediate vicinity, it is probable that these fibulae are depicting such a relationship. Goats,[105] a boar,[106] deer,[107] and ibex[108] are also shown as likely prey in relation to dogs and canids. In one scene a snake is prey to a bird,[109] and in a very unusual scene a ram has a bird hanging from its mouth (see the animals on the right side of the belt plate in Figure IV.43), which is interpreted as predation for the sake of consistency, though the scenario depicted is unusual.

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[103] Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien 22962.
[104] Vače, Reber Grave 1889/1. Narodni muzej P 80.
[105] Situla from Novo mesto, Kapiteljska njiva Grave XIV/7. Dolenjski muzej P 4624.
[106] Belt plate from Stična, Gomile Grave 48/104. Narodni muzej P 13534.
[107] Belt plate from Kidričeva cesta (Zagorje), Grave with the Belt Plate. Narodni muzej P 4340. Situla from Vače, Reber Grave 1881-1. Narodni muzej P 581.
[108] Situla from Vače, Reber Grave 1881-1. Narodni muzej P 581.
[109] Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien 22962.

IV.3.A.vii. Hunting

Hunting scenes are those in which a human pursues a wild animal, often accompanied by a dog. There are three artifacts in the dataset depicting a dog participating in a hunt,[110] usually placed behind the hunter, who is positioned behind a stylized bush or tree (Figure IV.86). In these scenes the prey are red deer stags, though on the situla from Grave II/23 at Branževec 2 near Dolenjske Toplice, the artifact is too damaged to determine the prey originally depicted. The belt plate from Novo mesto, Kapiteljska njiva Grave III/12 depicts two scenes categorized as hunting, though strictly they are scenes of fishing and snaring a hare in a net (see Figures IV.59a and IV.62). A horse is also depicted in a hunting scene involving a deer – a person on horseback has thrown a spear that has impaled a hind[111] through the neck (Figure IV.87). Behind the hunter on horseback there is a canid biting a stag, though it is unclear if these are meant to be part of the same scene with a hunting dog taking down a stag, or if it is intended as a juxtaposition of a wild hunt with a large canid attacking a stag and a human hunter taking down his own prey.

Figure IV.86. Top: Modern reconstruction of what the belt plate from Molnik, Grmada Grave 17/10 would have looked like prior to repair (Turk 2005:58 Fig. 87). Bottom: the repaired belt plate from Grmada at Molnik. Mestni muzej Ljubljana inv. no. 510.

[110] Situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien inv. no. 56801. Belt plate from Molnik, Grmada Grave 17/10. Mestni muzej Ljubljana inv. no. 510. Situla from Novo mesto, Kapiteljska njiva Grave III/12.

[111] The deer may also be a yearling stag, since the "ears" are elaborated with small punched points, which are often used to embellish antlers in situla art.

Figure IV. 87. Belt plate with a hunting scene on horseback. Kidričeva cesta (Zagorje ob Savi), Grave with the Belt Plate. Narodni muzej inv. no. P 4340 (Turk 2004:58 Fig. 88).

The damaged belt plate from Stična, Gomile Grave 48/104 may have originally had a hunting scene with a wild boar (see Figure IV.34). This is plausible because the dog in the scene is clearly domestic, and appears to be wearing some sort of collar, while a domestic dog chasing a wild boar would likely occur in the context of a hunt. However, due to the extensive damage to the artifact, this must remain speculation.

IV.4.A.viii. Processions

Processions in this study are defined as scenes of three or more animals, or animals and humans, proceeding in a line in the same direction. Such depictions are most frequent on situlae, and the animals most frequently depicted in such scenes are species of ungulate. In order of frequency these are horses,[112] deer,[113] goats,[114] ibex,[115] and sheep.[116] Horses most often appear in

[112] Situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 239. Situla from Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821. Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164. Situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280. Situla from Magdalenska gora, Preloge Grave 2/b. Narodni muzej P 4281. Bronze lid from Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282. Situla from Vače, Reber Grave 1881/1. Narodni muzej P 581.

[113] Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164. Situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280. Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches

mixed processions with humans, being ridden or led, or sometimes hitched to chariots or wagons (Figure IV.88). Such mixed scenes are more common on earlier situlae from the Certosa Fibulae period. In earlier situlae processions of animals without other imagery are usually the subject of the bottom register in multi-register depictions, while later they become the sole subject of situla art depictions (Figures IV.88 and IV.89; Križ 2012:59-61; Križ et al. 2009:133; Turk 2005:44).

Figure IV.88. The Vače situla depicts processions on the top and bottom registers. Vače, Reber Grave 1881/1. Narodni muzej inv. no. P 581 (Turk 2005:35 Fig. 52).

Goats and ibex are the most common animals depicted in processions of animals alone, occasionally trailed by a predator or with deer mixed into the line (Figure IV.89). Birds[117] are

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Museum Wien 27550. Situla from Magdalenska gora, Laščik Grave V/6-6-7a. Peabody Museum 34-25-40/8418. Situla from Vače, Reber Grave 1881/1. Narodni muzej P 581.

[114] Situla from Novo mesto, Kandija Grave II/6. Dolenjski muzej P 543. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 237. Situla from Novo mesto, Kapiteljska njiva Grave XIV/7. Dolenjski muzej P 4624. Situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280.

[115] Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550. Situla from Magdalenska gora, Laščik Grave V/6-6-7a. Peabody Museum 34-25-40/8418. Bronze lid from Stična, Gomile Tumulus 76, Grave with the Decorated Situla. Narodni muzej P 6948/1. Situla from Vače, Reber Grave 1881/1. Narodni muzej P 581.

[116] Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164.

[117] Situla from Vače, Reber Grave 1881/1. Narodni muzej P 581. Belt plate from Vače, Reber Grave 1889/1. Narodni muzej P 80. Belt plate from Stična, Gomile Grave VI/30. Museum für Vor- und Frühgeschichte Berlin UE 6. Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550. Belt plate from

technically the most common animals to appear in processions, and this is because they are ubiquitous in situla art depictions, though often their participation is unusual in that they are flying over the processions or perched on the backs of wild animals and often facing backward (see Figure IV.88).

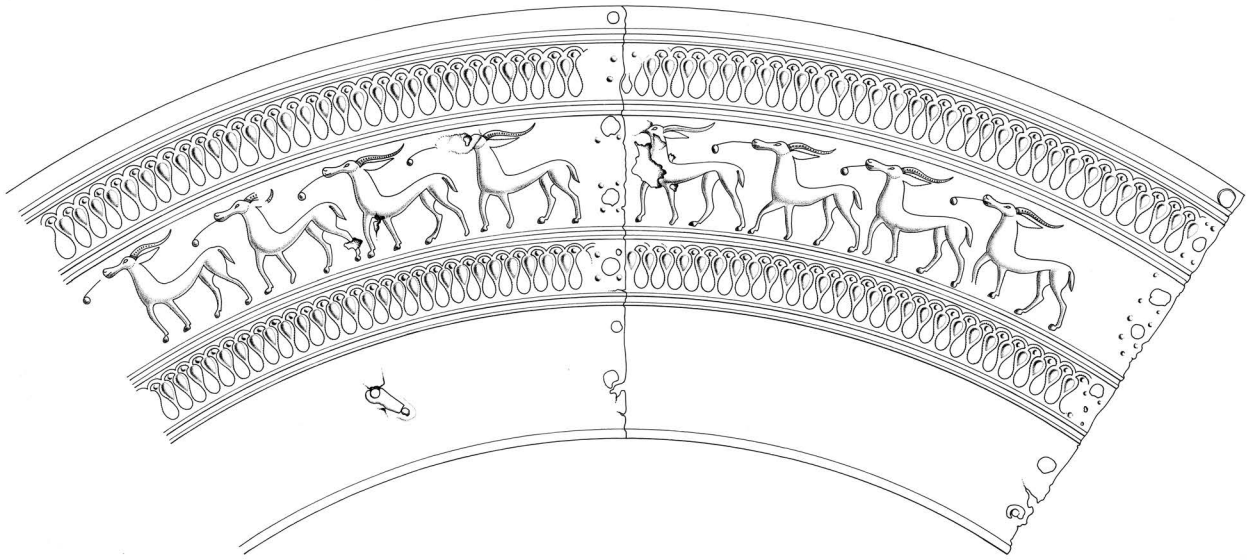

Figure IV.89. Situla 2 from Novo mesto, Kandija Grave IV/3 depicting a procession of goats. Dolenjski muzej inv. no. P 237 (image courtesy of the Dolenjski muzej).

IV.4.A.ix. Harnessed or with Rider

Horses are often depicted as harnessed or being ridden in situla art depictions on situlae and belt plates (see Figure IV.88), and on a single bone figurine. Horses are depicted harnessed on 15 artifacts,[118] and are shown being ridden on ten.[119] Only horses are depicted being ridden,

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Magdalenska gora, Preloge Grave 2/13. Naturhistorisches Museum Wien 22083. Situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280. Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164. Situla from Novo mesto, Kapiteljska njiva Grave XIV/7. Dolenjski muzej P 4624. Situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801.

[118] Situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801. Situlae from Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821 and P 822. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 239. Belt plate and situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2162 and P 2164. Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550. Belt plate from Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien 22962. Situla from Magdalenska gora, Preloge Grave 2/b. Narodni muzej P 4281. Fibula from Magdalenska gora, Preloge Grave 2/c. Narodni muzej P 4004. Bronze lid from Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282. Situla from

however there are a few notable examples of other harnessed animals – sheep, deer, and ibex. The harnessed sheep is very damaged and difficult to interpret, the partial horns curve below the face identifying the animal as a sheep, and there is some sort of lead around its neck stretched horizontally forward (Figure IV.90). Originally it may have been led by a now obliterated human, as is seen in depictions of horses being led (see the second horse on the top register of Figure IV.88 for a potential comparison).

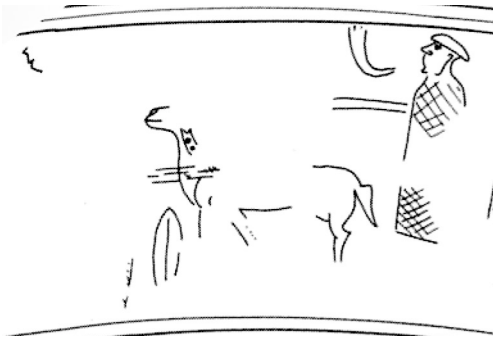


Figure IV.90. Close-up of what may be a harnessed sheep on a situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. P 2164 (drawing courtesy of the Dolenjski muzej).

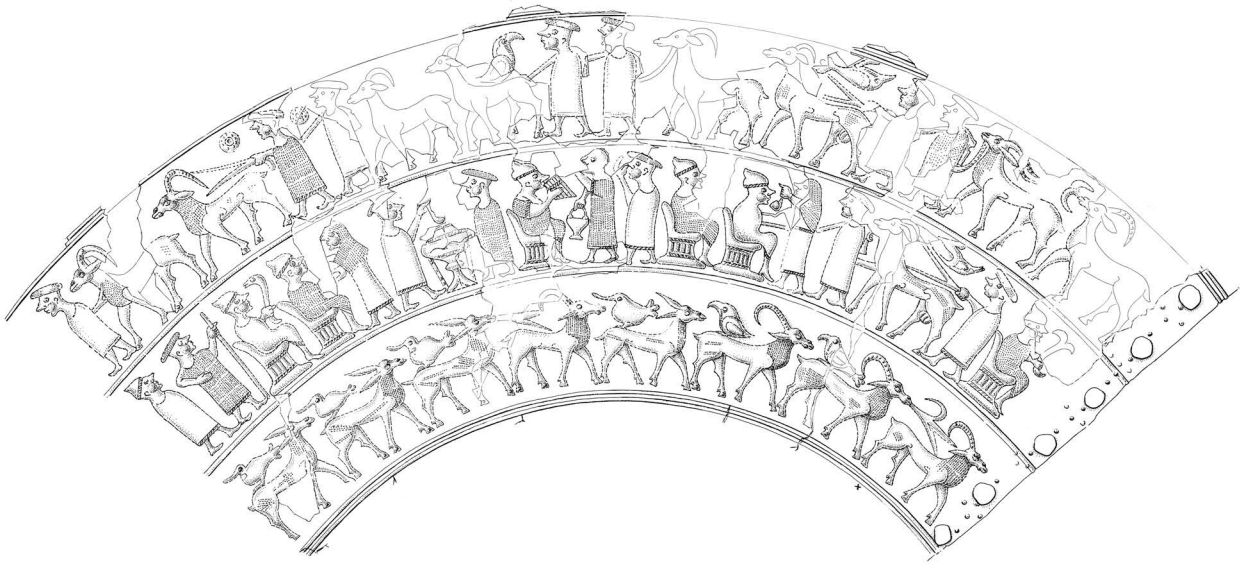


Figure IV.91. Situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien inv. no. 27550 (Tecco Hvala et al. 2004:Insert 4).

Vače, Reber Grave 1881/1. Narodni muzej P 581. Belt plate from Vače, Reber Grave with the Mounted Warriors Belt. Naturhistorisches Museum Wien 40141. Figurine from Vače, Reber Grave 14. Naturhistorisches Museum Wien 3615. Fibula from Stična, Gomile 48/9(?). Narodni muzej P 14777, P 14778, and P 14782.

[119] Situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801. Situlae from Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821 and P 822. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 239. Situla from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164. Kidričeva cesta (Zagorje), Milač House/Grave with the Belt Plate. Narodni muzej P 4340. Belt plate from Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien 22962. Situla from Vače, Reber Grave 1881/1. Narodni muzej P 581. Belt plate from Vače, Reber Grave with the Mounted Warriors Belt. Naturhistorisches Museum Wien 40141. Figurine from Vače, Reber Grave 14. Naturhistorisches Museum Wien 3615.

The damaged situla from Grave 13/55 at Preloge near Magdalenska gora, the sibling of the Vače situla, is unusual in that where images of horses or domestic animals would usually appear there are wild animals instead (Figure IV.91). Rather than horses or the aforementioned sheep being led by humans, this situla depicts a harnessed ibex and red deer.

IV.4.A.x. With Cultural Material

The "cultural material" category is a general one that describes any human-made items associated with animal bodies.[120] This is a rare categorization. It includes the belt plate from Stična, Gomile Grave 48/104 with the boar and dog wearing what looks like a collar (Figure IV.92), as well as the belt plate with a hunting scene from the Grave with the Belt Plate at Kidričeva cesta (Zagorje), which depicts a deer with a spear through its neck (see Figure IV.87). There are also four horse head phalerae[121] with lines on their necks that may indicate a part of a harness or lead, though these are too schematic to say for sure (Figure IV.93). There is also a situla from Novo mesto, Kandija Grave IV/3 that depicts a procession of men and horses. The final horse is harnessed and being led by two men. It is carrying what look like irregular bags or pouches hung over its back (Figure IV.94; Križ 2006:19; 2012:84; Turk 2005:67).

Figure IV.92. Detail from a belt plate with a dog wearing a possible collar. Stična, Gomile Grave 48/104. Narodni muzej inv. no. P 13534 (Gabrovec 2006:Pl. 62 no. 2).

Figure IV.93. Horse head phalera from Dolenjski Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien inv. no. 56999.

[120] Though not harnesses or leads, since these have their own category.

[121] Two from Dolenjski Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien inv. no. 56999. Magdalenska gora, Preloge Grave IV/16. Peabody Museum 34-25-40/8192. Magdalenska gora, Laščik Grave V/31. Peabody Museum 34-25-40/8550.

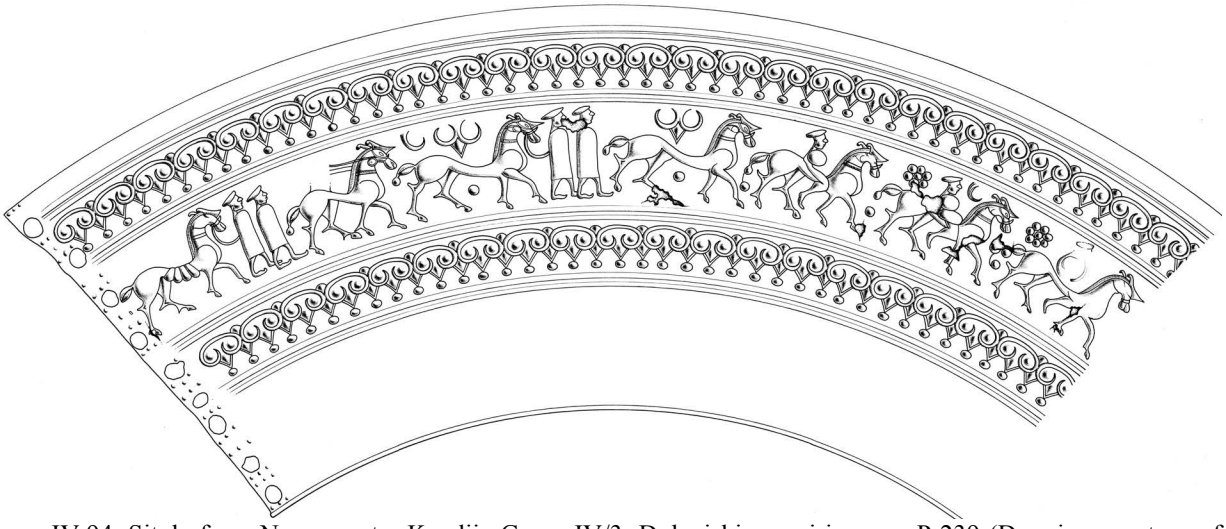


Figure IV.94. Situla from Novo mesto, Kandija Grave IV/3. Dolenjski muzej inv. no. P 239 (Drawing courtesy of the Dolenjski muzej).

IV.3.A.xi. As Ornament

Only three artifacts depict animals themselves as ornamental. What this category indicates is that animal imagery is used in situla art narrative to adorn an object – specifically scepters and wagons. Images of birds are used to embellish the objects in these situla art scenes. The situla from Magdalenska gora, Preloge Grave 13/55 and the Vače situla from Reber Grave 1881/1 both depict seated men holding bird-head scepters (Figure IV.95, and also see Figures IV.88 and IV.91). The Vače situla also has a depiction of a wagon with bird imagery – the corners of the wagon box are in the form of bird heads. Bird

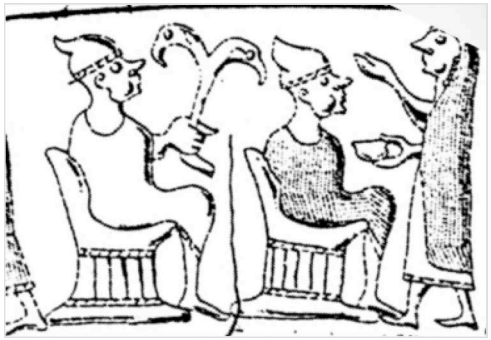


Figure IV.95. Scene with a man seated on a throne carrying a bird head scepter on the Vače situla. Vače, Reber Grave 1881/1. Narodni muzej inv. no. P 581 (Turk 2005:35 Fig. 52).

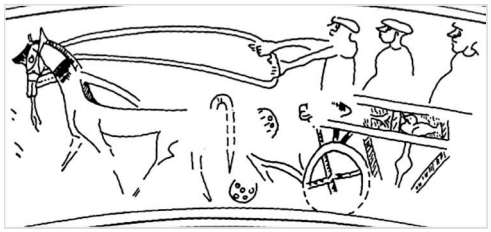


Figure IV.96. Birds depicted on the side of a wagon box, from a situla found at Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. 2164 (image courtesy of the Dolenjski muzej).

imagery also appears to be carved on the side of a wagon from the situla at Novo mesto, Kapiteljska njiva Grave III/12 (Figure IV.96). These images may provide insight to other prehistoric animal representations that have not preserved in the archaeological record, in particular imagery on wood that may have been part of domestic interiors, vehicles, or other artifacts.

IV.3.B. Animal Co-Occurrence

While many artifacts depict only a single animal (239 artifacts total; 54%), almost half of the artifacts in the dataset depict more than one animal (203 artifacts; 46%) – either animals of the same species, or a variety of species. Certain species are more likely to appear as single animals, and those that appear with other animals show variation in terms of which species are most commonly depicted together (Figure IV.97 and Table IV.32).

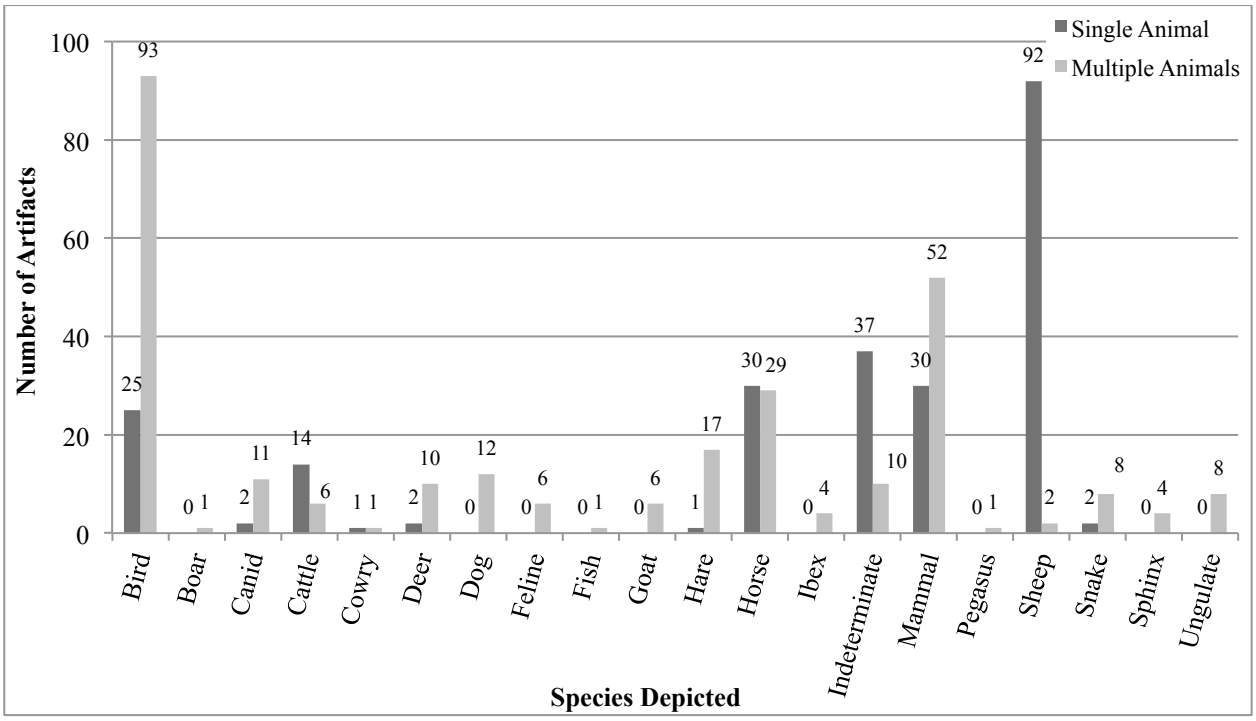


Figure IV.97. Graph comparing the number of artifacts displaying a single animal versus artifacts depicting multiple animals. Divided according to species depicted on the artifacts.

Table IV.32. Crosstab table showing which species are most likely to be represented together on the same artifacts. The quantities indicate the number of artifacts, the table can be read left to right or top to bottom. Darker shades indicate higher quantities or artifacts. Italicized numbers indicate when multiple animals of the same species are depicted on the same artifact.

	Bird	Boar	Canid	Cattle	Cowry	Deer	Dog	Feline	Fish	Goat	Hare	Horse	Ibex	Indeterminate	Mammal	Pegasus	Sheep	Snake	Sphinx	Ungulate
Bird	*73*		5			7	9	6	1	6	2	13	3	1	5	1	2	1	1	6
Boar							1							1						
Canid	5		*7*			1	1		1	1	1	2	1	1	1		1			1
Cattle				*5*								1								
Cowry					*1*															
Deer	7		1			*7*	5			2	1	5	2		1		2			5
Dog	9	1	1			5			1	1	1	4		2	1		1			2
Feline	6									1					1					
Fish	1		1				1		*1*		1	1			1					
Goat	6		1			2	1	1		*3*		1		1	2					2
Hare	2		1			1	1		1		*16*	1			1					
Horse	13		2	1		5	4		1	1	1	*23*	1		2		2	1	1	3
Ibex	3		1			2						1	*3*				1			2
Indeterminate	1	1	1				2			1										
Mammal	5		1			1	1	1	1	2	1	2								
Pegasus	1															*1*			1	
Sheep	2		1			2	1					2	1							
Snake	1											1						*7*		
Sphinx	1											1				1			*3*	
Ungulate	6		1			5	2			2		3	2							

Sheep are most often depicted as the sole animal on an artifact; only two artifacts depicting sheep have additional animals depicted on them. Indeterminate species[122] as well as cattle are also more often depicted singly rather than in pairs or groups of animals. This is

[122] These are most often the Eastern Alpine animal head fibulae that depict schematic animal protomes and not even taxonomic class can be securely determined. See section IV.4.A.i for more about these fibulae.

counterintuitive, since sheep and cattle are animals that are often kept in groups, herds and flocks respectively, yet they are the animals that most often appear alone in depictions. Horses are almost evenly split – on half the horse artifacts a single horse is depicted,[123] while on the other half they appear in groups of animals. Other species depicted are more likely to appear on artifacts that depict multiple animals.

A wide variety of animals appear together on single artifacts; thus, co-occurrence frequencies of less than six artifacts are not discussed in detail here. Birds that cannot be defined as a particular species co-occur with the widest variety of animals, and the only animals they do not appear with are cattle, boar, or cowry. Birds co-occur most frequently with goats, deer, indeterminate ungulates, indeterminate mammals, dogs, and horses in increasing order of frequency. Birds are depicted with other birds most often, on 66 artifacts total, the highest co-occurrence in the sample. Horses are a close second for the variety of species that they may co-occur with on artifacts. Horses are depicted with all but six species – felines, boars, water birds, cowry, and pegasi. Horses appear on the most artifacts with other horses, and as noted they frequently appear with birds as well. Canids, deer, hares, water birds, snakes, mammals, and indeterminate animals are also most commonly depicted with members of their own taxonomic group. Indeterminate mammals appear in pairs or groups on the same artifacts because the ceramic vessels with these stylized depictions usually have symmetrical pairs of animal heads on handles, or radially symmetrical heads around the body of a vessel or on a lid (Figure IV.98). Symmetrical or repetitive depictions[124] also account for the high rate of co-occurrence of birds and hares. Birds often appear as matched sets on the handle terminals of metal vessels (see Figure IV.74), while hares are depicted on earrings that are quartered with repetitive images in

[123] Most often fibulae.
[124] As opposed to narrative scenes with multiple animals that characterize the majority of the situla art repertoire.

each quadrant (see Figure IV.38). This is distinct from horses, for while they frequently appear in pairs or groups on the same artifact, they are more often part of representational scenes that may depict an activity (see section IV.3.A).

Figure IV.98. Radially symmetrical mammal heads form the handle of a ceramic lid. Novo mesto, Kandija Grave I/31. Dolenjski muzej inv. no. 430.

Animals co-occurring with other members of their species are not surprising, since this reflects natural behavior where these animals congregate and live in groups. Combinations of different species may reflect natural relationships, such as predator and prey in the cases of birds and canids or felines. The strong relationship between birds and various ungulates also mirrors certain interspecies relationships seen in the wild (Figure IV.99). Deer and certain species of birds, particularly crows and jackdaws, are known to have a mutualistic relationship. The birds may remove parasites and insects from the animals, improving the health of the deer while the birds benefit by feeding. Deer and other ungulates may also be used as temporary perches, and in some instances certain species of birds may even pluck hair from ungulates to line their nests (Genov et al. 1998; Kilham 1982; Riney 1951:179-180).

Figure IV.99. Top: detail of a situla showing birds perched on the backs of hinds. Magdalenska gora, Preloge grave 13/55. Naturhistorisches Museum Wien inv. no. 27550 (Tecco Hvala et al. 2004: Insert 4). Bottom: jackdaw perched on a red deer (© David Tipling/naturepl.com, ARKive).

Animals also periodically co-occur with images of humans. This is a very small portion of the dataset, only 19 artifacts total or 4% of the iconographic dataset. The gender of the

humans depicted has been determined whenever possible. Men may be nude or clothed, and often wear a hat and a tunic. Women are distinguished by veils or long shawls covering their hair, and occasionally earrings and anklets (Turk 2005:26; see Figures IV.88 and IV.91 for depictions of males and females). Since humans often appear on delicate plate bronze artifacts, many depictions are damaged and gender cannot be assessed. Artifacts depicting both humans and animals most often depict males (Figure IV.100). There is a strong male bias in the imagery – men appear on 17 of the 19 anthropomorphic artifacts, while women appear on only five. This extends to the number of males and females depicted on single artifacts – the largest number of females depicted on a single artifact is two, while the highest number of males is 23.[125]

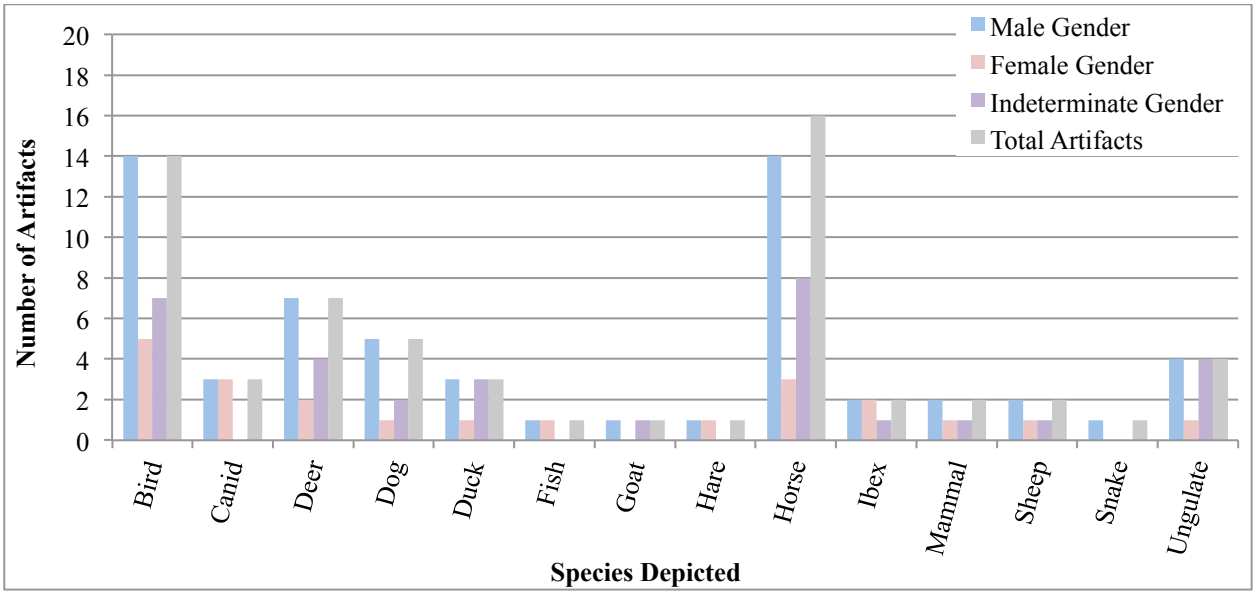


Figure IV.100. Human-animal co-occurrence, divided according to the gender of the humans depicted and the species of animal depicted on the same object.

Depictions of humans co-occur most frequently with depictions of horses and birds. Males appear equally often with both species, and are documented on fourteen artifacts depicting horses or birds respectively. Females in turn are identified on five artifacts that also depict birds,

[125] The highest number of individuals for whom gender cannot be determined on a single artifact is nine.

and three artifacts with horses. Deer also commonly co-occur with humans, on seven artifacts total. All seven depict men, while only two depict women. Many animals do not co-occur at all with humans, including cattle, felines, boars, water birds,[126] cowry, mythical creatures, and indeterminate animals.

IV.4. Artifacts Depicting Animals

There has already been a discussion of the different species associated with particular artifacts (see section IV.2). This section in turn will focus on the artifacts themselves and their association with gender and age, species depicted, the variation within artifact categories, and to a more limited extent the dating and origins of certain artifacts.

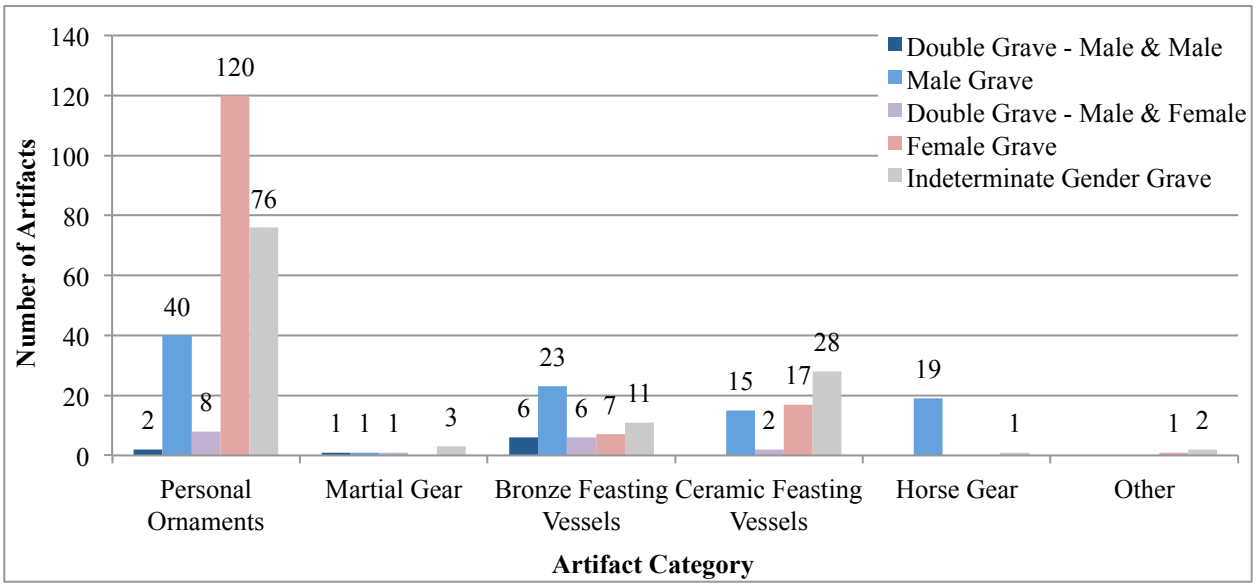


Figure IV.101. Broad categories of artifacts depicting animals in the dataset, divided according to the probable gender of the associated grave context.

Personal ornaments are the artifact type most often embellished with animal imagery (Figure IV.101). Personal ornaments are most often associated with female graves, though not

[126] Excluding ducks.

exclusively. Within this category, the most common artifacts in the dataset are fibulae and beads (Figure IV.102). Ceramic feasting vessels are more common than bronze, and they show interesting gendered distinctions – ceramics with animal imagery are nearly evenly distributed between male and female graves while bronze feasting vessels are more strongly associated with male graves. Situlae dominate the sample of bronze vessels. Martial gear is relatively uncommon, though none is associated with identifiably female individuals.[127] Horse gear is similarly exclusive, and is only associated with male graves. The "Other" category of artifacts will be discussed in more detail in section IV.4.E, since these are uncommon artifacts best discussed individually.

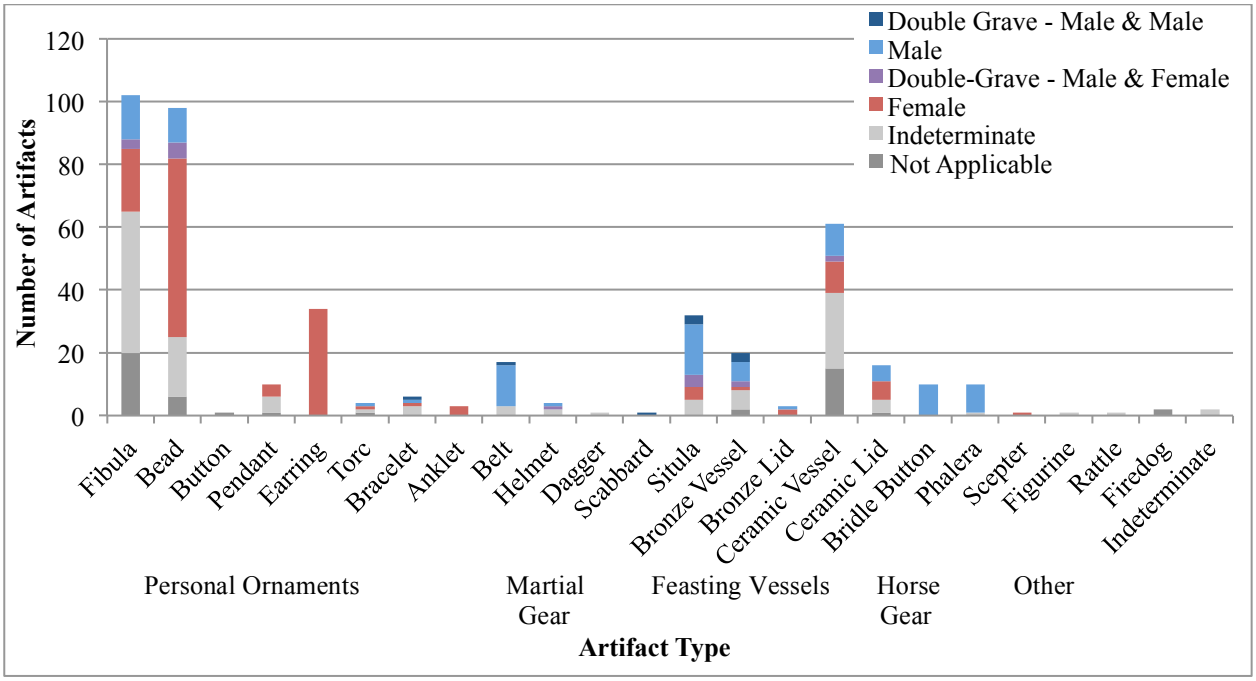


Figure IV.102. Artifacts depicting animals in the dataset, divided according to the probable gender of the associated individual. Not applicable indicates a settlement or stray find context.

There are very few artifacts depicting animals associated with children (Figure IV.103). The few examples include fibulae (six total), beads (three), a pendant and a ceramic vessel. Most

[127] This is not surprising since weapons are one of the items used to identify probable male graves (see section III.3.C).

of the artifacts are associated with adults; however there are a large number of graves for which the age of the deceased cannot be determined, which problematizes conclusive associations with adult individuals.

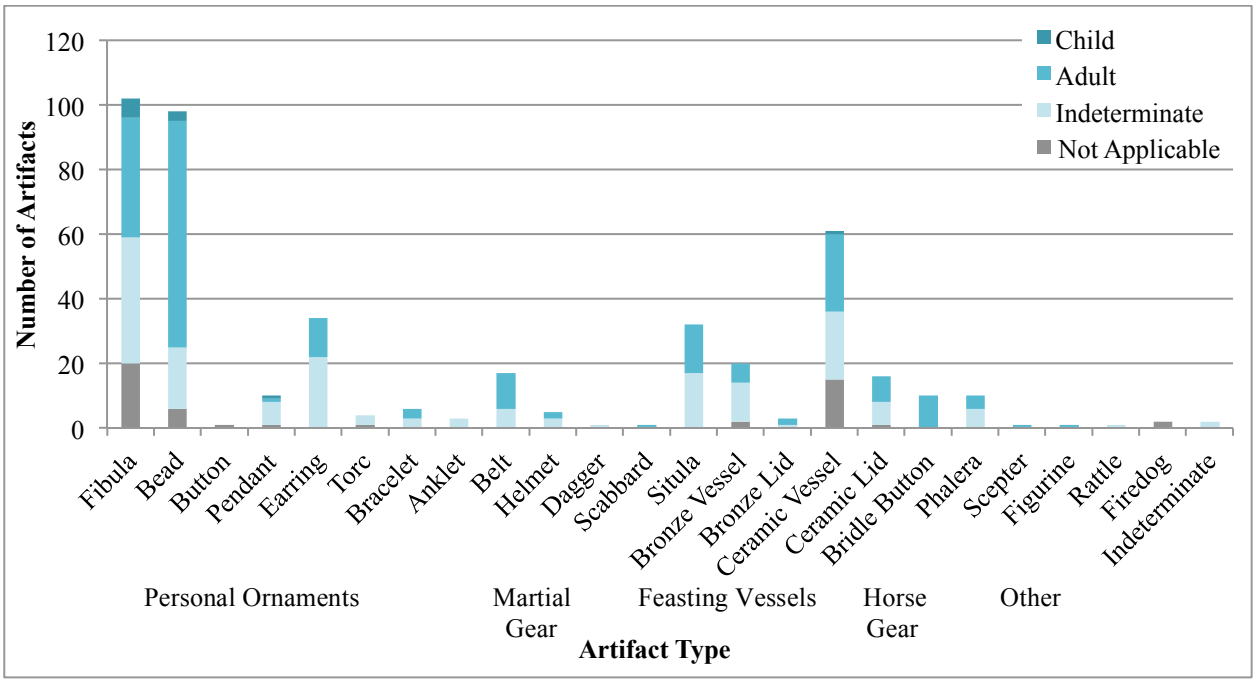


Figure IV.103. Artifacts depicting animals in the dataset, divided according to the probable age of the associated individual. Not applicable indicates a settlement or stray find context.

IV.4.A. Personal Ornaments

IV.4.A.i. Fibulae

Fibulae depicting animals are the most common artifacts in the dataset. They appear in 77 total contexts at 20 sites (Table IV.33). Only one context is associated with a settlement and contains two artifacts, while 83 fibulae are found in 68 graves. There are also eight stray find contexts containing a total of 18 fibulae.

Table IV.33. Distribution of fibulae depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
20		77			102		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
1	19	1	68	8	2	82	18

Four domestic species and four wild species are depicted on fibulae (Figure IV.104). The most commonly depicted animals are birds, found on 38 fibulae. Horses also appear frequently, on 30 fibulae. The third most common animal on fibulae cannot be determined, because these are the extremely schematic Eastern Alpine animal head fibulae (Figure IV.105q), which will be discussed in more detail further on in the section. Dogs and felines are relatively common, and appear to be stalking birds on fibulae (Figure IV.105h and i; see section IV.3.A.vi for more on predation scenes), while canids appear in similar scenes on fibulae, though in smaller quantities. Sheep and deer appear on animal head crossbow fibulae (Figure IV.105o and p), though they are relatively rare compared to the 24 fibulae of the same type depicting horses (Figure IV.105n). There is only one fibula depicting cattle; it is defined as a serpentine fibula of type IIIa (Figure IV.105e; typological identification following Tecco Hvala 2014).

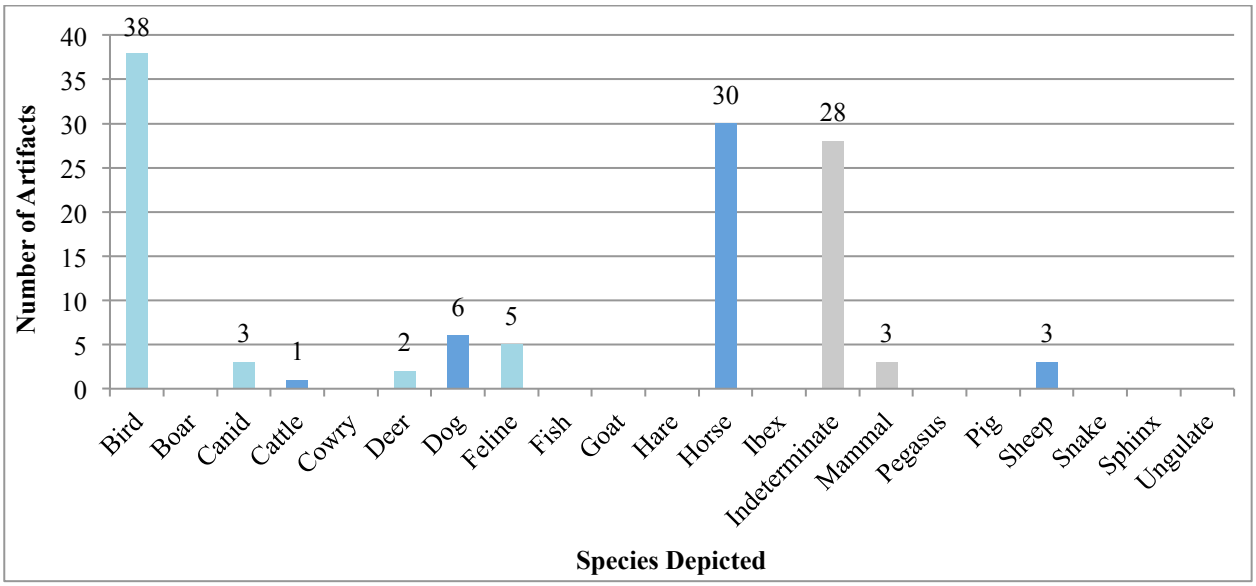


Figure IV.104. Species depicted on fibulae.

The fibulae with amber or bone overlay are some of the earliest examples in this sample, dating to the Stična 2 period (7th century; Figure IV.105a and b; Tecco Hvala 2012:69). These are probably imports from the west – Italy is known for the production of figural amber in the

Early Iron Age, and this technology was applied to the bone example as well (Negroni Catacchio 1993:191, 2009:203-204, 2011:58; Palavestra 1993:291-292). It is no longer possible to determine what type of animal was depicted on the bone example due to poor preservation. Other early fibulae are the serpentine fibulae (Figure IV.105c, d, and e), which were in use from the Stična 2 to Serpentine 1 phase (Tecco Hvala 2014:167).

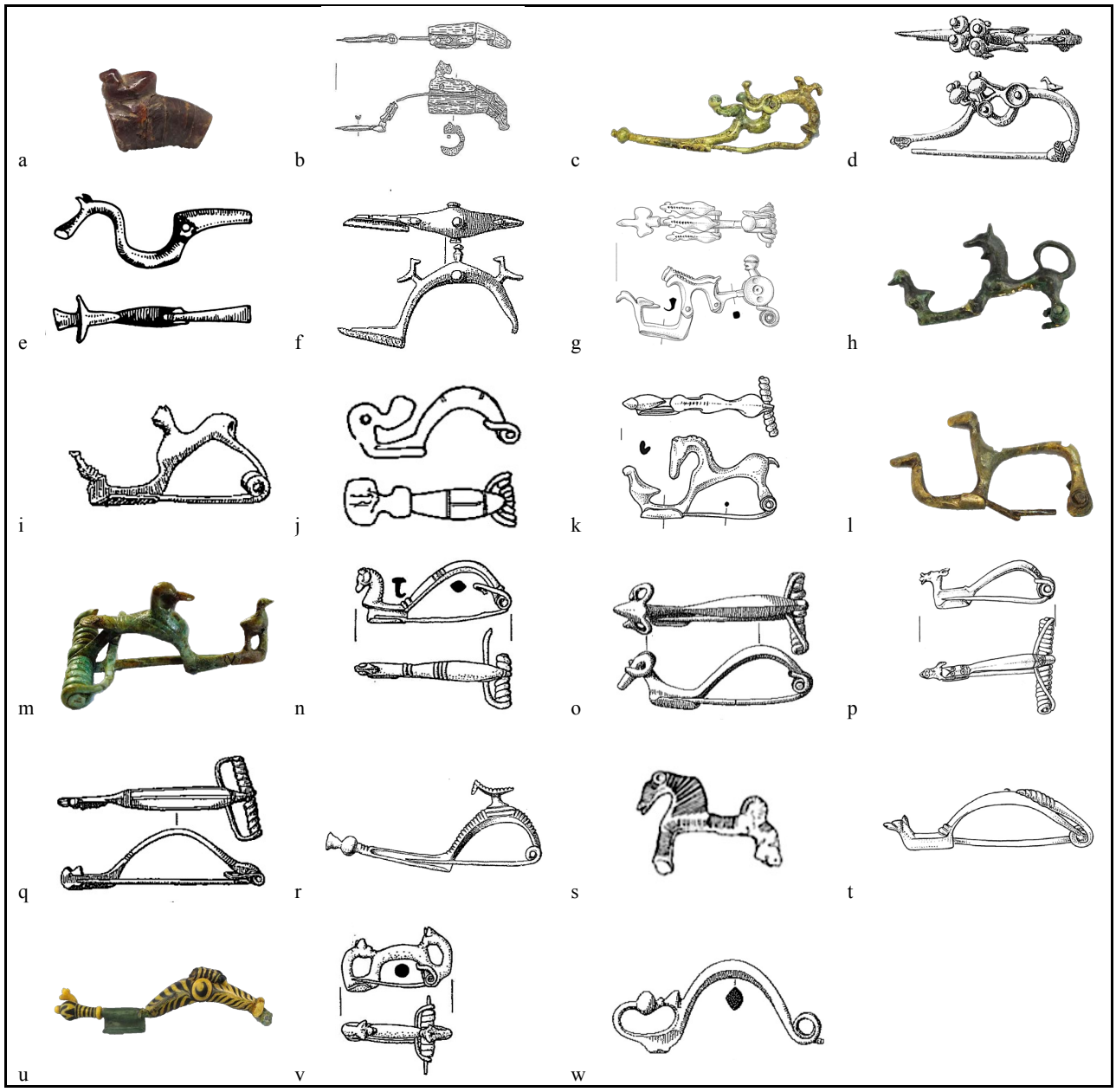


Figure IV.105. Representative sample of fibulae depicting animals in the dataset. a) Stična, Gomile Grave VI/7. Peabody Museum 40-77-40/13669 (Wells 1981:200 Fig. 137m); b) Stična, Gomile Grave 48/27. Narodni muzej P

14900 (Gabrovec 2006:292 Pl. 18 no. 18); c) Novo mesto, Kapiteljska njiva Grave XXXIII/19. Dolenjski muzej P 6620; d) Stična, Gomile Grave IV/32. Peabody Museum 40-77-40/13447 (Wells 1981:178 Fig. 87a); e) Podzemelj, Vir (Škrilje) Grave I/9. Naturhistorisches Museum Wien 27410 (Barth 1969:Pl. 32 no. 4); f) Stična, Gomile Vas Vir isolated find. Peabody Museum 40-77-40/13960 (Wells 1981:226 Fig. 188c); g) Magdalenska gora, Preloge Grave 2/c. Narodni muzej P 4004 (Tecco Hvala et al. 2004:Pl. 10a no. 2); h) Kidričeva cesta (Zagorje), unknown provenience. Narodni muzej P 4347; i) Magdalenska gora, Preloge Grave II/15. Peabody Museum 34-25-40/8101 (Hencken 1978:100 Fig. 25); j) Libna, Volčanškova gomila Grave 1889-1890/k. Naturhistorisches Museum Wien 86932. Guštin 1976:83 Pl. 35 no. 9); k) Magdalenska gora, Preloge Grave 2/11. Naturhistorisches Museum Wien 22055 (Tecco Hvala 2012:260 Fig. 99 no. 3); l) Novo mesto, Kapiteljska njiva Grave XXXIII/19. Dolenjski muzej P 6623; m) Novo mesto, Kapiteljska njiva Grave XVI/12. Dolenjski muzej P 4562; n) Dolenjske Toplice, Branževec 2 Grave XI/21. Naturhistorisches Museum Wien 57251 (Teržan 1976:Pl. 69 no. 5); o) Magdalenska gora, Preloge Grave X/48. Peabody Museum 34-25-40/14394 (Hencken 1978:284 Fig. 228a); p) Ajdovski gradec Hallstatt Grave 1. Narodni muzej P 14724 (Logar 1980:299 Fig. 2 no. 1); q) Magdalenska gora, Laščik Grave V/36. Peabody Museum 34-25-40/8567 (Hencken 1978:174 Fig. 157b); r) Vače, Reber Grave 20. Narodni muzej P 164 (Starè 1955:Pl. LXXV no. 20); s) Boštanj, Grmašca Grave 4. Naturhistorisches Museum Wien 67513. Guštin 1974:109 Pl. 19 no. 1); t) Magdalenska gora, Preloge Grave X/50. Narodni muzej P 6795 (Tecco Hvala 2012:260 Fig. 99 no. 4); u) Boštanj, Gorenjčeve groblje Grave I. Narodni muzej P 6612a; v) Dolenjske Toplice, Branževec 2 Grave XIII/16. Naturhistorisches Museum Wien 57354 (Teržan 1976:Pl. 81 no. 3); w) Magdalenska gora, Preloge Grave VII/Isolated Find. Peabody Museum 34-25-40/14105 (Hencken 1978:249 Fig. 247d).

The other fibulae primarily date to the latter part of the Early Iron Age, though many of these also show strong connections to the Italian peninsula and other more western areas. The three button *sanguisuga* fibulae with birds on the bow appear in the northern and eastern parts of the Caput Adriae (Figure IV.105f; Nascimbene 2009:144-146). This is also true of the triga fibulae that depict a chariot drawn by three horses, preceded by a bird (Nascimbene 2009:168-172). Two such fibulae were recovered from Magdalenska gora, Preloge Grave 2/c and from Stična, Gomile 48/9(?).[128] Both these types date from the mid-6th to the mid-5th centuries BCE, though the three-knobbed fibula is somewhat older (Nascimbene 2009:66; Tecco Hvala 2012:263).

Triga fibulae are one of the forms of the widely diverse category of animal fibulae, discussed in more detail in section II.4.B. Most of these types also show connections to the area around the Caput Adriae, and are considered modeled on Italian predecessors. However, since

[128] The context itself Tumulus 48, Grave 9(?) because the group of items clearly originated from a grave, however the analysts were unable to determine the exact location of the grave in the mound or if the items represented the full grave inventory. Because of this, it is treated as a stray find context rather than an intact grave in this study (Gabrovec and Kruh 2006:20-21, Pl. 5).

they are also distributed throughout the eastern Alpine region[129] it is difficult to determine if they are imports or local versions (Nascimbene 2009:161 Fig. 46, 169 Fig. 60). There are several other types of animal fibulae in this sample, depicting cats (Figure IV.105i), dogs (Figure IV.105h), canids (Figure IV.105t), horses (Figure IV.105k), and the ubiquitous birds (Figure IV.105g- m). The claim that these are mostly associated with women and children is supported by this sample – five female graves[130] containing animal fibulae are known; however there is also a male with animal fibulae from Grave 2 in Malenškova gomila at the site of Malenškova njiva near Novo mesto (Nascimbene 2009:160-165; 168-172; Tecco Hvala 2012:259-260). However, it should be noted that this grave context is categorized as "unreliable" in the dataset since it was excavated in the early 20th century and the archival material and finds in the museum do not correspond exactly (Guštin and Teržan 1975:188-189; Teržan 1998:537 fn. 109). It is clear from the data that these animal fibulae are strongly associated with children – five children's graves[131] contain a total of six animal fibulae, accounting for nearly half the identified children's graves in the dataset.

The previously mentioned crossbow fibulae also date to the later Early Iron Age, to the Certosa and Negova phases (Gabrovec 1996b:31, Map 3; Tecco Hvala 2012:263-264). The East Alpine animal head fibulae are also late, dating to the Negova phase in the 5th century (Gabrovec 1966a:31; Nascimbene 2009:178-186; Tecco Hvala 2012:265). These are extremely schematic; most often species cannot be determined. The latest fibulae include the glass covered fibula

[129] And even into Germany and France in central Europe in the case of Nascimbene's fibulae type I.IV (Figure IV.105j; Nascimbene 2009:148-159).

[130] Novo mesto, Kandija Grave I/22. Dolenjski muzej P 365. Novo mesto, Kapiteljska njiva Grave I/5. Dolenjski muzej P 1372. Novo mesto, Kapiteljska njiva Grave XXXIII/19 P 6623. Stična, Gomile Grave 48/102. Narodni muzej P. 13522. Magdalenska gora, Preloge Grave 2/c. Narodni muzej P 4004.

[131] Novo mesto, Kapiteljska njiva Grave XVI/12. Dolenjski muzej P. 4562. Magdalenska gora, Preloge Grave 2/11. Naturhistorisches Museum Wien 22055. Magdalenska gora, Preloge Grave 2/o. Narodni muzej P 4002 and 4003. Stična, Gomile Grave VIII/1. Peabody Museum 40-77-40/13847. Magdalenska gora, Preloge Grave 2/c. Narodni muzej P 4004.

(Figure IV.105u), an example of advanced glass-working technology, and the double-canid head fibula (Figure IV.105v), which demonstrates La Tène influences (Teržan 1976:388). Though the glass fibula is a late find and is quite distinct from other fibulae in the sample, the animal head on the foot nonetheless takes the characteristic form of the generalized mammal head that solely depicts the muzzle and projections on top of the head that may be horns or ears.

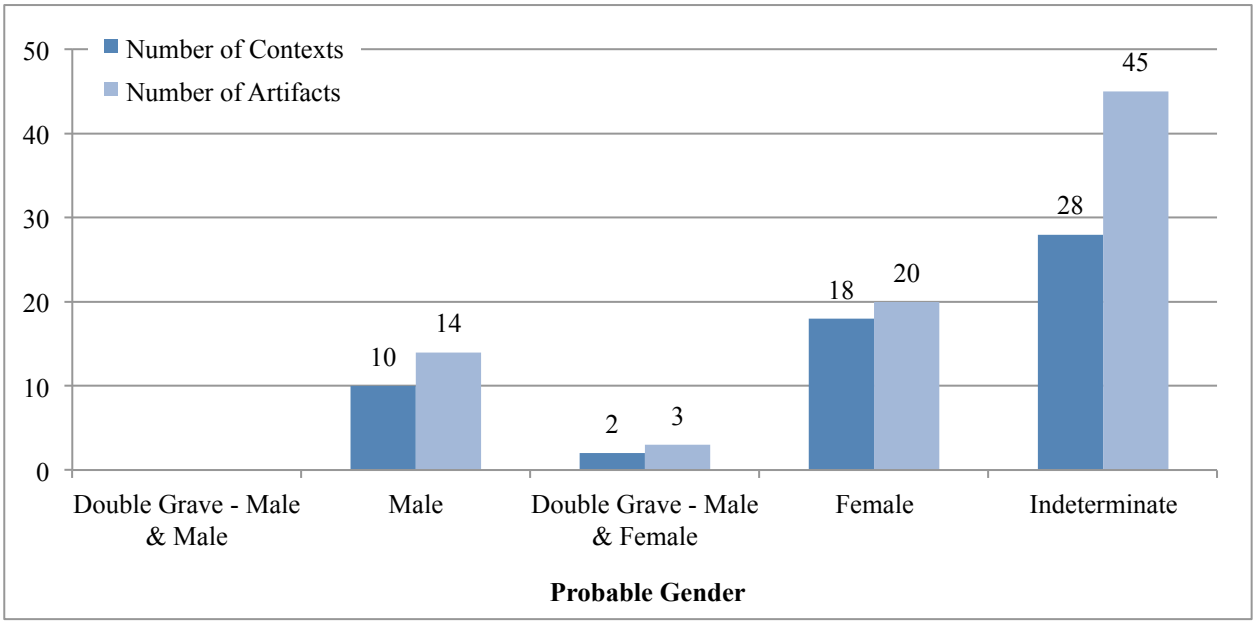


Figure IV.106. Probable gender of the deceased individuals associated with grave contexts containing fibulae with animal depictions.

Fibulae with animal depictions are found with both men and women, though in more graves identified as female (Figure IV.106). However, they are most often found in graves for which gender cannot be determined, so gendered patterning must remain tentative. Fibulae also appear in both adult and children's graves (Figure IV.107). Though they appear in a relatively small number of children's graves, this nonetheless constitutes over half the children's graves identified in this study, i.e., when an animal depiction appears in a child's grave it is likely to take the form of a fibula.

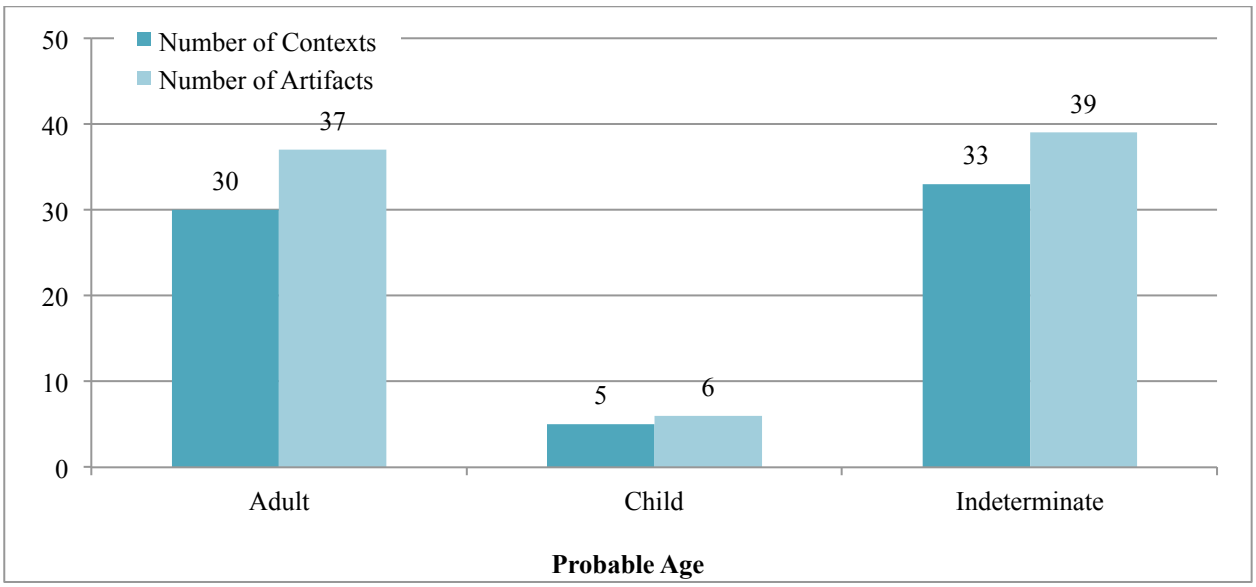


Figure IV.107. Probable age of the deceased associated with grave contexts containing fibulae with animal depictions.

IV.4.A.ii. Beads

Zoomorphic beads are quite common, with 98 beads in the dataset from ten sites (Table IV.34). A bead has been found in only one settlement,[132] while there are 27 graves in the sample containing 92 beads. There are also five stray finds of beads.

Table IV.34. Distribution of zoomorphic beads in the dataset.

Total Sites		Total Contexts			Total Artifacts		
10		33			98		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
1	9	1	27	5	1	92	5

The vast majority of beads – 88 beads or 91% of the dataset – depict sheep (Figure IV.108). There are also beads that depict birds and indeterminate mammals. Glass ram's head beads[133] are ubiquitous, with 83 recorded in the sample (Figure IV.109a and b). Ram's head beads from Slovenia date primarily to the later Hallstatt period and into the La Tène period.

[132] At Spičasti hrib, Trench 1 Layer 2.

[133] "Ram's head bead" may be a misnomer, since in this period most ewes likely had horns, and so it is not possible to determine the sex of the animal depicted based solely on the presence of horns (see section IV.2.A.ii for discussion).

These beads are thought to have first appeared in the Certosa Fibulae phase and continued in use in the Negova phase. There is one La Tène grave[134] at Kandija near Novo mesto that also has a ram's head bead (Bakarić et al. 2006; Križ 2001:164 cat. no. 542; Egg 2010:533-534). Work by T. E. Haevernick, and later by Borut Križ and associates, have demonstrated that the stylistic similarity and the distribution of glass ram's head beads, as well as the preponderance of other glass artifacts, indicates that there was likely a major glass production center in the area of Novo mesto, and that these items should be considered locally made artifacts (Bakarić et al. 2006:11; Egg 2010:534; Haevernick 1974; Križ et al. 2009:138-9; Križ and Turk 2003:78).

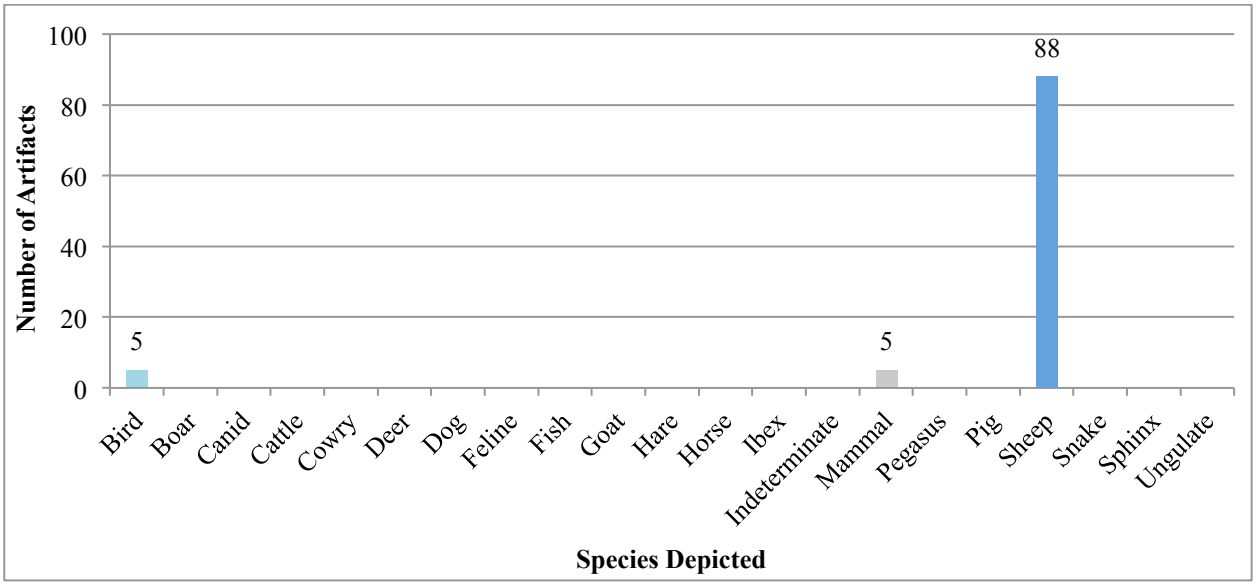


Figure IV.108. Species depicted on zoomorphic beads.

There is a single bronze ram's head bead from Grave VII/1 at Hojbi near Brezje pri Trebelnem (Figure IV.109c). There are also four ram's head beads carved from amber (Figure IV.109h), deposited as pairs in two graves – VI/4 at Novo mesto, Kapiteljska njiva and 5/11 at Gomile, Stična, which both date from the 5th-4th centuries BCE (Bakarić et al. 2006:186 cat. no. 269; Križ 2012:24; Križ and Turk 2003:99 cat. no. 84; Kruh 2008:99). Analysis of individual

[134] Grave 56. This grave is not part of the dataset, since it falls outside the chronological scope of the study.

amber artifacts found in Dolenjska have demonstrated that this amber, like the majority of European amber dating to the Iron Age, came from the Baltic (Bakarić et al. 2006:131; Križ and Turk 2003:76). There has been no unworked amber recovered from Novo mesto, where amber is most common, and based on the current evidence it seems that amber was imported to the Dolenjska region already shaped rather than in its raw form (see section II.4.B; Bakarić et al. 2006:131; Palavestra 1993:291-292).

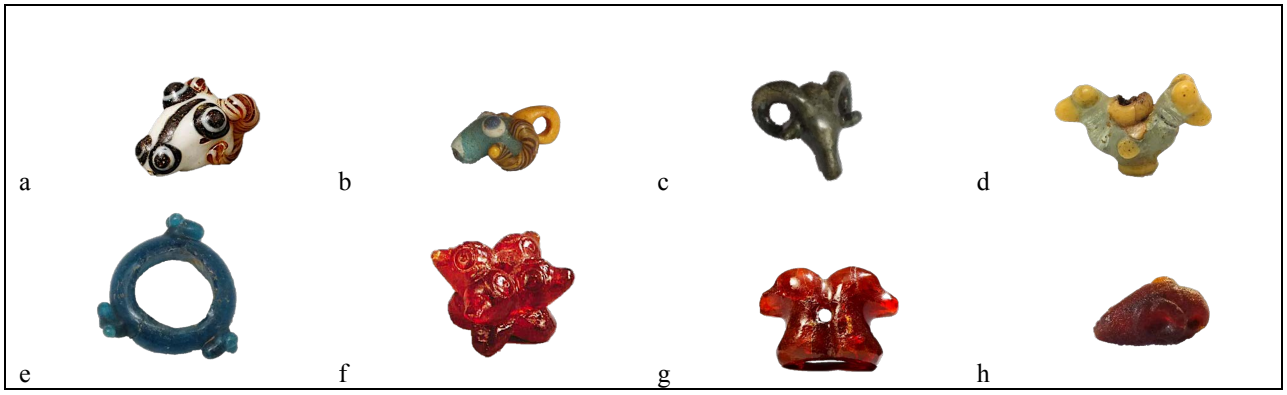


Figure IV.109. Representative sample of zoomorphic beads in the dataset. a) Novo mesto, Kapiteljska njiva Grave VII/28. Dolenjski muzej P 2831; b) Magdalenska gora, Preloge Grave 13/97. Naturhistorisches Museum Wien 27727; c) Brezje pri Trebelnem, Hojbi Grave VII/1. Naturhistorisches Museum Wien 33918; d) Stična, Gomile V/2. Peabody Museum 40-77-40/13591; e) Stična, Gomile Grave V/8. Peabody Museum 40-77-40/13610; f) Novo mesto, Kapiteljska njiva Grave V/35. Dolenjski muzej P 2494 (Križ 2012:106); g) Novo mesto, Kapiteljska njiva Grave VI/44. Dolenjski muzej P 2762 (Križ 2012:24); h) Novo mesto, Kapiteljska njiva Grave VI/4. Dolenjski muzej P 2665.

The amber avian head beads are all symmetrical: the pair from Grave VI/44 at Kapiteljska njiva demonstrates reflective symmetry (Figure 109g), while the three from Grave V/35 at the same site show rotational symmetry (Figure 109f). The set of beads from the latter grave is particularly interesting, one of these beads is unfinished, one is complete, and one is broken (see Figure IV.77). It may be that the unfinished bead could not be completed prior to the burial of the probable female in this grave, and that the breakage of the third bead was taphonomic; however, another explanation is that this combination of matching beads – unfinished, complete and broken – was purposeful and has some deeper symbolic significance.

There are also some symmetrical glass beads depicting indeterminate mammals (Figure IV.109d, e). There are only five in the dataset, four from three graves at Gomile near Stična[135] and one recovered from an incomplete grave[136] at Špiler near Libna. These beads have the stylized features of most indeterminate mammals with simply a snout and what look like ears.

Only two male graves contained beads, Graves VII/28 and XIV/42 from Kapiteljska njiva (Figure IV.110). These are all glass ram's head beads. Three double graves contained beads, while 11 female graves contained almost 60% of the beads in the dataset. There were however ten graves for which gender could not be identified. The two indeterminate mammal beads were from the grave of a probable child (Figure IV.109d).

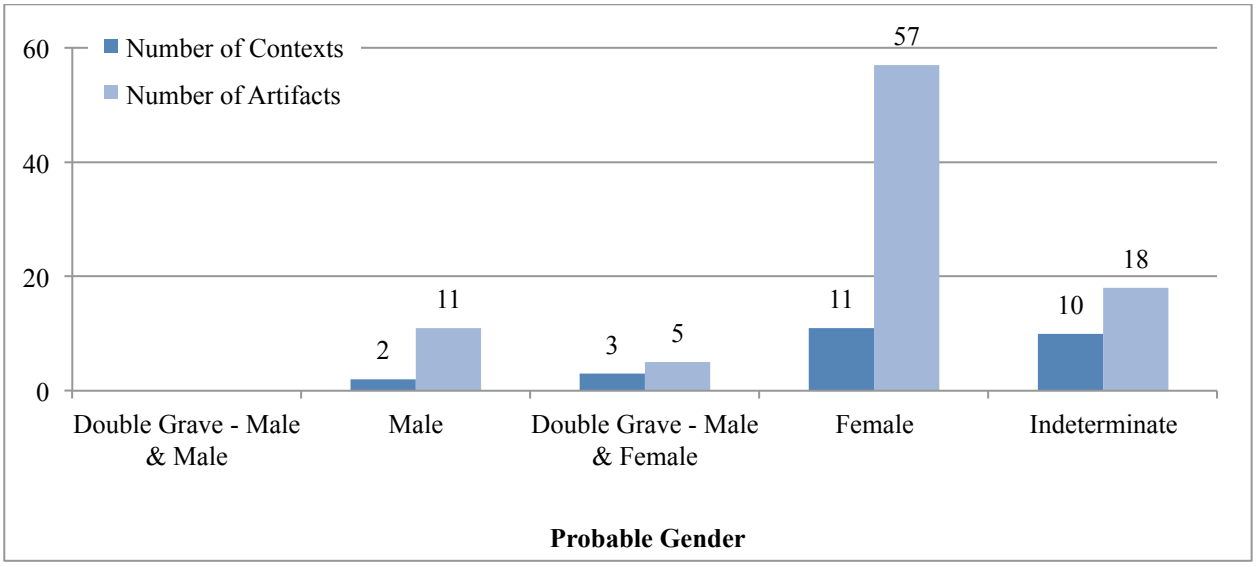


Figure IV.110. Probable gender of deceased associated with grave contexts containing zoomorphic beads.

IV.3.A.iii. Buttons

There is only one zoomorphic button in the dataset. It depicts a hare, and was recovered as a surface find at Špičasti hrib, an Iron Age hillfort (Dular et al. 2003:200). Because of the lack

[135] Grave 48/121, Narodni muzej P 13608. Two from Grave V/2, Peabody Museum 40-77-40/13591. Grave V/8, Peabody Museum 40-77-40/13610.
[136] Grave III/Find 2 is categorized as a stray find. See Table IV.2 footnote 73 for more information about why the graves from this tumulus are considered stray finds rather than complete graves.

of clear context, dating the item is difficult. It is likely Early Iron Age since the hillfort was inhabited in the later part of the Early Iron Age, and abandoned after a fire in the Negova Helmets period. It was not resettled until the Late La Tène period (Dular et al. 2003:200).

Figure IV.111. Bronze button in the shape of a hare protome. Surface find from Špičasti hrib. Narodni muzej P 23161.

IV.4.A.iv. Pendants

Ten pendants are part of the dataset (Table IV.35). They come from four sites; none are from settlements. Six contexts are graves containing nine of the pendants, while one is a stray find. Four graves are identifiable as probable female graves,[137] while two are indeterminate gender[138] (Figure IV.112), and though the sample is small it does appear that pendants are more often associated with females. Associations with particular age categories are more difficult to determine, since only one grave is identified as a probable adult,[139] and one as a probable child,[140] while the rest are indeterminate (Figure IV.113). It can only be surmised that pendants were not exclusive to adults or children in mortuary contexts.

Table IV.35. Distribution of pendants depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
4		7			10		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	4	0	6	1	0	9	1

[137] Dolenjske Toplice, Branževec 2 Grave XI/8. Naturhistorisches Museum Wien 57207. Brezje pri Trebelnem, Hojbi Grave XIII/6. Naturhistorisches Museum Wien 34101. Metlika, Hrib Grave I/80. Belokranjski muzej A 592. Stična, Gomile Grave 48/98. Narodni muzej P 13482.

[138] Stična, Gomile Grave VI/7. Peabody Museum 40-77-40/13675-13678. Metlika, Hrib Grave I/18. Belokranjski muzej A 536.

[139] Brezje pri Trebelnem, Hojbi Grave XIII/6.

[140] Metlika, Hrib Grave I/18.

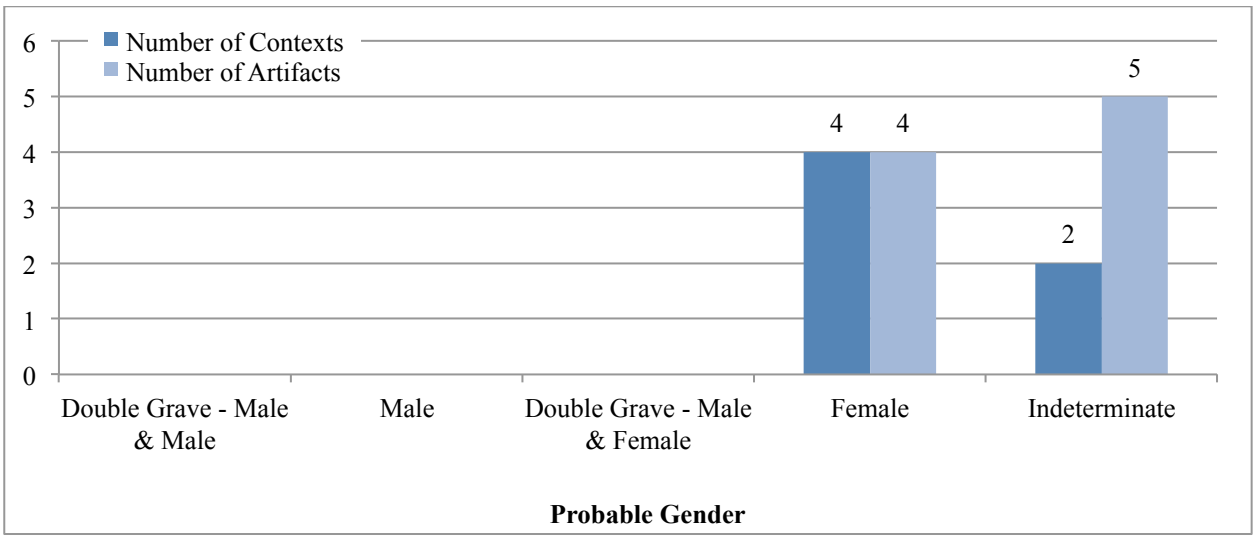


Figure IV.112. Probable gender of deceased associated with grave contexts containing pendants depicting animals.

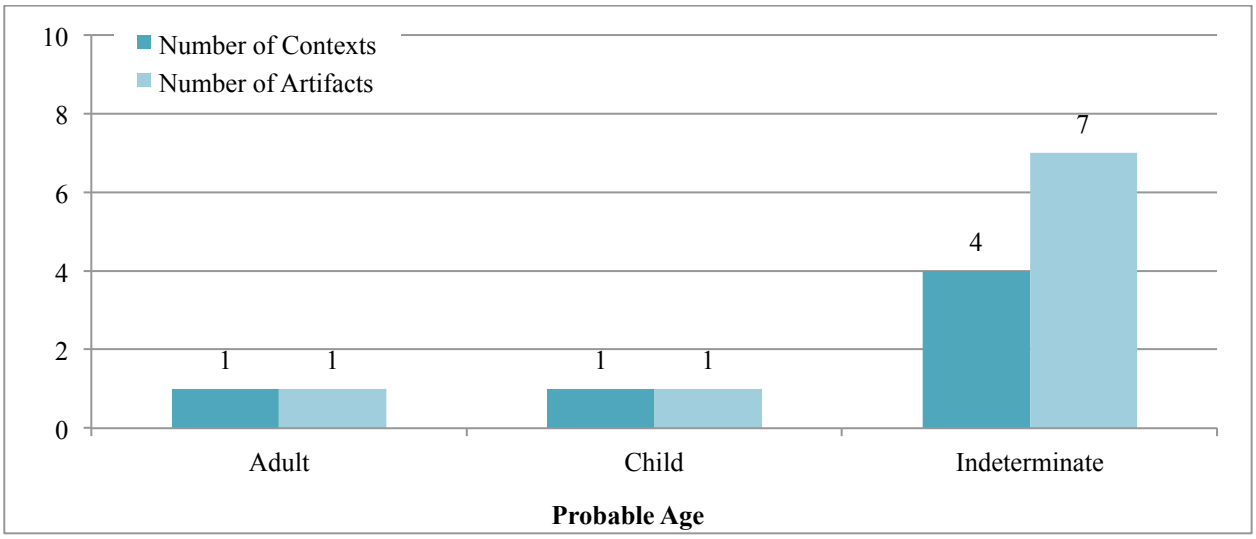


Figure IV.113. Probable age of deceased associated with grave contexts containing pendants depicting animals.

Birds are the only animals depicted frequently on pendants (Figures IV.114 and IV.115b, d, and g). There are also two pendants with cowry shells (Figure IV.115e and f), as well as one with a horse (Figure IV.115a), and one depicting cattle (Figure IV.115c). The cowry shell pendants are thought to be from the area of Picenum in Italy, and are discussed in more detail in section IV.2.B.x. The horse pendant is also an import, from the Japodic area to the south. It dates from the Serpentine Fibulae to Certosa Fibulae phases (Teržan 1976:385). Two very similar

pendants are known from the Podzemelj area, though the exact find contexts are unknown so they are not included in this analysis (Dular 1978:26; Pl. XIV nos. 1 and 2).

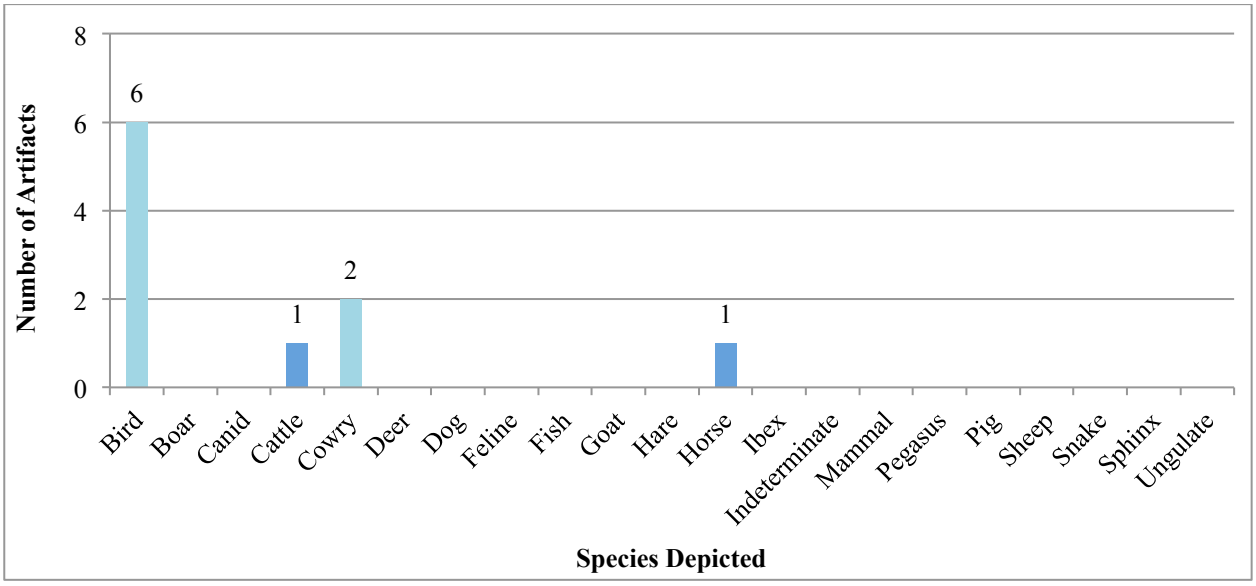


Figure IV.114. Species depicted on pendants.

The avian pendants on the drum pendant (Figure IV.115d) are similar to pendants categorized by Alexia Nascimbene as Type II.5 Variant A, dating from the mid-6th to early 5th centuries BCE (2009:67, 206-208), though the examples in this study have more pronounced crests on their heads through which the suspension hole is drilled. These are distributed around the northern Adriatic, so it is unclear if they are imports or local items (Nascimbene 2009:206 Fig. 64). These pendants may represent roosters like those from Stična, Gomile Grave VI/7, described in section IV.2.B.i; however, since they lack the prominent sickle tail feathers they are categorized here as generalized birds. Nascimbene identified the cattle pendant as Type II.4, artifacts that were are also in use from the mid-6th to the early 5th centuries (Nascimbene 2009:202-205). There are fewer examples, but they also show a distribution centered in the Veneto region, with a few examples in Slovenia (Nascimbene 2009:204 Fig. 62). These may be imported items since they are relatively rare in this area.

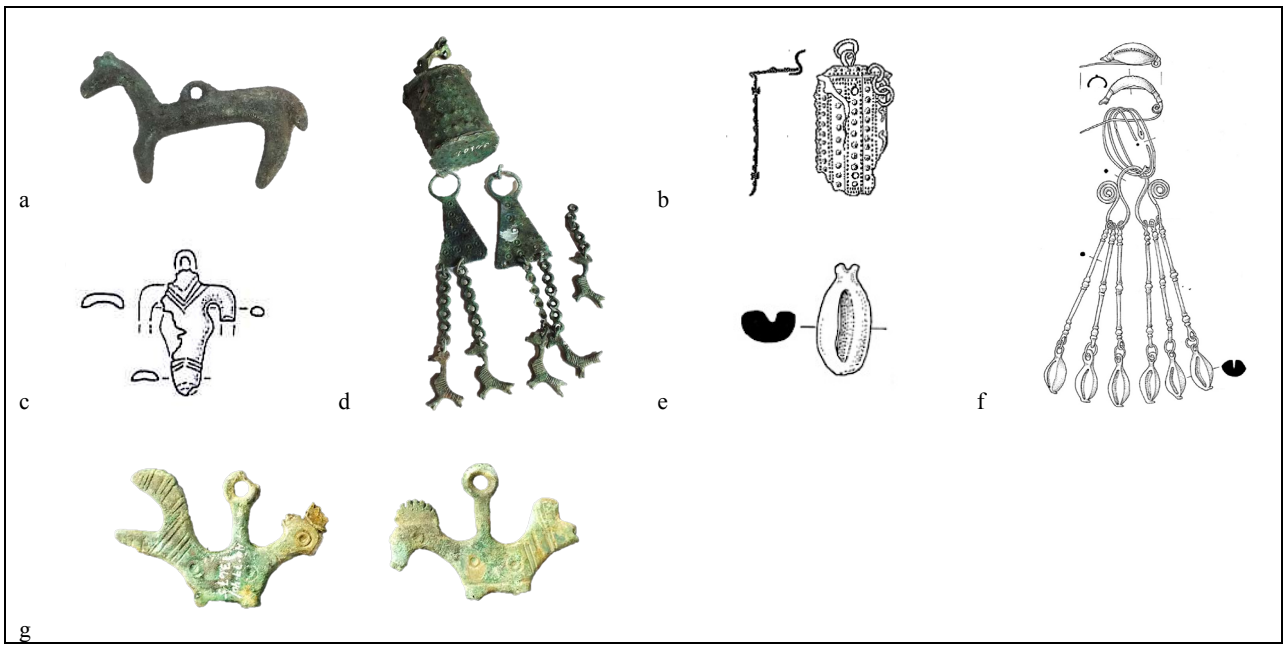


Figure IV.115. Representative sample of pendants depicting animals in the study. a) Dolenjske Toplice, Branževec 2 Grave XI/8. Naturhistorisches Museum Wien 57207; b) Libna, Deržaničev gozd 1942?/Stray Find. Universalmuseum Joanneum 103184 (Guštin 1976:112); c) Stična, Gomile Grave 48/98. Narodni muzej P 13482 (Gabrovec 2006:329 Fig. 55); d) Brezje pri Trebelnem, Hojbi Grave XIII/6. Naturhistorisches Museum Wien 34101; e) Metlika, Hrib Grave I/18. Belokranjski muzej A536 (Grahek 2004:183 Pl. 3 no. 12); f) Metlika, Hrib Grave I/80. Belokranjski muzej A592 (Grahek 2004:192 Pl. 12 no. 13); g) Stična, Gomile Grave VI/7. Peabody Museum 40-77-40/13675.

IV.4.A.v. Earrings

Earrings are relatively common artifacts – 34 are recorded in the dataset (Table IV.36). However, all the earrings with animal imagery in the dataset come from only two sites – Branževec 2 at Dolenjske Toplice and Preloge at Magdalenska gora. The earrings come from ten graves, all of which were identified as female graves. Earrings are used to identify females in this dataset, since their exclusivity to women is well attested (see section III.3.C). No children's graves contain earrings.

Table IV.36. Distribution of earrings with animal imagery in the dataset.

Total Sites		Total Contexts			Total Artifacts		
2		10			34		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	2	0	10	0	0	34	0

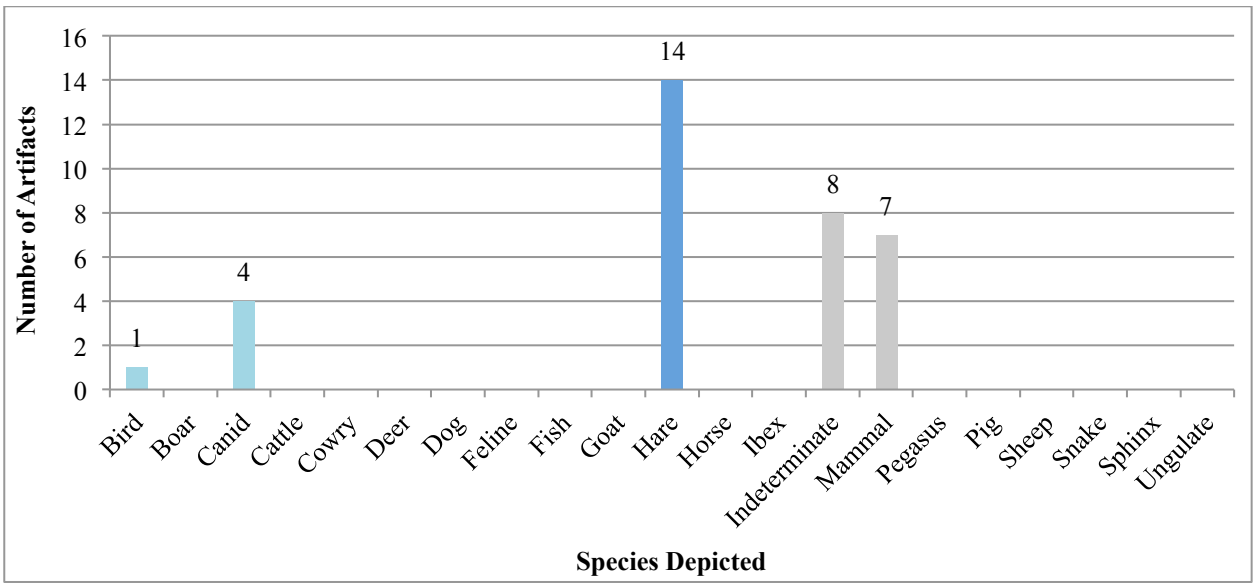


Figure IV.116. Species depicted on earrings.

There are a small number of species depicted on earrings (Figure IV.116). The majority of earrings depict hares[141] (Figure IV.117b and c), while a set of four depict canids[142] (Figure IV.117d). There is a single earring depicting a bird in the dataset (Figure IV.117a),[143] however a matching earring was recently identified at the Ashmolean Museum in Oxford,[144] which is inventoried as a stray find from the site of Vače. This earring and the one from Magdalenska gora, Preloge Grave II/2a, were both excavated by the Duchess of Mecklenburg, and it is possible they were originally excavated as a pair and separated at some point during the complex history of the collection (Božič 2009; Greis 2006). The other earrings from Magdalenska gora are deposited almost exclusively in matching pairs or sets, which supports this theory (Tecco Hvala 2012:332). However, at this point this must remain speculation. Seven earrings depict what have been categorized as indeterminate mammals in this study (Figure IV.117e and f) –

[141] One earring from Dolenjske Toplice, Branževec 2 Grave II/2. Four from Dolenjske Toplice, Branževec 2 Grave II/16. Two from Dolenjske Toplice, Branževec 2 Grave II/30. Two from Magdalenska gora, Preloge Grave 13/117. Five from Magdalenska gora, Preloge Grave IV/19.
[142] Magdalenska gora, Preloge Grave 13/117.
[143] Magdalenska gora, Preloge Grave II/2a.
[144] Ashmolean Museum AN 1935.373.

Biba Teržan proposed that some of those from Dolenjske Toplice[145] represent deer (Figure IV.117e), however some have the elongated ears that are more reminiscent of the frequent depictions of rabbits on earrings (Teržan 1976:398). The categorization of deer on the basis of what may be a single long antler is also unlikely, based on the fact that the branching form of antlers is highlighted in all other Dolenjska Hallstatt imagery. To be conservative, the category of indeterminate mammal is utilized. Other earrings depict animals that can no longer be identified due to bronze disease or other taphonomic damage.

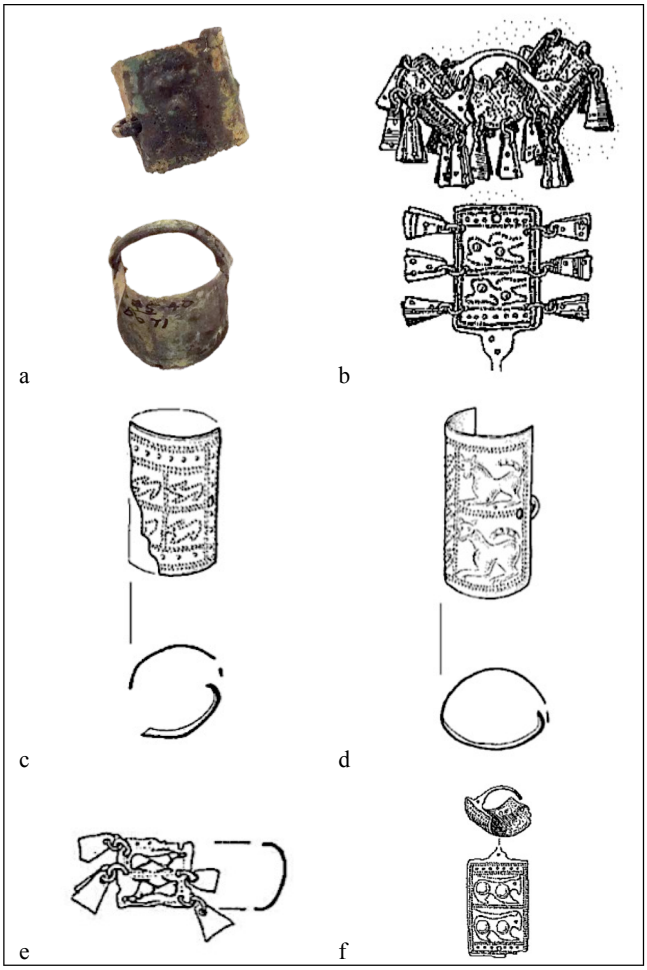


Figure IV.117. Representative sample of earrings in the study. a) Magdalenska gora, Preloge Grave II/2a. Peabody Museum 34-25-40/8071; b) Magdalenska gora, Preloge Grave IV/19. Peabody Museum 34-25-40/8200 (Hencken 1978:115 Fig. 55); c) Magdalenska gora, Preloge Grave 13/117. Naturhistorisches Museum Wien 27787 (Tecco Hvala et al. 2004:Pl. 105 no. 8); d) Magdalenska gora, Preloge Grave 13/117. Naturhistorisches Museum Wien 27784 (Tecco Hvala et al. 2004:Pl. 105 no. 2); e) Dolenjske Toplice, Branževec 2 Grave II/16. Naturhistorisches Museum Wien 56777 (Teržan 1976:Pl. 8 no. 6); f) Magdalenska gora, Preloge Grave X/43. Peabody Museum 34-25-40/14321 (Hencken 1978:281 Fig. 334j).

It has been proposed that these earrings are local items, important for marking aspects of female identity (Tecco Hvala 2007:487). The cylindrical bronze plate earrings with animal decoration date from the Certosa Fibulae to Negova Helmets phase. The earrings with triangular pendants are a slightly later development, restricted to the Negova Helmets period (Tecco Hvala 2007:485-486).

[145] Two from Dolenjske Toplice, Branževec 2 Grave II/30.

IV.4.A.vi. Annular Jewelry

Annular jewelry includes torcs, bracelets, and anklets. Thirteen examples of annular jewelry are included in the dataset: four torcs, six bracelets, and three anklets (Table IV.37). These items are associated with 11 contexts from seven sites; ten of these contexts are graves, one is a stray find. No annular jewelry in the dataset is associated with a settlement. Generally these items are rare, with just one or two examples per site. Notable exceptions are the three bracelets from Hojbi at Brezje pri Trebelnem, found in three different graves in Tumulus VII (Figure IV.118d and e; Dular and Križ 1990:535-538; Kromer 1959:22-27). Grave 48/119-120 from Gomile at Stična also contained a set of three matching anklets ornamented with birds (Figure IV.118f).

Table IV.37. Distribution of annular jewelry with animal depictions in the dataset.

Total Sites		Total Contexts			Total Artifacts		
7		11			13		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	7	0	10	1	0	12	1

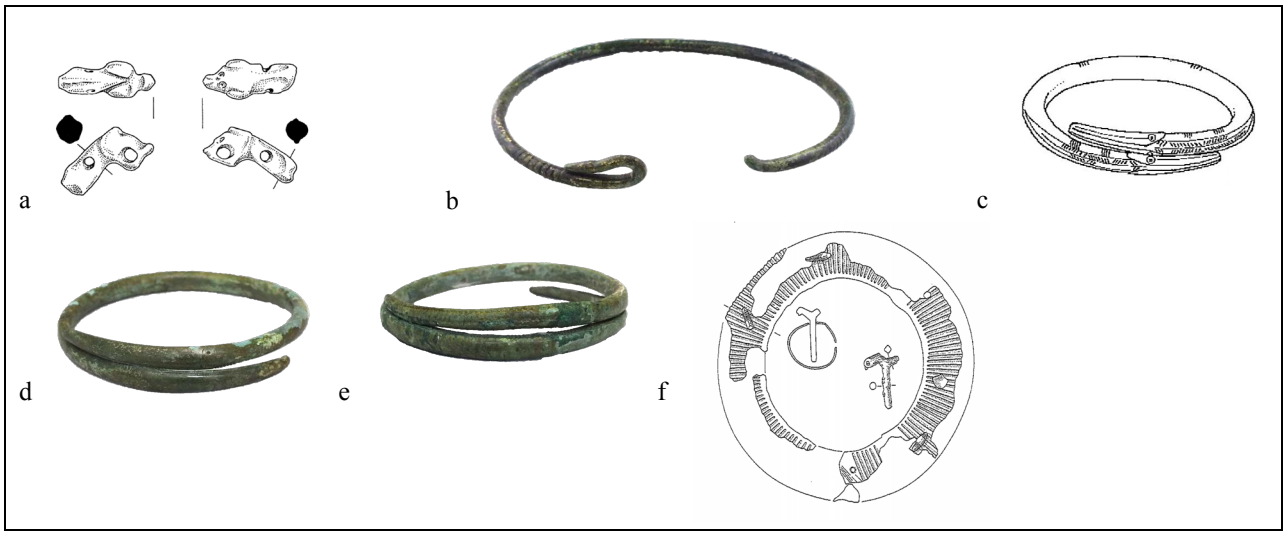


Figure IV.118. Representative sample of annular jewelry in the study. a) Magdalenska gora, Voselca Grave 1/1. Naturhistorisches Museum Wien 21740 (Tecco Hvala et al. 2004:Pl. 124 no. 14); b) Kidričeva cesta (Zagorje), unknown provenience. Narodni muzej P 4343; c) Novo mesto, Kandija Grave III/2. Dolenjski muzej P 716 (Knez 1986:Pl. 24 no. 20); d) Brezje pri Trebelnem, Hojbi Grave VII/8. Naturhistorisches Museum Wien 33957; e) Brezje pri Trebelnem, Hojbi Grave VII/28. Naturhistorisches Museum Wien 34027; f) Stična, Gomile Grave 48/119-120. Narodni muzej P 13577 (Gabrovec 2006:342 Pl. 68 no.4).

The majority of these items depict snakes, and the circular shape and often the overlapping ends of the jewelry are used to evoke the body of the snake (Figure IV.118b-e). Three torcs[146] and six bracelets[147] in the dataset depict snakes. The torcs depicting snakes are relatively rare in Dolenjska, and are most similar to torcs from Picenum dating to the 6th century (Lollini 1976:135 Pl. X nos. 5, 6, and 8; Morelli 2001:326 Fig. 68; Tecco Hvala 2012:278). It has been suggested that these torcs are also similar to bracelets with backward-facing snake heads[148] that date to the fifth century and are widely distributed from the Po Plain in the west to the Pannonian Plain in the east (Nascimbene 2009:219-222; Tecco Hvala 2012:278-279).

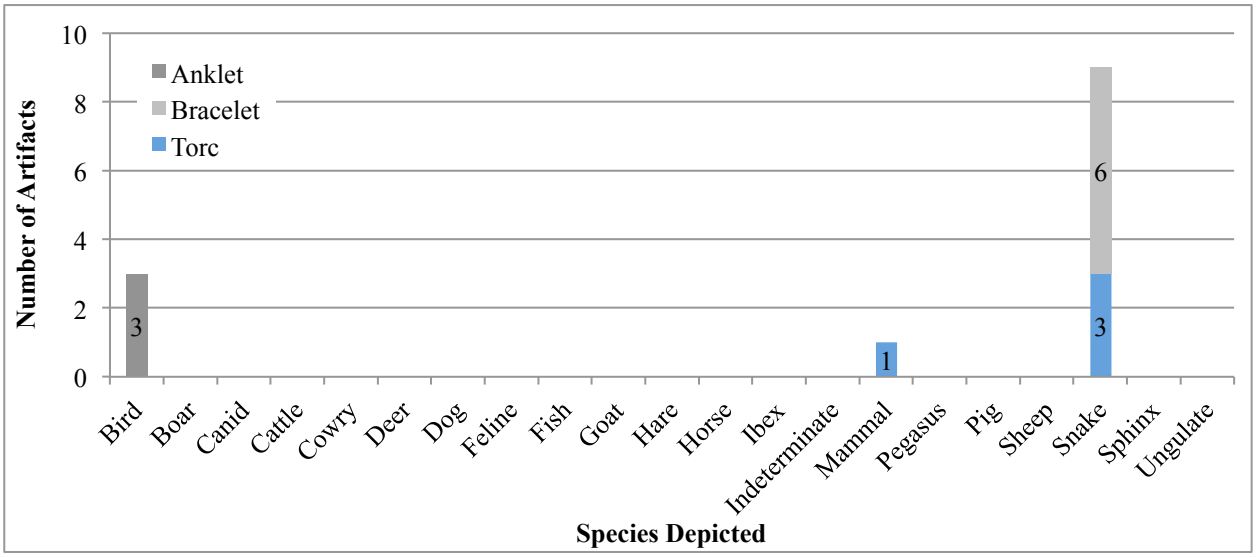


Figure IV.119. Species depicted on annular jewelry.

The other torc in the dataset is represented solely by the terminals (Figure IV.118a), which originally formed the ends of a hollow sheet bronze torc. Similar items have been found at

[146] Kidričeva cesta (Zagorje), unknown provenience. Narodni muzej P 4343. Magdalenska gora, Preloge Grave 2/67. Naturhistorisches Museum Wien 86682. Stična, Gomile Grave 48/33. Narodni muzej P 14975.

[147] Novo mesto, Kandija Grave III/2. Dolenjski muzej P 716. Brezje pri Trebelnem, Hojbi Grave VII/1. Naturhistorisches Museum Wien 33911. Brezje pri Trebelnem, Hojbi Grave VII/8. Naturhistorisches Museum Wien 33957. Brezje pri Trebelnem, Hojbi Grave VII/28. Naturhistorisches Museum Wien 34027. Stična, Gomile Grave VII/7. Peabody Museum 40-77-40/13831. Magdalenska gora, Preloge Grave V/29. Peabody Museum – inventory number unknown, this item could not be identified in museum storage. See Hencken 1978:165 Fig. 140c for a drawing of the bracelet.

[148] There are none in this dataset.

Most na Soči, and the dating of the torc is not clear (Teržan et al. 1984:Pl. 246c no. 5; Tecco Hvala 2012:280). Three unique, massive anklets complete the annular jewelry (Figure IV.118f). These are the only anklets in the dataset, and thus far they are unique items. The grave itself has been dated to the Certosa Fibulae phase (Gabrovec 2008:40, 50; Tecco Hvala 2012:284).

Anklets identify females in this study, and are considered elements of female attire (see section III.3.C for more details). Zoomorphic torcs and bracelets however appear with both men and women in this dataset, though no children's graves contain these objects (Figure IV.120).

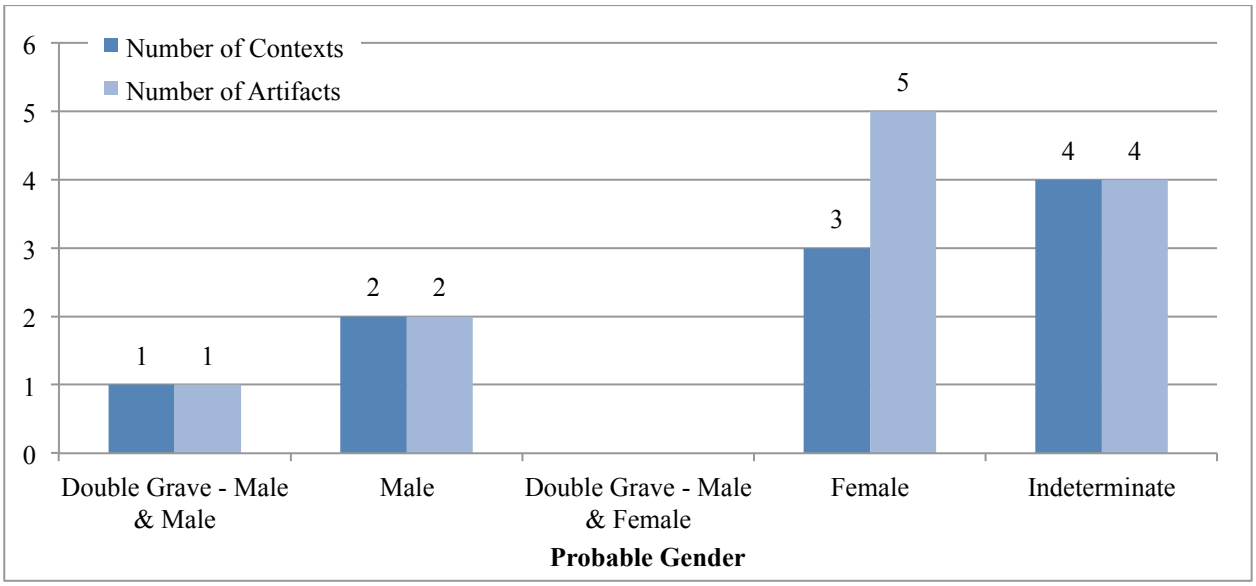


Figure IV.120. Probable gender of deceased associated with grave contexts containing annular jewelry depicting animals.

IV.4.A.vii. Belts

Belts are found at ten sites in sixteen graves (Table IV.38). There are no graves with more than one belt plate depicting animals. These items are clearly worn by males – thirteen graves with belt plates belonged to probable males, while there were only two belt plates found in indeterminate graves (Figure IV.121). Belt plates were often deposited with a weapons set, which is the basis of gender identification for these graves.

Table IV.38. Distribution of belts depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
10		16			16		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	10	0	16	0	0	16	0

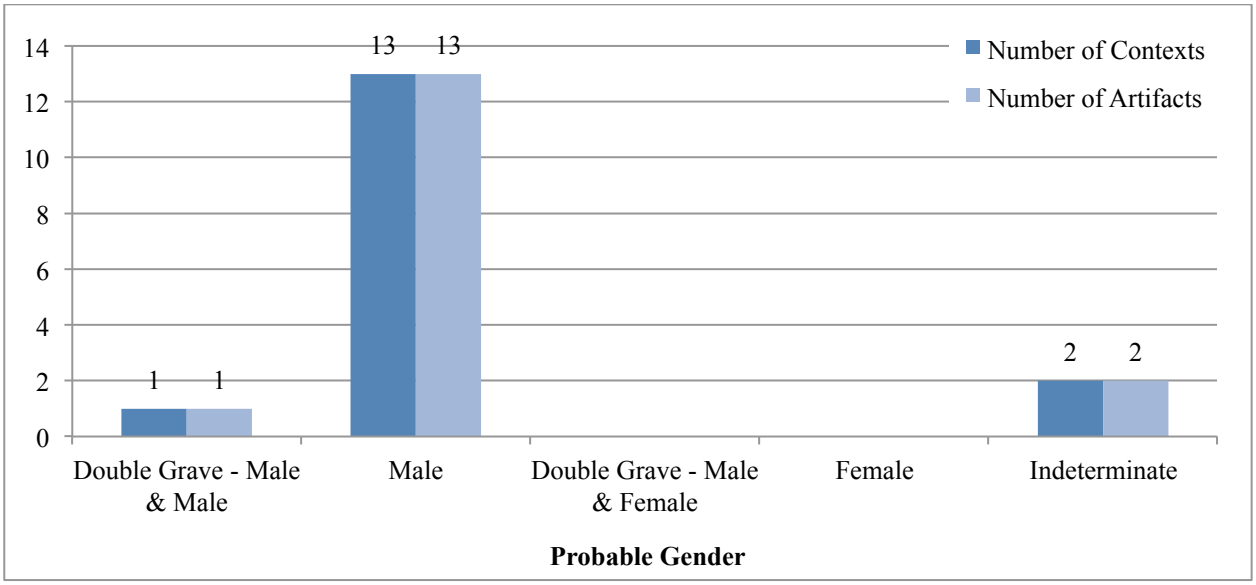


Figure IV.121. Probable gender of the deceased associated with grave contexts containing belts depicting animals.

Belt plates, like other large items decorated in the situla art style, depict a variety of species since most are ornamented with vignettes involving humans and animals (Figure IV.122; Appendix B). Birds appear on twice as many artifacts as any other species (Figure IV.123a, c, d, f, h, i, m, o). Dogs appear on five belt plates (Figure IV.123g, i, j, l, m), while horses and deer appear on four belt plates each (Figure IV.123b, e-g, i, j, l, m). Many animals appear on only one belt plate, which may be due to the fact that the designs are highly individualized and depict a wide variety of scenes. Belt plates depict predation (Figure IV.123a, f, g, k,[149] l), processions (Figure IV.123c, d, h), violent encounters (Figure IV.123e), competition (Figure IV.123f), and

[149] Based on personal examination, this artifact may not have originally depicted a predation scene. The back of the belt plate preserves the original punctate design showing something hanging over the second animal's midsection – possibly a bag or saddle blanket. It is unclear if this design was smoothed off the front, or if this area is too damaged to preserve that detail. The claws on this animal also look to be a later addition; they are roughly gouged on the back of the belt plate, and very distinct from the original punctate design. It is possible that the belt plate originally depicted two horses in a play, aggression, or mating scene in which the back horse nipped the rump of the front horse.

several hunting scenes (Figure IV.123g, i, j). These belt plates are likely items that were used during the lives of the deceased individuals – many show clear signs of long use and repair (Figure IV.123a, b, i, j, k, m).

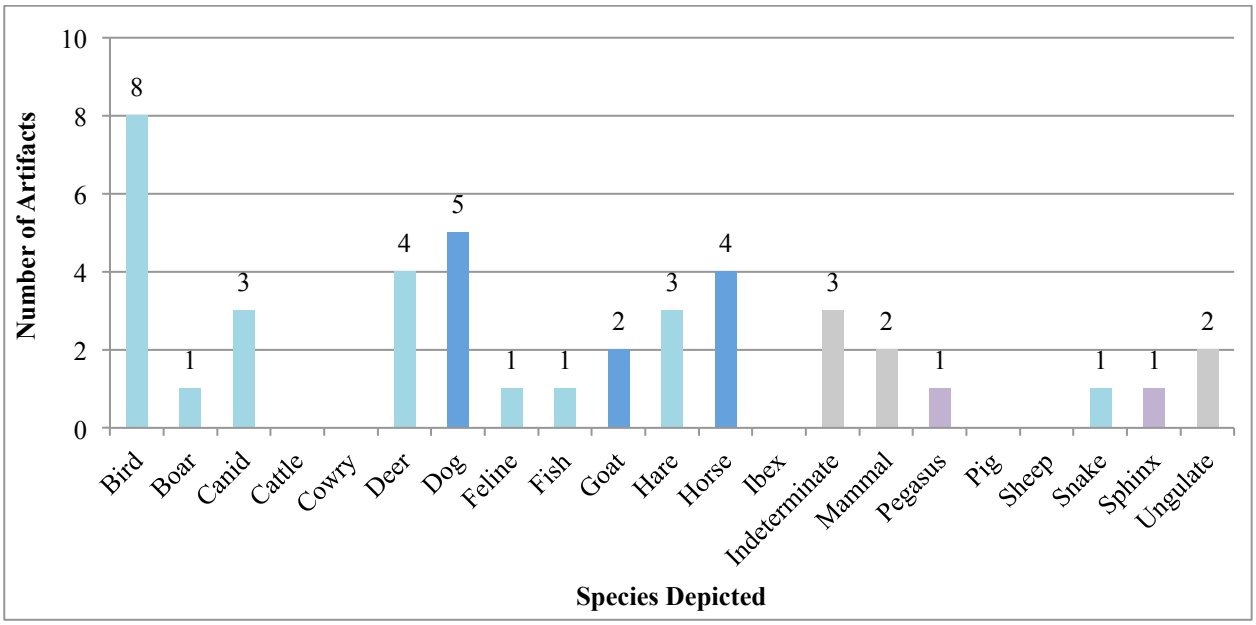


Figure IV.122. Species depicted on belts.

The repaired belt plate depicting a ram holding a bird in its mouth and the hindquarters of a lion is considered to be the earliest figural belt plate in the Dolenjska Hallstatt area (Figure IV.123a; see section IV.2.B.iv for more detailed discussion). The other items from the grave date this belt plate to the transition between the Serpentine Fibulae and Certosa Fibulae phases, while all other figural belt plates date to the Certosa phase (Tecco Hvala 2012:177). Most of the belt plates are considered to be local items, except the hare and bird belt plate (Figure IV.123c), which may be from the Veneto region (Preložnik and Guštin 2012:120-123; see section IV.2.B.vii for more details). The belt plate from Magdalenska gora depicting a procession of mythical creatures may also be an import from the same area, or a local copy drawing on Orientalizing motifs (Figure IV.123d; Preložnik and Guštin 2012:122-124; see section IV.2.C).

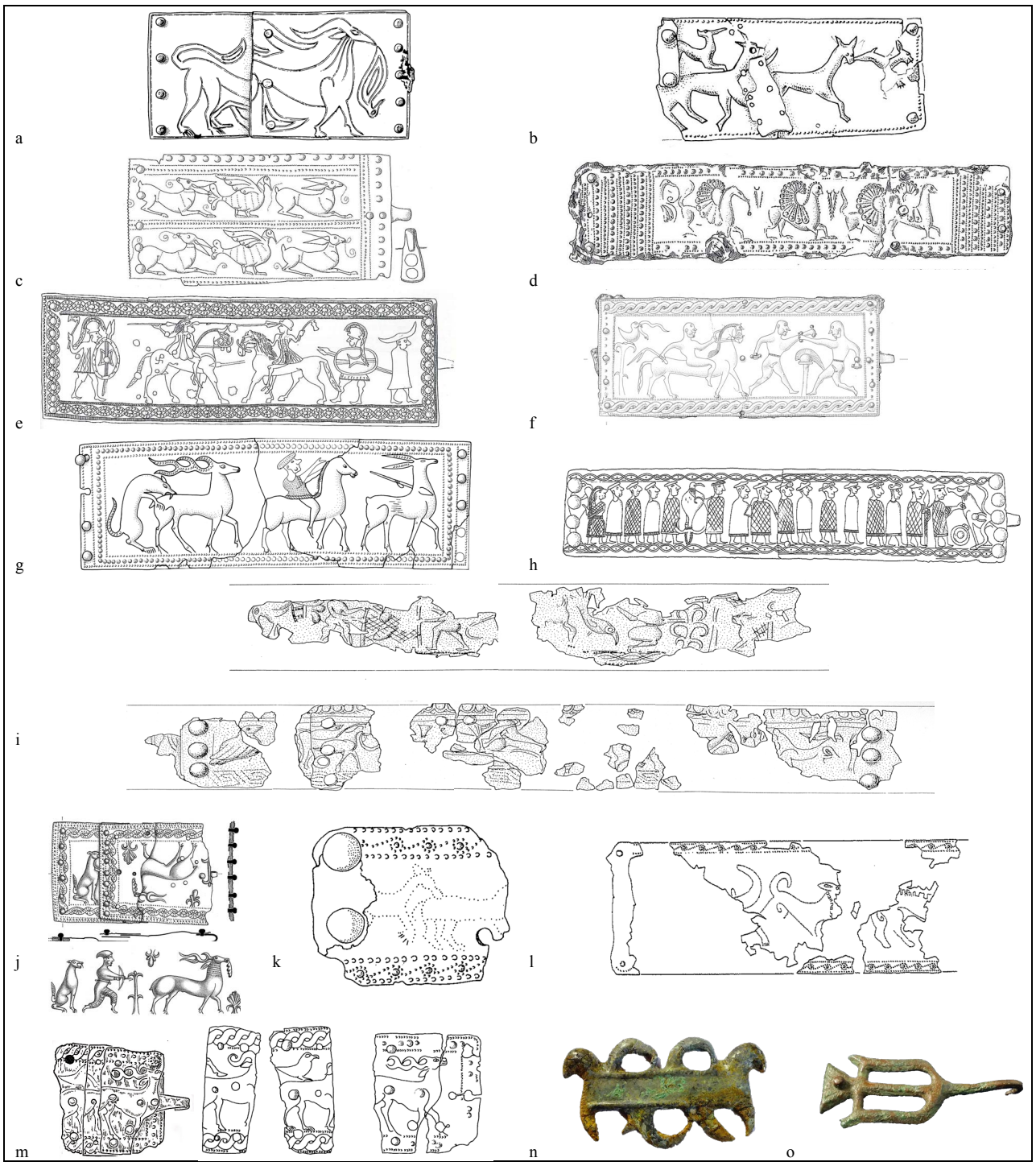


Figure IV.123. Representative sample of belts in the study. a) Magdalenska gora, Preloge Grave 2/58. Missing from the Naturhistorisches Museum Wien (Tecco Hvala et al. 2004:Pl. 53 no. 1); b) Magdalenska gora, Laščik Grave V/29. Peabody Museum 34-25-40/8516 (Tecco Hvala 2012:172 Fig. 66); c) Vače, Reber Grave 1889/1. Narodni muzej P 80 (Turk 2005:49 Fig. 71); d) Magdalenska gora, Preloge Grave 2/13. Naturhistoriches Museum Wien 22083 (Turk 2005:25 Fig. 28); e) Vače, Reber Grave with the Mounted Warriors Belt. Naturhistorisches Museum Wien 40141 (Turk 2005:39 Fig. 58); f) Magdalenska gora, Preloge Grave 2/46. Naturhistorisches Museum Wien 22962 (Tecco Hvala et al. 2004:Pl. 41 no. 1); g) Kidričeva cesta (Zagorje) Grave with the Belt Plate. Narodni muzej P 4340 (Turk 2005:32 Fig. 43); h) Stična, Gomile Grave VI/30. Museum für Vor- und Frühgeschichte Berlin UE 6 (Gabrovec 2006:268 Fig. 71); i) Preserved figural scenes from the belt plate. Novo mesto, Kapiteljska njiva Grave

III/12. Dolenjski muzej P 2162 (Križ 1997:Insert 4); j) Repaired belt plate and reconstruction of original design. Molnik, Grmada Grave 17/10. Mestni muzej Ljubljana (Tecco Hvala Forthcoming:Pl. 32 no. 2); k) Dolenjske Toplice, Branževec 2 Grave XI/21. Naturhistorisches Museum Wien 57252 (Turk 2005:73 Fig. 113); l) Stična, Gomile 48/104. Narodni muzej P 13534 (Gabrovec 2006:336 Pl. 62 no. 2); m) Right: original repaired belt plate. Left: deconstructed belt plate. Brezje pri Trebelnem Grave XIII/8. Naturhistorisches Museum Wien 34125 (Right: Kromer 1959:Pl. 36 no. 5; Left: Turk 2005:23 Fig. 22); n) Novo mesto, Kapiteljska njiva Grave XXIV/4. Dolenjski muzej P 4565; o) Magdalenska gora, Laščik Grave V/6-7-7a. Peabody Museum 34-25-40/8441.

The belt plate from Reber at Vače has also drawn significant attention for the scene of two mounted warriors confronting each other (Figure IV.123e). This has been interpreted as a scene of a non-local warrior, possibly Venetic or Etruscan,[150] fighting a Dolenjska warrior, with a foreign dignitary looking away. This interpretation is based on the long, uncropped mane of the horse on the right, unlike all other depictions of horses in this region showing cropped manes. The hat of the man facing away from the scene is also foreign to this area (Turk 2005:40).

Another unique scene is the procession of humans and animals toward a canid on a belt plate from Vače (Figure IV.123h). This has been interpreted as a scene of "sacred marriage" (i.e., *symplegma* or *hieros gamos*) on the basis of the procession toward an animal with other animals interspersed, the special regalia of some of the men, as well as the single female at the end of the procession (Teržan 2006:266-269). This interpretation is difficult to confirm or deny on the basis of such a small scene. The scroll design over the canid, and the design under the middle bird have been interpreted as antlers and a bucranium respectively (Teržan 2006:268-269), though these identifications are not considered plausible based on comparisons to other cattle and horned animal imagery in this analysis. The two cast bronze belts are later artifacts, the one from Kapiteljska njiva Grave XXIV/4 is very similar to pendants from Vinica, though since it has previously been identified as a belt plate that identification is retained here, while the openwork belt plate from Laščik Grave V/6-7-7a has other non-zoomorphic parallels in the Dolenjska region (Figure IV.123n and o; Hencken 1978:30; Tecco Hvala 2012:180-181 Fig. 69 no. 5).

[150] On the basis of comparisons to the Bologna situla (Turk 2005:38-40).

IV.4.B. Martial Gear

Offensive and defensive equipment depicting animals in the dataset consists of helmets, a dagger,[151] and a scabbard.[152] Seven of these artifacts have been recovered from six sites in seven grave contexts (Table IV.39). The scabbard and dagger both depict birds, while the helmets depict sphinxes,[153] a horse,[154] and schematic indeterminate mammals that may also be horses[155] (Figure IV.124).

Table IV.39. Distribution of martial gear depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
6		7			7		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	6	0	7	0	0	7	0

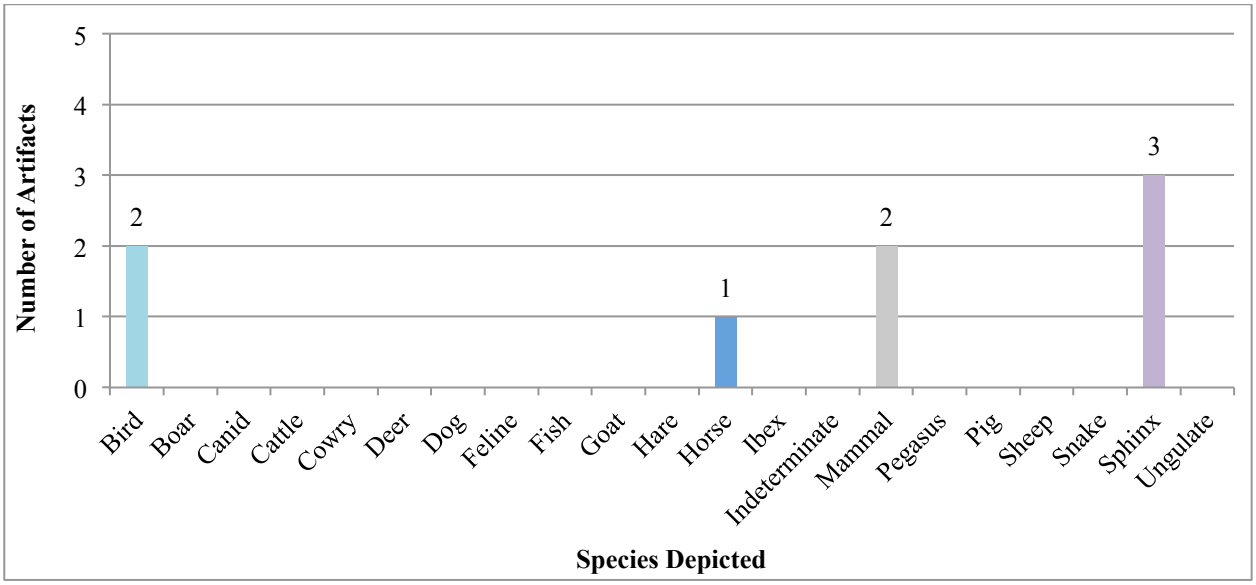


Figure IV.124. Species depicted on martial gear.

[151] Stična, Gomile Tumulus 125, Find 9, 7, and 10 = Grave. Museum für Vor- und Frühgeschichte Berlin IV g. 67a.

[152] Magdalenska gora, Laščik Grave V/19-20. Peabody Museum 34-25-40/8477.

[153] Brezje pri Trebelnem, Hojbi Grave XII/37. Naturhistorisches Museum Wien 33680. Magdalenska gora, Preloge Grave IV/3 [Mecklenburg]. Peabody Museum 34-25-40/8152. Vače, Ravne njive Grave 1883/11-1. Naturhistorisches Museum Wien 7583.

[154] Vače, Ravne njive Grave 1883/11-1. Naturhistorisches Museum Wien 7583.

[155] Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27547. Vače, Reber Grave 1881/1. Naturhistorisches Museum Wien 6481.

Despite the fact that scabbards and helmets are used to identify probable male graves in this study, only three male graves contained martial gear depicting animals,[156] along with two double graves – one of two males[157] and one of a male and female.[158] Two graves are categorized as indeterminate – the grave with the dagger did not contain gender diagnostic artifacts, and Grave 1881/1 from Reber contained male and female diagnostic artifacts.[159] This helmet grave is usually presented as a male warrior grave, while the clay spindle whorl may have been a grave gift (Božič 2015a; Dular 2016). It is also possible that this may be the double grave of a male and female, but this cannot be confirmed based on the available information.

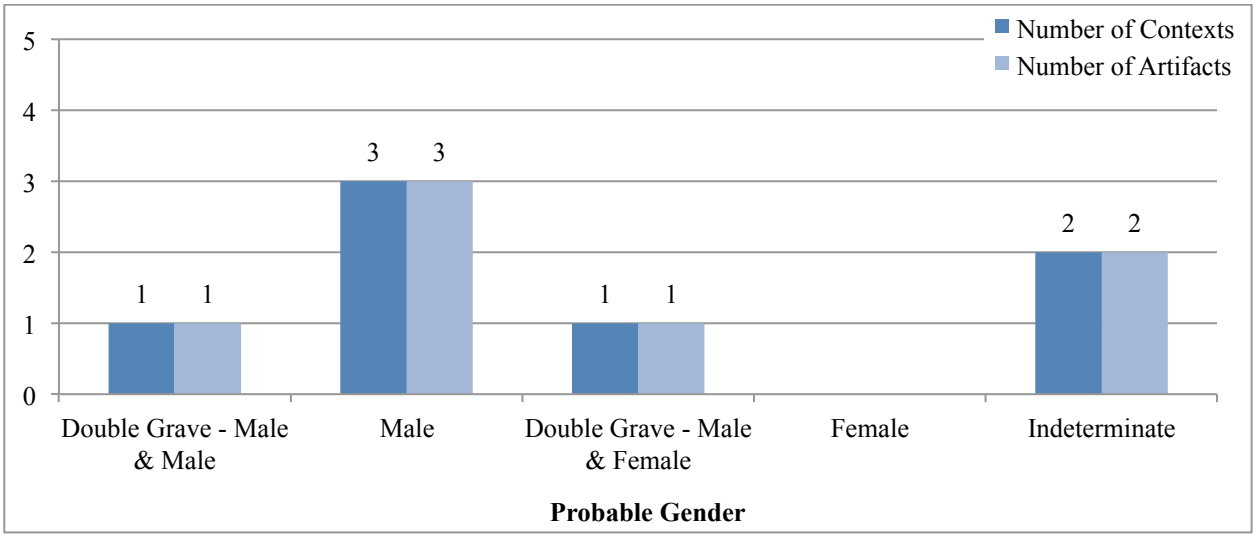


Figure IV.125. Probable gender of deceased from grave contexts with martial gear depicting animals.

There are three types of helmets with animal ornamentation. The oldest are composite helmets that are crowned with a pair of sphinx figures with upraised wings that occasionally have a horse protome at the front (Figure IV.126a). These were in use solely in the Stična phase

[156] Magdalenska gora, Preloge Grave IV/3 [Mecklenburg]; Vače, Ravne njive Grave 1883/11-1.
[157] Magdalenska gora, Laščik Grave V/19-20.
[158] Magdalenska gora, Preloge Grave 13/55.
[159] A clay spindle whorl was the only female artifact in the grave, but in this study spindle whorls are used to identify female graves (see section III.3.C).

(Tecco Hvala 2012:151; Teržan 2008:315-317). It is not clear if they are imports or local products; however, the sphinx figures and imagery on the composite helmets without animal imagery are Orientalizing motifs and show influences from Picenum and the broader northern Italian region (Tecco Hvala 2012:151; Teržan 2008:315-317).

Double-crested helmets are a later development, appearing in the Certosa phase (Božič 2014). The example in this study has the full body of an indeterminate mammal that may be a horse, serving as an attachment for a crest that is no longer preserved (Figure IV.126b).

The final helmet in this study also has an indeterminate mammal figure on the front and dates to the Certosa Fibulae phase (Figure IV.126c; Tecco Hvala 2012:45 Fig. 10, 346 Fig. 129). Thus far, this is a unique helmet, and it may be a local product. It was found in Grave 13/55 Preloge near Magdalenska gora, which also contained the elaborate situla with three registers, a match for the Vače situla (see Figure IV.91).

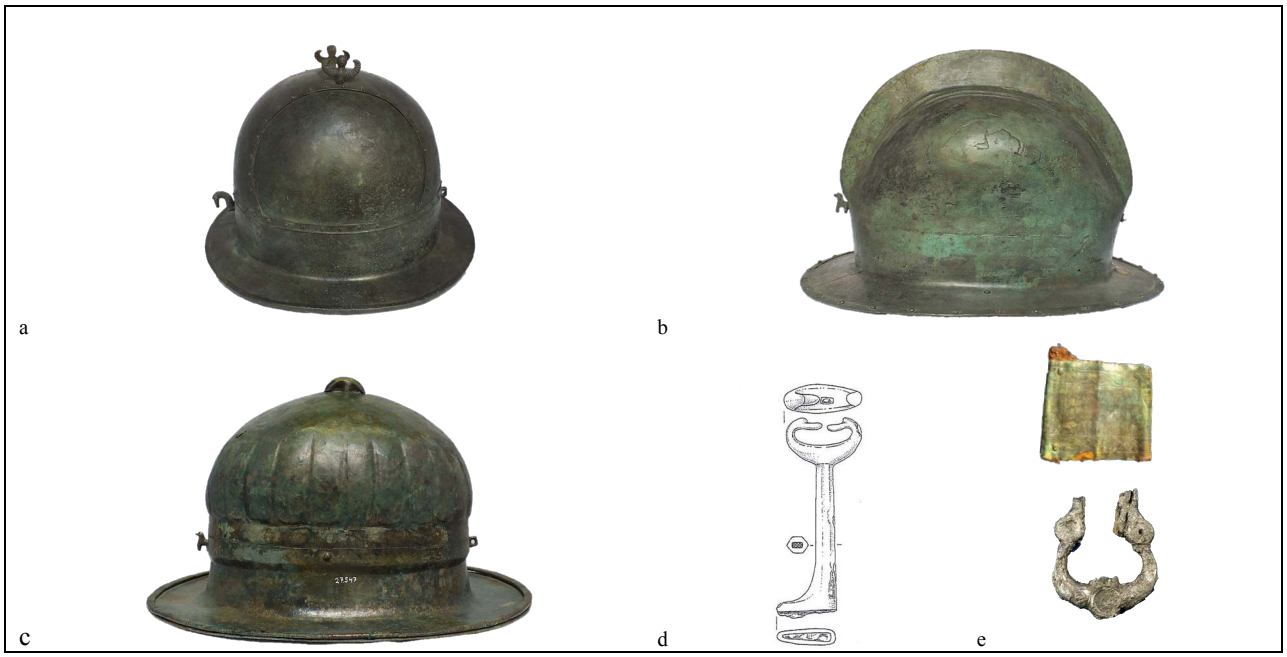


Figure IV.126. Representative sample of martial gear in the study. a) Vače, Ravne njive Grave 1883/11-1. Naturhistorisches Museum Wien 7583; b) Vače, Reber Grave 1881/1. Naturhistorisches Museum Wien 6481; c) Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27547; d) Stična Grave 125/Find, 7, 9 & 10 = Grave. Museum für Vor- und Frühgeschichte Berlin IVg, 67a (Gabrovec 2006:473 Pl. 198 no. 1); e) Magdalenska gora, Laščik Grave V/19-20. Peabody Museum 34-25-40/8477.

The avian head dagger is also a unique item at this point (Figure IV.126d). Daggers are not automatically considered offensive weaponry, though such uses cannot be excluded. The scabbard chape from Laščik Grave V/19-20 is also unusual for this period (Figure IV.126e). The grave itself dates to the first half of the Negova Helmets phase (Tecco Hvala 2012:44 Fig. 10, 346 Fig. 129), prior to significant La Tène presence in this region. However the scabbard is most similar to Early La Tène scabbards from central Europe, and may originally have had coral inlay on the eyes and base (Tecco Hvala 2012:134-135 fn. 470).

IV.4.C. Horse Gear

Horse gear depicting animals is found at five sites in seven graves (Table IV.40). Six of these graves belong to probable males, while one belongs to an individual of indeterminate sex (Figure IV.127). No zoomorphic horse gear has been found in children's graves to date.

Table IV.40. Distribution of zoomorphic horse gear in the dataset.

Total Sites		Total Contexts			Total Artifacts		
5		7			20		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	5	0	7	0	0	20	0

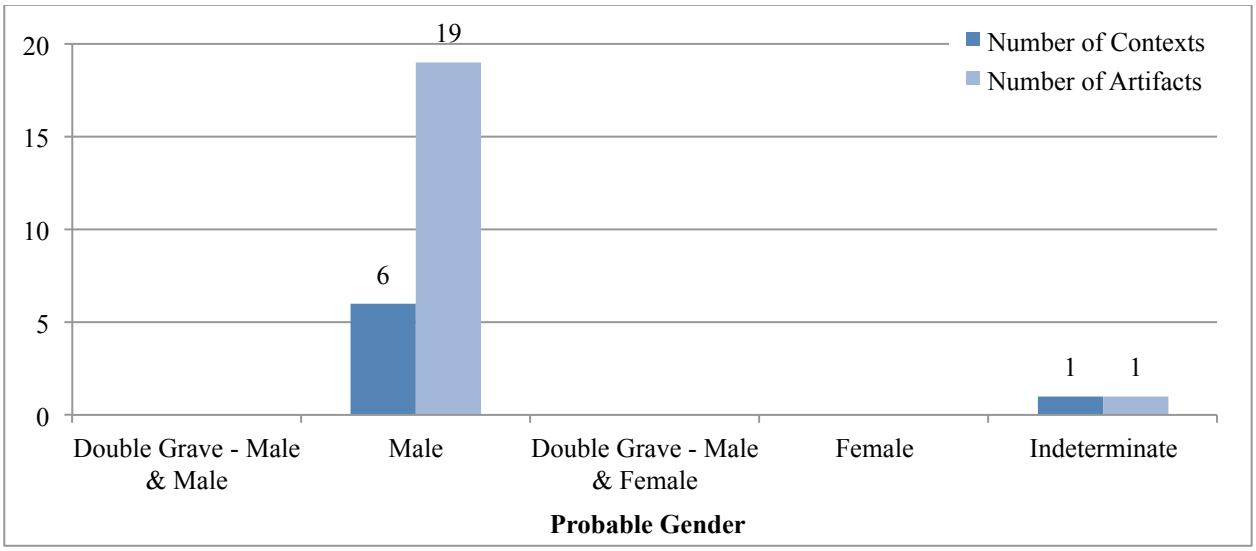


Figure IV.127. Probable gender of deceased associated with grave contexts containing zoomorphic horse gear.

There are 20 artifacts in this category. Ten are phalerae with horse protomes arranged in a swastika formation (Figure IV.128a-g), and ten are matching bridle buttons depicting cattle protomes (Figure IV.128h). However, it should be kept in mind that the ten cattle bridle buttons are from a single grave, while the phalerae are spread among six graves in the dataset.

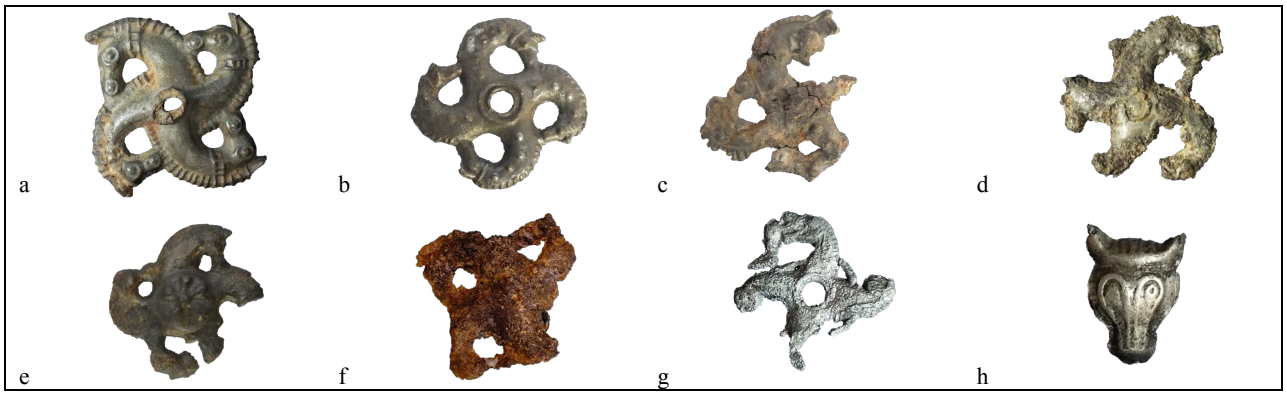


Figure IV.128. Representative sample of zoomorphic horse gear in the study. a) Magdalenska gora, Laščik Grave V/31. Peabody Museum 34-25-40/8550; b) Dolenjske Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien 56999; c) Dolenjske Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien 56999; d) Magdalenska gora, Preloge Grave IV/16. Peabody Museum 34-25-40/8192; e) Stična, Gomile Grave 48/99. Narodni muzej P 13498; f) Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2161; g) Magdalenska gora, Preloge Grave 2/38. Naturhistorisches Museum Wien 22912; h) Magdalenska gora, Preloge Grave 2/13. Naturhistorisches Museum Wien 22109.

The horse gear in the dataset reflects the influences of steppe cultures to the east. The horse head phalerae reference a Scythian design (Figures IV.128a-g and IV.129; Frey 1981; Pare 2012:156-157). The earliest examples date to the beginning of the Certosa Fibulae phase and are made of bronze, while later ones date to the Certosa Fibulae-Negova Helmets transition and are made of a lead-tin alloy that is a specialty of southeastern Slovenia (Tecco Hvala 2012:162-163; Teržan 2008:291 Fig. 41). Though in several cases they are very poorly preserved, manes are visible and all seem to

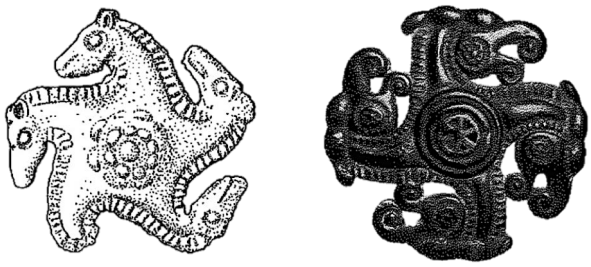


Figure IV.129. Scythian and Thracian animal protomes. Left: South Russia. Right: Bulgaria (Pare 2012:155 Fig. 1).

represent horses. The most tentative species assessment is for the example from Kapiteljska njiva Grave III/12; however, the similarity in form and the suggestion of a mane on the most well preserved head indicates that this was likely a horse as well. The example from Magdalenska gora, Preloge Grave 2/38 has a human foot in its mouth, which is not necessarily a Scythian design and may show syncretism with other motifs that were circulating, including Orientalizing motifs (Frey 1981; Gabrovec 1987:63; Preložnik 2007:159-160; Tecco Hvala 2012:163).

The cattle protome bridle buttons also demonstrate ties to eastern regions (Pare 2012:162). The representation of the forelock, as well as the contouring of the snout and eyes, parallels eastern examples of Scythian and Thracian animal style art, and there are no other Dolenjska Hallstatt artifacts with this style of representation. However, the particular lead-tin alloy again argues for local production (Pare 2012:156-157). They were found with unique S-shaped bridle buttons that are similar to some found at Vinkovci, providing support for eastern influence (Preložnik 2007:161; Tecco Hvala 2012:162).

IV.4.D. Feasting Equipment

IV.4.D.i. Bronze Situlae

Situlae are found at only nine sites, though there are 32 situlae in the dataset from a total of 27 graves (Table IV.41). Birds of indeterminate species appear on every situla in the study (Figure IV.130). Ducks appear on three situlae, and water birds of indeterminate species appear on two situlae. Ungulates are also quite common on situlae – horses, followed by indeterminate ungulates, deer, goats, ibex, and sheep. Situlae decorated in the situla art style are the only ones that depict animals other than birds (Appendix C). There are also stamped situlae and undecorated situlae, which will be discussed in more detail below.

Table IV.41. Distribution of situlae depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
9		27			32		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	9	0	27	0	0	32	0

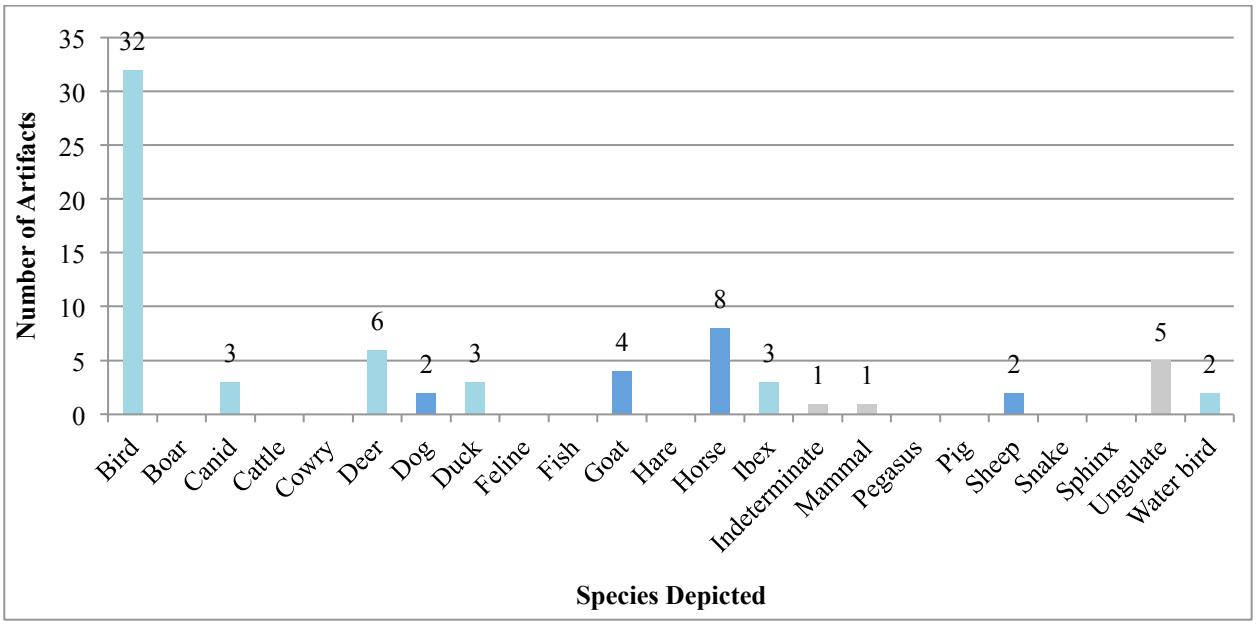


Figure IV.130. Species depicted on situlae.

Bird depictions are ubiquitous because most situlae have handle terminals that have been shaped to form avian protomes (see Figure IV.74). Many of these are incredibly stylized, and in some cases it can be debated whether the intent was truly to depict a bird. However, based on personal examination of these objects, I believe this was a purposeful choice by the producers. First, some metal vessels do not have this form of handle terminal. Second, because depictions of birds are otherwise commonly associated with metal vessels and ritual vessels in general. And third, because there are several handle terminals where the bird's head was carefully made, even with the

Figure IV.131. Terminal of the handle of a situla that has been shaped to form a bird protome. Brezje pri Trebelnem, Hojbi grave V/16. Naturhistorisches Museum Wien inv. no. 33995.

addition of eyes (Figure IV.131). The placement also does not seem incidental; when the handles are held up, the position mirrors the profile of a bird floating on water, perhaps referencing a bird floating on the surface of the liquid contained in the metal vessels.

Situlae are not restricted to males or females, though they are much more common in male graves (Figure IV.132). There are 15 probable male graves containing 16 situlae, in contrast to two probable female graves[160] containing four situlae. There are also two male double graves containing situlae,[161] which add to the male association. It is less clear for the three double graves of a male and female[162] whom the situlae were associated with, or whether individual associations were meaningful in such cases.

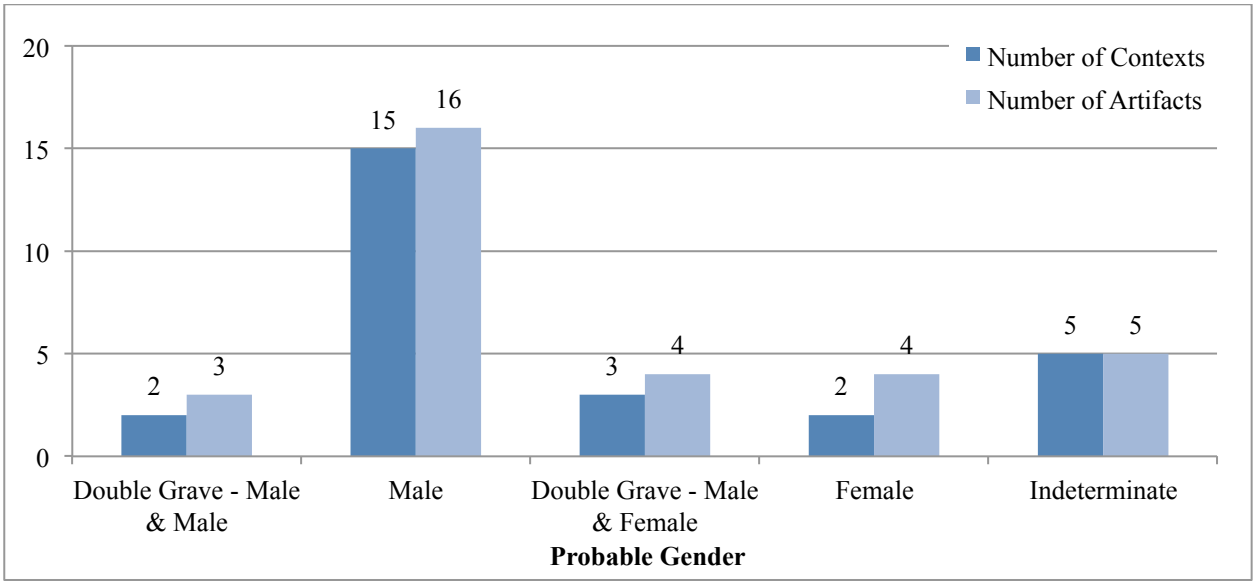


Figure IV.132. Probable gender of deceased associated with grave contexts containing situlae depicting animals.

There is a gendered distinction between the distributions of undecorated, stamped, and situla art situlae (Figure IV.133). It is notable that the two female graves with situlae both

[160] Novo mesto, Kandija Grave III/33. Magdalenska gora, Preloge Grave 2/a.
[161] Novo mesto, Kapiteljska njiva Grave VII/19. Magdalenska gora, Laščik Grave V/29.
[162] Dolenjske Toplice, Branževec 2 Grave V/17; Novo mesto, Kandija Grave IV/3. Magdalenska gora, Preloge Grave 13/55.

contain two, all of which are elaborately decorated. This suggests that the two females are of extremely high status. The case for males is more mixed – there is only one grave with two situlae,[163] and both were undecorated. There are still many more decorated situlae associated with males than females, but male graves also contain a majority of the undecorated situlae. There are no situlae associated with the graves of children.

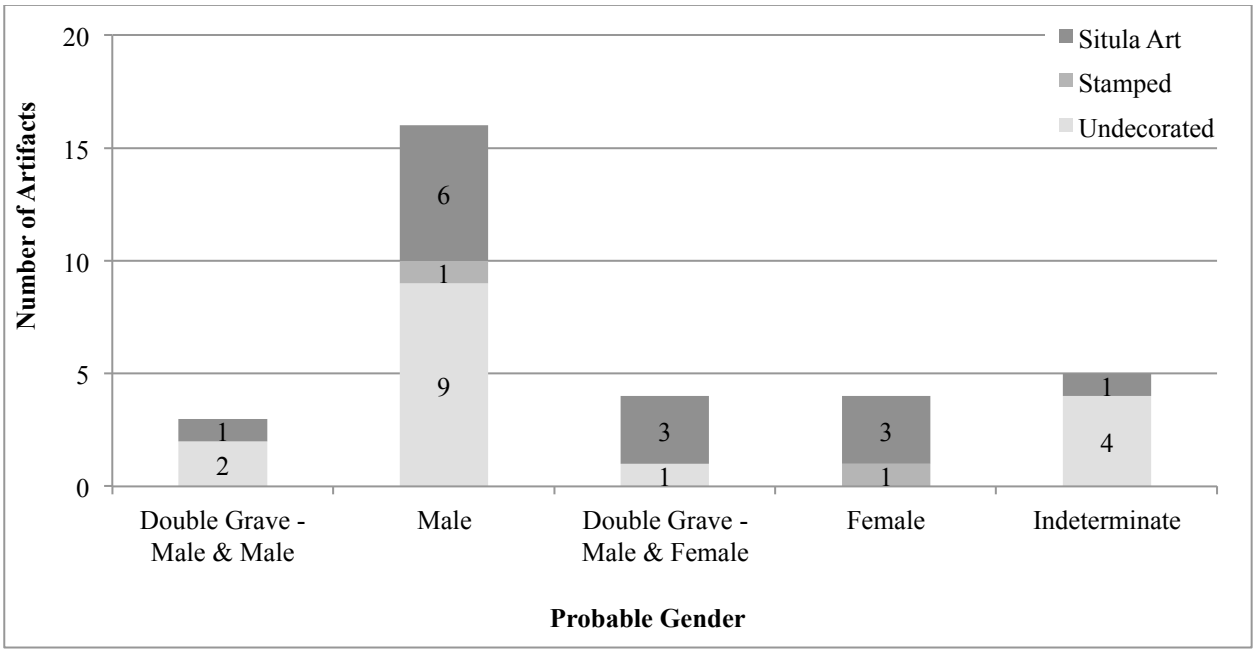


Figure IV.133. Probable gender of deceased associated with grave contexts containing undecorated situlae, stamped situlae, and situlae decorated in the situla art style.

Undecorated situlae are difficult to date stylistically, since they show significant continuity over time (Figure IV.134q-s). Situlae first appear in the Stična phase, primarily in cremation graves.[164] These early situlae are considered imports, likely from the area around Este and Bologna (Jereb 2016:130; Tecco Hvala 2012:67; Turk 2005:17-18). They disappear from the archaeological record in the Serpentine Fibulae phase, but reappear and become very common in

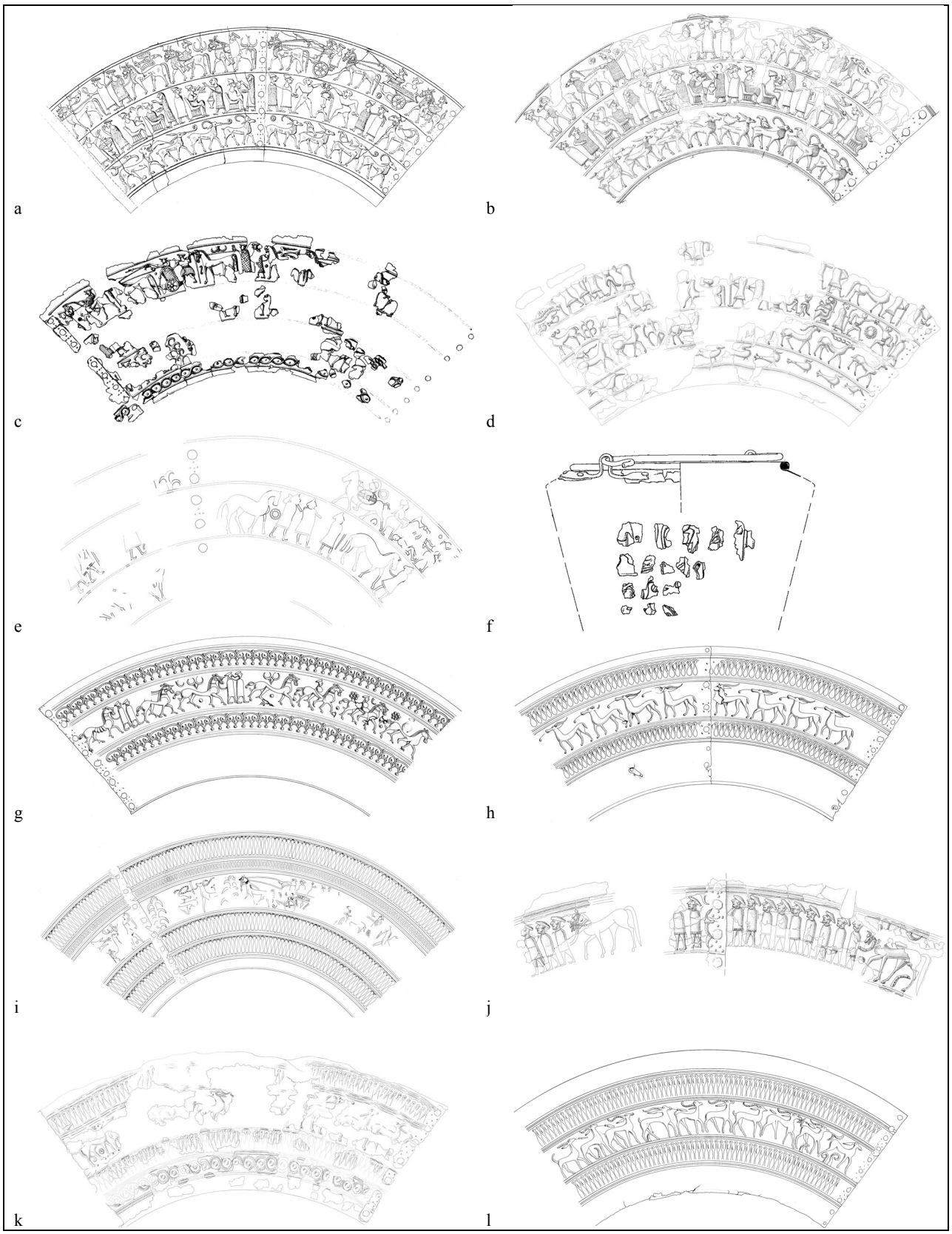
[163] Brezje pri Trebelnem, Hojbi Grave VII/16.

[164] One of the early cremation graves containing a situla is that from Grave 13/95 from Preloge at Magdalenska gora (Tecco Hvala 2012:159, 346 Fig. 129).

the subsequent Certosa Fibulae and Negova Helmets phases (Frey 2011:283, 286; Jereb 2016:129; Križ 2012:56-58; Tecco Hvala 2012:67; Turk 2005: 22). Situlae decorated with stamped water birds and circle-and-dot motifs are considered extensions of Late Bronze Age imagery, though they appear contemporaneously with situlae decorated in the situla art style, sometimes even in the same grave (Figure IV.134n and o; Tecco Hvala 2012:176, 179-180; Turk 2005:11).[165]

The local development of situla art is treated in section II.4.A. The earliest examples of situla art in the Dolenjska region appear on lids, and all the situlae in the dataset with situla art ornamentation date to the Certosa Fibulae phase or to the Negova Helmets phase. Earlier examples include multiple registers of animals, and often show more complex scenes involving humans and animals engaged in processions, feasting, dancing, or boxing (Figure IV.134a-f; Križ 2012:59-61; Turk 2005:44) There is even a notable, though unfortunately very damaged, example of a situla from Kandija at Novo mesto depicting a scene where men are fighting with axes, and one man has been decapitated (Figure IV.134e; Egg and Lehnert 2011; Križ 2012:133-134, 136). Later in the Negova Helmets phase the scenes become simpler, often with only a single register depicting processions of animals in the latest examples (Figure IV.134h, k-m; Križ et al. 2009:133). The earlier examples incorporate the widest variety of animals on single vessels, while the later ones depict only one or two species. Interestingly, birds disappear from the situla art scenes in the later situlae, though they are still schematically represented on handle terminals (Figure IV.134g, h, j, l, and m). Additional detail about the activities the animals are engaged in is provided in section IV.3.A, while section IV.4.F will discuss the other scenes and motifs that appear on these situlae.

[165] Magdalenska gora, Preloge Grave 2/a.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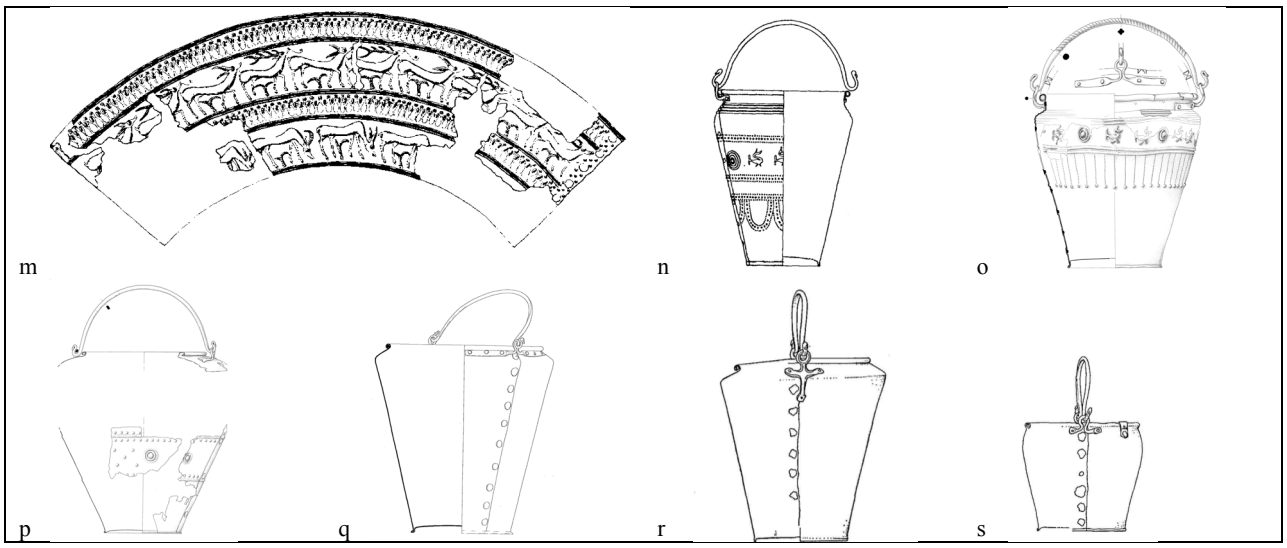

Figure IV.134. Representative sample of situlae in the study. a) Vače, Reber Grave 1881/1. Narodni muzej P 581 (Turk 2005:35 Fig. 52); b) Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550 (Tecco Hvala et al. 2004:Insert 5); c) Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801 (Egg and Eibner 2005:195 Fig. 4); d) Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280 (Tecco Hvala et al. 2004:Insert 2); e) Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821 (drawing courtesy of the Dolenjski muzej); f) Novo mesto, Kandija Grave III/33. Dolenjski muzej P 822 (drawing courtesy of the Dolenjski muzej); g) Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 239 (drawing courtesy of the Dolenjski muzej); h) Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 237 (drawing courtesy of the Dolenjski muzej); i) Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej P 2164 (drawing courtesy of the Dolenjski muzej); j) Magdalenska gora, Preloge Grave 2/b. Narodni muzej P 4281 (Tecco Hvala et al. 2004:Pl. 9 no. 3); k) Novo mesto, Kapiteljska njiva Grave XIV/7. Dolenjski muzej P 4624 (drawing courtesy of the Dolenjski muzej); l) Novo mesto, Kandija Grave II/6. Dolenjski muzej P 543 (drawing courtesy of the Dolenjski muzej); m) Magdalenska gora, Laščik Grave V/6-7-7a. Peabody Museum 34-25-40/8418 (Hencken 1978:146 Fig.111); n) Novo mesto, Malenškova njiva Grave 3. Narodni muzej P 6347 (Guštin and Teržan 1975:202 Pl. 4 no. 1); o) Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4283 (Tecco Hvala et al. 2004:Pl. 7 no. 5); p) Magdalenska gora, Preloge Grave 13/119. Naturhistorisches Museum Wien 27828 (Tecco Hvala et al. 2004:Pl. 108 no. 7); q) Novo mesto, Kandija Grave IV/22. Dolenjski muzej P 915 (Knez 1986:Pl. 41 no. 8); r) Dolenjske Toplice, Branževec 2 Grave V/34. Naturhistorisches Museum Wien 57005 (Teržan 1976:Pl. 37 no. 4); s) Dolenjske Toplice, Branževec 2 Grave V/36. Naturhistorisches Museum Wien 57012 (Teržan 1976:Pl. 35 no. 1).

IV.4s.D.ii. Bronze Lids

There are three bronze lids in the dataset ornamented with animal imagery (Table IV.42). They come from three graves at three sites. Two of these are probable female graves,[166] and the third is a probable male grave.[167] None of the graves belong to children. One is stamped with water birds (Figure IV.135a), while the other two are decorated in the situla art style (Figure IV.135b and c).

[166] Novo mesto, Kapiteljska njiva Grave XXXIII/19; Magdalenska gora, Preloge Grave 2/p.
[167] Stična, Gomile Tumulus 76, Grave with the Decorated Situla.

Table IV.42. Distribution of bronze lids depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
3		3			3		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	3	0	3	0	0	3	0

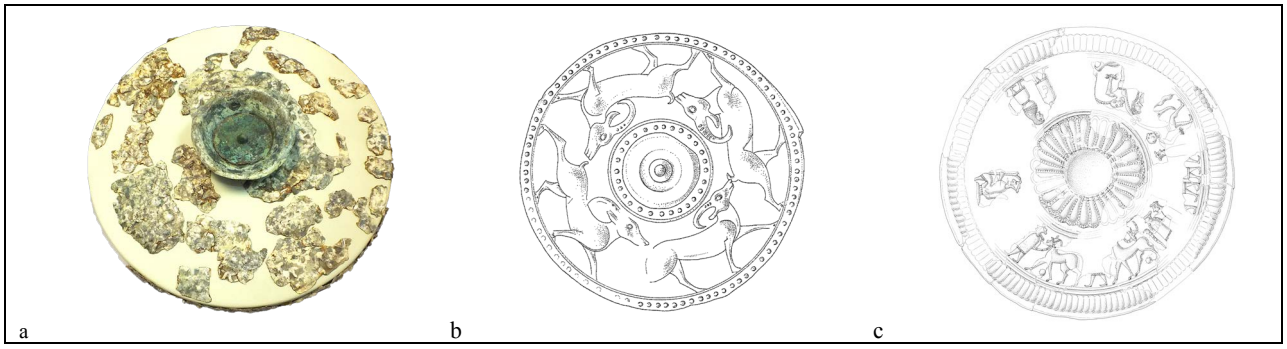

Figure IV.135. Bronze lids in the study. a) Novo mesto, Kapiteljska njiva Grave XXXIII/19. Dolenjski muzej P 6640; b) Stična, Gomile 76/Grave with the Decorated Situla. Narodni muzej P 6948/1 (Gabrovec 2006:405 Pl. 131 no. 2); c) Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282 (Tecco Hvala et al. 2004:Insert 5).

The lid with the stamped avian ornament is interesting for a number of reasons. It dates to the 7th-6th century transition, but was placed in a grave more than 150 years later, during the 5th century (Križ and Stipančić 2014). The woman in this grave had several heirloom artifacts from the earlier period. The lid was placed on a footed ceramic vessel (Figure IV.136).

The bronze lid with processing ibex is one of the earliest examples of situla art in the Dolenjska Hallstatt region, also dating to the end of the 7th century (Turk 2005:17). It was used as a lid for an undecorated situla. This early example is thought to be an import from northern Italy, and appears in a grave with other imported items, including a Greek *oinochoe* (Turk 2005:16-18 Figs. 11-12). The procession of animals in a circle around the lid is a feature of early situla art in the eastern Alpine region, also known from Most na Soči, Hallstatt, and Este, though this is the only example where only a single species is depicted and there is no vegetation (Turk 2005:18 Fig. 14).

Figure IV.136. Ceramic footed vessel with bronze lid. Kapiteljska njiva near Novo mesto, Grave XXXIII/19 (Križ and Stipančić 2014).

The bronze lid from Magdalenska gora is later, dating to the 6th-5th century transition, and is associated with an elaborate bronze ciborium (Figure IV.137). The lid displays many scenes of Certosa period situla art – boxing, an enthroned man, horses being led by men. There is also a bird facing away from the boxing match, looking toward a scene that is no longer preserved.

Figure IV.137. Bronze ciborium and lid. Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282 (Photo courtesy of the Narodni muzej. Photo by Tomaž Lauko © Narodni muzej Slovenije).

IV.4.D.iii. Cauldrons and Cists

Like situlae, many cauldrons and cists depict bird protomes on the handle terminals. Cauldrons are much more common than cists; there are 15 in the dataset from 14 contexts at five sites (Table IV.43). Two of these contexts are stray finds. Only four cists appear in the dataset; they are distributed singly, in four graves at four different sites.[168] Interestingly, all four sites are in the environs of Novo mesto – Kandija, Kapiteljska njiva, and Malenškova njiva are in the immediate vicinity, while Branževec 2 near Dolenjske Toplice is a neighboring site.

Table IV.43. Distribution of cauldrons and cists depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
7		18			19		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
0	7	0	16	2	0	17	2

These artifacts are more strongly associated with males than females (Figure IV.138). There are no cists associated with female graves, though there is one in the double grave of a male and female.[169] These are cordoned cists (Figure IV.139c),[170] three of which can be dated by

[168] Dolenjske Toplice, Branževec 2 Grave V/9; Novo mesto, Kandija Grave IV/3; Novo mesto, Kapiteljska njiva Grave VII/19; Novo mesto, Malenškova njiva Malenškova gomila, Grave 3.
[169] Novo mesto, Kandija Grave IV/3.
[170] Often referred to by the Italian name: *cista à cordoni*.

associated grave goods to the Negova Helmets phase, and one can be dated to the Certosa Fibulae phase.[171] The cauldrons are also more strongly associated with males than with females, though they also appear in graves where gender cannot be determined. However, cauldrons are even most strongly associated with graves containing horse remains – there are seven graves in the dataset that contain horse remains as well as a cauldron,[172] confirming Biba Teržan's identification of the strong association between horse burials and cauldrons (Teržan 2011). In these cases the associated grave goods also date the artifacts to the later part of the Early Iron Age, the Certosa Fibulae and Negova Helmets phases.

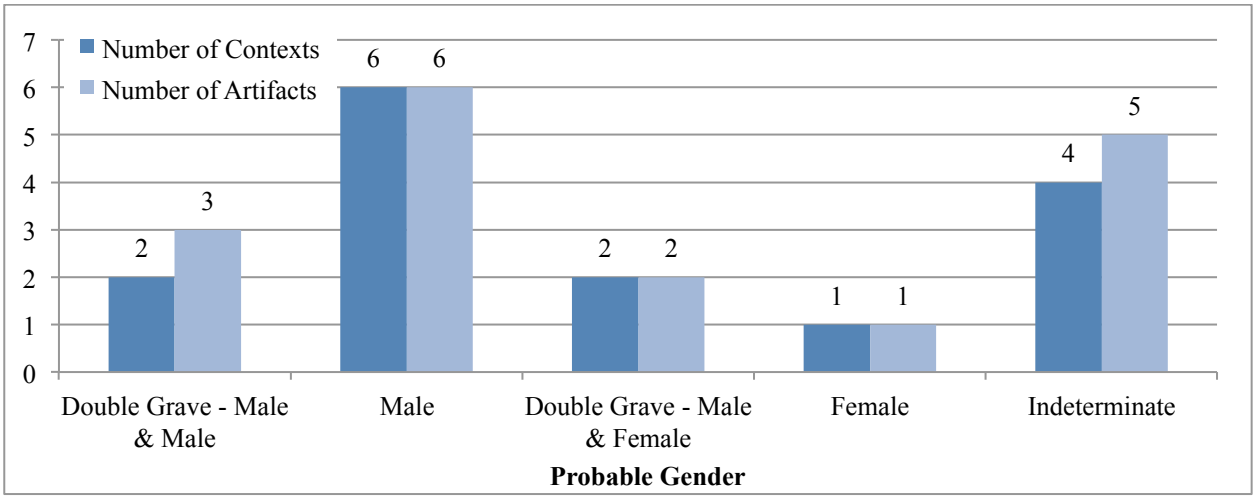

Figure IV.138. Probable gender of the deceased from graves containing cauldrons and cists depicting animals.

There is one exception, a cauldron that is dated to the Podzemelj phase on the basis of its association with a Vače type fibula and iron bracelets (Figure IV/139a; Dular 2003:110-116). This is also a cremation grave, which are more common at the beginning of the Early Iron Age (Tecco Hvala 2012:79). Notably, this is the only find of a cauldron in the dataset associated with a probable female grave. It also has a distinctly different form than the other cauldrons (Figure

[171] Novo mesto, Malenškova njiva Malenškova gomila, Grave 3.

[172] Magdalenska gora, Laščik Graves V/6-7-6a and V/29; Magdalenska gora, Preloge Graves 2/13 and IV/32; Stična, Gomile Grave VIII/2; Novo mesto, Medvedjek Grave I/36; Brezje pri Trebelnem, Gomile Grave VI/1.

IV.139a). All the other cauldrons have distinctive double-cruciform attachments for the handles and the basin is made of a large piece of sheet bronze (Figure IV.139b). This cauldron shows some difference in that its base shows clear signs of being riveted to the main part of the basin. The bird protomes are also more stylized with an upturned beak, but any other distinctions cannot be determined since the artifact is poorly preserved.

Figure IV.139. Representative sample of cauldrons and cists in the study. a) Stična, Gomile Tumulus 28 or 29/Cremation Grave(?). Narodni muzej P 12998; b) Dolenjske Toplice, Branževec 2 Grave V/33. Naturhistorisches Museum Wien 56997; c) Novo mesto, Kandija Grage IV/3. Dolenjski muzej P 241 (Križ 2012:78).

IV.4.D.iv. Other Bronze Vessels

There is a single bronze vessel from Stična, Gomile Grave II/4 that is too damaged to determine its original form. It belongs to the grave of an individual for whom gender and age cannot be determined. The vessel was included in the dataset because the preserved handle has a terminal in the form of a bird protome (Figure IV.140). The form of the attachment for the handle indicates that the original vessel was most likely a situla or a cist.

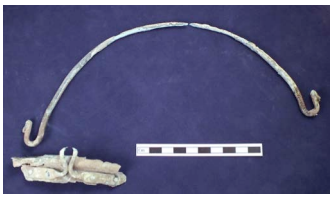

Figure IV.140. Fragmentary bronze vessel. Stična, Gomile Grave II/4. Peabody Museum 40-77-40/13176.

IV.4.D.v. Ceramic Vessels

Ceramic vessels[173] are extremely common in the Dolenjska Hallstatt area. Individual sites produced their own ceramics, apparently primarily for local use rather than for trade. However,

[173] The term "vessels" is encompasses vessels as well as vessel lids, since there are examples of both in the dataset.

vessel types were shared throughout the region, leading to the prevalence of broad types with significant internal variation due to the local production at different sites (Dular 1982:283-239). This makes detailed discussion of the various forms difficult, so the focus will be on broad types rather than their internal variation (see section II.4.B. for a discussion of previous studies of ceramic vessels with animal depictions).

There are 15 sites with ceramic vessels or lids in the dataset, 14 cemeteries and one settlement (Table IV.44). Sixty-five contexts contained ceramics, 50 graves, two settlement contexts, and 13 stray find contexts. There are 76 ceramic vessels total, 60 from graves that allow more detailed analysis of associations between people and artifacts.

Table IV.44. Distribution of ceramic vessels depicting animals in the dataset.

Total Sites		Total Contexts			Total Artifacts		
15		65			76		
Settlement	*Cemetery*	*Settlement*	*Cemetery*	*Stray Find*	*Settlement*	*Cemetery*	*Stray Find*
1	14	2	50	13	2	60	14

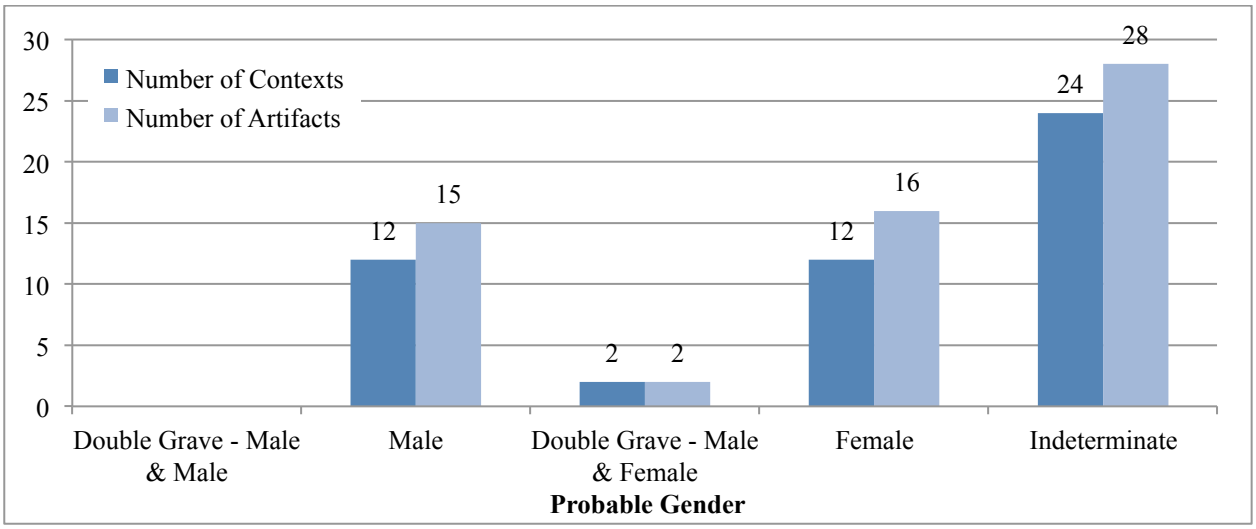

Figure IV.141. Probable gender of the deceased from grave contexts containing ceramic vessels depicting animals.

Ceramics are evenly distributed in the dataset, displaying no clear gendered associations (Figure IV.141). Twelve graves identified as male and 12 identified as female contain ceramics – 15 and 16 artifacts respectively. There are a high number of graves containing ceramics where

gender cannot be determined, further obscuring any gendered patterns. There is only one grave of a probable child, Kapiteljska njiva Grave XXIV/10 near Novo mesto, which contains a horn-handled bowl. There are also no clear gendered patterns once vessel types are identified (Figure IV.142). In fact, the relatively even distribution of vessel types between males and females indicates that these artifacts may not have had gendered associations, and may have been linked to the mortuary ritual more generally rather than the gender of the individual being interred.

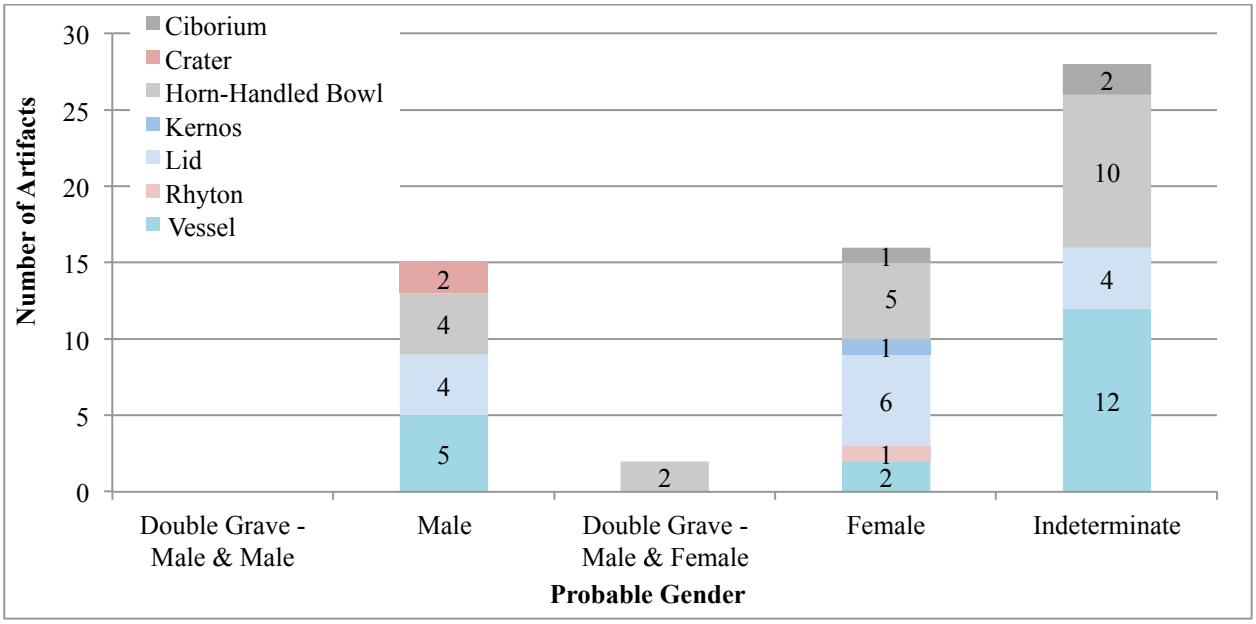

Figure IV.142. Probable gender of the deceased and ceramic vessel type. Imported ceramic vessels are colored in shades of red, while local products are in shades of blue and grey.

The double-vessel with projections shaped like horse protomes is one of the earliest ceramics depicting animals in the dataset, dating to the 7th century (Figure IV.143m). Another vessel from Stična, a tripartite duck-shaped vessel, also dates to this early period (Figure IV.143l). Both are unique items. The pair of Apulian craters imported from southern Italy, likely via Istria, also date to the 7th century though they were apparently buried slightly later, closer to the 7th-6th century transition (Figure IV.143a). Similar vessels are known from other sites in western Dolenjska and Bela krajina (Tecco Hvala 2012:77).

Figure IV.143. Representative sample of ceramic vessels and lids in the study: a) Magdalenska gora, Preloge Grave 13/10. Naturhistorisches Museum Wien 27377 (Tecco Hvala et al. 2004:Pl. 69A no. 8); b) Stična, Gomile Grave IV/47. Peabody Museum 40-77-40/13526; c) Novo mesto, Mačkovec Grave I/1. Dolenjski muzej P 4325 (Udovc 2009:35); d) Novo mesto, Mačkovec Grave I/10. Dolenjski muzej P 4385 (Udovc 2009:69); e) Novo mesto, Kapiteljska njiva Grave VII/20. Dolenjski muzej P 2796; f) Novo mesto, Kapiteljska njiva Grave VI/34. Dolenjski muzej P 2747; g) Novo mesto, Kandija Grave IV/3. Dolenjski muzej P 240 (Križ 2012:46); h) Libna, Volčanškova gomila Grave 1889-1890/g. Naturhistorisches Museum Wien 86910; i) Novo mesto, Kandija Grave III/31. Dolenjski muzej P 801; j) Dolenjske Toplice, Branževec 2 Grave II/35. Naturhistorisches Museum Wien 56842; k) Libna, Špiler Grave III/Find 26. Naturhistorisches Museum Wien 65788a (Guštin 1976:Pl. 26 no. 1); l) Magdalenska gora, Voselca Grave 2/6. Naturhistorisches Museum Wien 21930 (Tecco Hvala et al. 2004:Pl. 133 no. 23); m) Stična, Gomile Grave 48/72. Narodni muzej P 13311; n) Stična, Gomila Grave 48/114. Narodni muzej P 13570 (Gabrovec 2006:340 Pl. 66 no. 8); o) Stična, Gomila Grave 48/114. Narodni muzej P 13568 (Gabrovec 2006:340 Pl. 66 no. 1); p) Stična, Gomile Vas Vir/11. Peabody Museum 40-77-40/13926; q) Novo mesto, Mačkovec Grave I/7. Dolenjski muzej P 4356 (Udovc 2009:55); r) Novo mesto, Kandija Grave I/31. Dolenjski muzej P 430; s) Novo mesto, Kandija Grave III/3. Dolenjski muzej P 735; t) Novo mesto, Kapiteljska njiva Grave XXXIII/26. Dolenjski muzej inventory number not yet assigned.

Ciboria are relatively common vessels (Figure IV.X143c and d), and are likely underrepresented in the dataset due to the heavy fragmentation of ceramic vessels that makes

identification of the vessel type difficult. They appear from the early 6th century and into the 5th century (Dular 1982:183-188; Udovc 2009:27, 30). The bodies of ciboria often have zoomorphic appliques, and occasionally the lids have handles in the form of animal protomes (Figure IV.143q). Flat, convex, or even slightly conical lids[174] with zoomorphic handles are distinguished as Type 2 lids in Janez Dular's typology of Dolenjska Hallstatt ceramics, and he dates their appearance to the 6th and 5th centuries (Dular 1982:198). However, very similar lids have been found more recently at sites around Novo mesto that date to the late 5th and 4th centuries (Figure IV.143t). These lids have a single animal protome handle, rather than multiple symmetrical heads. Borut Križ has noted that several are so similar that they were likely made by the same potter (Križ 2013:55 Fig. 50).

Horn-handled bowls[175] are extremely common finds in graves and show a large amount of variation (Figure IV.143f-k). Janez Dular refers to them as handled cups, and distinguishes between two types with animal decoration. The larger vessels that sometimes have a foot are distinguished as Type 5 (Figure IV.143f, h). These date from the Stična phase (7th century) all the way to the early Negova Helmets phase (end of the 5th century; Dular 1982:192). The smaller versions, Type 6,[176] are later and primarily date to the Certosa Fibulae and Negova Helmets phase (Figure IV.143g; Dular 1982:192-193; Tankó 2005:154-156). There are also many examples with slightly unusual forms of either the animal protome (Figure IV.143i is identified as a duck) or the vessel in general (Figure IV.143j), which may be due to local production.

There is a single kernos depicting animals in the dataset (Figure IV.143e). It has extremely discreet animal heads on the body of the vessel between the small ancillary vessels,

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[174] Such lids are not solely associated with ciboria.

[175] This term is often a misnomer – some are large enough to be bowls, most others are smaller and usually considered cups.

[176] Type B/Novo mesto type following Károly Tankó's broader regional chronology of horn-handled bowls (2005).

and also serving as handles on the lids of the ancillary vessels. Kernoi are rare in the Dolenjska region, and despite their relatively widespread appearance around continental Europe and the Mediterranean in this period there is significant local variation. Dolenjska kernoi differ from those of the surrounding regions, and are considered local products, though they may have been influenced by knowledge of foreign kernoi (Dular 1982:190-191). This particular vessel has been dated to the 5th century BCE (Križ et al. 2009:120-121).

The sheep rhyton is the only other imported vessel in the sample. It is believed to originate in the eastern Adriatic, though this vessel form is quite late and has been dated to the 4th century BCE (Wells 1981:66).

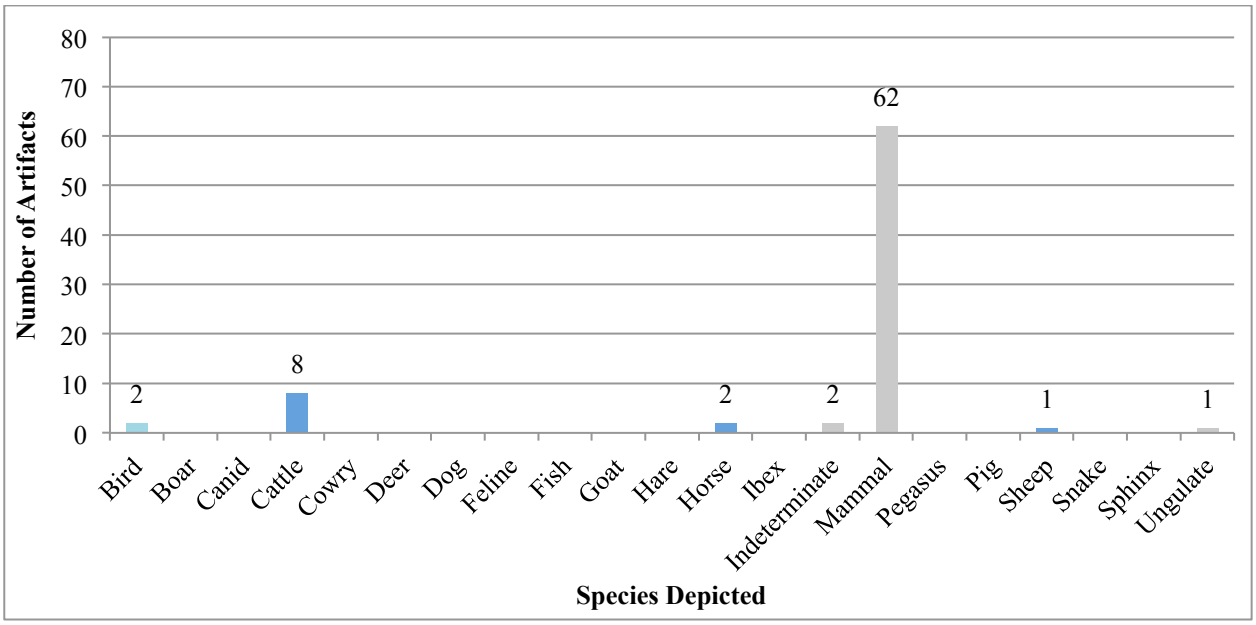


Figure IV.144. Species depicted on ceramic vessels.

As was discussed more thoroughly in section IV.2.D, indeterminate mammals are extremely common on ceramic vessels (Figure IV.144). Most animal figures on ceramic vessels are extremely stylized, and lack elaboration of particular features. Cattle are identified on eight

vessels,[177] while other species are extremely rare, appearing on only one or two objects.[178]

In sum, imported ceramics with animal imagery are rare in the Dolenjska Hallstatt culture, appearing in one context each at Magdalenska gora and Stična. These two sites also have the earliest identifiable ceramics depicting animals, dating to the 7th century. Locally made ceramics with zoomorphic appliqués become increasingly common over time, and show significant internal variation, likely associated with local production. They appear with males and females in equal numbers.

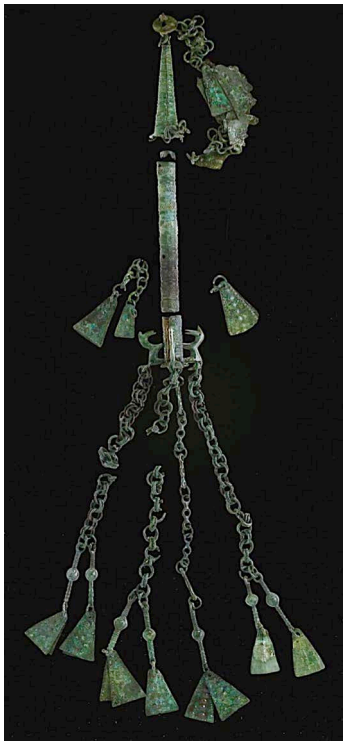


Figure IV.145. Bronze scepter with horses. Novo mesto, Kapiteljska njiva Grave XXIX/2. Dolenjski muzej P 4597 (Križ et al. 2009:122).

IV.4.E. Other Artifacts

IV.3.E.i. Scepters

There is one scepter in the dataset, from Kapiteljska njiva Grave XXIX/2 at Novo mesto (Figure IV.145). This is the burial of a female who is notable for her elaborate grave goods, in particular this scepter (Križ and Stipančić 2014). The scepter was likely produced in the 6th or 5th century, based on similar scepters from the Dolenjska region and Italy (Tecco Hvala 2012:338-339). Scepters are considered insignia of ritual power and authority that are particular to females in this region (Križ et al. 2009:123; Tecco Hvala 2012:334-341). The attached rattle plates have led to

[177] Vessel from Novo mesto, Kapiteljska njiva Grave XVI/26. Stray find of a lid from Novo mesto, Zagrebska cesta. Ciborium from Novo mesto, Mačkovec Grave I/1. Vessel from Brezje pri Trebelnem, Hojbi Grave XIII/30. Vessel from Kosmatec, Gomila pri Zlatem teletu Grave 26. Vessel from Libna, Špiler Tumulus III/Find 26. Lid from Stična, Gomile Vas Vir Grave 11.

[178] Bird: Novo mesto, Kandija Grave III/31; Magdalenska gora, Voselca Grave 2/6. Horse: Stična, Gomile Grave 48/72; Stična, Gomile Vas Vir Grave 11. Sheep: Stična, Gomile Grave IV/47. Ungulate: Novo mesto, Mačkovec Grave I/7.

the proposal that their auditory attributes would have been important during rituals (Križ et al. 2009:123; Tecco Hvala 2012:340-341). The scepter depicts horses, currently the only one of its kind. A similar scepter with animal images is known from Libna, but is not included in this study, depicting birds and anthropomorphic figures.[179]

IV.4.E.ii. Figurines

There is a bone figurine depicting a rider on horseback from Grave 14 at Reber near Vače (Starè 1955:72).[180] This is a complex item: the center of the figurine has a bone cylinder running through it, presumably to attach the rider's now missing head. The gender of the deceased in this grave cannot be determined. The grave itself contains large amounts of amber, a knife, a massive fibula with bone overlay, two bone figurines, and a bone cylinder (Starè 1955:72). The amount of carved bone is unusual, though it is hard to determine if this is because acidic soil has destroyed contemporary bone artifacts, or if this is a unique grave.

Figure IV.146. Bone rider figurine from Vače, Reber Grave 14. Naturhistorisches Museum Wien 3615.

There was also a ceramic figurine that served as a rattle recovered from Grave II/34(J) at Gomilica (Škrilje) near Podzemelj (Figure IV.147). The animal is categorized as indeterminate, since while it looks as though it may have a beak, the artifact is too

Figure IV.147. Damaged rattle from Podzemelj, Gomilica (Škrilje) Grave II/34(J). Naturhistorisches Museum Wien 64408.

[179] Libna, unknown provenience. Universalmuseum Joanneum Graz inv. no. 10256, 10345-10350, 10257 (Guštin 1976:45, 113 P. 65).

[180] Starè incorrectly categorized this item as one of the "lost exhibits" in his Vače catalogue; however, the Naturhistorisches Museum Wien still has the object. There was further confusion because the item is listed as a hornstone figurine in the catalogue, though in reality it is made of bone (Starè 1955:72, 121, Pl. LXXV no. 23).

damaged and lacks other features that would allow the clear identification of species. A more clearly identifiable bird-shaped rattle was recovered from an unknown context at Podzemelj,[181] along with several ceramic figurines depicting horses, also from unknown contexts. One is even mounted on wheels, and it is possible that production of such zoomorphic ceramic figurines was a local phenomenon (Dular 1978:27, Pls. XXIX nos. 1 and 5, XXX nos. 1 and 2).

IV.4.E.iii. Firedogs

Firedogs, also known as andirons, are exclusively associated with settlements. Two zoomorphic firedogs are known, both associated with houses at Cvinger nad Viron pri Stični, the hillfort of the Stična site complex (Figure IV.149; Grahek 2016:183). Both are labeled as indeterminate mammals since in one case there are no features distinctive enough to identify the animal, while the other has a mix of features. The more well-known, complete firedog has been called a sheep due to the appearance of a poll and the narrowness of the face from the forehead to the nose, as well as the lumpy texture which has been said to indicate wool; however, the ridge of clay down the back looks like a mane, which could indicate it is a horse (Gabrovec 1994:Inside Cover). The contexts where they were found date from the 6th to early 5th centuries BCE (Grahek 2016:192, 237).

Figure IV.148. Broken firedog from Cvinger nad Virom pri Stični Trench 19, House 3. Narodni muzej inv. no. P 7219.031.010.

Figure IV.149. Firedog from Cvinger nad Virom pri Stični, Trench 7, House context. Narodni muzej inv. no. P 18547.

[181] Not included in this study since the find is without provenience.

IV.4.E.iv. Indeterminate Objects

Two zoomorphic ornaments in the dataset cannot be defined. These are iron rods with glass overlay wrapped in a spiral formation from Grave IV/24 at Preloge, Magdalenska gora (Figure IV.150). They terminate in a schematic animal head showing ears and a snout, one of which ends in mustache-like projections. A conservative gender and age estimate cannot be made for this grave, though other authors consider it a female grave (Tecco Hvala 2012:424). The grave dates to the Serpentine Fibulae phase (Tecco Hvala 2012:44).

Figure IV.150. Unusual glass and iron objects from Magdalenska gora, Preloge Grave IV/24. Peabody Museum inv. no. 34-25-40/8222.

IV.4.F. Object Imagery

Object imagery refers to the other depictions found on artifacts that represent animals. The database category includes "humans" and "animals" to indicate when humans are also depicted and when multiple animals are depicted on a single object. These patterns of animal-animal and human-animal co-occurrence have been discussed in section IV.3.B. This section addresses the other motifs that may occur. The first are circle-and-dots. Their presence on animal bodies is discussed in section IV.3.A.iii; here the focus will be on circle-and-dots on the same objects as animals but not on the bodies of the animals themselves. Other motifs are axe men, boxing, chariots, combat, feasting, music, sex, and wagons. These scenes are primarily on bronze plate objects decorated in the situla art style, since these objects have the most complex imagery (Table IV.45).

Table IV.45. Crosstab table showing which artifacts have particular scenes depicted on them. The quantities indicate the number of artifacts. Darker shades indicate higher quantities of artifacts.

	Personal Ornaments									Martial Gear				Feasting Vessels				Other			
	Fibula	Bead	Button	Pendant	Earring	Torc	Bracelet	Anklet	Belt	Helmet	Dagger	Scabbard	Horse Gear	Situla	Bronze Vessel	Bronze Lid	Ceramic Vessel	Scepter	Figurine	Firedog	Indeterminate
Circle-and-Dot	3			1					2			1	2	9	2	1					
Axe Men									1					4		1					
Boxing									1					3		1					
Chariot	2													2							
Combat									1					1							
Feasting														2							
Music														4							
Sex									1												
Wagon														2							

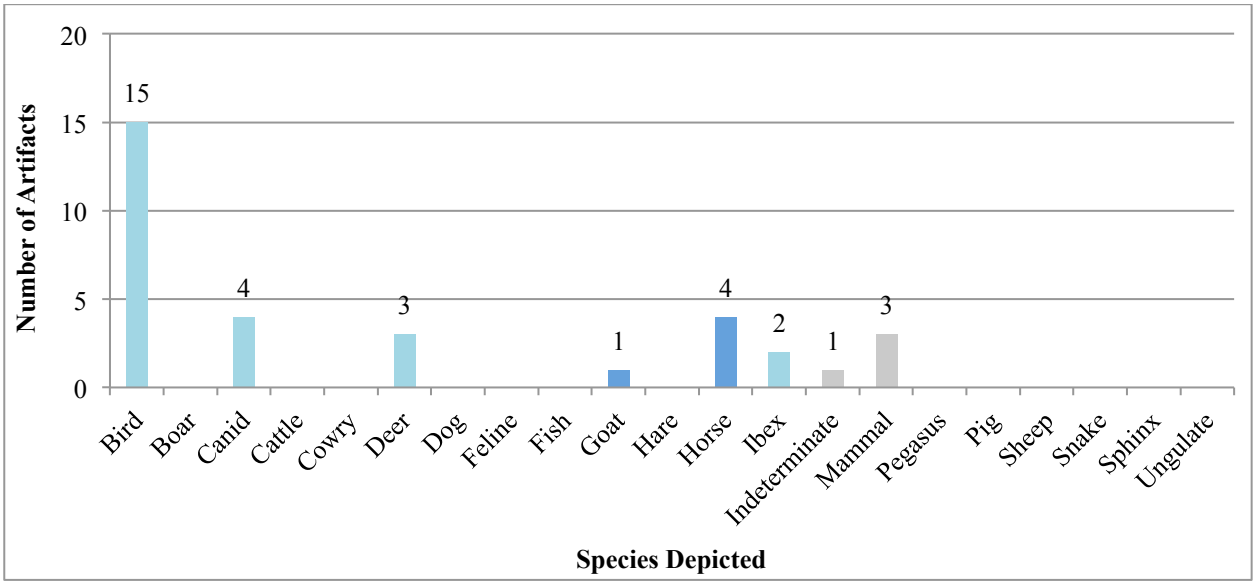


Figure IV.151. Artifacts with the circle-and-dot motif by species.

The circle-and-dot motif appears on the widest variety of artifacts, primarily situlae, but also smaller numbers of fibulae, belt plates, phalerae, and bronze vessels. This motif appears on a single pendant, scabbard, and bronze lid in the dataset. These artifacts also depict a variety of

animals – birds are the most common (Figure IV.151). Canids and horses are also relatively common. This does not quite match the results in section IV.3.A.iii discussing animals with circle-and-dot motifs on their bodies, where birds, horses, and snakes are the most common species embellished with circle-and-dots on four artifacts each.

Men carrying axes are depicted on six objects (Figure IV.152). Five of these objects show the axe men in front of or behind an animal. On four of these objects the animal is a horse (Figure IV.152a, b, d, e), on one there is a sheep (Figure IV.152b), and on another an ibex and a red deer are recognizable but the other ungulates cannot be taxonomically defined (Figure IV.152c). These scenes may indicate animal sacrifice – animals are being led or goaded forward, preceded or followed by the man carrying the axe that would be used in the sacrificial act.

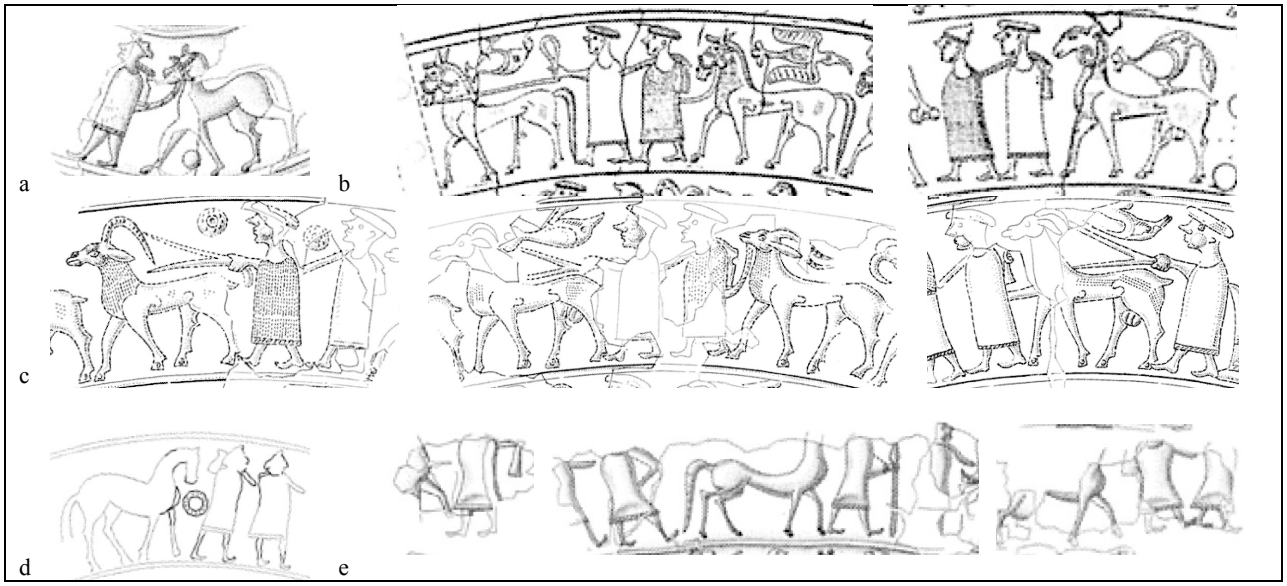


Figure IV.152. Scenes involving animals and axe men: a) Detail of a bronze lid from Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282 (Tecco Hvala et al. 2004:Insert 5); b) Detail of the Vače situla from Reber Grave 1881/1. Narodni muzej P 581 (Turk 2005:35 Fig. 52); c) Detail of a situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550 (Tecco Hvala et al. 2004:Insert 4); d) Detail of a situla from Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821 (drawing courtesy of the Dolenjski muzej); e) Detail of a situla from Magdalenska gora, Preloge Grave 2/a. Narodni muzej P 4280 (Tecco Hvala et al. 2004:Pl. 7 no. 5).

Only two of the five objects depicting boxing show an animal in the immediate vicinity (Figure IV.153). The bronze ciborium lid from Preloge at Magdalenska gora depicts a bird facing

away from the boxers (Figure IV.153a). It is difficult to tell if the bird should be associated with the boxing scene, since the scene in front of the bird is no longer preserved. The belt plate in turn shows a bird that has caught a snake, and based on the bird's height above the scenes, it seems to be watching the man on horseback and possibly the boxers as well (Figure IV.153b).

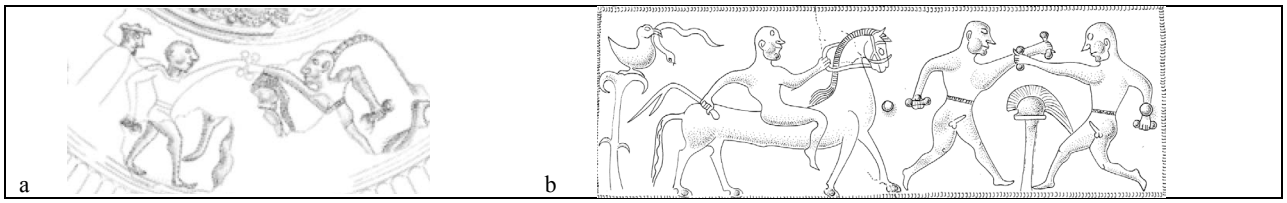


Figure IV.153. Scenes involving animals and boxing: a) Detail of a boxing scene on a bronze lid from Magdalenska gora, Preloge Grave 2/p. Narodni muzej P 4282 (Tecco Hvala et al. 2004:Insert 5); b) Detail of a boxing scene from a belt plate. Magdalenska gora, Preloge Grave 2/46. Narodni muzej P 4282 (Tecco Hvala et al. 2004:Pl. 41 no. 1).

Four objects represent chariot scenes. Two are triga fibulae, where the bow of the fibula is formed by a chariot pulled by three horses, preceded by a bird in flight on the foot of the fibula (Figure IV.154a). Both situlae with a chariot scene depict a single horse pulling a chariot with a driver and outrider (Figures IV.154b and c). Both drivers are using a long whip or goad.

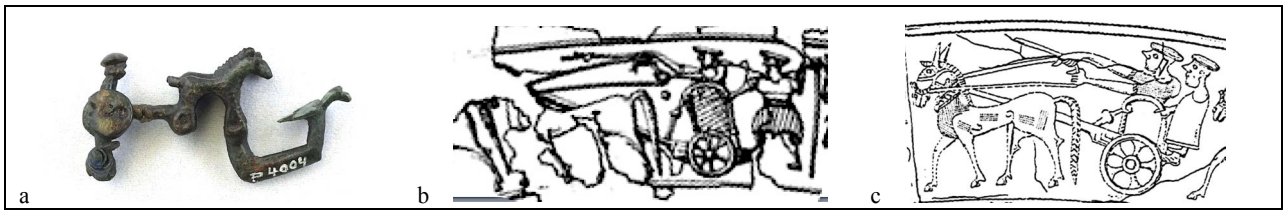


Figure IV.154. Artifacts representing chariots: a) Triga fibula from Preloge at Magdalenska gora Grave 2/c. Narodni muzej P 4004. b) Detail of a chariot scene on the situla from Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien 56801 (Egg and Eibner 2005:195 Fig. 4). c) Detail of chariot scene on situla from Vače, Reber Grave 1881/1. Narodni muzej 581 (Turk 2005:35 Fig. 52).

The two situlae with scenes of combat both involve horses. The belt from Reber at Vače depicts two men confronting each other on horseback. The spear thrown by the right horseman has pierced the chest of the Dolenjska horse (Figure IV.155; see section IV.4.A.vii for more about this scene). The heavily fragmented situla from Kandija hand shows a mounted warrior

riding away from a scene of violence (Figure IV.156). The round shape beneath the horse's hind legs has been interpreted as a decapitated head (Egg and Lehnert 2011; Križ 2012:133-134).

Figure IV.155. Detail of a belt plate from Vače, Reber Grave with the Mounted Warriors Belt. Naturhistorisches Museum Wien 40141 (Turk 2005:39 Fig. 58).

The nearly matching situlae from Reber at Vače and Preloge at Magdalenska gora both depict feasting scenes on the middle register, in which enthroned men are being served (Figure IV.157). In each scene, it is the second seated man, the one who is not being served, who holds a bird head scepter. The depiction of avian-head scepters is discussed further in section IV.3.A.xi.

Figure IV.156. Situla depicting combat. Novo mesto, Kandija Grave III/33. Dolenjski muzej P 821 (drawing courtesy of the Dolenjski muzej).

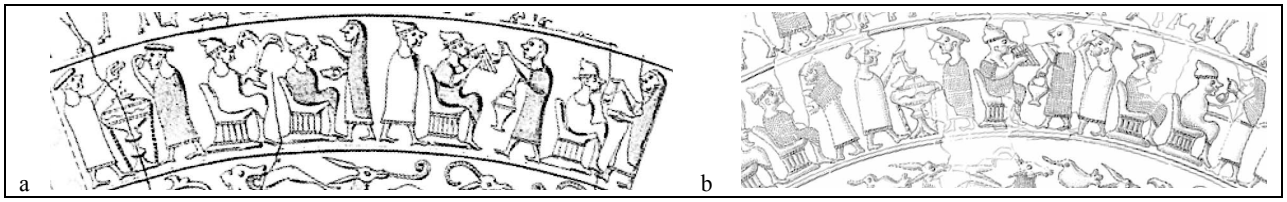


Figure IV.157. Scenes involving animals and feasting: a) Detail of a feasting scene on a situla from Reber, Vače Grave 1881/1. Narodni muzej P 581 (Turk 2005:35 Fig. 52); b) Detail of a feasting scene on the situla from Magdalenska gora, Preloge Grave 13/55. Naturhistorisches Museum Wien 27550 (Tecco Hvala et al. 2004:Insert 4).

These two situlae also have depictions of music being played in the same scenes as the feasts, though no animals are clearly associated with the musicians. This is also the case for the scene on the situla from Dolenjske Toplice.[182] The situla with the music scene from Kandija is heavily damaged, and cannot be reconstructed, so it is unclear whether animals are depicted in the same scene.[183]

There is only a single artifact in the dataset depicting sex, the belt plate from Kapiteljska njiva at Novo mesto, Grave III/12. The belt plate is extremely damaged, so the association of the surrounding animals with the sex scene is unclear (Figure IV.158). The scene is framed by a

[182] Dolenjske Toplice, Branževec 2 Grave II/23. Naturhistorisches Museum Wien inv. no. 56801.
[183] Novo mesto, Kandija Grave III/33. Dolenjski muzej inv. no. P 821.

large bird and a bridled horse on one side, and some indeterminate animals and a dog on the other.

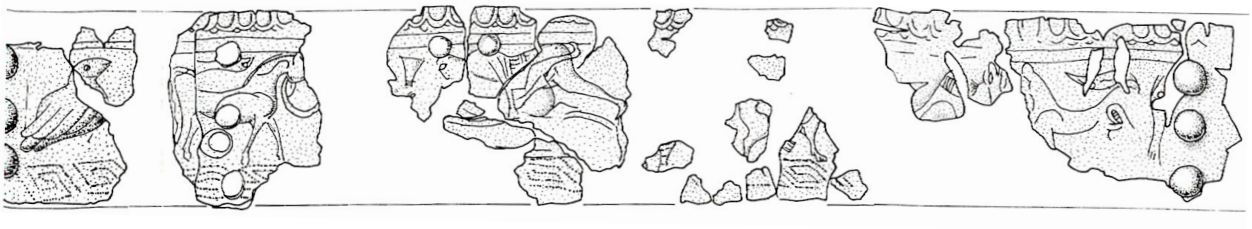


Figure IV.158. Detail of the fragmentary belt plate depicting sex from Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. P 2162 (Križ 1997:App. 4).

There are two scenes depicting wagons (Figures IV.159 and IV.160). Each is pulled by a horse, and the wagons themselves are ornamented with avian imagery. The use of avian imagery on wagons is discussed in more detail in section IV.3.A.xi. The horses are harnessed, and the depictions are detailed enough to show the use of the collar to distribute the weight and force of pulling the wagon to the chest and shoulders of the horse.

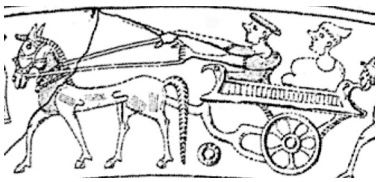


Figure IV.159. Wagon scene on the situla from Vače, Reber Grave 1881/1. Narodni muzej inv. no. P 581 (Turk 2005:35 Fig. 52).

Figure IV.160. Detail of a wagon scene from a belt plate. Novo mesto, Kapiteljska njiva Grave III/12. Dolenjski muzej inv. no. P 2164 (drawing courtesy of the Dolenjski muzej).

IV.4.G. Chronology

Most of the artifacts can be chronologically assessed, or the contexts where they were found can be dated based on associated finds. One hundred and ninety-seven contexts, or 87% of the iconographic sample, can be dated broadly to the Early Hallstatt period (circa 800-600 BCE), or the Late Hallstatt period (circa 600-300 BCE; Figure IV.161).[184] The remaining 29 contexts either do not contain chronologically diagnostic

[184] The Early Hallstatt period encompasses the local Podzemelj and Stična phases, while the Late Hallstatt period includes the Serpentine Fibulae, Certosa Fibulae, and Negova Helmets phases.

artifacts, or cannot be clearly dated to the Early or Late period since they contain artifacts that used in both the Early to the Late Hallstatt periods. Though the Early Hallstatt period sample includes some artifacts depicting animals, this accounts for only 8% of the dateable contexts. There is a significant increase in the prevalence of animal imagery in the Late Hallstatt period. All settlement contexts with such artifacts date to the later period, and 176 graves containing 342 artifacts can be dated to the later period, accounting for 78% of the entire artifact sample.

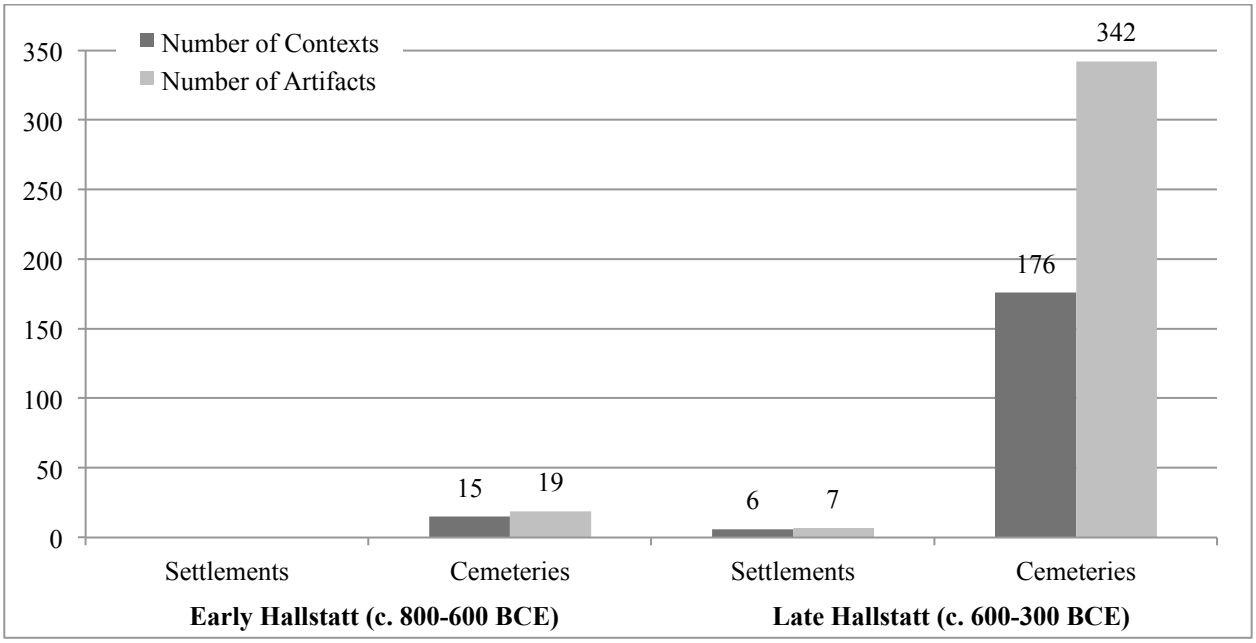


Figure IV.161. Chronological assessment of contexts containing artifacts depicting animals.

If these patterns are interrogated in further detail, it is clear that both male and female Early Hallstatt graves contain animal imagery (Figure IV.162), although in this period most graves contain only a single artifact depicting animals. The exception is Grave VI/7 at Gomile near Stična,[185] an indeterminate gender grave containing four rooster pendants and amber overlay from a fibula depicting a duck (Wells 1981:72-73). The fibula with amber overlay is an northern Italian import, and the pendants may be as well (see sections IV.4.A.i and IV.4.A.iv).

[185] Though it should be noted that this grave is considered unreliable based on disagreements between the original excavation notes and the current museum inventory.

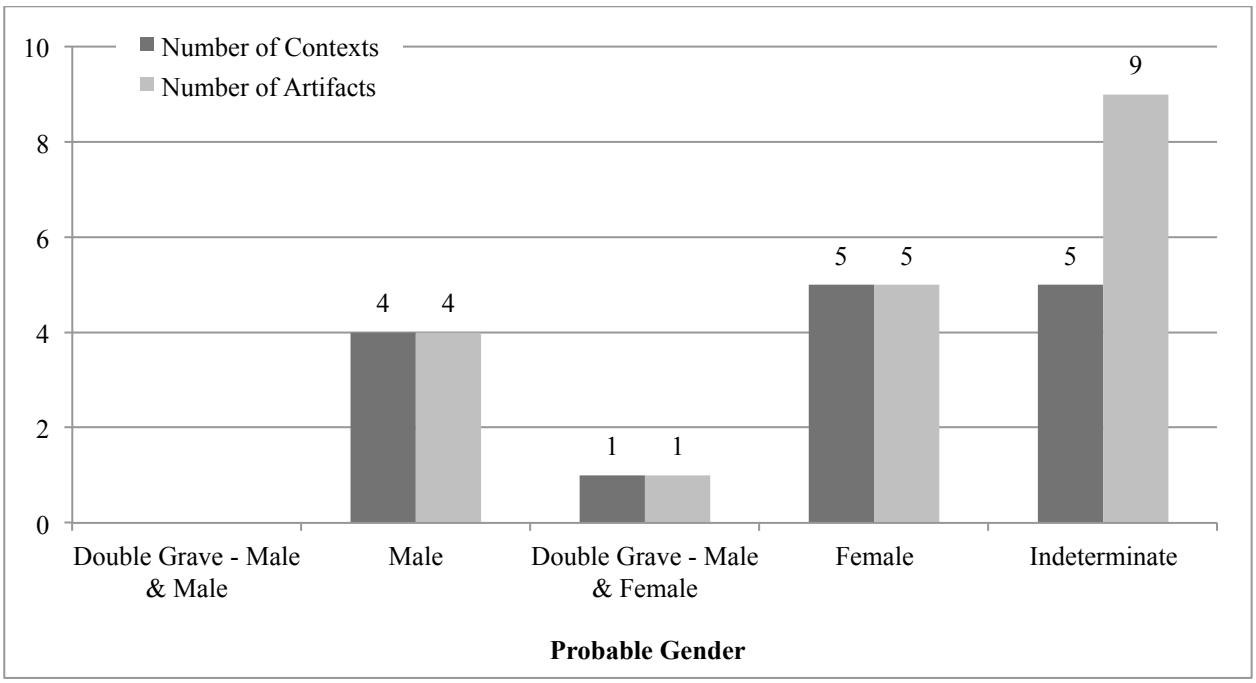


Figure IV.162. Gendered breakdown of Early Hallstatt (800-600 BCE) graves containing animal imagery.

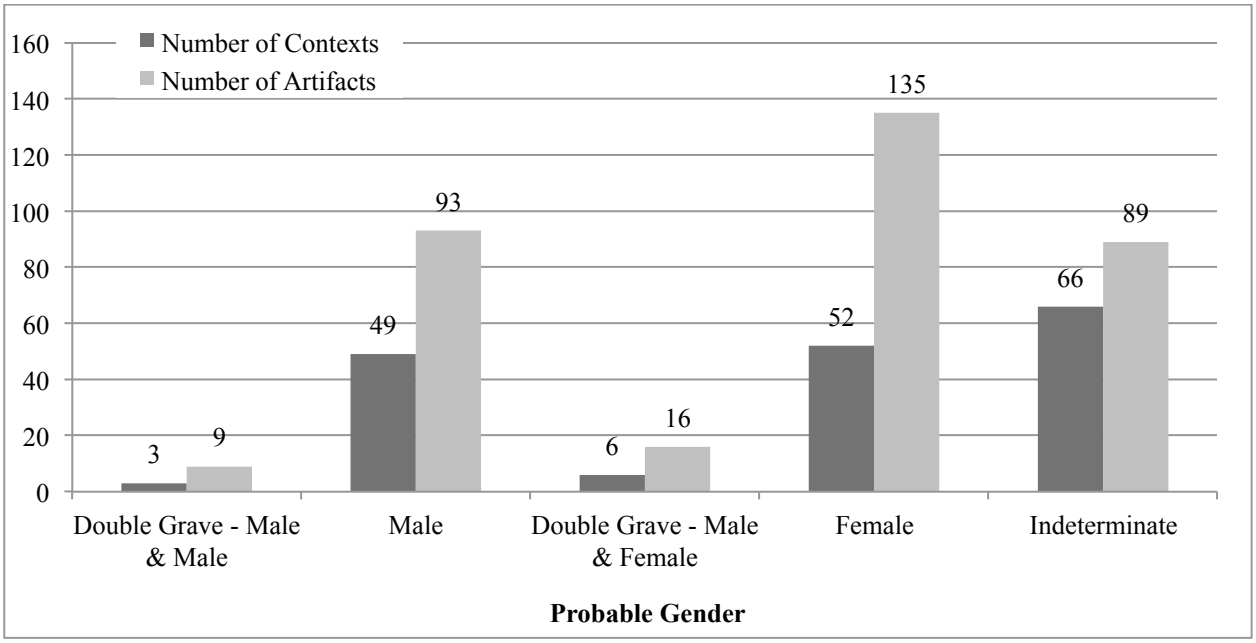


Figure IV.163. Gendered breakdown of Late Hallstatt (600-300 BCE) graves containing animal imagery.

The proportions of male and female graves stay similar in the Late Hallstatt period, though females have far more artifacts associated with individual graves than males do in this later period (Figure IV.163). Overall there is a radical increase in the number of artifacts

depicting animals associated with graves, not solely from individual male and female graves, but double graves as well. Though there are more indeterminate graves in general, these graves have proportionally fewer artifacts in them than identifiable male and female graves, which may speak to the fact that graves that cannot be clearly gendered contain fewer artifacts overall. One child's grave can be dated to the Early Hallstatt period, Grave I/18 from Hrib near Metlika (see section IV.2.B.x for more information about this grave). The eight other dateable children's graves date to the Late Hallstatt period.

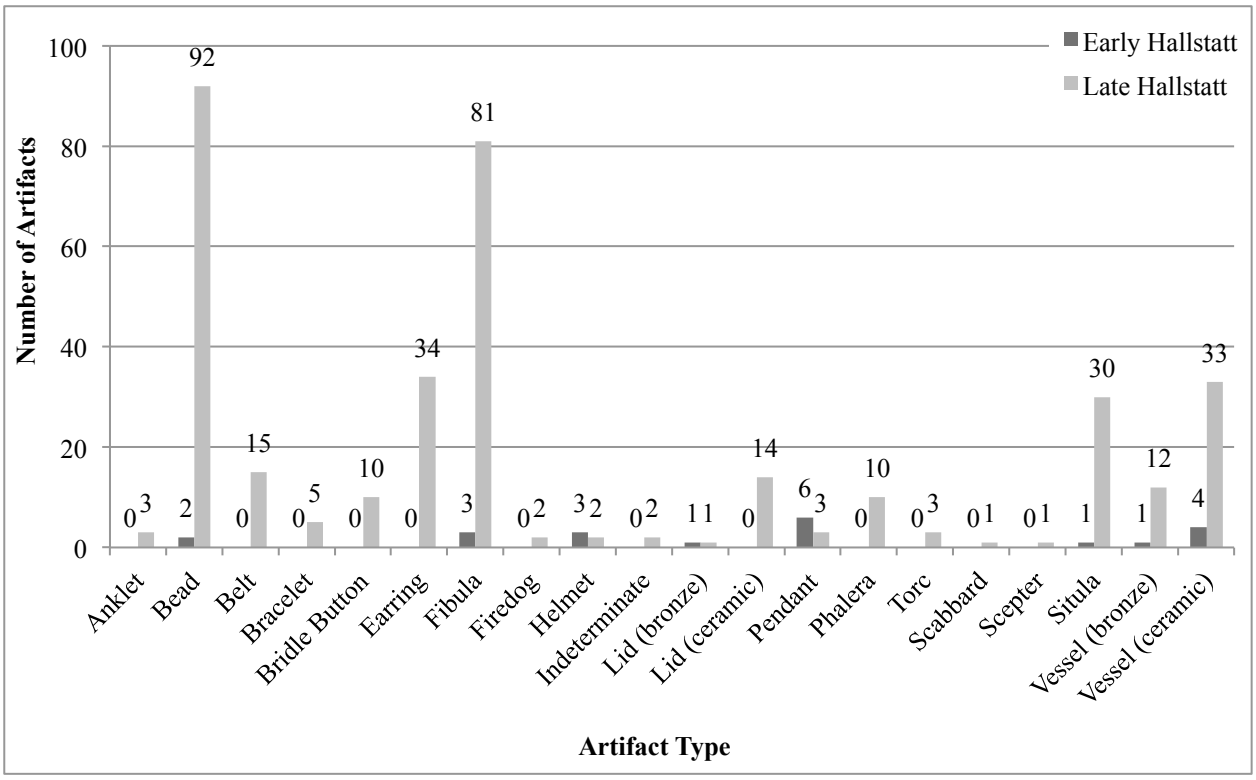


Figure IV.164. Comparison of the quantities of artifact types dating to the Early Hallstatt versus the Late Hallstatt period.

Comparing the artifacts also provides insight into the differences in animal depictions in the Early versus the Late period (Figures IV.164). The only artifacts to appear in the Early Hallstatt period are fibulae, beads, pendants, helmets, and ceramic vessels. Pendants and helmets are the only artifacts that are more common earlier than later. The early helmets are the

composite helmets topped by Orientalizing sphinx figures (section IV.4.B). The early pendants are the cowry shell pendants imported from Picenum (section IV.2.B.x) and the rooster pendants that are likely also of Italian origin (IV.4.A.iv). The early fibulae include those with bone and amber overlay, also thought to originate from northern Italy, though the early Serpentine fibulae are likely local (section IV.4.A.i). Interestingly, the two early beads are ram's head beads,[186] making them the earliest ram's head beads in this area, since most are dated much later in the Certosa Fibulae and Negova Helmets phases (Egg 2010).

The early situla in Grave 13/95 from Preloge near Magdalenska gora is also believed to be an import from the west, possibly from the neighboring Sveta Lucija culture. This grave is unusual for several reasons – it is a cremation placed in a *pithos*, and the grave goods themselves are burned (Tecco Hvala 2012:62, 66-67, 79, 93-94). It also includes an early bridle toggle, a type found in Germany, the Czech Republic, and the Pannonian Plain (Tecco Hvala 2012:159).

The cauldron from Gomile at Stična[187] is even earlier, and dates to the Podzemelj phase (see section IV.4.D.iii). Iron crampons appear in the grave, which are not common finds in this region and may indicate extra-regional ties to northern Alpine areas (Gabrovec et al. 2006:172-173; Tecco Hvala 2012:79, 164-165). Finally, the early bronze lid with a procession of ibex is believed to be an Italian import (see section IV.4.D.ii). The early ceramic vessels include two Apulian craters from Magdalenska gora, and two unique vessels – the tripartite duck vessel also from Magdalenska gora and the double horse head vessel from Stična (see section IV.4.D.v).

Overall, a high number of these early objects with animal imagery are imports – fibulae with overlay, pendants, the situla, the bronze lid, and some of the ceramic vessels. In the case of

[186] Novo mesto, Kapiteljska njiva Grave IV/2 (Dolenjski muzej inv. no. P 2383, now missing) and Podzemelj, Steljnik (Grm) Grave I/19(u) (Naturhistorisches Museum Wien inv. no. 67253). It is potentially problematic that the bead from Kapiteljska njiva was never drawn and cannot be found, which casts doubt on this unusually early bead.
[187] Tumulus 28 or 29/Cremation Grave(?) (Gabrovec et al. 2006:172-173).

the early cauldron, it is less clearly imported, but is nonetheless strongly associated with other non-local goods. The composite helmets with the Orientalizing sphinx figures show the influence of connections further west. Local items include the two ram's head beads and possibly the tripartite bird vessel and double horse head vessel.

The early period is less diverse in comparison to the wide variety of animals depicted in the later period (Figure IV.165). The most common animals depicted are birds on the early cauldron and situla, the tripartite vessel, fibulae, and rooster pendants. Sphinxes are the second most common, all on composite helmets, while the ram's head beads both depict sheep. The other species-artifact combinations are more unique – horses on the double vessel, ibex on the bronze lid, and indeterminate mammals on ceramics.

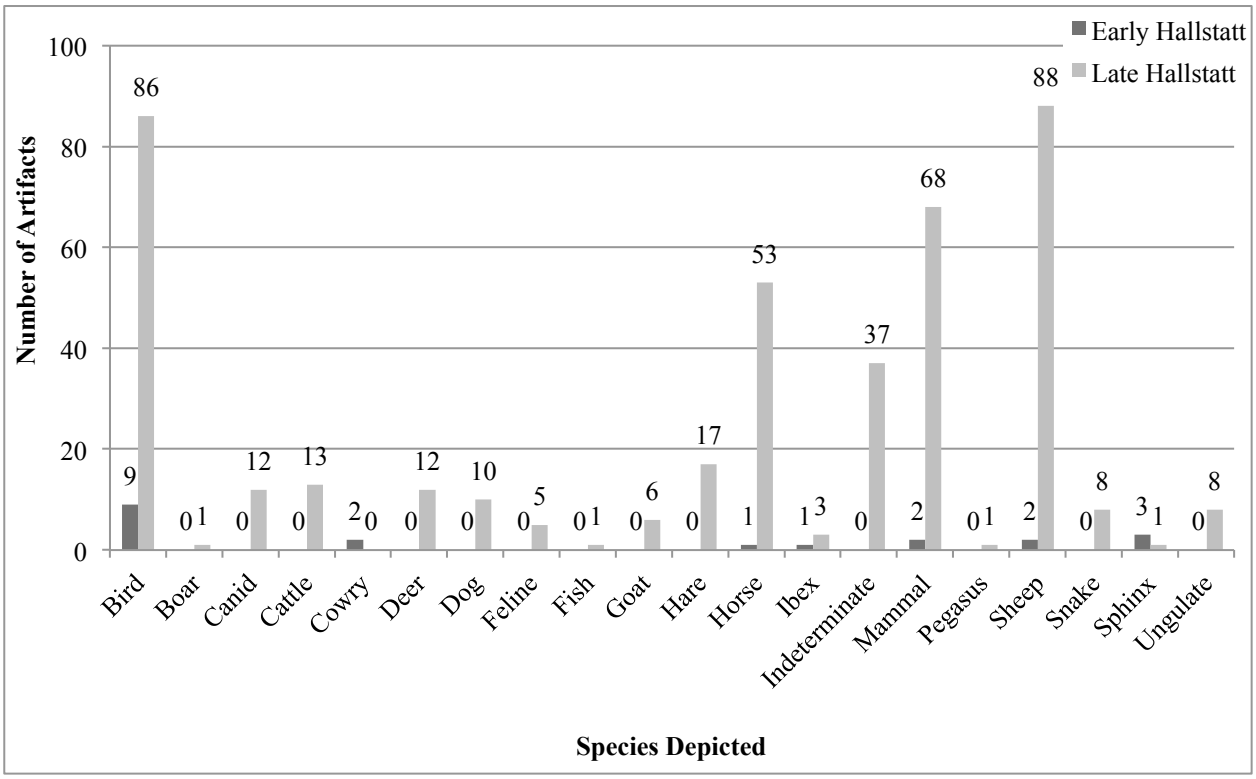


Figure IV.165. Comparison of species depicted on artifacts dating to the Early Hallstatt versus the Late Hallstatt period.

IV.5. Zooarchaeological Remains

Zooarchaeological remains were identified at 15 of the mortuary sites in this study, almost 33% of the mortuary sample (Table IV.46). This stands in contrast to the 60% of mortuary sites that contained artifacts depicting animals (see section IV.1). However, as previously noted, this is likely an underrepresentation since soils in Dolenjska and Bela krajina are very acidic and osseous materials rarely preserve (see section II.5.A). Zooarchaeological remains from settlements were not assessed in this study, since the previous analyses of these materials are relatively sparse, and often not easily comparable based on published data (see section III.2.C).

Table IV.46. Presence/absence of zooarchaeological remains at mortuary sites in project.

Complex	**Site**	**Type of Site**	**Animal Remains**	
			Present	*Absent*
Molnik	Roje (near Orle)	Flat Cemetery		X
	Grmada	Tumulus Cemetery	X	
Vače	Ravne njive	Tumulus Cemetery		X
	Apno	Cemetery	X	
	Reber	Flat Cemetery; Tumulus Cemetery	X	
---	Kidričeva cesta (Zagorje)	Flat Cemetery	X	
Magdalenska gora	Laščik	Tumulus Cemetery	X	
	Preloge	Tumulus Cemetery	X	
	Voselca	Tumulus Cemetery		X
Stična	Dole	Flat Cemetery		X
	Gomile (near Stična)	Tumulus Cemetery	X	
---	Medvedjek	Tumulus Cemetery	X	
---	Škodetov pruh (Volčje njive)	Tumulus Cemetery		X
---	Roje (near Moravče pri Grabovki)	Flat Cemetery; Tumulus Cemetery		X
Dobrnič	Koželjeva hosta	Tumulus Cemetery		X
	Gomile near Dobrava	Tumulus Cemetery		X
Trbinc	Devce	Cemetery		X
---	Ajdovski gradec	Cemetery		X
Mokronog	Sv. Križ	Flat Cemetery; Tumulus Cemetery		X

Complex	Site	Type of Site	Animal Remains	
			Present	*Absent*
Boštanj	Gorenjčeve groblje	Tumulus Cemetery		X
	Grmašca	Tumulus Cemetery		X
	Kosmatec	Tumulus Cemetery		X
Dolenjske Toplice	Branževec 2	Tumulus Cemetery		X
Brezje pri Trebelnem	Hojbi	Tumulus Cemetery		X
	Gomile	Tumulus Cemetery	X	
Novo mesto	Kandija	Flat Cemetery; Tumulus Cemetery	X	
	Kapiteljska njiva	Flat Cemetery; Tumulus Cemetery	X	
	Mestne njive	Flat Cemetery		X
	Mačkovec	Tumulus Cemetery		X
	Malenškova njiva	Tumulus Cemetery	X	
	Zagrebška cesta	Tumulus Cemetery		X
---	Starograjska hosta	Tumulus Cemetery		X
Veliki Vinji vrh	Ivanec	Tumulus Cemetery		X
	Laze	Tumulus Cemetery		X
	Dolge njive 2	Tumulus Cemetery		X
Libna	Deržaničev gozd	Tumulus Cemetery		X
	Špiler	Tumulus Cemetery	X	
	Volčanškova gomila	Tumulus Cemetery	X	
---	Gomile (near Sajevce)	Tumulus Cemetery		X
---	Gomile (near Velike Malence)	Tumulus Cemetery		X
Metlika	Hrib	Tumulus Cemetery		X
	Borštek	Flat Cemetery		X
Podzemelj	Gomilica (Škrilje)	Tumulus Cemetery		X
	Steljnik (Grm)	Tumulus Cemetery		X
	Vir (Škrilje)	Tumulus Cemetery	X	
Totals	**45 sites**		**15**	**30**

There are 69 contexts with recorded animal bones,[188] 60 of these are graves (Table IV.47). In cases where the remains were not analyzed and species could not be determined, it

[188] More animal remains from Magdalenska gora and Stična are identified in the Peabody Museum online catalogue; however, these were not included in this study if they are not also noted in the published catalogues or original archival material for these graves since it is unclear how the faunal remains listed online were assigned to specific graves or why they were not present in associated records for these contexts.

was listed as "unknown." Unknown is used rather than indeterminate since the latter is often used in zooarchaeological studies to indicate that the elements were too fragmentary or damaged to determine species, which is a different issue than animal bones that have not been analyzed.

The minimum number of individuals (MNI) can only be approximated in many cases since analysis was never conducted on the majority of these remains. The MNI has been labeled with a question mark to indicate that it is an estimation that has not been confirmed in cases where there was no analysis, there was no intact skeleton noted, or there was more than a single element. Number of identified specimens (NISP) is not addressed in this study, though these data were collected. NISP was not consistently available for all mortuary contexts, particularly since antiquarian excavations left very sparse notes concerning faunal remains, e.g., "the bones of the legs of a deer" that do not allow the accurate assessment of NISP. However, MNI is more appropriate for this study of mortuary contexts because graves are discrete contexts and it is possible to assume that animal remains inside a grave constitute an MNI of one.

Similar to the pattern noted for artifacts depicting animals, zooarchaeological remains are most common in graves from sites at Magdalenska gora and Stična (Figure IV.166; also see Figure IV.1). However, in this case the complex with the third most remains was Libna rather than Novo mesto. Most of these sites were excavated at least partially in the late 19th and early 20th centuries, which accounts for some of the difficulty assessing MNI (Gabrovec 2006; Gabrovec and Teržan 2008; Guštin 1976; Hencken 1978; Tecco Hvala et al. 2004; Tecco Hvala 2012; Wells 1981). This may also account for the higher number of faunal remains at these sites, since increasingly poor preservation has been noted in the last century, which may relate to more intensive agricultural production since the industrial revolution, both in terms of the machinery used and pesticides and other chemicals that have increased the acidity of the soil.

Table IV.47 Mortuary contexts with zooarchaeological remains in the study.

Site	Context	Probable Gender/Age	Species	MNI	Body Zone	Element(s)
Apno	Finds above graves 12-24	---	Megalodon shark	1	Cranium	Tooth
			Cattle	1?	Unknown	"Calves' bones" (Starè 1955:125)
Reber	Cremation Grave 2	♀/Indt	Deer (indt. species)	1?	Limb (indt)	"The bones of the legs of a deer" (Starè 1955:72)
Grmada	17/6	♂/Adult	Horse	1	Cranium, upper limbs, lower limbs	Tooth, humerus (L), ulna (L), radius, metacarpal (R), carpal (L), sesamoid, femur (R), metatarsal (L), calcaneus (L), tarsal (L), tarsal (R), phalanx
			Pig	1	Upper limbs, trunk	Humerus (L), cervical vertebra
			Indeterminate[189]	N/A[190]	Cranium, trunk	Cranial fragments, rib fragments, indeterminate elements
Kidričeva cesta (Zagorje)	Milač House/Grave with the Belt Plate	♂/Adult	Horse	1?	Limb (indt)	"The leg bones of a horse" (Draksler 2007:131)
Laščik	V/2	♀/Adult	Roe Deer	1?	Limb (indt)	Metatarsi
	V/5	Indt/Indt	Horse	1	Cranium	Upper M3 (R), lower M2 (R)
	V/6-7-7a	♂/Adult	Horse	1	Cranium, upper limbs, trunk, lower limbs	Exact elements unknown, excavation photograph shows full articulated skeleton
	V/11	♂/Adult	Brown Bear	1	Limb (indt)	Claw
	V/19-20	♂♂/Adult	Unknown	1	Unknown	Fragment unknown element
	V/29	♂♂/Adult	Horse	4	1. Lower limb 2. Cranium, upper limbs, trunk, lower limbs 3. Cranium, upper limbs, trunk, lower limbs 4. Upper limbs, lower limbs	1. Tibia (R) 2. Cranial fragments, mandible, vertebrae, sacrum, scapulae, humeri, radii, ulnae, metacarpals, innominates, femurs, tibiae, astragalus and calcaneus (R), metatarsals 3. Upper incisors, canines, premolars, and molars, mandible, vertebrae, sacrum, rib fragments, scapula (L), humeri, radii, ulnae, metacarpals and phalanges, innominates, femurs, patellae, tibiae, metatarsals and phalanges 4. Scapula fragment, femur (L), tibiae, astragalus (L), calcanei, metatarsal (R)
			Unknown	1	Unknown	Pierced bone pendant
Preloge	2/13	♂/Adult	Horse	1?	Cranium, unknown	Mandible, teeth, unknown. Full skeleton implied (Tecco Hvala 2012:31)
	2/57	♂/Indt	Horse	1?	Unknown	"Horse skeleton" (Tecco Hvala 2012:31)
	2/69	♂/Indt	Unknown	1?	Cranium	Teeth
	2/88	Indt/Adult	Horse	1?	Cranium	Teeth
	13/87	♀/Adult	Dog	1	Cranium	Canine tooth
	13/119	♂/Adult	Horse	1	Cranium, unknown	"Parts of a horse skeleton and teeth" (Tecco Hvala 2012:31)

[189] This is identified as an "indeterminate" rather than "unknown" species since these bones were assessed by a specialist, who could not determine species, which differentiates it from other remains that were not assessed by a specialist and for which species was unknown for that reason.

[190] The remains of this indeterminate species are not counted as an MNI of one, since they may be fragments from either the identified cremated horse or pig remains, and thus cannot conclusively be assessed as a separate animal.

Site	Context	Probable Gender/Age	Species	MNI	Body Zone	Element(s)
Preloge	13/132	♂/Adult	Goat	1	Cranium	Horn
	13/163	♀/Indt	Sheep/Goat	1?	Unknown	"Bones of a caprovid" (Tecco Hvala 2012:31)
	II/17	♀/Adult	Ungulate	1?	Cranium	Horn
	IV/30	♂/Adult	Horse	1?	Unknown	Unknown[191]
	IV/32	♂/Indt	Horse	1?	Trunk	Rib, scapula, vertebrae
	IV/40	Indt/Indt	Horse	1?	Unknown	Unknown[192]
	IV/43	♂/Indt	Cattle	7	Lower limbs	Astragali (7 L and 2 R), calcanei, centrotarsal (L)
			Horse	1	Cranium, upper limbs, trunk, lower limbs	Cranial fragments, deciduous and permanent upper premolars, permanent upper molars, mandible, deciduous lower incisor, deciduous and permanent lower premolars, permanent lower molars, vertebrae, rib fragment, scapula fragments, humeri, radii, ulnae, carpals, metacarpals and phalanges, innominates, femurs, patellae, tibiae, astragali, calcanei, tarsals, metatarsals, phalanges
	VII/29	Indt/Adult	Sheep/Goat	1	Trunk	Vertebra
	VII/38	Indt/Adult	Roe Deer	1	Cranium	Cranial fragment (L)
			Horse	1	Lower limb	Tibia (L)
	VII/39	♂/Adult	Horse	1?	Cranium, unknown	"Some bones and teeth" (Hencken 1978:58)
	VII/51	♂/Indt	Dog	1	Cranium	Canine tooth
	X/14	Indt/Adult	Horse	1	Cranium	Lower M3 (L)
	X/18	♀/Adult	Horse	1	Cranium	Upper premolar (L)
	X/28	♂/Adult	Horse	1	Cranium	Upper M3 (R)
	X/52	♂/Adult	Sus spp.	1	Unknown	Unknown[193]
Gomile (Stična)	5/8 [Horse Grave]	---	Horse	1?	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	5/10	Indt/Adult	Horse	1?	Trunk, limbs (indt)	"Long and single flat bones" (Gabrovec & Kruh 2006:139)
	48/Horse Grave 31	---	Horse	1	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	48/Horse Grave 32	---	Horse	1	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	48/46	Indt/Indt	Horse	1?	Cranium	Cranium
	48/Find 56	---	Unknown	1?	Unknown	"Broken bones – (from animals?)" (Gabrovec & Kruh 2006:52)
	48/Horse Grave 71	---	Horse	1	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	48/Find 77	---	Unknown	1?	Unknown	"Animal bones" (Gabrovec & Kruh 2006:63)
	48/Find 93	---	Unknown	1?	Unknown	"Animal bone fragments" (Gabrovec & Kruh 2006:72)

[191] Referred to as "Horse Grave I" by the excavator. Other graves designated "horse grave" contained whole horse skeletons (Hencken 1978:22).

[192] Called "Horse Grave III" by the excavator, and assumed to have contained a full skeleton (Hencken 1978:35).

[193] Though Dr. Sándor Bökönyi assessed these remains, he only indicated that they were "Sus" and gave no details as to the elements represented (Bökönyi n.d.).

Site	Context	Probable Gender/Age	Species	MNI	Body Zone	Element(s)
Gomile (Stična)	48/104	♂/Adult	Horse	1	Trunk	"Chest and vertebrae" (Gabrovec & Kruh 2006:79)
			Unknown	1?	Unknown	"Pile of burnt animal bones" (Gabrovec & Kruh 2006:79)
	48/115	Indt/Indt	Unknown	1?	Unknown	"Animal bones" (Gabrovec & Kruh 2006:86)
	III/2c	Indt/Indt	Horse	1?	Cranium, unknown	"Animal bones and several teeth" (Wells 1981:54)
	IV/16	♂/Adult	Horse	1	Cranium, trunk, upper limbs	Upper and lower premolars and molars, rib fragment, scapula fragment (L), humerus fragment (R)
	IV/47	♀/Indt	Horse	1	Cranium, upper limb	Maxillary fragments, upper premolars & molars, tibia (R)
	V/Isolated Finds	---	Horse	1	Cranium	Teeth
	VIII/2	Indt/Indt	Horse	1?	Cranium	Mandible
Medvedjek	I/36	Indt/Indt	Horse	1	Cranium	Maxillae, upper teeth, mandible, lower teeth
Špiler	I/4	Indt/Indt	Horse	1	Cranium, trunk	Temporal, 21 molars, mandible, two vertebrae
	I/6	♂/Indt	Horse	1	Cranium	12 molars
	I/Stray Find	---	Horse	1	Cranium	Four molars
			Unknown	1?	Cranium	Teeth
	II/d	♂/Indt	Horse	1?	Cranium	Teeth
	II/1	♂/Indt	Horse	1?	Cranium	Cranium
	III/Find 16	---	Horse	1?	Cranium	Teeth
	III/Find 25	---	Horse	1?	Cranium	Cranium and teeth
Volčanškova gomila	1889-1890/aa	♂/Indt	Horse	1?	Cranium, upper limbs, trunk	Cranium, ribs, upper limbs
	1889-1890/i	Indt/Indt	Horse	1?	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	1889-1890/Unknown provenience	---	Goat	1?	Cranium, unknown	Mandible, "other bones" (Guštin 1976:30)
Gomile (Brezje pri Trebelnem)	*VI/1-2*[194]	Grave 1: ♂/Adult	Horse	3	1. Cranium, trunk, upper limbs, lower limbs 2. Cranium 3. Upper limb	1. Cranial fragments, mandible, vertebrae, humerus (L), radii, metacarpal (L), femurs 2. Right upper premolar and molars, mandible, atlas 3. Radius fragment (R)
		Grave 2 Horse Grave				
	VI/3 [Horse Grave]	---	Horse	1?	Cranium, upper limbs, trunk, lower limbs	Horse skeleton
	VI/5	♂/Indt	Horse	1?	Unknown	Cremated horse bones
Kandija	IV/3	♂♀/Adult	Horse	1	Cranium	Horse cranium
Kapiteljska njiva	I/Central Grave	Indt/Adult	Horse	1	Cranium	Maxilla (L), mandible (L), loose incisors
	XVI/11	Indt/Indt	Horse	1	Cranium	Teeth, mandible fragments(?)
	XVI/34	♀/Adult	Horse	1	Cranium, unknown	Teeth, other bones
Malenškova njiva	Malenškova gomila/1	♂/Indt	Horse	1?	Upper limbs, trunk, lower limbs	"Horse bones" (Dular 2007:739 fn. 5)
	Malenškova gomila/3	♂/Indt	Horse	1?	Cranium	Cranium?
Vir (Škrilje)	I/13	Indt/Indt	Dog	1?	Cranium, upper limbs, trunk, lower limbs	"Skeleton of a large dog" (Barth 1969:149)
Totals	**69**			**86**		

[194] This is not a true grave – horse remains from Graves 1 and 2 were mixed in storage, and could not be separated. The grave contained bones from three horses, and the false context Grave 1-2 was created to capture the data.

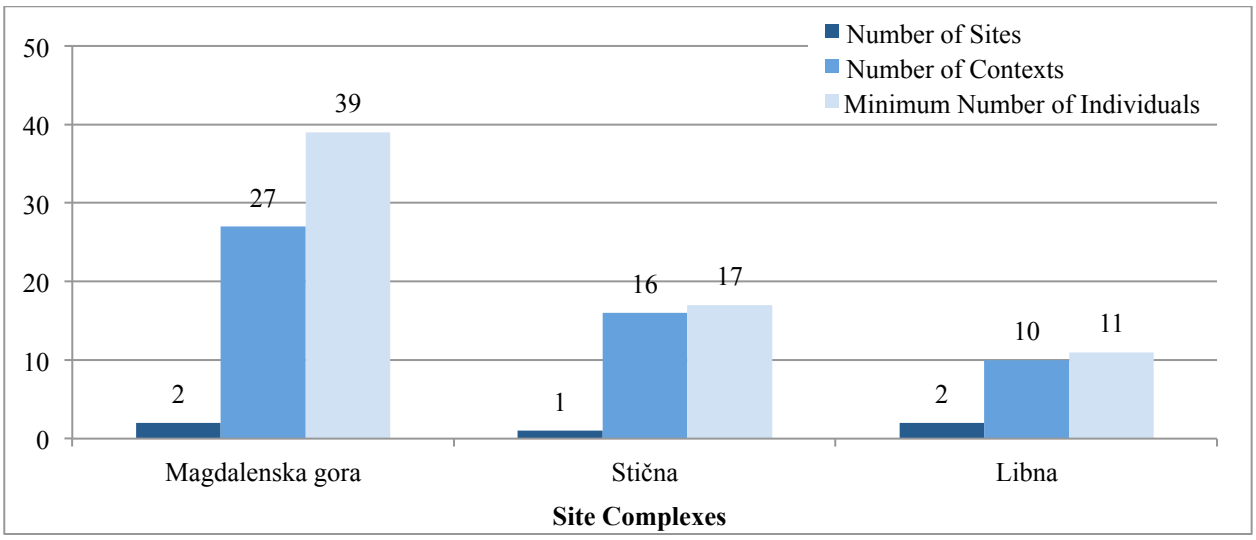


Figure IV.166. Site complexes with the highest quantities of zooarchaeological remains.

IV.5.A. Contextual Associations

Probable male graves were most commonly associated with zooarchaeological remains (Figure IV.167). There are 25 male graves and two double male graves with animal bones. Male graves are also more likely to have remains of more than one animal in a single grave. There are only eight probable female graves with associated faunal remains, though there are also a large number of indeterminate graves with faunal remains that cannot be gendered according to the parameters of this study. There are six horse graves that do not have human remains associated with them, but solely contain horses.[195] There are no children's graves with faunal remains.[196]

Horses are by far the most common animals deposited in graves, appearing in 46 graves, six of which are graves of solely horses (Figure IV.168). Animal remains that have not been identified are a distant second, appearing in five graves and four stray find contexts, while dogs and deer each appear in three graves. Cattle bones only appear in two contexts, only one of

[195] Four are from Gomile at Stična: Graves 5/8, 48/Horse Grave 31, 48/Horse Grave 32, 48/Horse Grave 71. Two are from Gomile at Brezje pri Trebelnem: Grave VI/2, Grave VI/3.

[196] The Peabody Museum online catalogue lists a burned rib bone with Grave VIII/1 at Stična, Gomile (Peabody Museum inv. no. 40-77-40/13850). However, this is not noted in the published catalogue and it is unclear why these remains have been associated with this grave. Because of this the remains are excluded from this study.

which is a grave.[197] However, this grave contained nine astragali (two right and seven left), a left and right calcanei, and a left os centrale. These remains account for at least seven animals, so while the bone remains initially seem relatively modest, this grave represents the largest number of cattle remains associated with a single burial. The grave also contained an entire horse.

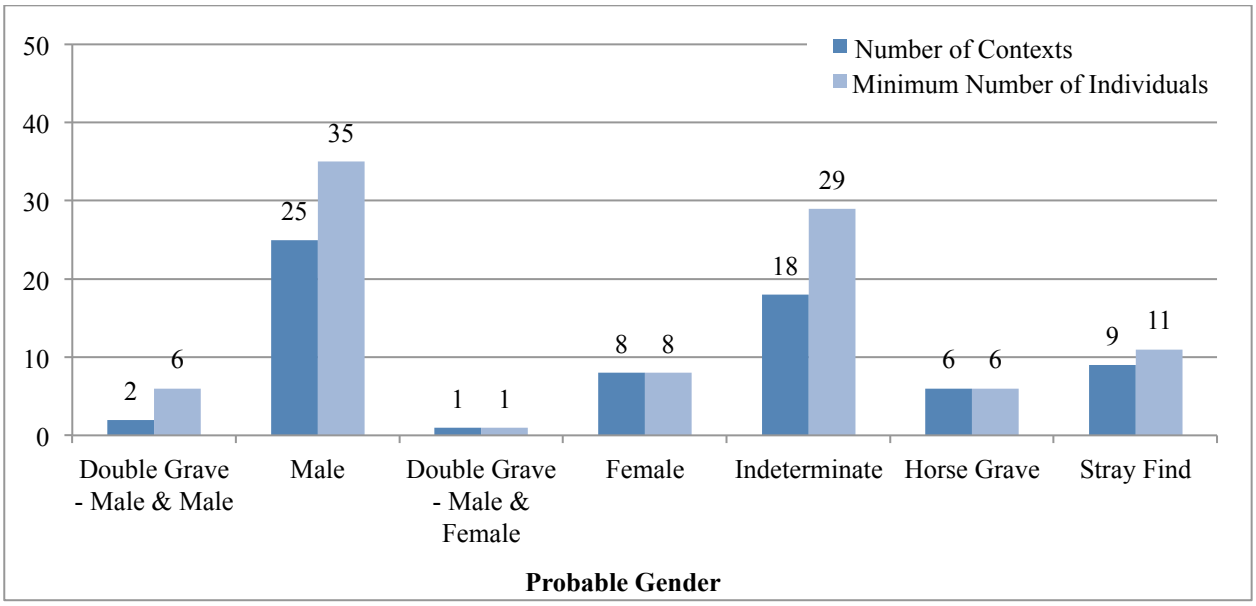


Figure IV.167. Probable gender of deceased associated with grave contexts containing faunal remains.

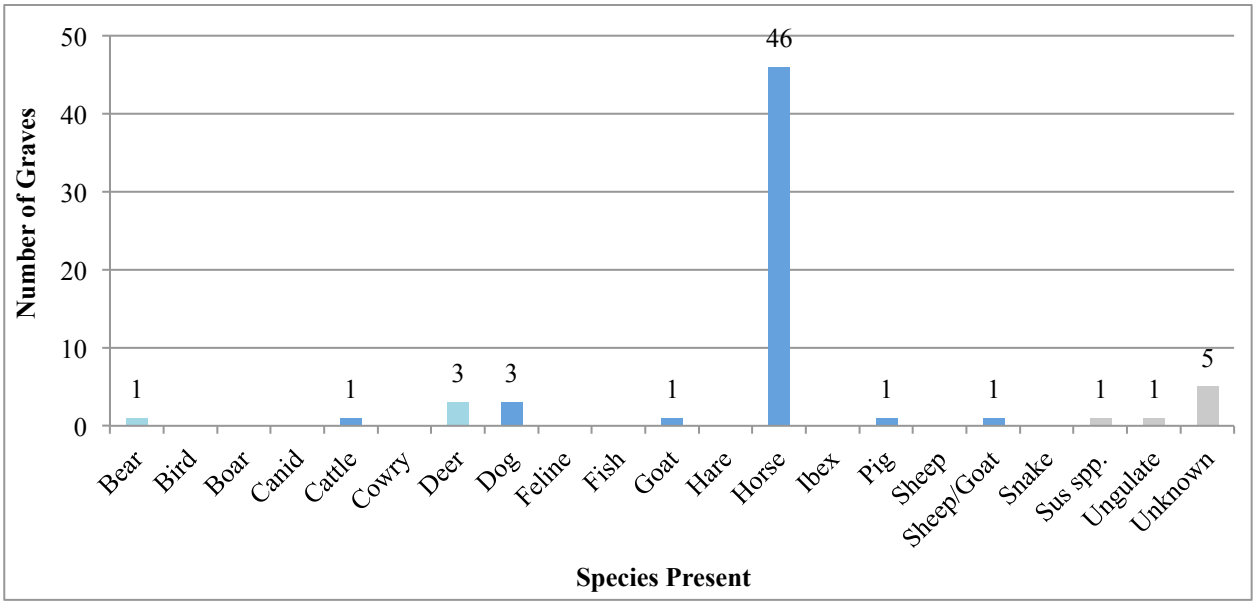


Figure IV.168. Zooarchaeological remains of different species from graves, does not include stray finds.

[197] Magdalenska gora, Preloge Grave IV/43 (Bökönyi 1968:11-12; Hencken 1978:25).

Interestingly, there is a single bone from a bear, an animal that does not appear in the iconographic record. Grave V/11 at Laščik near Magdalenska gora contained the pierced claw of a brown bear (Hencken 1978:32).[198] Pig remains were identified in Grave 17/6 at Grmada near Molnik as well as possibly in Grave X/52 at Preloge near Magdalenska gora, though species was unidentified for the latter and there are no details about the specific elements found in this case (Hencken 1978:75). It would be notable if they were also domestic pig remains, since these are absent from the iconographic dataset. Overall, the species deposited in graves are not very diverse, and domestic animals dominate the dataset. The only wild animal remains found in graves are the aforementioned bear claw, and deer remains found in three graves. Boar canines are also found in Dolenjska Hallstatt graves,[199] often pierced for suspension, however since exact provenience for these finds has not yet been published they were left out of this study.

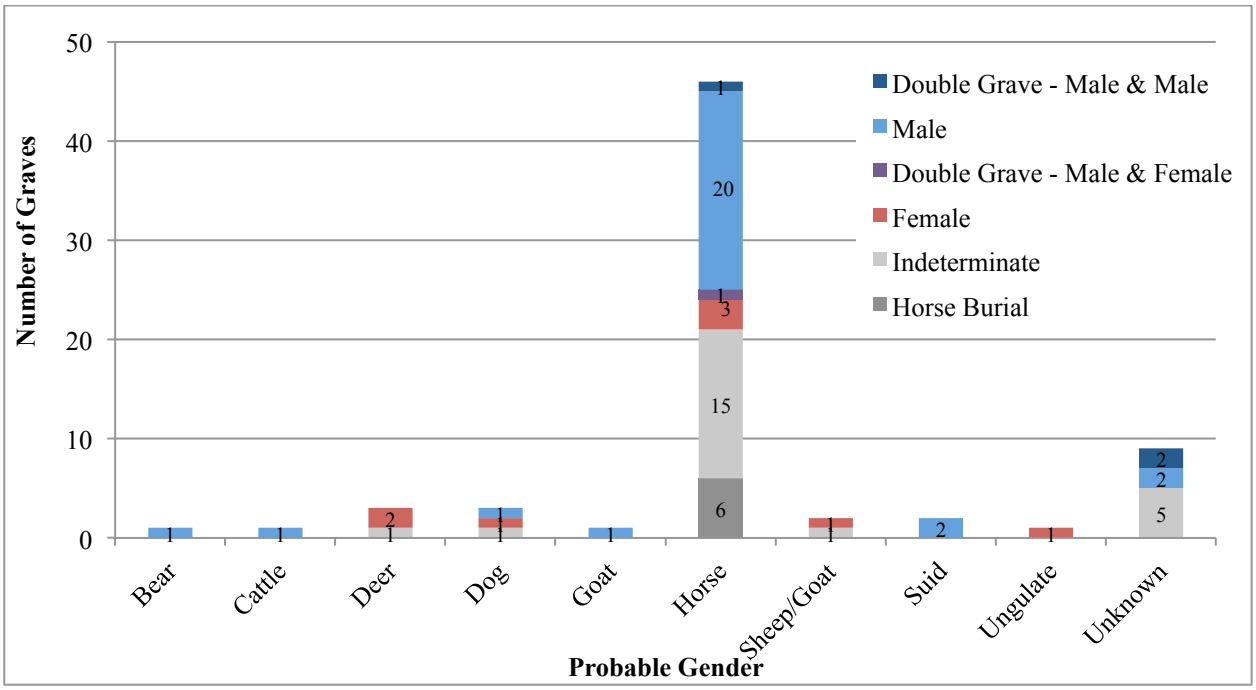


Figure IV.169. Species present in zooarchaeological remains from mortuary contexts, divided according to probable gender of the deceased.

[198] A pierced bear canine was published associated with the site of Vače. However, there is no provenience for this artifact, so it has not been included in this study (Starè 1955:112, Plate LXXVII no. 6; Narodni muzej P 729).
[199] Especially at sites in the Vače complex (Starè 1955; Teržan In Prep).

When the different species are divided according to the probable gender of the associated deceased individual, additional patterns emerge (Figure IV.169). Both male and female graves contain a variety of species – males are associated with cattle, a goat, a pig, dog, bear, and a large number of horses, for a total of six different species. Females in turn are associated with sheep/goat, dog, deer, an unknown ungulate, and also horses, for a total of at least four species. They overlap in three categories, however the numbers are too small for patterns to be identified as meaningful.

IV.5.B. Completeness

Some distinctions are marked in the different parts of animals deposited in graves. Since there are rarely details about the exact elements present in burials, this project captures the distinctions between burials of the whole animal versus partial remains (Figure IV.170). Crania, horns, teeth, and claws are further distinguished from partial remains. The only animals buried whole in the sample were horses and a dog. The whole dog burial is from Grave I/13 at Vir (Škrilje) near Podzemelj. The whole horses are all associated with probable male or indeterminate gender burials. Grave XVI/34 from Novo mesto, Kapiteljska njiva has been proposed as the burial of a whole horse associated with a female (Dular 2007:739), however the excavators only identified teeth and some parts of what were thought to be cranial bones, and the bones have not yet been analyzed (Petra Stipančić, personal communication 2016).

Horses are the only species represented by whole crania, while deer are the only species represented by cranial fragments. The deer cranium in Magdalenska gora, Preloge Grave VII/38 is represented by a cranial fragment from the left side of the head and appears with the left tibia of a horse (Bökönyi 1968:14; Hencken 1978:57). Interestingly, Grave 31 from the same tumulus

also contained a left cranial fragment from a roe deer and the left astragalus of a horse – though this grave dates to the subsequent La Tène period (Bökönyi 1968:14; Hencken 1978:51).[200] These two graves are categorized as indeterminate gender in this study, though they have been considered female graves in other publications (Tecco Hvala 2012:430). The other deer remains are partial remains. Other animals represented by partial remains are cattle, sheep/goat, pig, horses, and unknown animals. Many animals are represented only by teeth, horses most frequently. In two instances canine teeth from dogs have been identified, both from Magdalenska gora, one pierced for suspension. The fossilized tooth of a megalodon shark (*Carcharocles megalodon*) is exceptional as the only fossil in the dataset. This comes from Apno near Vače, and the fossil itself probably originated from the area around Moravče near Vače (Leghissa 2015:290).

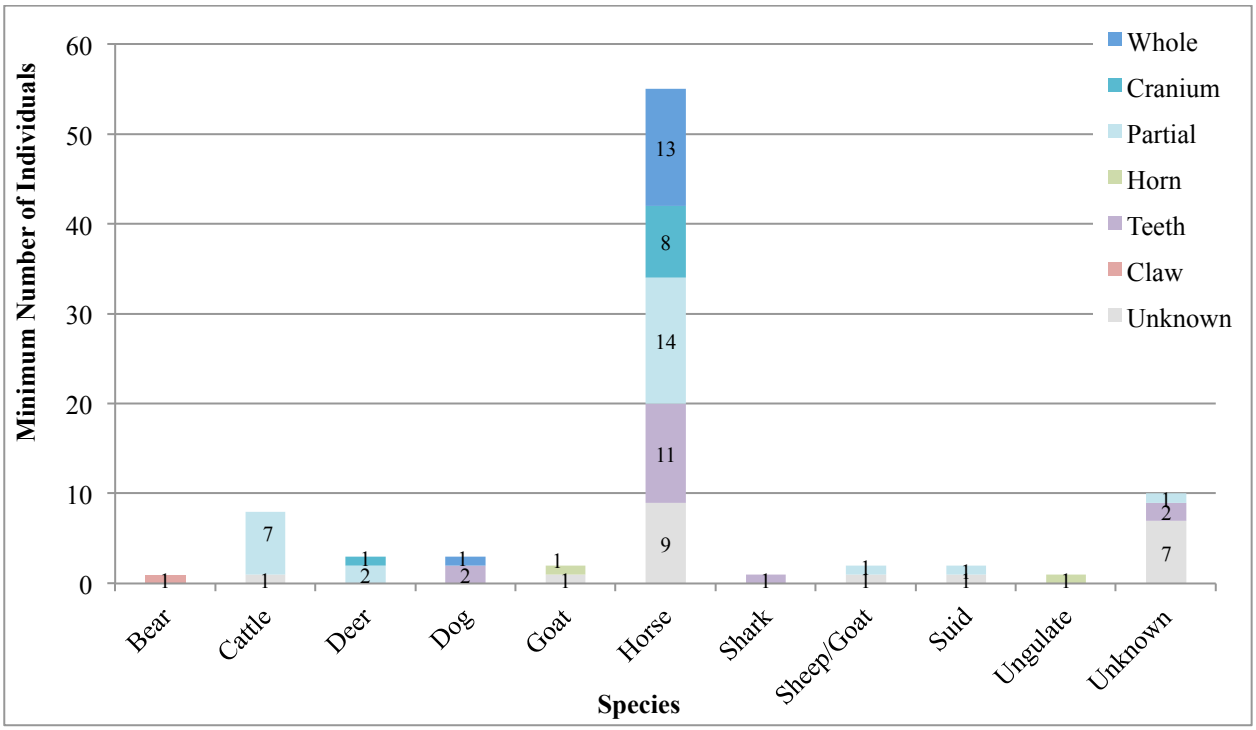


Figure IV.170. Zooarchaeological remains from mortuary contexts, divided by the completeness of the remains.

[200] This grave is not included in the formal study since it dates to the Late Iron Age.

IV.5.C. Chronology

Very few faunal remains can be dated to the Early Hallstatt period (Figure IV.171). Five graves containing horses[201] and a single grave containing sheep/goat[202] and pig[203] remains respectively can be dated to the period from 800-600 BCE. Interestingly, four of the five graves with horses are male graves, and gender could not be determined for the fifth grave. Two of these early graves, Grave VI/5 from Gomile at Brezje pri Trebelnem and Grave 17/6 from Grmada at Molnik, were cremation graves where the deceased and the horse were both cremated, though in the latter a small number of domestic pig remains were also identified (Dular and Križ 1990:535; Kromer 1959:21; Tecco Hvala forthcoming; Toškan forthcoming).

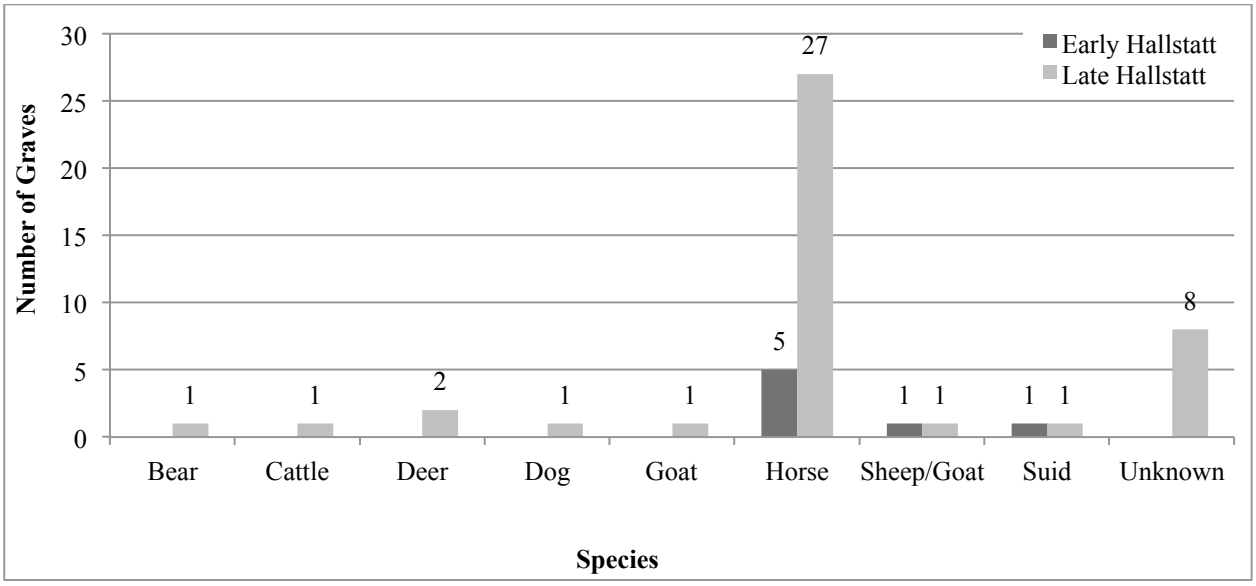


Figure IV.171. Comparison of zooarchaeological remains dating to the Early Hallstatt and the Late Hallstatt period.

In contrast, 43 graves can be dated to the Late Hallstatt period, including 27 containing horses. Similar to the artifacts with animal imagery, zooarchaeological remains show a large

[201] Brezje pri Trebelnem, Gomile Grave VI/5; Molnik, Grmada Grave 17/6; Novo mesto, Kapiteljska njiva Grave I/Central Grave; Novo mesto, Malenškova gomila/1; Libna, Špiler Grave I/6.
[202] Magdalenska gora, Preloge Grave 13/163.
[203] The pig remains were found with the cremated horse remains in Grave 17/6 at Grmada near Molnik.

increase in the Late Hallstatt period. Notably, all three female graves containing horse remains can be dated to the end of the Late Hallstatt period, in the Negova Helmets phase (Hencken 1978:68; Križ et al. 2014:482; Tecco Hvala 2012:346; Wells 1981:66).[204] It seems that initially most deposits of animal remains in grave contexts were horses associated with male graves, and over time the variety of species deposited increased. It was only at the end of the Early Iron Age that occasional females had horse remains deposited in their graves.

IV.5.D. Rank Order Abundance

The rank order abundance of the faunal remains diverges from the patterns in subsistence noted in previous studies (Table IV.48; see section II.5.A for more information about subsistence). Previous analysis has demonstrated that cattle, pig, and sheep/goat were most important for subsistence in that order, while horses and dogs were not apparently eaten (Bartosiewicz 1991, 1996, 1999b; Bökönyi 1994). Wild animals represent less than 5% of the faunal remains from settlements, and the most common identified in order of prevalence as red deer, wild boar, wolf, roe deer, aurochs, ibex, bird, brown bear, fox, and hare (Dular and Tecco Hvala 2007:213 Fig. 122). The mortuary profile is quite distinct – horses are most common, and cattle are relatively frequent. All the other domesticates appear in the mortuary dataset, but in relatively small numbers. The wild animals do not adhere to the subsistence profile, only roe deer are identified, and the single find of bear remains is unexpected.

Table IV.48. Rank order abundance of species found in graves.

Species	MNI	Percentage
Horse	55	63.95%
Unknown	10	11.63%
Cattle	8	9.30%
Deer	3	3.49%
Sheep/Goat	2	2.33%
Goat	2	2.33%
Suid	2	2.33%
Bear	1	1.16%
Ungulate	1	1.16%

[204] Previously Grave XVI/34 at Kapiteljska njiva near Novo mesto had been dated to the Stična period of the Early Hallstatt based on the grave goods; however, recent radiocarbon analysis of the horse remains indicated a much later date for the grave (Križ et al. 2009:114; Križ et al. 2014:482).

IV.6. Comparative Analyses

IV.6.A. Rank Order Abundance

A comparison of the rank order abundance of animals depicted on artifacts versus faunal remains shows important differences (Tables IV.48 and IV.49). Birds, sheep, and indeterminate mammals are the most common animals in the artifact dataset. The only similarity between the two abundance measures is the high number of horses – though they account for 64% of the zooarchaeological dataset and only 13% of the artifact dataset. There are also differences in the species present in each dataset. The faunal remains include a pig and a bear, which are absent from the iconographic dataset. In contrast, the iconographic dataset includes birds, hares, canids, snakes, felines, ibex, boar, cowry, and fish, which are absent from the zooarchaeological record associated with mortuary contexts, though the settlement remains include several of these species (see section II.5.A)

Table IV.49. Rank order abundance of species depicted on artifacts.

Species	Number of Artifacts	Percentage
Bird	118	26.82%
Sheep	94	21.36%
Mammal – indt	85	19.32%
Horse	59	13.41%
Indeterminate	43	9.77%
Cattle	20	4.55%
Hare	19	4.32%
Canid	13	2.95%
Dog	12	2.73%
Deer	12	2.73%
Snake	10	2.27%
Ungulate – indt	8	1.82%
Goat	6	1.36%
Feline	6	1.36%
Ibex	4	0.91%
Sphinx	4	0.91%
Cowry	2	0.46%
Boar	1	0.23%
Fish	1	0.23%
Pegasus	1	0.23%

IV.6.B. Proxy Status Assessment

The presence of imports and horse gear in each grave has been recorded, since access to non-local items is often considered an indicator of elevated status (Frey and Gabrovec 1971; Gabrovec 1999; Teržan 1977, 1985, 1995, 1997; Wells 1981). Horse gear is also considered a probable indicator of status, since access to horses appropriate for riding, as well as the ability to ride, is also considered an expression of elite status (Bökönyi 1964; 1968; Dular 2007; Frie

forthcoming; Kmeťová 2013b; Koch 2010; Pare 1989; 1992; Teržan 2011). The subset of graves containing imports or horse gear in the dataset is divided by gender, age, species, and artifact, and the distribution of the iconographic and zooarchaeological datasets are compared below.

Overall there are more graves containing animal imagery than faunal remains – 220 (82%) compared to 63 (24%) of the 267 graves in the study. Forty percent of the graves with artifacts depicting animals contained imported items, compared to 28% of the graves with faunal remains. In contrast, only 12% of the graves containing artifacts depicting animals also contained horse gear, while 33% of the graves containing faunal remains contained horse gear. It seems that access to artifacts with animal imagery was associated with more extra-regional contacts and foreign items, but not strongly correlated with an association with horses or their accessories. In turn, approximately one-third of graves with faunal remains also contained imports or horse gear.

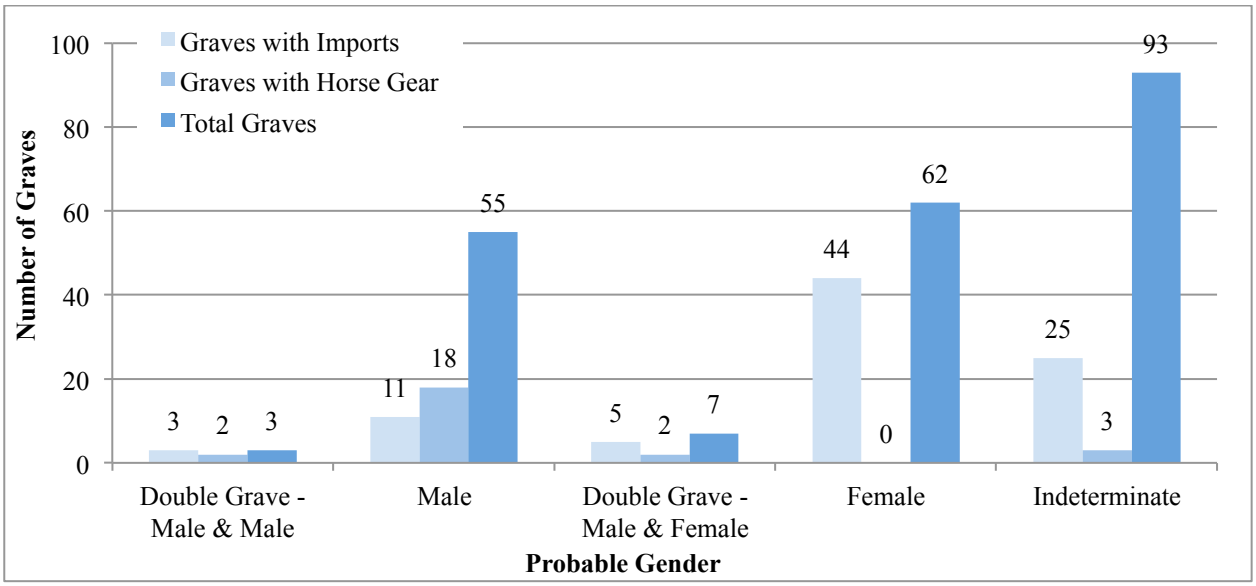


Figure IV.172. Graves with artifacts depicting animals as well as imports or horse gear, divided according to the gender of the deceased.

If these datasets are parsed by gender it becomes clear that female graves were much more strongly associated with imported items than males (Figures IV.172 and IV.173). Over

70% of female graves containing animal imagery also contained imported items (Figure IV.172), and though the dataset is much smaller, over 60% of female graves with faunal remains contained imports (Figure IV.173). For males the numbers are much smaller – only 20% of graves with animal depictions contained imports and 12% of male graves with faunal remains also included imports. The double graves are much more even, and almost all the double graves in both datasets contained imported items (Figure IV.172).

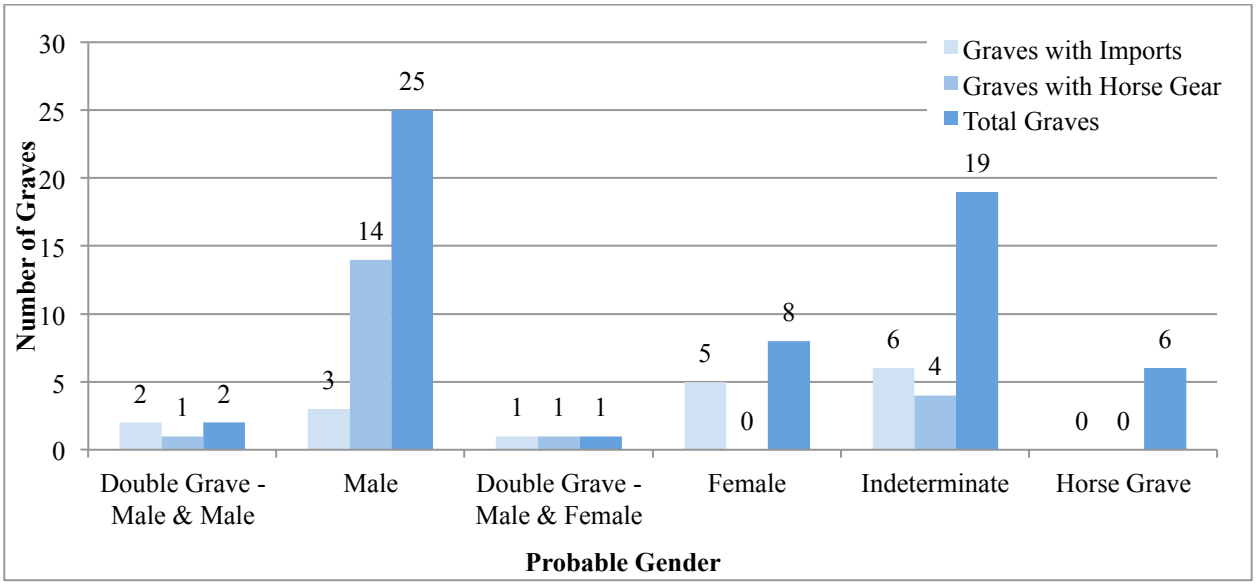


Figure IV.173. Graves with faunal remains as well as imports or horse gear, divided according to probable gender.

The opposite is true of horse gear, which is not present in any female graves in either the iconographic or zooarchaeological dataset. Thirty-three percent of male graves with artifacts depicting animals also contained horse gear, as did 56% of male graves with faunal remains. Interestingly, burials of horses alone did not contain either imports or horse gear (Figure IV.173).

There were also important distinctions in the presence of proxy status indicators based on the age of the associated deceased individual (Figure IV.174). Nine graves of probable children contained animal imagery; seven of these also contained imports and none contained horse gear. The majority of identifiable children's graves with artifacts depicting animals also contained

imported items, indicating that these children with artifacts depicting animals may have had relatively high status. However, despite this status, they do not have horse gear, which may indicate that riding or association with horses was restricted based on age as well as gender.

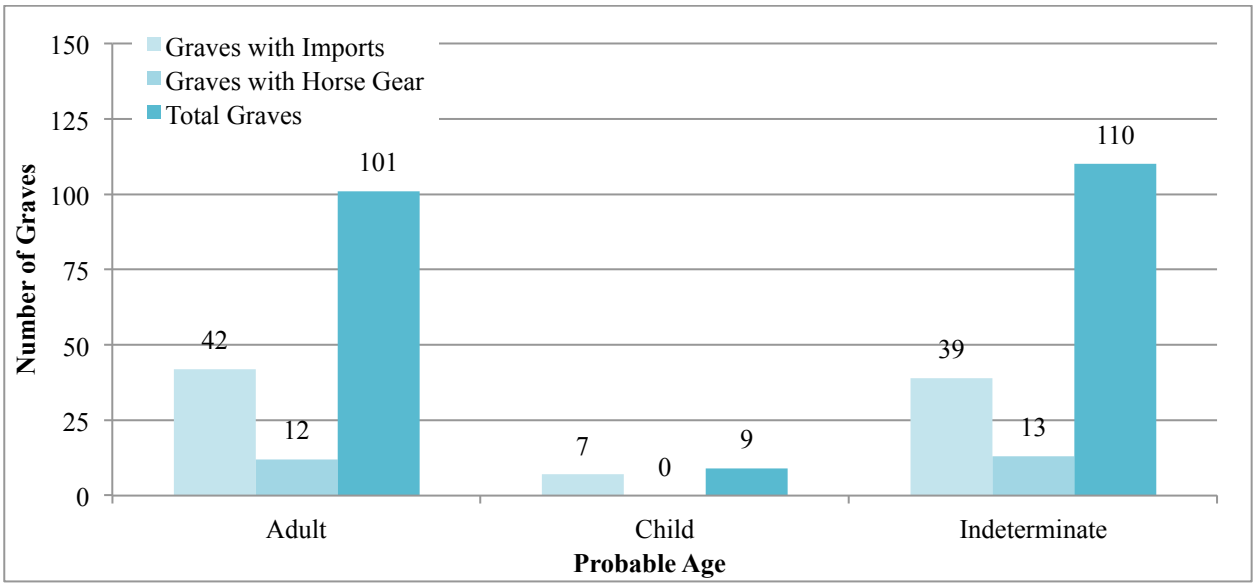


Figure IV.174. Graves with artifacts depicting animals as well as imports or horse gear, divided according to probable age.

Parsing the iconographic dataset based on species depicted as well as the artifact reveals additional patterns (Figures IV.175 and IV.176). Interestingly, depictions of sheep are most strongly associated with the presence of imports, in 64% of cases. This high association is supported when assessing artifact type – 82% of graves with beads also contained imported items. This is unexpected, since the vast majority of beads are ram's head beads, and the glass examples are locally made (see section IV.4.A.ii). However, both imports and ram's head beads are strongly associated with women, which may account for the crossover. All other species are associated with imports in 40% or less of their respective subsamples.[205]

[205] The exception is indeterminate animals, though it is unclear whether this is important since these animals are often too damaged to determine the species.

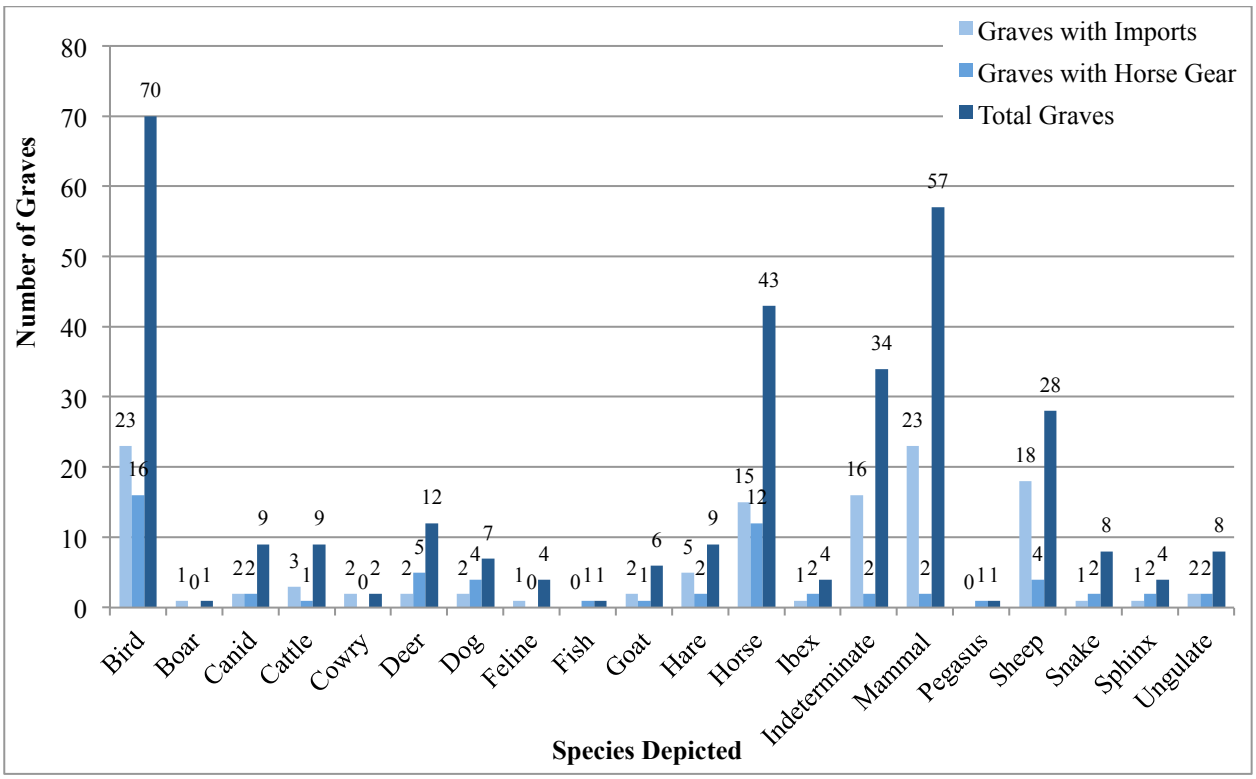


Figure IV.175. Graves with artifacts depicting animals as well as imports or horse gear, divided according to the species depicted.

There are more clear associations with imports when assessing the dataset by artifact type – all graves with pendants contained imports, which is unsurprising since most pendants in the sample are thought to be imports and are associated with females (see section IV.4.A.iv). Bronze lids are also exclusively associated with imported items, though surprisingly situlae and other bronze vessels do not show such strong associations. The stronger association with females is visible here as well – traditionally female items including beads, pendants, earrings, anklets, and scepters show a stronger association with imports than traditionally male items (belts, helmets, and horse gear).

The associations with horse gear are also somewhat surprising. Graves containing artifacts depicting horses only contain horse gear in 28% of cases. There is a stronger association between horse gear and artifacts depicting dogs, deer, and sphinxes. There is a relatively strong

association between horse gear and graves containing belts, situlae, or bronze vessels elaborated with animal imagery. Graves containing fibulae, beads, or ceramic vessels contain horse gear in very few instances. Certain artifacts in the dataset – pendants, earrings, torcs, anklets, the scabbard, scepter, and ceramic lids – never co-occurred with horse gear.

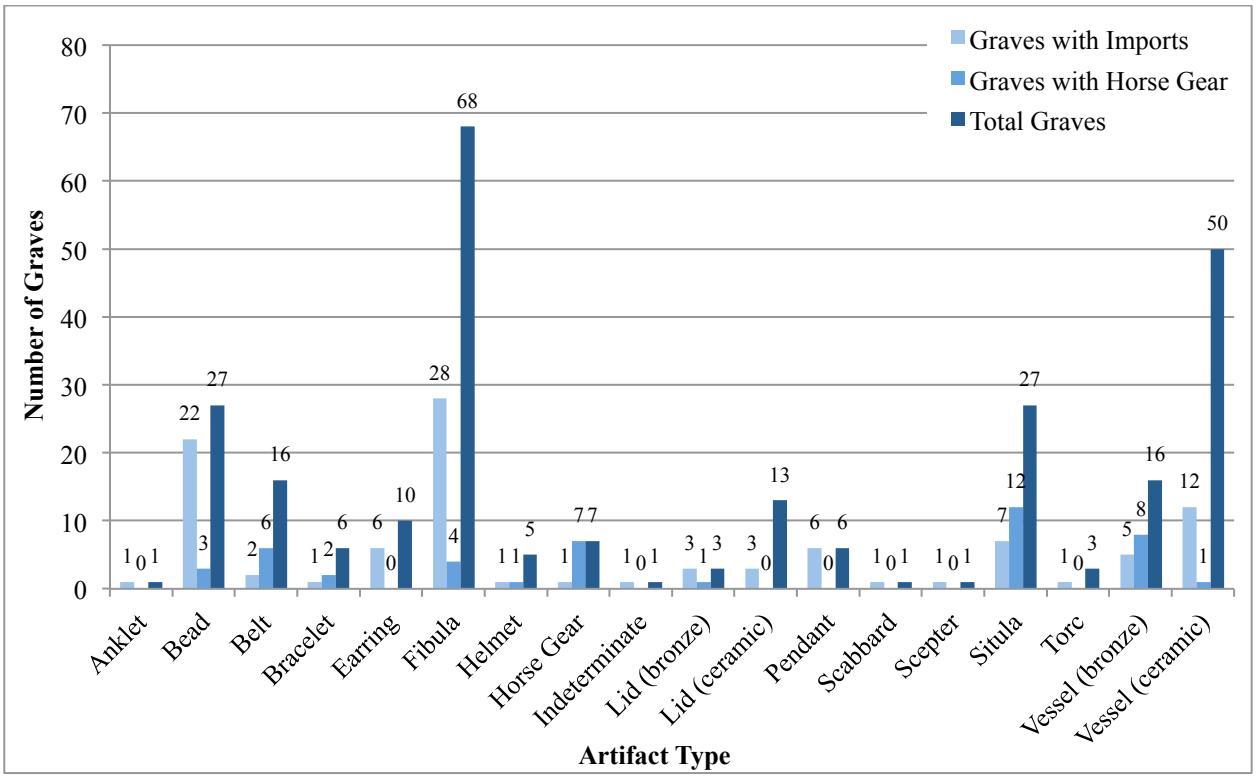


Figure IV.176. Graves with artifacts depicting animals as well as imports or horse gear, divided according to the artifact type.

If the faunal remains are divided according to species, there are very few clear patterns, since most species appeared in only one or two graves and at this time it cannot be determined whether these represent emerging patterns or simply particular combinations (Figure IV.177). Graves containing horse remains show the clearest patterning since this is the largest sample. Just over 20% of these graves also contained imports, while 45% of graves with horse remains also contained horse gear. In all graves containing both faunal remains and horse gear, the associated faunal remains included horse bones. However, of the total 59 graves that contained

horse gear, there are 38 that did not contain any faunal remains at all. It seems that burials of horses did not always contain horse gear, and vice versa. It has been suggested that horse gear may have stood *pars pro toto* for a horse in grave contexts, though the data presented here suggest that the associations between horses and horse gear in mortuary contexts may not have been quite so simple in this area (Carter 1998; Kmeťová 2013a; Pare 1992).

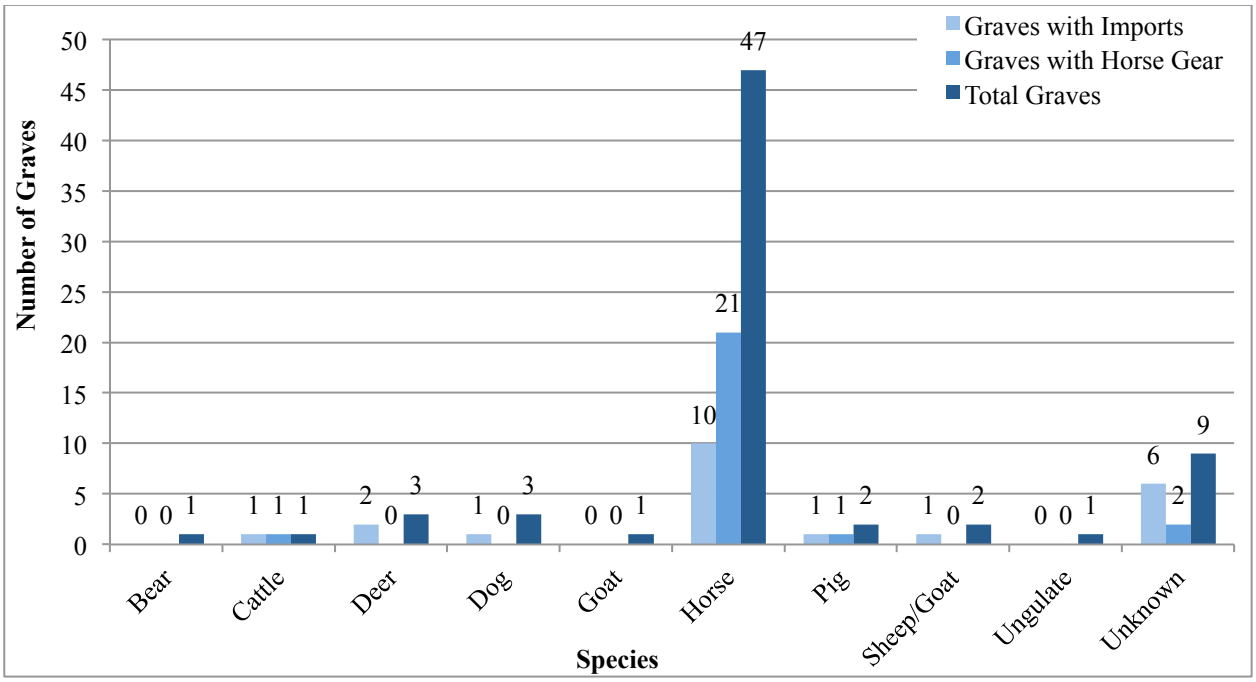


Figure IV.177. Graves with faunal remains containing imports or horse gear, divided according to species.

Chapter V. Interpretation

V.1. In what contexts do animal depictions and zooarchaeological remains appear and is there any patterning within or between these datasets?

Sixty-eight sites were assessed in the course of this project, 23 settlements and 45 cemeteries. Despite the fact that nearly one-third of the dataset consists of settlements, only eight artifacts depicting animals were recovered from two of those sites, accounting for less than 2% of the iconographic dataset overall. This supports the initial hypothesis that posited a more robust association between animal imagery and mortuary contexts.

The zooarchaeological dataset was compiled solely from mortuary contexts, since zooarchaeological finds from settlements in the study area are only sporadically published and cannot be adequately compared to mortuary remains at this time (see section III.2.C). However, limited comparison of zooarchaeological remains from graves and previous settlement studies indicate that the use of animal bodies in mortuary and settlement contexts diverges significantly (see section IV.5.D).

The association of animal imagery and faunal remains with Dolenjska Hallstatt funerary contexts is clear, but what was its significance? Why were artifacts depicting animals and zooarchaeological remains deposited in funerary contexts? Here I address the significance of mortuary contexts in general and how ideologies relating to animals were referenced during funerary activities, including the various types of animal depictions and zooarchaeological remains associated with these contexts. I also interpret the chronological and spatial patterns

evident in the dataset, revealing a more nuanced picture of the variable use of animal bodies and imagery through time and space.

Lived interactions with animals previously known from settlement contexts appear to have informed funerary rituals, both interactions with familiar domesticates in the community's care as well as the more rare interactions with wild animals through observation and hunting. In addition to experience of living animals, animal imagery was also familiar to Dolenjska Hallstatt peoples, who incorporated such representations into their lives in personal ornamentation, symbols of violence and power, and as artifacts of community and commensality. The incorporation of such artifacts as well as certain animals into rituals associated with death may speak to local ideologies concerning animals, lived relationships with animals, and the perceived qualities of animals. The incorporation of animals in a grave, in any form, was not the end of their life history. Rather, their inclusion in a grave demonstrates the continuing social agency of animals, though perhaps transformed by the movement from the sphere of the living to the sphere of the dead (Olivier 1999:128).

Strides made in archaeological studies of ritual in the last few decades have clearly demonstrated that a binary division between sacred and secular life did not exist, and that quotidian activities were likely highly ritualized (Bradley 2003, 2005; Brück 1999). However, it should be stressed that funerary practices probably maintained a distinct place in the larger sphere of ritual practices because the death and burial of a community member was not an everyday occurrence (Boyd 2014:194). Mortuary rituals were key sites not only for mediating grief and providing appropriate care and respect for the deceased, but also for negotiating the reorganization of the community in the absence of the newly deceased individual (Fahlander and Oestigaard 2008:10). Funeral rituals serve not only to manage the disposal of a body, but also to

mediate the abrupt changes to individual and group relationships caused by the loss of a community member. Incorporating animal materials in graves drew upon what may have been a broadly construed sense of community that was embedded in the natural world, a relational community composed of "interweaving relations between people, things, places, landscapes, animals, and plants" (Harris 2013:173). In such relational communities it may have been necessary to reference a variety of materials, experiences, relationships, and ideologies in the management of community reorganization following death (Frie 2016:73).

This is not to imply that animal imagery or animal bodies were necessarily items that were included in a grave to consciously reference a natural, extra-human world, or even particular human-animal relations. Rather, artifacts depicting animals were by their very constitution anchored in local ideas about and experiences with animals, and through their circulation and use they cited particular relationships with and conceptions of animals while eliding others, acting as touchstones for particular configurations of human-animal relations and ideologies (Frie 2016:68-69). Animal bodies were implicated in this process as well, citing a variety of relationships across a spectrum from the local domesticate, raised from birth, to the relatively anonymous wild animal that was only known to hunters in the context of its pursuit and death, but that was nonetheless meaningful in the framework of broadly held conceptions about animals. The continuing importance of animal imagery and animal bodies in funerary rituals over time and space at Dolenjska Hallstatt sites speaks to the existence of a shared cultural context where knowledge and experience of prior mortuary events involving animals continued to be mobilized through time: "the assembling involved in a funerary ritual framed the possibilities for future funerary events by citing past practices and maintaining their relevance in the present" (Frie 2016:65). Essentially, the incorporation of animal imagery and animal bodies

was not epiphenomenal – these were not simply pretty things, markers of rank or wealth, or food offerings for the afterlife. Rather, they were all these things and more – these funerary items were constituted from a vibrant world of lived interactions with and observations of animals, that when framed by cultural conceptions of animals facilitated the materialization of certain aspects of interrelationships and ideologies, thereby excluding others. By doing so, these funerary activities involving animal imagery and animal bodies provided reference points for future funerary activities, both with animals and without.

V.1.A. Contexts with Animal Depictions

Artifacts depicting animals were recovered from only two settlements of the 23 that were surveyed. While settlement excavations have been relatively limited in the study area, particularly in comparison to cemetery excavations, this is still a surprisingly low number. Cvinger nad Virom pri Stični is the most extensively excavated settlement to date, and even here only six artifacts with animal imagery were recovered. These were two Eastern Alpine animal head fibulae, two ceramic andirons, and two ceramic vessels. In addition, a ram's head bead was identified in a trench at Špičasti hrib, and a button with a hare protome was recovered as a surface find. The types of finds may reflect the kinds of items that were more common in everyday use – certain types of personal adornment and ceramics associated with the home. Nonetheless the low number of finds, especially at the well-excavated Cvinger nad Virom pri Stični site, suggests two explanations that are not mutually exclusive. Artifacts depicting animals may have been relatively rare in daily use, and reserved for specific occasions. In addition, they may have been high value objects that were less likely to be discarded or lost, and thus did not frequently enter the archaeological record in settlement contexts.

In contrast, large numbers of artifacts with animal imagery are found in cemetery contexts – 29 of the 45 cemeteries surveyed contained a total of 432 artifacts. This indicates that whether or not such items were in daily use, they were considered appropriate for deposition in burial contexts, and in many cases their strong ties to individuals presumably directed their final trajectory out of living circulation and into the mortuary sphere. There are a wide variety of such artifacts from mortuary contexts; this section will discuss the types of artifacts rather than focusing specifically on the animals depicted or individual associations,[206] since these are addressed in sections V.2.A and V.3 respectively.

As hypothesized, personal ornaments dominate the artifact dataset, and it has been suggested that animal imagery was useful for signaling various aspects of identity and affiliation through the medium of bodily display (Castor 2016; Hayeur-Smith 2004; Joyce 2005; Martin and Weetch 2017). Personal ornaments were primarily found in female graves, which contained three times the number of adornments with animal imagery found in male graves. Almost half the artifacts from female graves are zoomorphic beads – the majority are glass ram's head beads, though there are also beads depicting birds and indeterminate mammals, and there are amber beads and one bronze bead. Zoomorphic beads are not singular items; rather, they appear in groups or with other non-zoomorphic glass and amber beads, indicating that these were parts of larger sets of beaded jewelry that were likely meant for display (Figure V.1). This does not preclude the possibility that such beads had prophylactic

Figure V.1. Glass and amber bead jewelry, including amber ram's head beads. Novo mesto, Kapiteljska njiva Grave VI/4. Dolenjski muzej inv. no. P 2665.

[206] E.g., status, gender, or age.

value as attested in other parts of Iron Age Europe (Pauli 1975:131); however it does not seem that a prophylactic function was their sole purpose as was initially hypothesized, since display was also a priority. Ostentatious display may have been a primary function of these items – glass production, especially using multiple colors, was a relatively new technology and would have presented a colorful novelty (Križ and Guštin 2012; Križ and Turk 2003). Amber by its existence indicated access to distant lands and had its own evocative properties that set it apart from other materials such as its warmth against the skin, translucence, conduction of static electricity, and the ability to float (Bakarić et al. 2006:13-21; Causey 2011:37-41; Grimaldi 2006:144).

There are relatively few pendants depicting animals in the dataset, suggesting that they may have served a different purpose than the beads. While pendants may also have been displayed, most of them are imported items, and they also may have signaled non-local associations or even the origins of the individuals who wore them. Some of the fibulae were also imported, and may have served a similar function. Even those fibulae that were not clearly imports were often part of a suite of similar items distributed throughout the northern Adriatic, and so may have signaled a knowledge of or participation in extra-regional networks (Guštin 1974; Nascimbene 2009; Tecco Hvala 2014; Teržan 1976). However, it is also possible that despite the regional networks in which these items were circulating, that they had been adopted or translated in Dolenjska Hallstatt contexts to suit local frames of meaning that superseded their exotic associations. It is not possible to say for sure, however the lack of local zoomorphic pendants indicates that their foreign origins may have been significant, while the significance of zoomorphic fibulae is less clear.

In contrast, earrings with animal imagery are an extremely local phenomenon. Despite the relatively high number of earrings in the dataset – 34 total – they were only recovered from

the study sites of Preloge at Magdalenska gora and Branževec 2 at Dolenjske Toplice. Beyond the dataset earrings depicting animals are known from sites in the Vače complex, and a single example is attested at Vinica.[207] However, the Vinica earring is part of the Mecklenburg collection, which has a long and storied history. Based on the dating of Vinica and the spatial restriction of the other earrings, this earring could have been incorrectly associated with Vinica and may have originally come from Magdalenska gora or Vače where the duchess also excavated (Greis 2006; Hencken 1978; Mahr 1934; Tecco Hvala 2012).

Belts are the only personal adornments restricted to males. The majority of these are considered to be local items,[208] and are decorated in the situla art style. Despite the individualized representations found on the belt plates, thematically most depict wild animals, particularly in hunting scenes, or more occasionally scenes of male combat or processions. Whether this was their explicit purpose or not, the size and sheet bronze construction of most of these belt plates would have been visually compelling, drawing attention to the men who wore these items. Only upon closer inspection would the representational schemes have been evident, potentially inviting viewers closer or indicating a level of personal familiarity for those individuals who came close enough to examine the representations on these artifacts. The repairs exhibited by many of these belt plates[209] speak to the use of these items in life, and indicates that at least these particular adornments were not solely intended for the mortuary sphere. It is quite likely that most of these items also indicated a higher level of social status due to the access to craftsmen able to produce representations in the situla art style, and possibly a certain level of

[207] Peabody Museum inv. no. 40-77-40/11419.
[208] See section IV.4.A.vii for the two possible exceptions.
[209] Brezje pri Trebelnem, Hojbi Grave XIII/8, Naturhistorisches Museum Wien inv. no. 34125; Dolenjske Toplice, Branževec 2 Grave XI/21, Naturhistorisches Museum Wien inv. no. 57252; Magdalenska gora, Preloge Grave 2/58, Naturhistorisches Museum Wien, missing; Magdalenska gora, Laščik Grave V/29, Peabody Museum inv. no. 34-25-40/8516; Molnik, Grmada Grave 17/10, Mestni muzej Ljubljana inv. no. 510.

exclusivity associated with artifacts with narrative representations.

Martial gear and horse gear have intriguing similarities to personal adornments; and though the associations may have been primarily with violence, the use of the bronze scabbards, daggers, and helmets in the dataset would have drawn attention to the body of the male warrior (Treherne 1995). The bronze and tin-lead of the martial gear and horse gear also drew attention as high-status, visually compelling materials, indicating to observers that these were men set apart from the rest due to their bodily abilities, their access to limited resources, and potentially their preeminence in human-human and human-animal relationships (Frie forthcoming; Gosden 2004:42-43). Horse gear in turn was part of the elaborate display of horse bodies, and likely the display of the resources of their owners and/or riders. The resources available to adorn the bodies of their animal companions would have certainly sent a message about the associated human, particularly since such adornment was quite rare in this period. It may also be telling that much of this elaborate horse gear referenced eastern, particularly Scythian designs (Frey 1981; Guštin and Teržan 1975; Pare 2012).

Bronze and ceramic vessels for food and drink are frequently ornamented with animal imagery and deposited in graves. Ceramics in general are the most common grave good found in Dolenjska Hallstatt contexts. There are 74 ceramic vessels, including lids, and 51 bronze vessels with animal imagery from mortuary contexts. The two ceramic vessels found in settlements indicate that these items may have been used in both life and death. However, the elaboration of ceramic vessels with animal imagery is clearly much more common in mortuary contexts than settlement contexts, which may indicate that such vessels were not strictly utilitarian items. It is unclear whether the ceramic vessels are associated with feasting, as is the case with bronze vessels, or were used for individual quotidian consumption, or perhaps both.

The bronze vessels are thought to have contained alcohol, and often come in sets with multiple vessels (Teržan 1980). These are large vessels that based on their size would have been used for serving beverages, which is supported by the frequent discovery of small cups associated with them (Figure V.2). There has been a significant amount written about the role of feasting, and particularly the distribution of alcohol in Iron Age Europe (e.g., Arnold 1999; Dietler 1990, 1996; Koch, E. 2003; Loughton 2009). Most of these sources agree that feasts would have been organized by elite individuals and facilitated the acquisition, maintenance, and/or negotiation of influence and prestige (Arnold 1999; Dietler 1990). This could have functioned in a number of ways – serving as host demonstrated access to resources, engendered relationships of dependence between hosts and guests requiring reciprocal favors or services, and demonstrated social distinctions through differential access to food and drink, seating or other consumption patterns including those who served and were served (Arnold 1999; Dietler 1990, 2001). The importance of feasts for marking social differentiation is shown on several situlae that depict enthroned men being served drink by veiled women, as well as activities such as music and dance, and possibly spectator sports such as boxing (Eibner 1981, 2006; Frey 1986; Lazar 2011).

Figure V.2. Bronze serving vessels and small cups that are thought to have served as ladles. Both sets from Novo mesto, Kandija Grave IV/3 (Križ 2012:14, 78).

Not only were feasts apparently used to mark social differences, but at the same time they seem to have been important group events that may have also served to highlight the social bonds of the community itself. Feasts are considered to be communal rituals and not solely moments for secular power acquisition, and the hosting or participation in ritual feasting may have extended these conceptions of prestige and influence into the sacred sphere. The elaboration of so many of these vessels with animal imagery is intriguing, and may speak to the significance of animals in prominent displays at these public feasts. The ornamentation of these items, their relative fragility, as well as the lack of signs of burning or other heat modification also support the belief that these were serving rather than cooking vessels.[210] Individuals could have interacted with them and viewed the animal imagery up close in the context of serving themselves or being served from the vessels. The deposition of such vessels in graves may have served to mark those who were hosts, or otherwise involved in the organization of such events.

In sum, the artifacts assessed in this study were clearly most significant in the mortuary sphere. People were sent to the afterlife buried in their finery, which was often elaborated with animal symbols. These items in many cases served to distinguish individual bodies, demonstrate access to wealth and rare materials, and mark association with local and non-local groups. Dolenjska Hallstatt people were also buried with metal and ceramic vessels – many of those elaborated with animal imagery are impressive and unique serving vessels likely important for communal feasting – possibly indicating the role of the associated individuals as hosts. The vessels associated with individual consumption rather than serving may indicate a belief in an afterlife where bodily integrity and bodily functions including consumption would continue (Arnold 2001:213-214). Alternatively the deposition of such items, particularly items that may

[210] In contrast to British Iron Age cauldrons, which do show signs of oxidation and carbonization and are thought to have been used to heat stews (Joy 2014).

have belonged to the deceased such as personal ornaments or their food and drinking vessels may have had less to do with the dead than the living – it is possible that it was necessary to remove a deceased individual's personal items from active use and consign them to the grave, perhaps due to fears of pollution or a belief in the dangerous dead (Arnold 2001:213-214, 220, 2014; Pauli 1975; Veit 1988).

V.1.B. Contexts with Zooarchaeological Remains

What is not well represented iconographically is the role of animals in mortuary ritual, though the presence of faunal remains in graves of the period indicates that their inclusion was an integral part of the funerary performance. Zooarchaeological remains were identified at 30% of the cemeteries assessed, representing at least 86 animals. The analysis indicated that important distinctions were made between the burial of whole horse bodies, animal parts, and specific elements such as teeth and horns – some if not all of these are proposed to be the remnants of animal sacrifices. It is suggested that these varied treatments of animal bodies related to different aspects of managing death in the local community. The ritual deposition of whole horses was likely related to the identity of the deceased individual, and specifically referenced the meaningful relationships between particular elite males and particular horses in life. In contrast, the deposition of animal parts in burials may represent the remains of animal sacrifice as part of the funerary ritual, which could have involved the subsequent division and distribution of the animal to members of the community. Finally, the use of animal teeth, horns, and claws may have served a prophylactic or other more esoteric purpose that required the collection of and sometimes adornment of the human body with particular animal parts.

Animal sacrifice comes in a variety of forms across the spectrum of formality (Ekroth

2014; Pluskowski 2012). Even some feasts may include elements of animal sacrifice, since a key aspect of animal sacrifice is the ritual killing of an animal and consumption of its flesh (Hamilakis and Konsolaki 2004:145). The divide between sacrifice and normal slaughter may also be a modern distinction, since in other cultures the killing of animals is always a ritualized practice (Morris 2012:17-18). In the Dolenjska Hallstatt culture, the slaughter and disarticulation of an animal and placement of some of the elements in the grave with the deceased indicates that animal sacrifice was an important form of ritual expression during certain funerary events. There are hints at these processes in situla art – primarily horses, but also ibex, a red deer, and a sheep are shown harnessed in the company of a man with an axe, which may depict an animal being led to sacrifice (see section IV.4.F). Axes have been interpreted as essential tools for the ritual killing of animals in other parts of Hallstatt Europe, particularly larger species (Arnold 2010a:198; Krausse 1999:354, 2007:220-222; Lücke 2007). These sacrifice scenes involving horses align with the large number of horse remains recovered from grave contexts – some sheep remains and deer remains have been identified in grave contexts as well, so it is plausible that these scenes depict animal sacrifice associated with funerary events.

The significance of animal parts in Dolenjska Hallstatt ritual has been overlooked because of the modern privileging of the whole animal at the expense of its parts (Valera and Costa 2013:272). This is evidenced by the small sample of analyzed animal parts from burial contexts. Horse bodies are easier to discuss here because when they have been found associated with graves they were more likely to be analyzed and published, whereas other animal parts are often just a footnote. However, more recent treatment of parts versus wholes highlight that meaningful parts may constitute the whole (Chapman 2000a; Chapman and Gaydarska 2007). The insight provided by such work is that parts or fragments may maintain the same symbolic

significance as the whole, and in fact may be a key element of a distributed whole that enchains a network of relationships. As António Valera and Cláudia Costa state in their discussion of segmented animal bodies from burials in southern Portugal, "the parts, by participating in the essence of the whole, play the social role of maintaining connections between people or between people and places or events" (2013:272). It is likely that participation in the ritual sacrifice and division of animals drew together living individuals, the dead, and animals, and implicated a whole network of relationships. This was all part of a process of enchainment, and the act of fragmenting animal bodies was one way of materializing these enchained relationships (Brittain and Harris 2010:586-587).

Timothy Insoll's ethnoarchaeological work on the ritual of animal sacrifice among the Talensi in Ghana (2010) has demonstrated that sacrifice and partition, despite its ritual significance, may not appear in the archaeological record as obviously distinct from other faunal remains. Animal sacrifice, if it is archaeologically visible at all, may only appear as a few discrete animal parts or even as food refuse (Insoll 2010:238-239). Though animal sacrifice may be less archaeologically obvious than expected, Insoll's work demonstrates that animal sacrifice and the distribution of animal parts post-ritual may be essential both to distribute ritual efficacy, but also to materialize and strengthen kin and community ties. The division of sacrificial animals makes a statement about community relationships, and due to the aforementioned ontological parity between part and whole (or at least referential significance of part to whole) it draws members of the community together (Valera and Costa 2013:272).

Animal sacrifice associated with local funerary ritual may also have served as an explicit reference to the membership of the deceased in the community. This community membership was materialized one final time by sacrificing and dividing an animal and depositing a part of

that animal with the deceased. Just as it may have been the deceased's right in life to receive certain parts of an animal post-sacrifice, it was important to replicate and materialize this one last time as the community member left the realm of the living (Chapman 2000b:6). The participation in this final animal sacrifice and the deposition of a part with the deceased indicated that they continued to be part of the community, but also initiated the process whereby the community was reconstructed in the absence of this individual. These animal sacrifices associated with funerary rituals may have been key moments for the reconfiguration of community ties in which the appropriate distribution of animal parts to individuals shifted to account for this new living community with one less member. While it is not possible to test the veracity of this hypothesis about animal sacrifice and division and its relationship to the prehistoric community, the presence of partial faunal remains in graves indicates probable sacrifice and certainly the division of animals associated with funerary ritual.

Not only can animal sacrifice be a way of materializing and reinforcing community ties, for the Dolenjska Hallstatt people it may have been essential for the management of death. The ritual of animal sacrifice may have had the explicit or implicit goal of assuaging the negative forces that led to the death of a community member by warding off similar events in the future (Brück 1999:320; Insoll 2010:242). Animal sacrifice oriented toward materializing community relationships and mitigating negative forces, rather than animal sacrifice for ritual feasting, also seems to more closely match many faunal remains from Dolenjska Hallstatt graves, which do not often correspond to expected feasting refuse or deposits of joints of meat as grave goods.

Horses are notable for being buried whole in certain Dolenjska Hallstatt graves. Such depositions, often referred to as associated bone groups in the zooarchaeological literature, are generally taken to indicate the sacrifice of an animal rather than its death of natural causes

(Morris 2008, 2011; Pluskowski 2012:2). The sacrifice and burial of a horse with an elite individual displayed the individual's status by referencing their association with this restricted animal in life while also demonstrating the ultimate ownership of this animal via conspicuous consumption, taking this valuable animal to the grave with them. References in Indo-European mythology and the significance of horse burials throughout Bronze and Iron Age Europe have led to the proposal that such rituals were regulated by sumptuary rules where only certain high status individuals could have a horse sacrifice associated with their burial, linking the deceased with heroic ancestors and gods who were also carried to the afterlife on horseback or in chariots and wagons (Armstrong Oma 2013; Azzaroli 1980; Carstens 2005; Kmet'ová 2013b:73-76; Kmet'ová and Stegmann-Rajtár 2014:162; Kossack 1998; Kuzmina 2006:263, 265).

Two of the earliest horse burials, Grave 17/6 from Grmada near Molnik and Grave VI/5 at Gomile near Brezje pri Trebelnem, are distinguished by the combination of the cremated horse bones[211] and human bones – it is even possible they were cremated on the same pyre. Cremation of the dead is not only a labor-intensive performative ritual, but it is sensuously affective upon the audience (Williams 2004). The entire performance, from the building of the pyre, to the cremation itself, and the final recovery of select bones from man and beast is best understood as "scene-making," because a cremation was "clearly intended to be remembered by mourners, not through its endurance and permanence, but through its brief visibility and subsequent destruction" (Williams 2004:271). The combination of man and horse – either cremated separately or together, would have been a powerful sensory experience for the observers. However, despite the extraordinary and likely memorable nature of these events, after the Podzemelj phase there are no other co-mingled human-animal cremations known from this area.

[211] In the case of Grave 17/6 cremated pig bones were also included in the grave.

The evidence from iconography as well as the association of whole horses with relatively high status males, at least in terms of their grave goods, supports the assertion that cosmology and status provided an important impetus for the sacrifice of a horse during certain funerary events. However, another facet of human-horse relations should be considered to explain why horses in particular were so important in the funerary rituals of certain individuals. It may be that the status of these equestrian elites was related to their unique relationship with horses. Horses were a restricted animal, but they were also involved in highly social on-on-one relationships with their riders that contained elements of care, control, communication, and mutual action (Argent 2010, 2012; Game 2001) – this would have set riders apart from others in their community, perhaps even reinforcing the unique social position of the horse and rider, who shared a relationship completely distinct from other human-animal interactions (see section V.2.A.v for more about human-horse relationships, particularly riding).

Among the horse remains there are depositions of solely teeth, although these should be interpreted along with other finds of animal teeth, claws, and horns. It was proposed by Ludwig Pauli that similar finds of animal bones and teeth served as amulets (1975). Pauli's work on central European Hallstatt sites demonstrated that amulets in general were most often associated with women and children, populations he identifies as those most likely to need extra protection (1975:154). Though the animal parts represented in this dataset are similar (particularly teeth and a claw), the demographic distribution does not align with Pauli's findings. There are no children associated with such finds, and more male graves contain such finds than female graves. There are only a few possible amulets associated with female graves, all from Preloge at Magdalenska gora: one grave with horse teeth,[212] a grave with a horn,[213] and a grave with a dog canine.[214] The

[212] Grave X/18.

association of teeth and claws primarily with males rather than females and children does not negate the possibility that such items were used as amulets, but rather this may indicate that particular men were considered more in need of the type of protection offered by animal parts. The popularity of teeth matches Pauli's findings, though he found that boar tusks and bear canines were most prevalent, which he associated with male warriors and ideals of strength, courage, and bravery (Pauli 1975:129-130), which could also apply to the Dolenjska Hallstatt examples. The strong focus on teeth is notable; these may have been considered especially important compared to other elements. The use of teeth is interesting for another reason, since the harvesting of teeth would have required prolonged or intensive engagement with animal remains. Teeth are difficult to remove from a recently killed animal without significant processing to open the alveolar processes and separate the ligaments holding the teeth in place. It would be simpler to remove animal teeth from a long-dead, defleshed animal where this soft tissue had already begun to break down. However, this implies that deceased animals or at least animal parts were accessible during or after the process of decomposition to access teeth. This focus on animal teeth, particularly those of ruminants, is shared by neighboring Hallstatt cultures including the Ljubljana group and Sveta Lucija group (Gruškovnjak 2016:445-447).

It is likely that the animals sacrificed and/or consumed in the course of funerary rituals were known to community members, and perhaps the deceased as well. Their incorporation in mortuary ritual may speak to a belief in an afterlife where these animals or their parts played a role. Horses may have been viewed as companions in death as they had been in life (Frie 2016:76, forthcoming). In turn, the sacrifice of an animal or animals during the funerary ritual and the division of its parts may have been essential for the management of group ties

[213] Grave II/17.
[214] Grave 13/87.

necessitated by the loss of a community member. The act of sacrifice where the deceased participated one final time in the apportioning of animal parts to mark their membership in the community may have begun the process whereby communal ties were reconfigured with one less living member. Particular elements such as teeth or horns and claws may have served as amulets – possibly indicating that they were personal items that had to be placed in the grave with the deceased, or that the deceased needed continued protection or other symbolic aid. Alternatively, the deposition of these items may have served to protect the living from the dead.

V.1.C. Chronological Patterns

There is a clear chronological distinction in the distribution of animal imagery and the burial of animals in the Dolenjska Hallstatt region. There are only 24 graves containing artifacts depicting animals or faunal remains that can be attributed to the Early Hallstatt period, encompassing the local Podzemelj and Stična phases circa 800-600 BCE. In turn, 210 contexts can be dated to the Late Hallstatt period circa 600-300 BCE. Interestingly, a high number of the earlier artifacts are imports or demonstrate contacts with neighboring regions. Most of these imports originated in northern Italy, though the craters from Grave 13/10 at Preloge near Magdalenska gora came from Apulia (see Figure IV.143a). Despite the fact that widespread connections are known in this early period, the early artifacts with animal imagery or their prototypes are primarily from the west (Dular 2003:117-118, 130). In Etruria and neighboring regions the period circa 750 to 550 BCE is referred to as the Orientalizing period, marked by strong connections to eastern cultures via Mediterranean trade with the Phoenicians and the Greeks (Gunter 2016; Spivey 1997:40-52). The Dolenjska Hallstatt people were also participating in this Mediterranean sphere, though it is not clear if these items were desirable due

to their elaboration with animal imagery, their foreignness, or both.

The horse burials also suggest connections to northern Italian areas, where the sacrifice and burial of horses is known from contemporary Paleovenetic and Venetic contexts (Azzaroli 1980; Riedel 1984). Seven Dolenjska Hallstatt graves from the early period contain horse remains. The two earliest horse burials are those from Grave VI/5 at Gomile near Brezje pri Trebelnem and Grave 17/6 at Grmada near Molnik, both dating to the Podzemelj phase. These graves in turn show connections to earlier ritual forms rather than foreign ones. Both burials were inurned cremations that included cremated horse remains. The cremation of humans was the dominant burial form in the Urnfield period, though the cremation of horses in these contexts is not well attested.[215] However, Grave 17/6 from Grmada at Molnik also contained cremated pig remains, which does show more clear continuity with earlier periods – the Late Bronze Age site of Zadovinek in Dolenjska also contained pig remains, and graves from the Late Bronze Age cemetery at Dvorišče SAZU in Ljubljana frequently contained pig remains (Puš 1971, 1982; Škvor-Jernejčič 2014; Borut Toškan, personal communication 2017).

There was an explosion of figural art in the Late Hallstatt period. In a forthcoming article concerning horse imagery I undertake a more chronologically nuanced assessment, and determine that there is very little horse imagery at the beginning of the Late Hallstatt period in the Serpentine Fibulae phase, but a major peak in the Certosa Fibulae period (Figure V.3; Frie forthcoming). This pattern does not apply solely to horses; in the larger dataset there are only seven graves with animal imagery that have been dated to the Serpentine Fibulae phase and five

[215] This may be due to the fact that cremations are rarely assessed by a zooarchaeologist to identify animal bones. However, the graves from the site of Dvorišče SAZU date primarily to the Urnfield period, and have been analyzed by a zooarchaeologist. Despite the frequent inclusion of animal remains in cremations at this site, there is only a single find of a horse in Grave 310, and it is a single tooth (Škvor Jernejčič 2014:Appendix 4).

burials with animal bones,[216] accounting for only 6% of the graves dated to the Late Hallstatt period. The period of the Serpentine Fibulae phase has been noted as one of widespread unrest, possibly related to increased raiding and incursions of foreign mounted warriors (see section II.3.C.). In this period artistic representation and trade in general may have been depressed due to this insecurity, though it could also be that this period shows continuity with the Early Hallstatt period where animal representation and the burial of animals in graves was relatively uncommon.

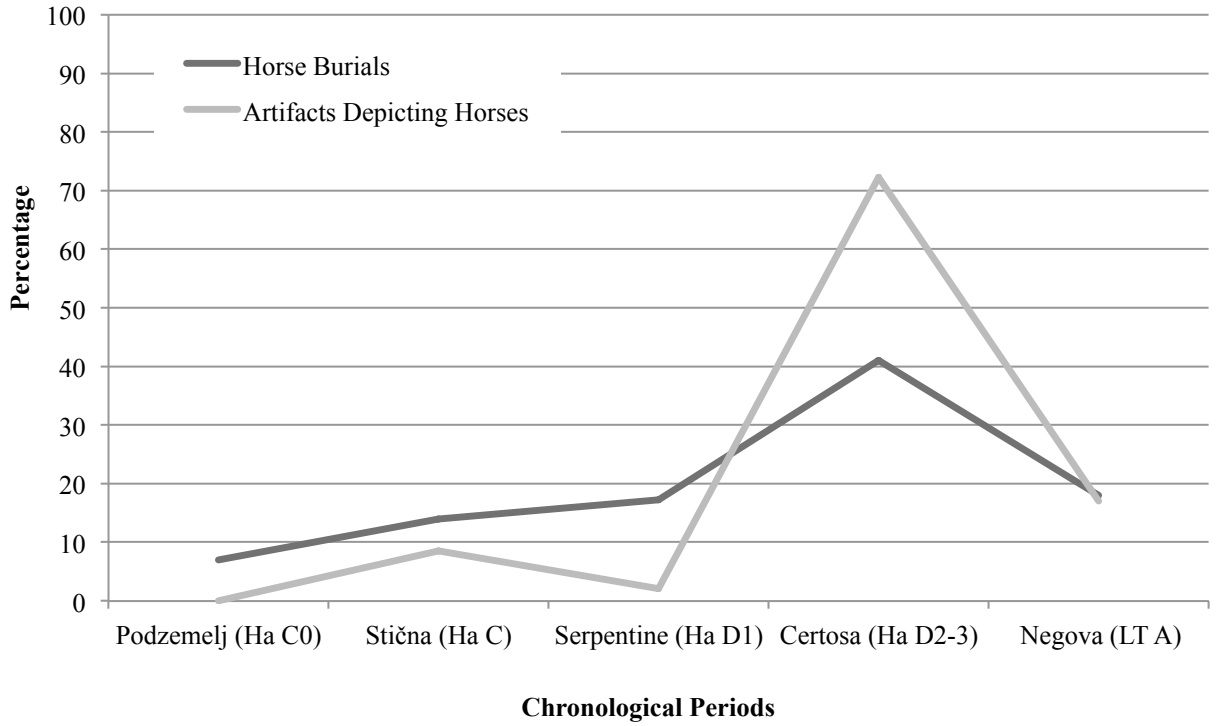


Figure V.3. Chronological distribution of horse remains and artifacts depicting horses in Dolenjska Hallstatt graves (Frie forthcoming: Fig. 6, modified from Dular 2007:745 Fig. 9).

The Certosa Fibulae phase is when animal depiction and apparently animal burials experience a florescence. Horse burials peak in this period, which I have associated with the

[216] Serpentine Fibulae phase graves with artifacts depicting animals: Brezje pri Trebelnem, Hojbi Grave VII/28; Grmašca Mali Lukovec/Grave 4; Novo mesto, Mačkovec I/1; Magdalenska gora, Preloge Grave 13/10, Grave II/2a, Grave IV/24; Stična, Gomile Grave V/2; also Libna, Špiler Tumulus III/Find 2. Graves with animal bones: Magdalenska gora, Preloge Grave 2/57, Grave IV/43, Grave VII/29, Grave VII/39; Stična, Gomile Grave 5/10.

increased use of horses in response to the threats posed by mounted warriors in the previous Serpentine Fibulae phase. I propose that in the Certosa Fibulae period elites were highlighting their equestrian abilities to embody a particular elite masculine identity (Frie forthcoming; see section V.3.A for more detail). Animal fibulae and crossbow fibulae with animal heads also become widespread in this period, as do ram's head beads, situla art, horse gear, and ceramics with animal imagery. Though connections to neighboring regions are still evidenced by these representations, there is also clearly a robust local craft industry producing artifacts with animal imagery, in particular cast bronze artifacts, sheet bronze elaborated in the situla art style, and glass beads (Križ 2012; Križ et al. 2009:99-107; Križ and Turk 2003; Turk 2005).

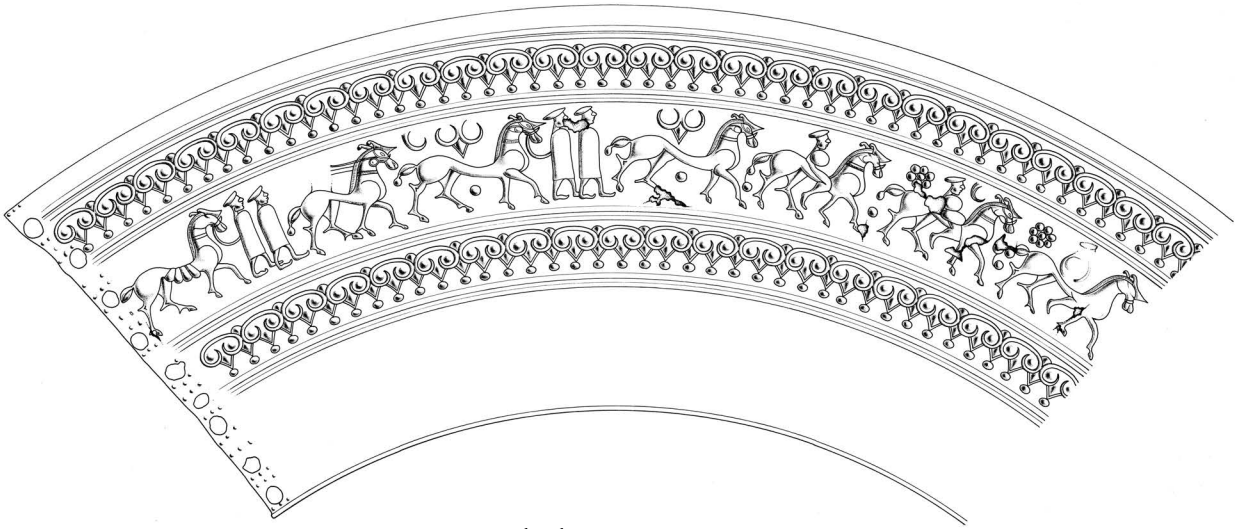


Figure V.4. An example of late situla art (circa 5th-4th century BCE). Grave IV/3 at Kandija, Novo mesto. Dolenjski muzej P 239 (Image courtesy of the Dolenjski muzej).

The Negova Helmets phase is characterized by a continuation of these trends in animal representation and animal burials. While situla art has been characterized as less complex in this period, there is clearly still a high level of artistic expertise (Figure V.4). However, there are fewer depictions of humans, and birds are no longer included in narrative scenes but continue to appear on the handle terminals of vessels. This period also demonstrates an increasingly

schematic aesthetic – the clear depictions of animals on the animal fibulae and crossbow fibulae are replaced by the Eastern Alpine animal head fibulae, and situla art becomes less elaborated while ceramics and bronze vessel handles depicting extremely stylized animal protomes remain popular. Just as broader Orientalizing impulses influenced Dolenjska Hallstatt art in the earlier period, in this later period the more schematic depictions of animals may be gaining traction in the broader context of the highly stylized depictions that characterize early Celtic art (Megaw and Megaw 2009a, 2009b). The only female graves with horse remains are also dated to the Negova Helmets phase, indicating that what once had been a rite exclusive to males was beginning to change, possibly symptomatic of larger changes in the conceptions of and associations with horses, or in the presentation of elite masculinity.

V.1.D. Spatial Patterns

Despite the robust sample of 68 sites in the study, only 33 total sites had artifacts depicting animals or animal remains associated with them – 31 cemeteries and two settlements (Figure V.5).[217] It is important to try and determine whether this is a meaningful pattern, and if there may be gaps due to the current state of research.

There is a wide distribution of artifacts depicting animals in particular, but also burials with faunal remains, throughout the Dolenjska Hallstatt region. However, there are two noticeable gaps: one is around Veliki Vinji vrh running southeast to Stari Grad, and the other from Kunkel southwest to Gradec near Vinkov vrh. Most of these sites were well excavated and published, particularly around Veliki Vinji vrh, so this seems to represent an Iron Age phenomenon rather than a contemporary one due to differential excavation.

[217] Settlements were assessed for the presence of animal imagery, not animal remains (see section III.2.C).

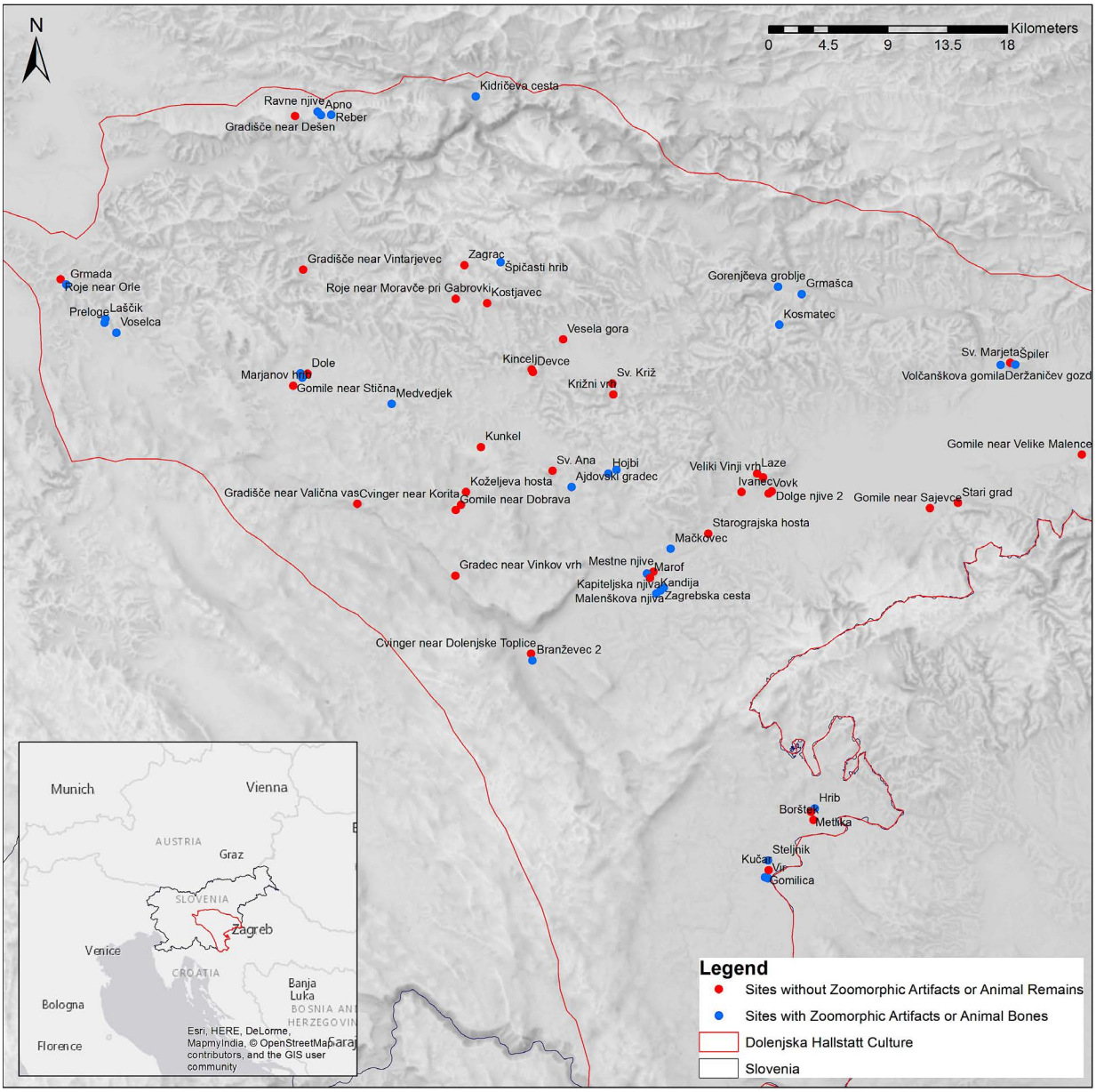


Figure V.5. Distribution of sites in the study with finds of either artifacts depicting animals or animal remains.

In contrast, the lack of material from the Mokronog and Trbinc complexes, centering on the hillforts of Križni vrh and Kincelj respectively, may be due to the nature of excavation in those areas. Kincelj was heavily damaged by a Late Antique occupation sequence (Dular and Tecco Hvala 2007:83), and the associated cemetery of Devce was subject to only limited modern excavation and sporadic antiquarian excavations (Dular et al. 1991:91; Vuga and Josipovič 1981;

Vuga 1982). While trenches were dug at Križni vrh that exposed remains of an Iron Age house and fence, no pertinent finds were recovered (Dular and Tecco Hvala 2007:83, 110; Dular et al. 1991). The associated cemetery of Sv. Križ was excavated in 1888 and 200 graves were found; however, reconstruction and publication of these graves is currently ongoing.[218] The only material assessed for this study was from modern excavations in 1986, which were limited in scope and did not contain pertinent material (Breščak 1987; Svoljšak 1990).

The absence of finds from hillfort contexts overall seems to represent a compelling pattern. There were 22 settlements in this study, only two of which contained a total of eight artifacts depicting animals. Cvinger at Vir pri Stični yielded six, though it is also the most well excavated settlement in the Dolenjska Hallstatt area. Špičasti hrib contained a ram's head bead in the Early Iron Age layers and a button depicting a hare protome was recovered from the surface. In general the hillfort sites have only had their fortifications investigated with a few trenches. Only a few sites have been subjected to more internal excavations – Cvinger at Dolenjske Toplice was explored by six trenches, one of which was entirely inside the fortifications (Dular and Križ 2004), while Kučar at Podzemelj was thoroughly investigated and revealed five Iron Age houses, though these had been heavily damaged by the Late Antique occupation (Dular et al. 1995). The absence of animal imagery at these hillforts is surprising – these were very large sites, and were important local centers as well as key crossroads in larger trade routes.

Janez Dular and Sneža Tecco Hvala's study of Dolenjska Hallstatt settlements identified particularly important sites on the landscape. As part of their study, they assessed the importance of Dolenjska settlements through several metrics including settlement size, size of associated cemeteries, as well as prestigious finds from these cemeteries (Table V.1; Dular and Tecco Hvala

[218] Both artifacts depicting animals and animal bones were recovered from these graves (Alma Bavdec, personal communication 2015).

2007:191-195).[219] They identified the 21 most important Dolenjska Hallstatt sites according to these parameters, which align well with the data from this study with a few notable exceptions.

Table V.1. Ranking of Dolenjska Hallstatt centers according to settlement and cemetery size and associated prestigious finds. Sites in dark grey were not assessed in this study, site in light gray only had settlements included in the study, sites in white were fully assessed (after Dular and Tecco Hvala 2007:195 Fig. 113).

Site	Location	Settlement Size	Cemetery Size	Prestige	Total
Cvinger	Vir pri Stični	21	20	20	**61**
Veliki Vinji vrh	Bela Cerkev	19	21	18	**58**
Magdalenska gora	Zgornja Slivnica	20	13	21	**54**
Sv. Marjeta	Libna	18	17	14	**49**
Zgornja krona	Vače	17	14	17	**48**
Kučar	Podzemelj	16	19	11	**46**
Marof[220]	Novo mesto	13	11	19	**43**
Cvinger	Korita	8	18	13	**39**
Molnik	Podmolnik	14	16	9	**39**
Cvinger	Dolenjske Toplice	9	10	16	**35**
Karlin	Brezje pri Trebelnem	3	12	16	**31**
Gradišče	Velike Malence	15	7	6	**28**
Črnomelj	Črnomelj	12	3	12	**27**
Tičnica	Studenec	2	15	6	**23**
Vesela gora	Brinje	10	8	0	**18**
Bezeg	Gradišče nad Pijavo Gorico	11	2	0	**13**
Šlemine	Golek pri Vinici	6	4	0	**10**
Metlika	Metlika	1	1	0	**2**

Of the 21 important sites, thirteen of the associated hillforts were included in this study, and of these artifacts depicting animals were only recovered at Cvinger at Stična, the largest of the Dolenjska Hallstatt fortified settlements. Even at those sites where greater expanses of the interior and houses were exposed, no animal depictions have been uncovered. While it is

[219] In their study, prestigious artifacts were defined as imports, bronze vessels, warrior equipment, horse burials, and horse gear (Dular and Tecco Hvala 2007:193).

[220] This study was published in 2007, and it is possible that by now Marof at Novo mesto would surpass Podzemelj due to the continuing exposure of tumuli (52 at the time of writing) and prestigious items.

certainly possible that the limited excavation conducted at individual hillforts is to blame for the lack of artifacts found at these sites, in aggregate this still represents a significant amount of excavation yielding very few artifacts depicting animals. This implies that despite the ubiquity of such artifacts in mortuary contexts, objects either were less commonly used in daily life, or if they were used, people took care to avoid the loss of these precious items.

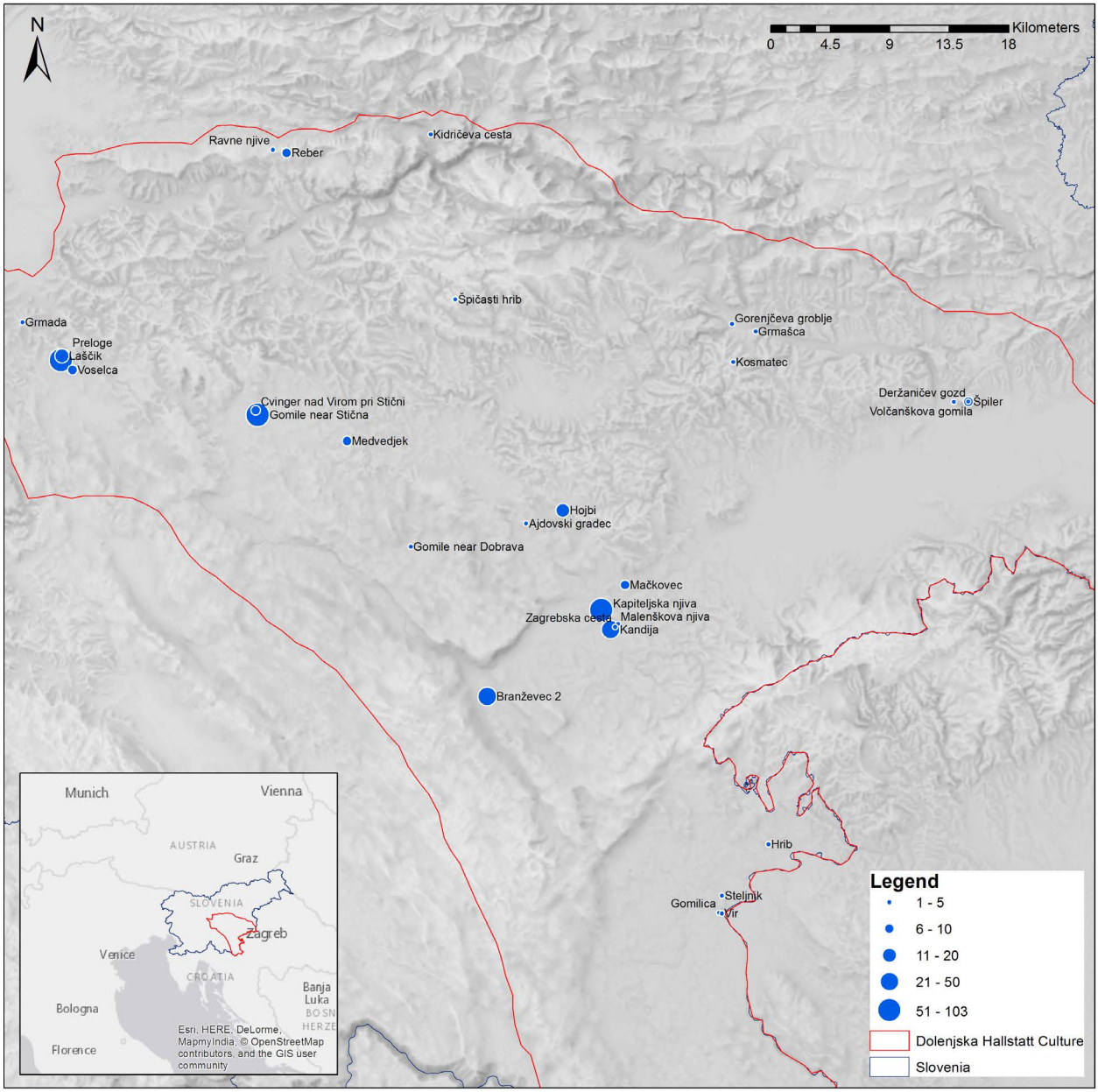


Figure V.6. Numbers of artifacts depicting animals per site.

In contrast to the limited remains from the settlements, every site complex in this study with over ten artifacts depicting animals recovered from cemeteries appears on Dular and Tecco Hvala's list of important Dolenjska Hallstatt centers (Figure V.6). Apparently living at these sites facilitated access to items with animal imagery, possibly because they were centers for production and/or trade, and had more high status individuals willing and able to access unique and aesthetically pleasing items.

There are three exceptions – the sites around Veliki Vinji vrh have not produced many artifacts with animal imagery,[221] despite the fact that this area was the second most important center in the Dolenjska Hallstatt territory. The Dobrnič complex centered on the hillfort at Cvinger near Korita has also produced only a single zoomorphic find – a horse head crossbow fibula from Grave 14/15 at Gomile near Dobrava. Molnik also has only a single find with animal imagery, the elaborate repaired belt plate with a hunting scene from Grave 17/10 at Grmada (see Figure IV.66). It is unclear why these sites have so little animal imagery, since they are significant sites with major cemetery excavations. Personal choice or access may have played a role, though it is difficult to speculate why people in these areas were not buried with the items that were so ubiquitous in the larger region. This stands in stark contrast to the complexes of Stična with 79 artifacts, Magdalenska gora with 121 artifacts, and Novo mesto with an extraordinary 138 artifacts, the latter accounting for over 30% of the entire iconographic sample.

Burial with animal remains was less common than with animal imagery, though in general the sites with animal remains are also those considered important centers (Figure V.7). However, sites like Kidričeva cesta (Zagorje) and Medvedjek indicate that these mortuary practices were not restricted to centers. It is likely that such practices were more widespread than

[221] There are some unprovenienced artifacts depicting animals from the associated cemeteries; however there are still relatively few. They were not included in this study since it is not possible to determine their original contexts (Dular, A. 1991). There were no such artifacts from the sites in this study in the Veliki Vinji vrh complex.

can be identified from current archaeological remains due to the poor preservation of osteological material as well as the sporadic collection of animal bones during antiquarian excavations. Magdalenska gora, Stična, and Novo mesto again exhibit significant evidence for more frequent mortuary practices involving animals. However inhabitants of sites near Libna also engaged in these practices relatively frequently, with nearly as many animals as artifacts depicting animals.

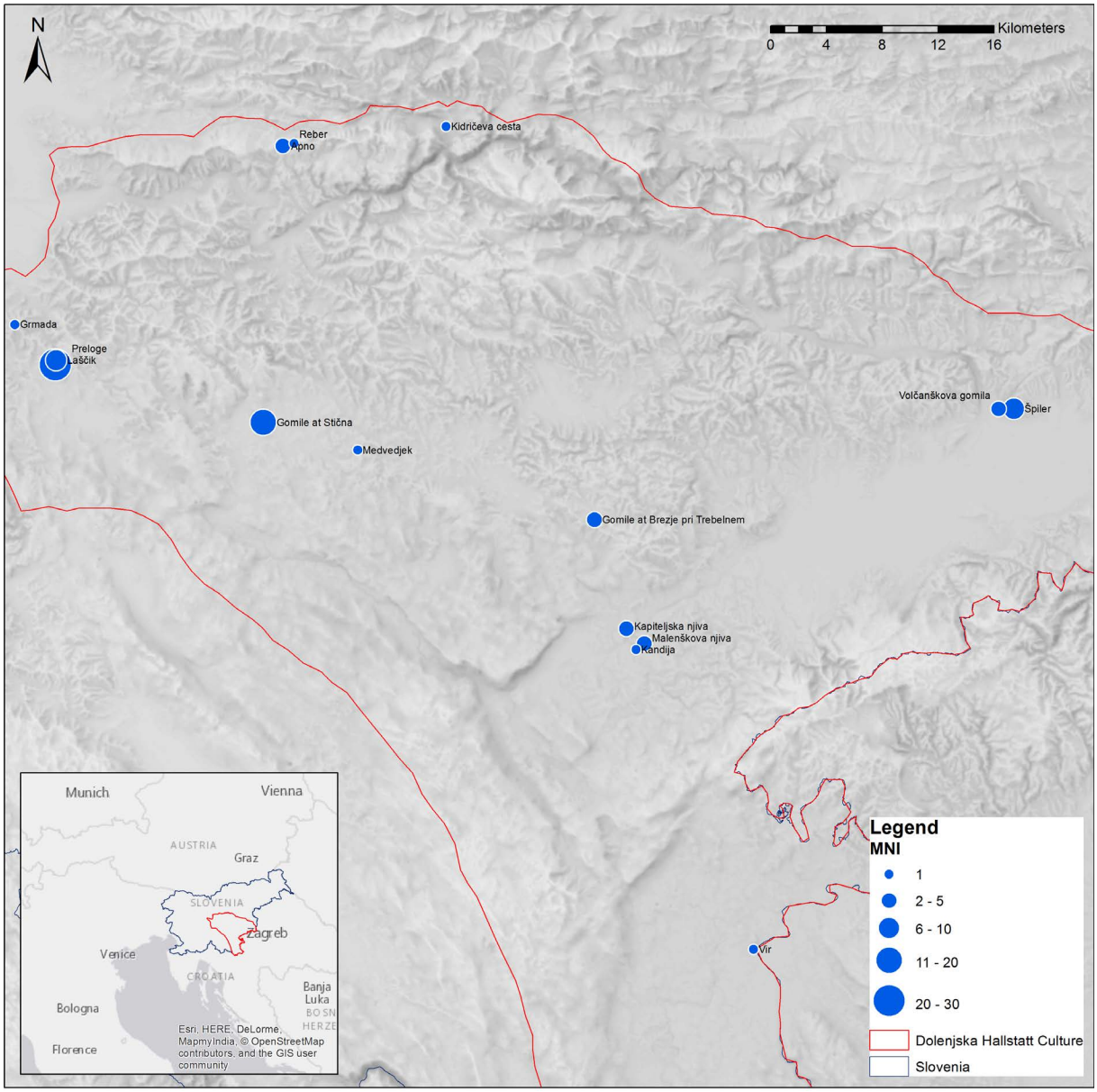


Figure V.7. Number of animals (MNI) per cemetery.

The spatial data indicate that artifacts depicting animals were more prevalent at important Hallstatt centers, possibly because these locales facilitated access to unique items including animal imagery. These areas also have more elaborate burial practices involving animal remains. However, there are some intriguing blank spots where these artifacts are rare, particularly around Veliki Vinji vrh and Molnik, which cannot be attributed to less systematic excavation in these areas and may point instead to local cultural preferences.

V.1.E. Summary: The contexts of Dolenjska Hallstatt human-animal relationships

Assessing the contexts where artifacts depicting animals appear indicates a clear dominance of mortuary sites – less than 2% of the iconographic dataset was recovered from settlements, while there were 432 artifacts depicting animals recovered from 29 cemeteries. Such artifacts, as well as animal bodies and body parts, were important elements of certain funerary rituals. The deposition of animal materials in graves referenced a rich lived engagement with the animal world, and in particular highlighted the significance of certain species while eliding others.

Dolenjska Hallstatt conceptions of animals were most often materialized through the medium of personal ornaments. It is possible that animal imagery was used to signal affiliation and focus attention on the body of the wearer. Martial and horse gear likely served a similar purpose, but in particular focused attention on the elaborate display of male warrior bodies, and the bodies of their steeds. Moving away from individual bodies, animal imagery also played an important role in communal display, on prominent bronze and ceramic serving vessels, as well as more individually on ceramic vessels that may have been used for consumption. The audiences for all these types of display should not be underestimated – contexts where the living or the

dead were adorned in their finery, or displayed their largess to the community by serving alcoholic beverages at feasts, were all mediated via artifacts with animal imagery. Complex presentations of self were framed by physical and conceptual animal references, encompassing the larger Dolenjska Hallstatt communities that included not just humans, but the world around them.

Certain animals played an even more direct role in Dolenjska Hallstatt funerary rituals. Animal remains were recovered from 30% of cemeteries in the study, representing at least 86 individual animals. It is important to remember that there was something about these living animals, in particular their relationship with local people, which led to their sacrifice and inclusion in graves. Most animals deposited in graves were domestic animals, and the vast majority were horses. It is proposed that the sacrifice of horses was in many cases referencing a personal relationship with the deceased, potentially their rider. Partial animal remains may also represent animal sacrifice associated with funerary rituals, however these activities may have been more important for the community as a whole, sharing out animal parts in the context of funerary activities to mark the life of the deceased, and reorder the community in their absence. Finally, particular animal parts such as teeth, horns, and claws may have served as amulets with perceived protective qualities, and these offer intriguing insight into the curation and manipulation of animal remains (Choyke 2010).

These were not uniform phenomena; rather there were significant changes in their prevalence through time. There were very few representations of animals or animal burials in the local Podzemelj and Stična phases, which lasted until circa 600 BCE. The items that do appear in this early period, as well as some faunal remains in graves, show strong connections to areas further west, particularly northern Italy. The Serpentine Fibulae phase from circa 600 to 520

BCE continues to be a period of relatively limited deposition of animal imagery and animal remains. However, this period is characterized as one of widespread unrest, likely punctuated by raids by foreign mounted warriors. The subsequent Certosa Fibulae phase represents the peak period of local animal art as well as animal burials, particularly of horses. The importance of horses has been linked to the presentation of elite masculine identities that highlighted equestrianism, likely in reaction to the threats presented by mounted warriors in the previous period. The Certosa Fibulae phase is one of cultural renaissance overall during which zoomorphic art flourished, exemplified by the robust local production of situla art items. These trends continue into the Negova Helmets phase, though much of this representation becomes increasingly stylized, perhaps in response to broader aesthetic trends that were spreading along with the La Tène culture throughout continental Europe.

Mortuary activity involving animal images and animal bodies is focused at central sites, possibly because such sites facilitated access to imported goods, artisans, or a greater number of people with means to obtain these materials. However, there are a few important sites that have very few animal depictions, indicating that local preferences also affected the use of these materials in some areas.

V.2. Are there any differences in the representation or treatment of certain animals based on taxon?

V.2.A. Taxonomic Patterns

Numerous taxa are represented in the iconographic and zooarchaeological dataset; however these finds do not unproblematically reflect Dolenjska Hallstatt human-animal relationships. An important foil for these more explicitly ritualized finds are the lived interactions with various species indicated by zooarchaeological remains from settlements, as

well as environmental and ethological information about these species. The following sections draw together the iconographic and zooarchaeological data by taxon, and supplement it with zooarchaeological data from the site of Cvinger near Vir pri Stični, the only settlement with a sufficiently large zooarchaeological dataset to assess subsistence patterns and other local uses of animals. Behavioral and environmental data are also utilized to flesh out the modes of interaction between the various species and Dolenjska Hallstatt peoples, and comparanda from surrounding societies are utilized to propose possible related ideologies.

V.2.A.i Cattle

Despite being the most important subsistence animal represented in settlement contexts, cattle are rarely depicted on Dolenjska Hallstatt artifacts and cattle remains only appear twice in mortuary contexts. Twenty artifacts in the study depict cattle – ten bridle buttons, a bronze fibula and pendant, six ceramic vessels and two ceramic lids.

Cattle bones are ubiquitous at settlements, and the best data about local cattle come from the hillfort at Cvinger nad Virom pri Stični in the Stična complex. Though the sex of the animals was rarely possible to determine and the sex ratio is unknown, mortality profiles are available (Table V.2; Bökönyi 1994:105). The data indicate that there was some culling of juvenile animals, which may indicate that certain animals, likely males, were culled for meat or to take advantage of the cow's milk without competing with her calf (Green 1992:33; Méniel 1987:47-64; Reynolds 1987:40-44). The nearly 20% of subadult cattle in the dataset probably also represent culls for meat, since this is the optimum time for butchery (Green 1992:36). Most

Table V.2. Cattle mortality profiles from Cvinger nad Virom pri Stični (after Bökönyi 1994:202 Table 10).

Age Category	NISP	Percentage
Neonate	0	0
Juvenile	18	11.54
Subadult	29	18.59
Adult	104	66.67
Mature	5	3.20
Total:	**156**	**100**

cattle were kept well into adulthood, indicating their importance for milk and draft (Green 1992:28). Oxen are attested in the sample, which are often preferred as work animals due to their size and docility (Bökönyi 1994:105).

Cattle are relatively expensive animals in terms of feed and maintenance. Though dairying is highly productive, yielding four to five times the protein of meat over a cow's life, cattle do not reach maturity for several years, and milch-cows require as much as 16 gallons of water a day and large amounts of fodder when producing milk (Green 1992:13-14; Reynolds 1979:47-56, 1987:40-44; Seetah 2005:2; Sherratt 1981:284). In addition, during the Iron Age cows probably did not produce milk for extended periods of time without careful management of their calves (Green 1992:33; Méniel 1987:12-15). Training and maintaining draft animals is also a resource-heavy endeavor. It is only efficient to maintain a draft animal if the agricultural yield they facilitate outweighs the resources they consume (Seetah 2005:2). The Butser Iron Age farm experiment demonstrated that it takes about two years to train a pair of cattle for plowing, and working with draft animals requires skill even once the animals are trained (Calder 2011:39; Green 1992:29; Reynolds 1979:27-28, 47-56). Since cattle require several years before they are economically productive, young animals may have been kept somewhere to graze where they required less maintenance, as was the case at the Iron Age site of Danebury in the United Kingdom (Grant 1984:102-119; Green 1992:14). Such a model could also account for the relatively low number of subadult and juvenile remains at Cvinger.

At the end of their working lives cattle were slaughtered for their primary products – meat, hide, fat, etc. Leather was essential to daily life, used for clothing, shoes, containers, harnesses, and many other items that have not survived in the archaeological record. The large amounts of meat cattle yield have led to the proposition that cattle are an ideal form of mobile

wealth. Not only did cattle provide useable products and labor during their lives, but the amount of meat yielded when slaughtering cattle would have exceeded the immediate dietary needs or storage capacity of most nuclear families. Though some meat may have been cured and saved, organs and excess meat had to be consumed before they went bad, and the processing of fat, bones, hides and other materials was all relatively time sensitive as well. Larger community ties were likely drawn on in such periods to share labor and meat (Green 1992:9; Meadow 1984:329; Orton 2012:27; Russell 1998:42).

Sharing of excess meat could have engendered various relationships of reciprocity, patron-client relationships, or simply social power within the community. The use of cattle to create patron-client relationships has been proposed to explain the development of formalized hierarchies in the Bronze Age steppe and medieval Ireland (Anthony 2007:191; Patterson 1991). While formal patron-client relationships may be too institutional or potentially anachronistic for the hierarchies apparent in Iron Age Europe, relationships of dependence could certainly have been created by the unequal exchange of animals and their products, and may have been an avenue for personal aggrandizement in some communities.

It is clear that cattle were essential to daily life at Dolenjska Hallstatt sites, and yet this is rarely materialized in the form of depictions. In contrast, cattle appear on situla art from Italy. They are often shown yoked to plows or grazing. The Certosa situla, Montebelluno cist, Robato lid, as well as the Randi, Benvenuti, and Este situlae all show scenes with cattle (Figure V.8; Eibner 1981; Frey 1969; Lucke and Frey 1962). Their frequent appearance in Italian contexts highlights the fact that these motifs circulated in the situla art repertoire, yet notably they are completely absent on Dolenjska Hallstatt artifacts. The few depictions of cattle are not found in narrative scenes, and do not appear in large enough numbers to provide significant insight. The

ten bridle buttons depicting cattle are likely imports from the east, while the bronze bovine pendant in the study sample likely came from the northern Adriatic (Nascimbene 2009:202-205; Pare 2012:162). Ceramics most often have schematic cattle depictions on the shoulders or handles of vessels, or on lids. It is possible that such vessels contained dairy products or meat when they were deposited in graves and this was referential imagery, though since no residue analysis has been done this remains speculation.

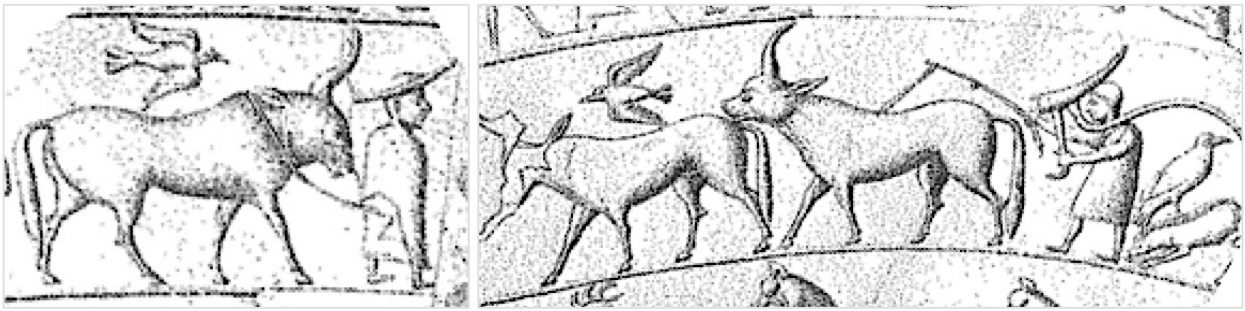


Figure V.8. Images of cattle from the Certosa situla (Lucke and Frey 1962: Pl. 64).

In two instances cattle remains appear in mortuary contexts in the study. One was a stray find from Apno near Vače, noted only as "calves' bones" by the antiquarian excavator (Starè 1955:125). The other find is extraordinary in terms of the number of animals it represents. Grave IV/43 at Preloge near Magdalenska gora contained nine bovine astragali (seven left and two right), left and right calcanei, and a left centrotarsal (Bökönyi 1968:11-12). There is no more detail offered about the bones, but it is plausible that at least one left and one right hock were placed in this grave. Beef hocks are considered good cuts of meat for making broths or soups since the meat itself is limited and can be tough, but the bones and connective tissue provide good flavor (Homespun 1918:44; Rumble 2009:225). It is less clear how the additional six left and one right astragali can be accounted for. Astragali survive well in archaeological contexts due to their compact shape and the density of the bone (Bartosiewicz 1999a:38). However, seven

astragali being preserved despite no other bones surviving is unlikely. Another possibility is that the additional astragali were deposited defleshed as is commonly across archaeological periods. Astragali are bones that were often saved and were popular for games, gambling, calculations, and divination up until the pre-modern era (Bartosiewicz 1999a; Carè 2010; Dandoy 2006; de Grossi Mazzorin and Minniti 2012; de Nardi 1991; Doria 2014; Holmgren 2002; Meier 2013; Schauer 1996:396; Wiesner 2013). It is not possible to determine if the additional astragali were used for any of these purposes based on the limited evidence available, but the large number of astragali does point to a use that was likely not purely practical and that does not seem to represent a meat offering. This grave also contained the burial of a whole horse, indicating that the man interred[222] was probably someone significant within his community (Bökönyi 1968:11-12; Hencken 1978:25). Depositions of astragali are common in neighboring archaeological cultures, including the Sveta Lucija, Notranjska, and Ljubljana groups (see Figure II.4; Gruškovnjak 2016:445-449). It is possible that this grave is referencing those practices, since finds of astragali are otherwise uncommon in Dolenjska Hallstatt graves.

In sum, cattle present a puzzling picture. They were essential parts of daily life at Dolenjska Hallstatt settlements where they would have been well known to those who maintained them and benefited from their primary and secondary products. However, this importance in daily life did not translate to importance in local representations or mortuary practices. Based on the frequency of cattle representations on non-local situla art, it seems that cattle were intentionally not depicted on Dolenjska Hallstatt examples. In addition, the single grave with cattle remains is quite exceptional for the sheer number of animals represented, and potentially for the non-subsistence uses of the associated astragali. The most common cattle

[222] Original records for this grave do not mention any human skeletal remains; however excavation records are relatively haphazard and do not always mention the preservation of human bones or a lack thereof. Probable male gender was determined on the basis of associated grave goods.

depictions appear on ceramics, which may have referenced the contents of these vessels, though it may also have been related to individual choices by locals since ceramic production was primarily at the household or site level (see section IV.4.D.v).

V.2.A.ii Sheep

Sheep are the second most common animal depicted, on 94 artifacts in 33 contexts in the study sample. Ninety-four percent of these artifacts are ram's head beads (see section IV.2.A.ii). While these items are referred to as ram's head beads, this may be a misnomer since in this period both male and female sheep had horns, thus it is unclear whether male or female sheep are depicted, or even if this distinction would have been significant (Bökönyi 1974:180-181). The ubiquity of sheep imagery matches their importance in subsistence – sheep[223] are the third most important animal for subsistence at settlements (Bökönyi 1994:196). The high numbers of sheep remains may indicate a number of things – importance for meat, milk, hides, and wool. The hillfort of Cvinger near Stična has produced the most detailed data concerning sheep remains; though rams, ewes, and wethers[224] are all attested, in most cases it was not possible to determine the sex of the remains, which could provide insight into herd demographics and the importance of milking (Bökönyi 1994:197). Age profiles are available, though only for the mixed category of sheep/goat. However, they provide some insight into culling patterns and indicate that while sheep could certainly have been exploited for meat, this was likely not their primary purpose since most animals were kept until they were adults or even mature animals (Table V.3). The ideal age for slaughtering sheep for meat is around two years (subadult phase), while ewes may produce milk until they are seven, and wool is consistently available from sheep throughout their

[223] And goat, since often they cannot be distinguished in zooarchaeological analyses.
[224] Castrated sheep.

lives (Calder 2011:19-21; Green 1992:30, 36; Greenfield and Arnold 2008:838). The age profiles from Cvinger nad Virom pri Stični support the possibility that sheep were kept for milk and wool, and were not slaughtered for meat until they had been utilized for their secondary products for several years (Green 1992:11).

Table V.3. Sheep/goat mortality profiles from Cvinger nad Virom pri Stični (after Bökönyi 1994:202 Table 10).

Age Category	NISP	Percentage
Neonate	0	0
Juvenile	13	9.35
Subadult	30	21.58
Adult	85	61.15
Mature	11	7.92
Total:	**139**	**100**

Maintaining flocks of sheep would have necessitated significant care and daily interaction. Lambs are born in the spring, and productive milking periods would have followed, also associated with close proximity for frequent milking and care for lambs (Calder 2011:20). Summer in turn was a period when sheep were often sheared or plucked. Fall was generally a time for slaughter and preparing meat for winter storage. Fodder also needed to be gathered and stored to maintain the remaining flock through the winter (Green 1992:16, 30; Reynolds 1987:50-60). Throughout the year sheep are often moved to fallow fields so that their manure can be used as fertilizer (Reynolds 1987:40-44). Their movements would have required the services of shepherds to ensure their safety when away from pens. They are social animals and tend to bond with their dominant shepherds, both human and animal (Clutton-Brock 1999:73; Mlekuž 2013:152).

Beyond daily care and interaction providing a distinctly social aspect to human-sheep relationships, their economic importance cannot be denied. They provided essential primary and secondary resources, allowed increased self-sufficiency of households, and can be considered a form of mobile wealth (Mlekuž 2013:155). Sheep may have been socially less restricted animals than cattle based on the smaller expense of both obtaining and maintaining sheep. They produce useable resources throughout their lives (milk, wool, manure), and when they are culled the meat

yield is smaller and more suitable for household consumption (Calder 2011:19). They were clearly important parts of Dolenjska Hallstatt households and this familiarity and resource significance translated to iconographic significance. But why were sheep the most iconographically significant of the local domesticates?

One essential quality that sets sheep apart from other domesticates is their importance for producing wool. Unfortunately due to the nature of the archaeological record, perishable materials such as textiles are often overlooked, or at the very least left as an unknown in archaeological interpretations (Gillis and Nosch 2007). The ubiquity of spindle whorls in settlement and grave contexts, as well as loom weights and needles to a more limited extent, highlights the importance of textile production to local economies. In addition, recent work on pre-Roman European textiles has indicated that Early Iron Age peoples were familiar with complex patterns, tablet weaving, and dyeing technologies (Bichler et al. 2005; Gleba and Mannering 2012; Grömer et al. forthcoming).

New analysis of a preserved textile fragment from Grave 1/6 at Pleška hosta[225] in the Molnik complex indicated that it was a zigzag twill of unusual fineness. The thread itself measures 0.2 mm, and the thread count is between 28 and 32 threads per cm, which makes it one of the highest quality textiles recovered from the Eastern Hallstatt area (Grömer et al. forthcoming). Other textiles from Slovenia have thread counts between 20 and 22 threads per cm (Bender Jørgensen 2005:Catalogue no. 98 and 114; Grömer et al. forthcoming). The apparent high quality of local textile production, as well as the frequent finds of spinning and weaving tools in settlements and graves indicates that cloth production was likely an important local industry, and textiles may also have been an important trade item (Nash Briggs 2003).

[225] This site is not included in this study, though the neighboring sites of Grmada and Roje are included.

The spinning and weaving of wool was apparently a female activity, based on the frequent finds of spindle whorls and loom weights in female graves, as well as iconography from the surrounding regions (Barber 1991, 1994; Bonfante 1985; Eibner 1984, 2005; Gleba 2009; Primas 2007; Teržan 1996, 2004). Though there are currently no local depictions of female textile production, the *tintinnabulum* from Bologna is decorated in the situla art style with scenes of elite women carding wool, spinning it into thread, and weaving on an elaborate two-story loom (Figure V.9; Bonfante 1985:280-281, 283; 2011:207 Fig. 2). There is also a depiction of women spinning wool and weaving on a loom on a ceramic vessel from Tumulus 27 at Sopron-Várhely in modern Hungary (Figure V.10; Bonfante 2011:206 Fig. 1; Gleirscher 2009:217 Fig. 8; Teržan 2004:223 Fig. 2). In this depiction the women are accompanied by an individual playing the lyre, which supports proposals that women, music, and textiles were closely linked through the use of repetition in songs and poetry to encode complex weave patterns (Bonfante 1985:283, Fig. 6; Tuck 2006). This would have made weaving an important social as well as productive activity for local women, perhaps even a ritualized activity with the addition of story and song (Eibner 2005).

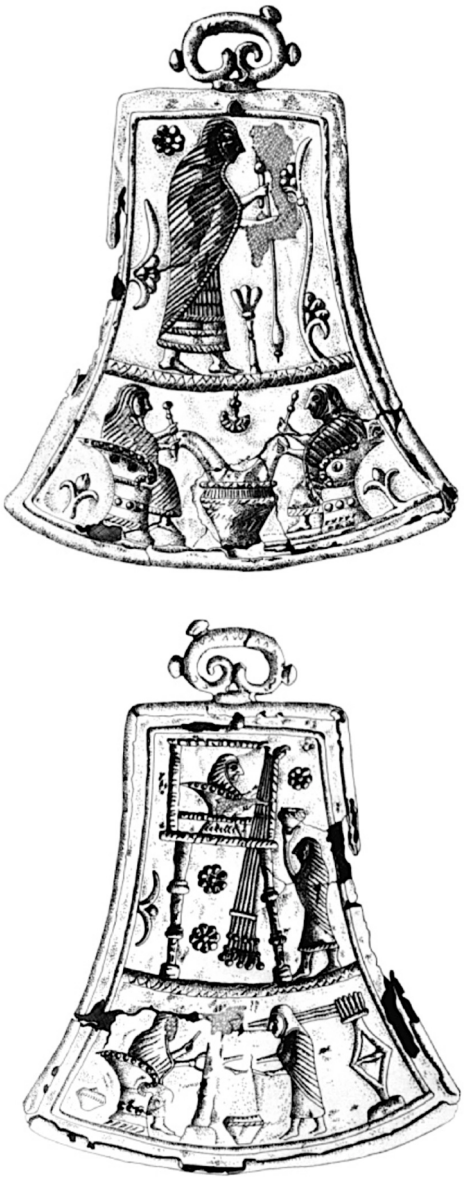


Figure V.9. Bronze tintinnabulum from Bologna depicting elite women engaged in the different processes of textile production. Ca. 600 BCE (Bonfante 2011:207 Fig. 2).

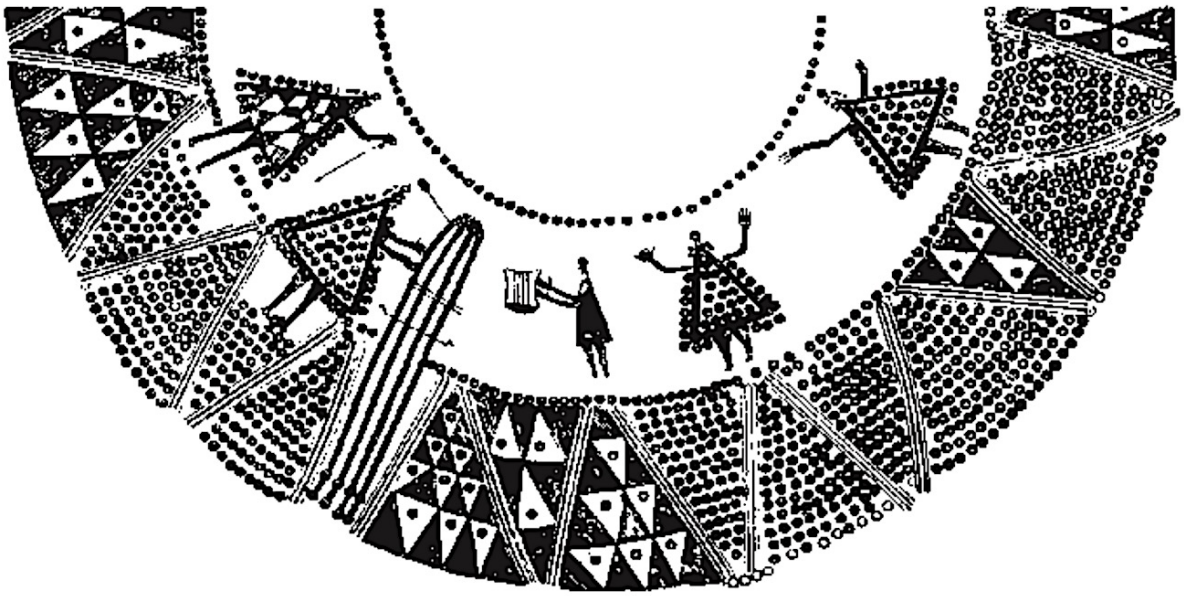


Figure V.10. Representation of women spinning wool and weaving, with a musician playing a lyre. Ceramic vessel from Sopron-Várhely, Tumulus 27. Circa 600 BCE (Bonfante 2011:206 Fig. 1).

Though the evidence is incomplete, there is an emerging pattern linking women, textiles, and sheep. The link between women and textile production is clear, and the data from sheep iconography also shows a strong association with women. Eleven female graves were identified in the dataset containing sheep iconography, and female graves contained 53 of the 88 ram's head beads. There were also two graves from Preloge near Magdalenska gora with sheep/goat remains in the study; Grave 13/163 was identified as belonging to a probable female while the gender of the deceased in Grave VII/29 could not be determined. Grave 13/163 also contained a bone needle and spindle whorls (Tecco Hvala et al. 2004:162).

To assess the potential association between sheep imagery and textile production, the graves in the study with spindle whorls and loom weights were identified – there are 44 graves with textile equipment that also contain animal imagery or animal remains. Thirteen of these graves contained both sheep iconography and textile tools, and one grave contained possible sheep remains and textile tools – in total 32% of the graves in the sample with evidence for

textile production were also associated with sheep imagery or sheep bodies. This is not a large proportion, however the association is stronger when focusing solely on graves with sheep imagery – 46% of these contained spindle whorls, loom weights, or needles. The only settlement find with sheep imagery – Trench 1, Layer 2 from Špičasti hrib –contained a ram's head bead as well as spindle whorls (Dular et al. 2003:199-200). While these associations do not definitively demonstrate the association between sheep imagery and textile production, they are suggestive.

The mortality profiles from Cvinger at Stična demonstrate the importance of keeping sheep for wool – a period of many years in which local people would have developed relationships with their animals. New textile evidence is also indicating that there was likely a robust household industry[226] of textile production in this region, one that seems to have been dominated by women[227] based on grave finds of textile equipment and iconography. It is possible that the importance of sheep iconography was anchored in these local relationships, where sheep and their products facilitated the distinction of local women through the production of textiles for their communities and possibly for trade. Depositing ram's head beads in graves may have represented an aspect of female identity – analogous to the deposition of textile equipment, sheep iconography may have served to materialize the important relationship between women, sheep, and textiles.

However, this does not account for the eleven ram's head beads in two male graves at

[226] Currently there is no evidence for the kinds of Early Iron Age workshops producing textiles in this region that are known in Etruscan contexts beginning in the 7th century BCE. It is possible that this is due to the relatively limited settlement excavations that have not exposed evidence for specialization or centralization of such production. However, the continuing importance of textile tools in grave contexts indicates that even if there was some early workshop production of textiles in this area, a strong association between individual women and spinning and weaving tools remained, implying continuing household production (Gleba 2007, 2009).

[227] Much of the literature using iconographic and textual sources to reconstruct Iron Age textile production has focused on weaving as an activity that was particularly important to elite females (Bonfante 1985; Eibner 1984, 2000/2001, 2005; Gleba 2009; Teržan 2004). However, it is important to note that textual and iconographic evidence in this period are heavily biased toward the representation of elites, and the data in this project do not indicate that textile production was the sole purview of elite women.

Kapiteljska njiva near Novo mesto. They indicate that sheep iconography was not restricted to females; and it may be that in these graves these items served as a grave gift from a female mourner, or indicated that these men too maintained relationships with sheep or their products that were important to materialize in death. It is interesting that these graves are at Novo mesto, which is believed to be the center for production of ram's head beads. It may also be that these men were associated with producers of these beads or otherwise had unusual access to these otherwise primarily female items.

There is also evidence from the iconographic dataset that sheep were involved in more explicitly ritual activities. The situla from Grave III/12 at Kapiteljska njiva in Novo mesto has a heavily fragmented scene depicting a sheep wearing what may be a harness or lead, held by a man in a plaid cloak and a hat (see Figure IV.90). The Vače situla in turn depicts a ram with prominent testes following a man with an axe (see Figure IV.152b). The ram also has a bird perched on its back – both the axe wielding man and the bird indicate that this is a sacrificial scene (see section V.2.A.vii for a discussion of birds in scenes of sacrifice). There are very few animals with genitalia depicted in Dolenjska Hallstatt imagery, and it may be that this was a specific choice to highlight that this was an intact ram, especially if wethers and ewes dominated flocks, as is often the case with wool flocks (Calder 2011:19-20; Clutton-Brock 1981:25). It may also have served to highlight certain attributes of rams – possibly their protectiveness of their flocks or their virility[228] (Calder 2011:32). Though this is not a large sample, there are only six artifacts with scenes of sacrifice, and sheep are one of only three species besides horses that are shown harnessed in the dataset (see section IV.3.A.ix).

Situla art in general does not depict scenes of daily life; in fact many of these scenes

[228] Unlike goats, rams do not tolerate other males in their herds if there is a shortage of ewes. A single ram can mate with over 50 ewes in a flock, whereas goats can usually cover a maximum of 25 (Blok 1981:428; Calder 2011:32; Keller 1909:309, 319, 322).

seem to be explicitly ritual in nature with a heavy focus on processions, feasting, and other communal celebrations. These two scenes may indicate that sheep also had a role to play in such activities, particularly animal sacrifice. The two graves with sheep/goat remains support this hypothesis – it is possible that these situla art scenes provide some insight into the activities that preceded the sacrifice and deposition of sheep in the two aforementioned graves.

In sum, sheep imagery was likely polyvalent, but there seem to be two important aspects of human-sheep relationships indicated by the iconographic and zooarchaeological datasets. The zooarchaeological data from settlement contexts, textile evidence, and the importance of spinning and weaving tools indicate that cloth production was an important aspect of the local economy. The association of textile equipment with female graves as well as contemporary iconography indicates that this was primarily a female activity. The high numbers of ram's head beads in female graves suggests that sheep imagery may have indexed cloth production. Sheep imagery in graves, like textile equipment in the same contexts, may have been an avenue for materializing the importance of textiles and woman-sheep relationships in Dolenjska Hallstatt life. The appearance of sheep in situla art, and possibly as physical remains in grave contexts, provides a window into the more esoteric interactions with sheep. In addition to providing essential secondary products and meat at the end of their lives, certain sheep may have been sacrificed and ultimately deposited in graves.

V.2.A.iii Goats

Goats are the fourth most important domesticate at Dolenjska Hallstatt sites, but they appear on only six artifacts. There are also two graves with goat remains, and an additional two graves with indeterminate sheep/goat remains.

The significance of goats for subsistence at Dolenjska Hallstatt sites is unusual; they are only slightly less prevalent than sheep, while in other parts of southeastern and central Europe sheep predominate (Bökönyi 1994:197). Goats also provide fewer secondary products than sheep, since goat hair tends to be less desirable than wool. Goat hair can be woven to make clothing, though this is often scratchy, and Greek textual sources note the use of goat hair to make ropes on ships (Calder 2011:21). Goats do however produce approximately four times more milk than sheep, and can rely on a broader diet than sheep to support milk production (Calder 2011:20; White 1970:315).

The likelihood that Dolenjska Hallstatt people were keeping goats for milk is tentatively supported by the zooarchaeological data. The sheep/goat mortality profiles for Cvinger at Stična (see Table V.3) indicate that the majority of sheep/goats were being kept into adulthood (Bökönyi 1994:202 Table 10). In addition, the data from identifiable goats at Cvinger did not indicate any castration of male goats, and it is likely that most male goats were culled and nannies were maintained into adulthood for milk (Bökönyi 1994:199). The billy goats that were kept have strikingly large horns, despite the fact that they were relatively small goats overall with an average withers height of 67.56 cm (Bökönyi 1994:199). The large size of billy goat horns is referenced in local situla art, where the males are recognizable on the basis of their large torqued horns.

The fact that male goats were preferred for depiction is striking. Goats in general are considered frisky, intelligent animals, which can make them difficult in a herd since they must be closely watched and are prone to causing damage to crops if allowed to wander (Calder 2011:28; Geist 1960:39; Ripoll 2003:293). In addition to their intelligence, billy goats are often remarked on for their sexual behavior – billies have scent glands under their tails that are pungent in

general, and when they are in rut they urinate all over themselves. The smell is said to be overpowering, and becomes stronger as the animal ages (Calder 2011:29; Coblentz 1976:554). These unusual qualities may have made billy goats objects of interest, particularly since there were likely relatively few of them in settlement contexts.

Many of these billy goat depictions show processions, in a few instances with wild animals.[229] This has led to confusion over their taxonomic designation and they are often referred to as mountain goats[230] (see section IV.2.A.iii). However, one possibility to explain the co-occurrence of goats and wild ungulates is that there were populations of feral goats in addition to the domestic goats at settlements. Due to their intelligence and their tendency to roam, particularly to places where humans cannot easily retrieve them, goats are more prone to forming feral populations than other domesticates. This may also be the reason for the processions of solely billies found in situla art, since in wild and feral goat populations males will form bachelor groups, while there are usually fewer males kept together in domestic settings for practical reasons (Calhim et al. 2006; Miranda-de la Lama and Mattiello 2010).

The patterning in the deposition of goat remains in graves is unclear. The two instances of sheep/goat deposition were mentioned in section V.2.A.ii – both these graves are from Preloge at Magdalenska gora. Grave VII/29 includes a vertebra and Grave 13/163 contains unknown remains. Unfortunately, it is impossible to determine if these are deposits of sheep or goat. There are two contexts with identified goat remains – Grave 13/132, also at Preloge, contained the horn of a goat, while the mandible of a goat as well as "other bones" were recovered from an

[229] With a red deer stag, bird, large mammal, and indeterminate ungulate on the belt plate from Brezje pri Trebelnem, Hojbi Grave XIII/8. With two canids on the situla from Novo mesto, Kapiteljska njiva Grave XIV/7. With red deer on the situla from Magdalenska gora, Preloge Grave 2/a. With a bird and a lion on the belt plate from Magdalenska gora, Preloge Grave 2/58.

[230] The only "mountain goats" in this area are ibex and chamois, which are physically quite distinct from domestic goats.

unrecorded location in Tumulus 1889-1890 at Volčanškova gomila near Libna (Guštin 1976:30). Finally, horn from an unidentified ungulate was recovered from Grave II/17, also at Preloge. While this horn could have been from an ibex or chamois, it more likely came from a sheep or goat based on the preference for and availability of domestic animal remains for mortuary deposits. This leaves a very unclear picture – parts of goats were occasionally deposited in grave contexts, but overall the preference for ovicaprids, particularly their horns, may be a local phenomenon at Preloge. The goat deposit from Volčanškova gomila has been called a whole animal, but neither its completeness nor its association with a single grave can be assessed based on the available evidence (Guštin 1976:30).

What can be said is that goats were an essential aspect of the local subsistence economy, likely for milk, meat, and other primary products. Billy goats were preferred for representations, particularly groups of males, and this may be either a subversion of what was practiced at settlements, where there were likely relatively few intact males, or this could reference bachelor groups of feral goats. There was only one female grave containing goat imagery, and it may be that images of billy goats were more strongly associated with men. However, it may also be that men were more likely to be buried with items such as situlae and belts decorated with large situla art scenes, which are the only items with goat depictions. The zooarchaeological evidence from mortuary contexts is not robust, but here too horns are clearly significant.

V.2.A.iv Pigs

Pigs are second only to cattle in Dolenjska Hallstatt settlement contexts, though this can be obscured by the conflation of sheep and goat remains in zooarchaeological analyses. Much of the Dolenjska landscape is ideal for keeping pigs, with forests and river valleys throughout, and a

humid environment (Bartosiewicz 1996:33, 1999b:315). Unlike other domesticates, pigs do not provide secondary products, and they were used for meat, hides, and other primary products. Because of this, they are usually culled around two years of age once they have reached adult size (Green 1992:11; Reynolds 1987:50-60). This is reflected in the mortuary profiles from Cvinger at Stična, which show that almost 90% of pigs were killed as subadults or adults, and that sows were more likely to reach adult age (Table V.4; Bökönyi 1994:199).

Table V.4. Pig mortality profiles from Cvinger nad Virom pri Stični (after Bökönyi 1994:202 Table 10).

Age Category	NISP	Percentage
Neonate	1	1.39
Juvenile	6	8.33
Subadult	30	41.67
Adult	24	47.22
Mature	1	1.39
Total:	**139**	**100**

Despite the lack of secondary products produced by pigs, they are excellent for animal husbandry since they provide large amounts of meat and are relatively easy to keep. Pigs are omnivorous, and can survive on a wide variety of foods (Grant 1984:102-119; Green 1992:18). Pigs may be kept in pens near houses with food brought to them, or they may be sent out for pannage, where they graze in forests under minimal supervision (Clutton-Brock 1999:96; Reynolds 1987:40-44). Pannage pigs tend to be smaller, as an adaptation to living in an open, wooded environment competing for food (Clutton-Brock 1999:96). This fits the data available for the pigs from Cvinger, which are of relatively small size (Bökönyi 1994:199).

Pigs are also very intelligent animals, and more similar in behavior to dogs than to sheep or goats. They are omnivorous and highly social, and seek out physical contact within family groups (Clutton-Brock 1999:94). It is likely that pigs were distinguished from other domesticates for many reasons – they were lower maintenance than the grazing animals that were utilized for secondary products, they may have spent the majority of their lives away from settlements potentially interacting with relatively few people, but they were nonetheless social and intelligent

animals. Some or all of these differences were significant to Dolenjska Hallstatt people, who did not depict any identifiable domestic pigs and rarely deposited pigs in mortuary contexts.

There is one secure pig deposit from Grave 17/6 at Grmada near Molnik, and a possible pig deposit in Grave X/52 from Preloge at Magdalenska gora. The former is a very early grave, and the inclusion of pig remains in a cremation may reference Late Bronze Age practices where pigs were more frequently included in grave contexts, such as at Zadovinek and at Dvorišče SAZU, where they were frequently deposited as meat offerings (Puš 1971, 1982; Škvor-Jernejčič 2014; Borut Toškan, personal communication 2017). Few of the details of the suid deposit from Grave X/52 at Preloge are known. Sándor Bökönyi did not indicate what elements were present when he identified the remains as genus *Sus*, so it is unclear if these remains are of wild boar or domestic pig, or if it was possible to determine species at all (Peabody Museum Archives 40-77/Box 4.5). It is plausible that these remains were of domestic pig based on the predominance of other domesticates in mortuary contexts and their importance for subsistence. However, the avoidance of pigs in imagery and in most other Early Iron Age grave contexts may indicate that these remains were more likely those of wild boar. It is not possible to say based on current evidence, and there is plausible support for either species. Interestingly, the Sveta Lucija group also demonstrates a possible prohibition against the deposition of pig remains in mortuary contexts, despite their importance for local subsistence and the otherwise common presence of domestic animal remains in graves (Gruškovnjak 2016:445).

Ultimately the Dolenjska Hallstatt attitude towards domestic pigs is unclear, and while pigs were certainly essential for subsistence, they were apparently not considered appropriate to include in depictions, and perhaps not in most mortuary activity either. Pigs are one of the domesticates that often have a complex and ambiguous position with regard to ritual treatments

and food taboos in many periods in many parts of the world (Clutton-Brock 1999:99; Collins 2006; Hesse 1990; van Wyk 2014), and though we cannot determine the exact contours of such beliefs in the Dolenjska Hallstatt culture, they may also have had complex and conflicting ideas regarding the place of pigs in cultural expression.

V.2.A.iv Horses

Relationships with and conceptions of horses were apparently quite complex in the Dolenjska Hallstatt culture. This is exemplified by some of the distinctions in treatments of horse bodies – some were treated as refuse at settlements, while other horses were given their own burials in local tumuli. There were two types of horses in this area – the first are those Sándor Bökonyi called the "western group" of horses in his seminal study on Iron Age horses (1968). These were smaller horses, likely local, and it is thought that they were primarily used for draft because they were likely too small for comfortable riding. Remains of these western horses are only found in settlement contexts[231] (Bökönyi 1968, 1994:201). In contrast, all the horse remains from grave contexts that Bökönyi analyzed were larger animals. He identified parallels with Iron Ages horses from Hungary and further east and proposed that this so-called "eastern group" of horses likely represented imports that were used for riding (Bökönyi 1968, 1982, 1994:201).

Horses are the third most common animal in the iconographic dataset, and the most common identifiable animal[232] deposited in grave contexts. The focus on riding in depictions, as well as the presence of a majority of horses in mortuary contexts, indicates that it was likely the eastern group of horses that were the focus of these activities since these large, imported animals

[231] There were at least 19 western horses identified among the faunal remains from Cvinger nad Virom pri Stični. Their use for draft is based on the fact that 78.95% lived into adulthood, and the fact that there are no juvenile remains and only 15.79% subadult remains, indicating that it was unlikely they were used for meat (Bökönyi 1994:202-203 Table 10).

[232] Indeterminate mammals are the third most common animals.

were suited primarily to riding.

Possession of horses was an expensive and laborious undertaking because horses require specific feed and care and are slow to reproduce (Bartosiewicz 2011:6, 2013:336; Clutton-Brock 1992:19-22). However, possession of such costly animals also demonstrated the far-ranging social connections that were required to obtain them as well as the potential for future long-distance journeying, a requirement for the development and maintenance of other distant contacts (*sensu* Helms 1988). There is no doubt that in this period the horse was considered an elite animal, and one that certainly set those who possessed them apart from the rest of the populace (Dular 2007; Green 1992:66; Kmeťová, 2013a, 2013b). Horse ownership was a visible manifestation of wealth and resources, access to far off lands and social networks, and may have embodied a threat to the resources of others (Anthony 2007:222-223; Anthony and Brown 1991:36; Bartosiewicz 2011; Carstens 2005).

Riding necessitated an entirely new form of interspecies engagement and physical interaction, between particular people and particular horses (Argent 2013; Brittain and Overton 2013:138; Game 2001:9). The training required for both humans and horses to accustom a horse to being ridden is intensive, and requires effective communication between human and horse (Argent 2010:162; 2013:180-181; Dietz 2003). The earliest known representations of horseback riding in southeastern Europe are from rock art in the Valcamonica and Valltellina valleys in northern Italy, where images of riders have been dated to the local Period IV (1200-16 BCE; Anati 1994:189-90; de Saulieu 2013:297). Based on these depictions, equestrianism did not develop until the Late Bronze Age in this area, and does not become ubiquitous until around 1000 BCE (Clutton-Brock 1992:73; Renfrew 1998; Uckelmann 2013). By the Early Iron Age in Dolenjska there are frequent depictions of human-horse interactions on locally-produced situla

art. The increase in horse depictions is also visible in the material culture from the broader region. There are images of horses pulling chariots and wagons, as well as horses being ridden on the famous Strettweg wagon, Kleinklein cists, Sopron ceramic vessels, Hallstatt rider axes, and lead figurines from Frög (Dobiat 1984; Egg 1996; 2012; Gleirscher 2011; Kromer 1959). This expansion of the practice in this particular time is indicative of a larger shift in the symbolic significance of horses and the social importance of the human-horse relationship.

Fifty-nine artifacts depicting horses were identified at 13 sites in the course of this study. All these artifacts were recovered from mortuary contexts – 56 of them came from 43 grave contexts, and three others could not be associated with a particular grave. Mortuary practices utilizing equine iconography explicitly alluded to lived interactions with horses and relationships between particular people and horses. It is notable that in burial contexts gendered differences in the association with horse imagery were strongly marked. There were a similar number of male and female graves with artifacts depicting horses (male graves: 16; female graves: 11; indeterminate: 15); however, there were more artifacts per grave depicting horses in male burials (males: 24; females: 13; indeterminate: 18).

Not only were males buried with almost twice the number of artifacts depicting horses, but also the number of horses depicted on artifacts in male graves is significantly higher. The strong association between men and horse imagery is further supported by the artifacts decorated in the situla art style (belt plates, situlae, the bronze lid) that depict horses and humans together in narrative scenes. Women are very rarely depicted in situla art; in fact, the fifteen situla art items with equine iconography in this study include only three objects depicting a total of four women. In contrast, ninety-eight men are depicted on these fifteen artifacts (Frie forthcoming: Table 2). A closer analysis of the horse iconography reveals an interesting and important

distinction: while women possessed artifacts depicting horses, or were at least buried with them, women are rarely depicted on the same artifacts as horses, and are never depicted in direct contact with a horse. In contrast, men are depicted leading horses, riding horses, and driving or riding in wagons and chariots pulled by horses. There is a strong gender disparity in the visual association between horses and humans, but why? Were activities involving horses truly the sole purview of men?

As noted in section V.1.C, there are clear chronological fluctuations in both horse imagery and horse burials, with a peak in the Certosa Fibulae phase. When these temporal patterns are interpreted with reference to broader cultural developments, some possible explanations emerge. The first half of the Early Iron Age, the Podzemelj and Stična periods, is characterized by burials with weapons and occasional burials with horses. The Stična phase was the floruit of Dolenjska Hallstatt communities, with incredibly wealthy burials demonstrating widespread contacts with neighboring cultures, particularly those in northern Italy. However, in this period there are relatively few artifacts depicting horses – two helmets and a ceramic vessel. However, circa 600 BCE a key cultural shift occurs. While early horse and weapon burials are considered expressions of prestige, a continuation of patterns that emerged in the Late Bronze Age, it is believed that similar activities after 600 BCE had gained new meaning. This is because the Serpentine Fibulae phase was marked by unrest that has been linked to episodic incursions of Scythians (Dular 2007:475-76; Dular and Tecco Hvala 2007:90, 251-252; Gabrovec 1964-1965a, 1971; Tecco Hvala 2012:381; Teržan 1998:526-527, 2008:308). Following this period, during the Certosa Fibulae phase, elite weapon burials peak, and horse imagery and burials with horses follow the same pattern. If the social disruption evident after 600 BCE was related to foreign incursions, or even local raiding, the subsequent development of more rigid hierarchies based on

warrior identity and prominent displays of the ability to both attack and defend is perhaps not surprising (Tecco Hvala 2012:142; Teržan 1998:536; 2008:319).

The Certosa Fibulae phase has yielded the largest number and variety of artifacts depicting horses. Situla art reappeared in significant quantities, on both belt plates and situlae. Situlae depicting horses appear with both men and women and are considered signs of paramount status and indicators of participation in elite regional networks. Fibulae however problematize the straightforward association between horses and elite males, since they appear with both men and women and are not restricted to wealthy graves. These may exemplify the radically increased symbolic significance of horses in this period, which crosscut gender, despite the apparent restriction of human-horse interactions to men. Locally made phalerae in the form of horse head swastikas were also frequent in this period, and clearly reference Scythian designs (Pare 2012:156-157; Tecco Hvala 2012:162-163).

Horse culture itself also seems to change around this time (Dular 2007:475-476). In the earlier periods horse gear was of the Thraco-Cimmerian type, while in the Certosa Fibulae period there is a shift toward increasing local production of the much more elaborate horse gear of the Szentes-Vekerzug type (Dular 2007:744; Egg 1996:160-179, 1999:335-337; Guštin and Teržan 1975:190-191; Párducz 1973:36; Werner 1988). It may be that once foreign horsemen had proven to be a serious threat, reliance upon horses increased significantly for Dolenjska Hallstatt communities, leading to a more robust horse culture that was also more strongly oriented toward elaborate display. Just as horses were a significant part of the danger posed by foreign warriors, the importance of horses in defense was also highlighted. Increased adornment may have served to draw attention to horse bodies, displaying their power and extending the visual majesty of the male warrior to his horse as well. It is also possible that during the period of Scythian incursions

local horsemen were some of the few warriors able to put themselves on more equal footing with mounted raiders and were admired for it (Teržan 1998:536).

There is a final shift at the very end of the Early Iron Age, in the Negova Helmets phase. Horse iconography is still prevalent, but now only appears on phalerae, fibulae, and situlae. None of these are new forms, rather they show continuity with the previous period. Both preeminent males as well as horse burials decrease, though more male burials contain weapons overall (Tecco Hvala 2012:141-142). Interestingly, it is only in this period that we see women associated with horse remains in mortuary contexts – and it seems that the previously strongly gendered horse culture was no longer the exclusive purview of elite males.

In this time the horse was a privileged animal and certainly not every family would have possessed one. Based on the rigorous training required of both horses and riders, it is unlikely that those individuals who did not have early and regular access to horses and training would have been able to participate in equestrian activities, and riding may even have been a proscribed activity. Relatively few individuals would have been able to ride, and all of those were men based on the iconographic evidence. This would have set horses apart from other domestic animals, and riders apart from other men, reinforcing the distinction of the horse and rider as a human-animal hybrid form unique in its symbiotic qualities (Frie 2016:75-76).

The entirely novel trans-species relationship engendered by riding had significant repercussions for the perception of horses as well as their riders in local society. The ability of a rider to work physically in concert with a horse and extend his power over a large and powerful non-human animal may have been viewed with awe, and may have created a sense that horses had elevated social or intellectual abilities. These attributes of the horse would have served to increase their symbolic currency and made them appropriate signifiers of more complex and

widespread meanings accessible to a broader subset of the community. This may explain why the symbolic value of horse imagery was widespread throughout the community, evidenced by the frequency of horse depictions on personal artifacts less strictly tied to status or gender, such as fibulae, despite the fact that only men are depicted interacting with horses.

The importance of the distinctive nature of horses and their strong ties to their riders is not only evident in the iconography, but is seen in the burial record as well. The sacrifice and burial of a horse with a male individual displayed the individual's status by referencing their association with this restricted animal in life while demonstrating the ultimate ownership and conspicuous consumption of this valuable animal by taking it to the grave. In addition to status, the significance of equestrianism cannot be overlooked as an impetus for horse sacrifice. It may be that the close relationship between rider and horse necessitated the sacrifice of the horse upon the death of the rider as an appropriate continuation of their cooperative relationship in life into death (Frie 2016:75). If this was the case, human-horse burials may be analogous to the double burials of humans, where a significant interpersonal relationship is assumed to have necessitated the burial of two individuals in a single grave (Arnold and Fernández-Götz forthcoming). This raises the question, should we be considering horses as pets, as comrades in arms, or even as proxy humans?

V.2.A.v Dogs

Dogs are attested in many aspects of Early Iron Age life – their remains are found in settlements, dog imagery appears on bronze artifacts, and dog remains are present in burials. We know something about the living dogs, once again based on zooarchaeological analysis from the site of Cvinger near Stična. There is currently no evidence that dogs were eaten in this area.

Their remains appear in relatively low numbers at sites, indicating that they lived into adulthood in most cases (Table V.5). These dogs are within the norm for the period; the smallest example from Cvinger is 41.17 cm at the withers and the largest is 57.23 cm – the size of a small standard schnauzer in the first case, and a small German shepherd in the second (Bökönyi 1994:201; Horard-Herbin et al. 2014).

Table V.5. Dog mortality profiles from Cvinger nad Virom pri Stični (after Bökönyi 1994:202 Table 10).

Age Category	NISP	Percentage
Neonate	0	0
Juvenile	0	0
Subadult	3	5.17
Adult	54	93.10
Mature	1	1.73
Total:	**58**	**100**

In the case of dogs iconography provides the best insight into their role in society, illuminating activities that are invisible in the zooarchaeological record. Dogs are depicted mainly in predation scenes and hunting scenes. In what appear to be predation scenes they are pursuing birds, though these could also be hunting scenes where the humans are not represented if dogs were used to flush out birds during hunts. Quite often dogs accompany men hunting deer in situla art. There is a single scene of a dog pursuing a boar on a very damaged belt plate from Grave 48/104 at Gomile near Stična, and in this case it is unclear if the dog is accompanied by a man (see Figure IV.34). Similar imagery of dogs aiding in deer hunts is attested in the Valcamonica rock art on Naquane Rock 1 and Bedolina Rock 28 (Bevan, L. 2005; Green 1992:60; Maretta 2015:113). The importance of dogs for hunting is also well known in the Greek world, where the ancient Greek word for "hunt" is synonymous with "dog handling" (Guggisberg 2008; Kitchell 2004; Schmölcke 2013:178). Xenophon's *Cynegeticus*[233] also comments on the best hunting dogs, their training, and their temperament. His physical description of the ideal dog is similar to dogs in local situla art depictions: large, with a muscular head, a long, straight, thin tail, and hind legs longer than the forelegs (Figure V.11; Schmölke

[233] Often translated as "Hunting with Dogs."

2013:179; Xenophon 2016:IV.1).

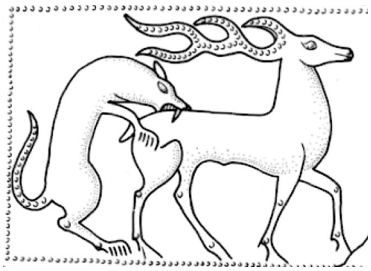


Figure V.11. Detail from a belt plate depicting a dog as part of a hunting scene. Milač House/Grave with the Belt Plate from Kidričeva cesta (Zagorje). Narodni muzej inv. no. 4340 (Turk 2005:32 Fig. 43).

Dogs may have also served other roles within settlements in addition to hunting – as guard dogs, pest control, shepherds, and scavengers (Green 1992:25). Dogs as shepherds may be attested, if we consider the possibility that the situla from Grave XIV/7 at Kapiteljska njiva near Novo mesto does not depict a predation scene with wild canids pursuing goats, but instead depicts dogs herding goats (Figure V.12). The animals on this artifact were defined as canids due to the absence of human individuals in the scene and the lack of any clear features identifying them as dogs versus wild canids, but it is certainly a possibility. Herding dogs are depicted at Valcamonica, and some Dolenjska Hallstatt dogs may also have been trained in this way. A final use for dogs attested at the site of Hallstatt as well as in later Celtic contexts is for their skins, which can be difficult to identify without good osteological evidence, so it remains an open question whether dogs were used for their skins in the Dolenjska Hallstatt context (Diodorus Siculus 1939:V 28-4; Green 1992:25; Horard-Herbin et al. 2014:27; Méniel 1986:37-39; Ryder 1990).

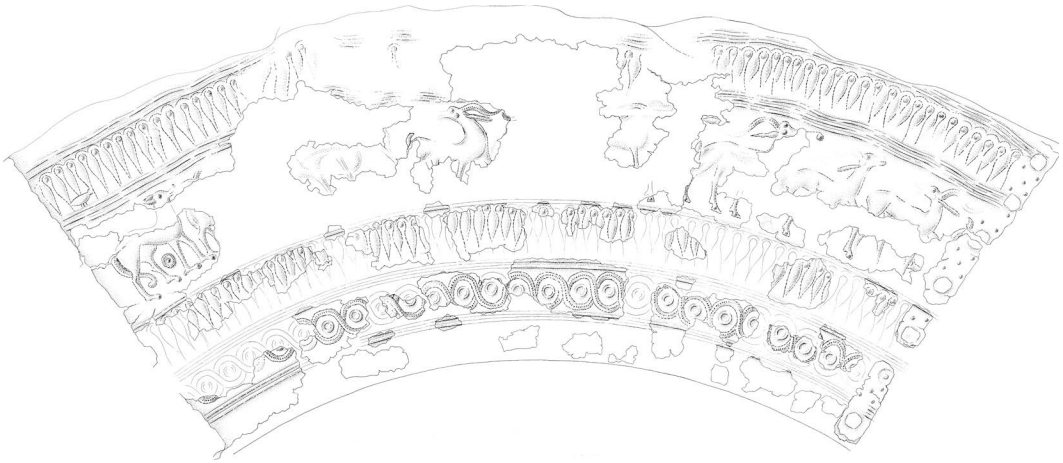


Figure V.12. Situla depicting two canids behind a line of goats. Kapiteljska njiva, Novo mesto Grave XIV/7. Dolenjski muzej P 4624 (Image courtesy of the Dolenjski muzej).

Three Dolenjska Hallstatt graves in the study contained dog remains. Two of these, both from Preloge at Magdalenska gora, contained a dog canine that was likely worn as a pendant or amulet. This focus on the canine may reference the role of dogs as hunters and the power of their jaws and teeth (Choyke 2010). The third instance of dog remains in a burial comes from Grave I/13 at Vir (Škrilje) near Podzemelj. Not much is known about these remains since they were identified during an antiquarian excavation, but the "skeleton of a large dog" was noted (Barth 1969:149). This represents an entirely different funerary ritual, where a dog was likely sacrificed to be interred with the deceased individual. Often burials of dogs and humans together, particularly intact dogs, are taken to indicate companionship and potentially even the role of a pet (Horard-Herbin et al. 2014:28; Morey 2006:159-166). Interestingly, this is the only evidence of dogs as pets in this period – situla art only depicts them in hunting contexts, never in the more domestic or communal scenes. Even if dogs were primarily kept as working animals, it is not surprising that the occasional working dog might come to have a close companionable relationship with a human based on the common affection between dogs and humans. Grave I/13 from Vir may be the ultimate expression of this companionship, where the dog was sacrificed to remain the deceased's companion in death.

V.2.A.vi Birds

Bird imagery appears on over one-quarter of the objects in the iconographic dataset, despite the fact that bird remains are extremely rare. This is an important area where the iconographic record is essential to shed light on animals we would otherwise know very little about from the zooarchaeological remains. The species of bird depicted can only be determined in very few cases, and these are limited to identifications of ducks, general water birds, and

probable chickens. It is possible that this generality of representation was a particular choice, since the type of bird or its more specific connotations were understood by local people without the necessity of additional artistic detail. Alternately, it may be that the particular species of bird was not relevant to bird symbolism, and instead bird as a category was the significant feature.

Unfortunately, the best contemporary data concerning birds comes from Cvinger near Vir pri Stični where only three elements were identified – one from a small bird, one from a medium-size bird, and one from a large bird (Bökönyi 1994:203). This does indicate that there was likely some consumption of birds or other physical interaction with bird bodies at Dolenjska Hallstatt sites, however poor preservation and limited excavation data make the definition of such interactions impossible. This leaves iconography as a window into human-bird interactions and conceptions of the avian world in Dolenjska Hallstatt ideologies.

Avian representations crosscut gender in the study sample, and it seems that the birds were significant for both men and women. Rather than their identification with any particular social group, it may be that their role as observers was key: omnipresent in human lives but rarely engaging directly with humans. Experience of birds would have been constant in the Early Iron Age – birds are almost always present, yet human relationships with them were likely based more on observation than direct interaction. It may be that birds were considered to be liminal creatures. They were wild, and yet familiar, omnipresent yet apart. Birds are also animals that can move securely across different media: air, water, and earth, as well as horizontally, across vast geographical areas in seasonal migrations (Allinger 2007:10; Green 1989:143-144, 1992:137, 143-145; Pollard 1977:17). They even foretold the changing of the seasons through their arrivals and departures (Serjeantson 2009:338). The distinction of birds from other animals may have made them appropriate carriers for a variety of symbolic expressions conveyed

through visual display and their frequent depiction on a variety of objects. Their familiarity, combined with their aloof natures, may have made them particularly appropriate in funerary contexts rather than in the form of faunal remains, since no bird bones have been recovered from any graves to date (Frie 2016:76).

In situla art birds appear in nearly every scene and yet are rarely involved in the main action, and they most often seem to be observers. They are often shown on the periphery, witnessing events. Even when birds are depicted in the middle of active scenes, they do not appear to be participating. Yet they are the animals that co-occur most frequently with other animals and with humans in depictions (see section IV.3.B). The natural attributes of living birds were cited in these depictions – they are wild but familiar, omnipresent, but keep themselves apart. The omnipresence of birds may have led to a perception that they were important witnesses to human actions. They are constantly present, but the focus is not on their participation, but rather on their observation of events. The distinction and aloof nature of these animals was drawn upon and reinforced in local artistic representations, cementing their place as significant and conceptually distinguished from domesticates and other wild animals.

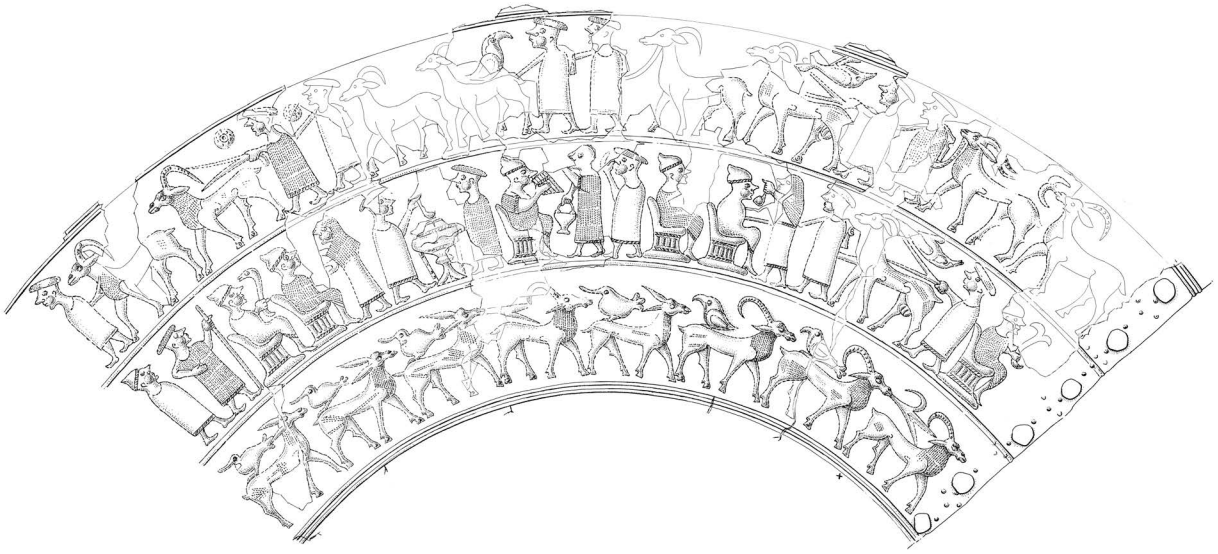
Water birds are considered a religious symbol dating back to at least the Bronze Age, particularly associated with horses, vehicles,[234] as well as wheel and sun symbols (Bilić 2016; Gelling and Davidson 1969; Kossack 1954; Kaul 1998, 2005; Larsson 1999; Teržan 2013). A broadly held Indo-European cosmology incorporating these elements has been proposed, reflecting the significance of fertility of humans and the land, and the cyclical nature of living things and time (Brück 2011:394). These symbols in particular are linked to the passage of the sun through the sky – by day drawn by horses or birds in a chariot or wagon, and by night in a

[234] Chariots, wagons, and ships.

ship pulled by water birds or snakes (Bilić 2016; Bradley 2006; Gelling and Davidson 1969; Kaul 1998; Kristiansen and Larsson 2005:294-308). An extension of this may have been the idea that prominent dead were carried to the afterlife in a wagon or chariot, which has been proposed to explain the importance of wheeled vehicles in many Bronze and Iron Age burials throughout Europe (Armstrong Oma 2013; Bradley 1997; Kaul 1998; Pare 1989, 1992). Water birds are considered particularly important because of their ability to travel through the proposed tripartite cosmos, the sky, earth, and a watery underworld associated with the night (Bradley 2006; Brück 2011:394; Goldhahn 1999; Kristiansen and Larsson 2005:355 Fig. 167; Randsborg 1993:119-120); and because of these abilities they are thought to act as mediators between humans and extra-human powers (Gleirscher 2013:238; Kossack 1999:23-27, 96-99). However, by the Iron Age the unity of these symbolic associations seems to have broken down to a certain extent, and the symbolism of the water bird and birds more generally seems to have become more polyvalent and ambiguous (Teržan 2013:89).

Birds are important in scenes of the extraordindinary – particularly in Dolenjska Hallstatt procession scenes on situla art. They appear in processions of animals as well as in mixed processions of humans and animals. On the elaborate situlae from Magdalenska gora and Vače both different species and different placement of birds are used to mark the sex of the processing wild animals. On the Magdalenska gora situla female animals are marked by ducks perched on their backs, while the males have birds of prey (Figure V.13a). On the Vače situla in contrast only the female animals are represented with birds perched on their backs (Figure V.13b). Here the natural behavior of these animals has been tweaked – in the wild jackdaws or crows may occasionally perch on deer and other ungulates, while ducks would not do so. Many of these situla art scenes are marked by a twisting of the ordinary to make it extraordinary – different

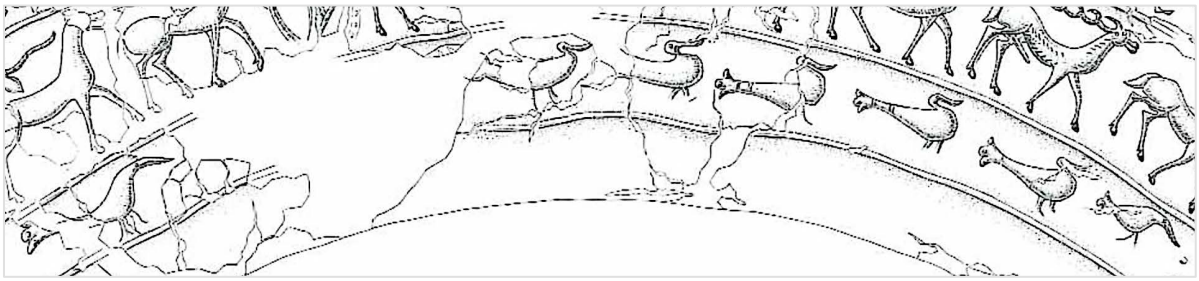
species of birds are perched on the backs of ibex and hinds, there are long processions of mixed species of birds (Figure V.14a), and natural proportions have been altered so that the birds seem to take equal part walking in the procession with the men and the veiled woman on the belt plate from Stična (Figure V.14b).



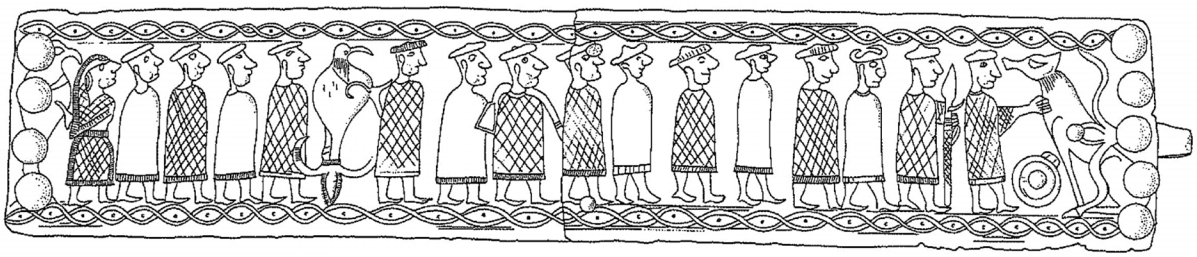
a)

b)

Figure V.13. Situlae with notable avian depictions. a) Situla from Grave 13/55 at Magdalenska gora, Preloge. Naturhistorisches Museum Wien 27550 (Tecco Hvala et al. 2004:Insert 4). b) Vače situla from Grave 1881/1 at Reber near Vače. Narodni muzej P 581 (Turk 2005:35 Fig. 52).



a)



b)

Figure V.14. Extraordinary and unnatural scenes involving birds. a) Lower register, situla from Grave 2/a from Magdalenska gora, Preloge. Narodni muzej P 4280 (Tecco Hvala et al. 2004:Insert 4). b) Belt plate from Grave VI/30 at Stična, Gomile. Museum für Ur- und Frühgeschichte UE 6 (Gabrovec 2006:268 Fig. 71).

Birds are also significant in some of the most explicitly ritualized scenes – scenes of animal sacrifice. The situlae from Magdalenska gora and Vače depict very similar scenes (Figure V.13): both the top register as well as the right side of the middle register depict animals that are likely being led to sacrifice. The birds in all these scenes are unusual – there are birds flying above the sacrificial animal, as well as an upside down bird hanging over an animal. The placement of these birds in association with these particular animals is not an incidental choice. The flying and upside down birds in these scenes may be markers, or they may allude to the role of birds in augury, as is known from contemporary Etruscan culture. From written sources we know that the Etruscans, Greeks, Celts, and Romans engaged in augury and interpreted the cries, flight patterns, and other behaviors of birds to foretell the future (Green 1992:151; Pauli 1985:24-25; Rankin 1996:277; Serjeantson 2009:337-338). Based on the overwhelming significance attributed to avian imagery and the depictions of avian omnipresence in situla art, it

is possible that Dolenjska Hallstatt people also engaged in some form of augury, perhaps equating avian omnipresence with omniscience. The observation of birds may even have been an important aspect of animal sacrifice during funerals or other communal activities. There is no definitive answer; however, it seems that birds may have had a role mediating between the human, animal, and ritual worlds.

The role of birds in ritual is also materialized through their presence on bronze drinking vessels. These items were symbols of status, but also notably important items for communal feasting activities that quite likely had a ritual component (see section V.1.A). The positioning of birds on the terminals of vessel handles visually referenced birds floating on water, while also positioning the birds so that they would appear to be observing those being served libations from these vessels. These prominent vessels were for the serving and consumption of alcohol, an agent of altered mental states and possibly liminality. In these contexts, bird figures may have served not only as observers of communal rituals, but also potentially as important guardians or mediators in the liminal state, as they themselves were liminal creatures that could move securely betwixt and between different media, and possibly cosmological realms. Birds are also the animal most commonly depicted on the few artifacts associated with children in this dataset (see section V.3.C), which may also support the possibility that birds were perceived as guardians or protectors.

These bronze vessels were also insignia of power within communities, particularly indicating the importance of the role of the host in communal rituals (Arnold 1999; Dietler 1990, 2001). These were likely ritualized activities, where social, political, and sacral powers were co-constitutive and possibly inseparable (Bradley 2005; Brück 1999, 2011:394). The sacred nature of bird imagery seems to have been an important aspect of the insignia of power in this period,

on bronze drinking vessels, scepters, and wagons. In addition to the ubiquity of avian imagery on the handles of bronze drinking vessels, there are also three scenes that indicate that birds may have ornamented other symbols of authority (see section IV.3.A.xi). Birds are depicted on wagons in scenes on two situlae. As previously noted, wagons have strong funerary and status associations in other parts of Urnfield and Hallstatt Europe (see Figure V.13b, top register; and Figure IV.96). Birds also adorn scepters carried by enthroned men on the two most elaborate examples of situla art (see Figure V.13, middle register both situlae). These males seem to be the center of much of the action depicted in these scenes, and it is possible that such scepters were insignia of power as well as symbols of ritual authority (Eibner 2001b, 2007). The appearance of birds on the triad of elite regalia – scepters, bronze vessels, and wagons – indicates that birds may have been symbols of consecration that served to blur the lines between worldly and sacral power in the Dolenjska Hallstatt culture.

Sebastian Becker, in his dissertation analyzing birds on bronze artifacts from the Late Bronze and Early Iron Ages, proposed that by the Early Iron Age bird imagery was no longer a transcultural symbol "branding" elite male warriors and instead was more significant for local elites distinguishing themselves through personal display and commensality (2015:220-221, 265-266). While it is true that in this area avian imagery is most common on personal ornaments (60 artifacts, 51% of avimorphic dataset) and bronze vessels (54 artifacts, 46%), a closer iconographic analysis of bird imagery indicates that it maintained its essentially sacred nature and masculine connotations. Situlae are primarily associated with males in the dataset, and the imagery of birds on wagons and scepters is also dominated by men – men hold the scepters, are served from situlae, and ride in the wagons depicted in these images – all activities that were proposed as highly ritualized with important cosmological associations. However, it does seem

to be true that bird imagery has lost its martial associations by this time, and it may be that in this area the horse had become the warrior symbol par excellence and supplanted birds in that role due to local historical developments (see section V.2.A.v on horses).

The more widespread use of avian imagery, particularly on personal ornaments, may indicate that the ritual significance and cosmological associations of birds provided them some prophylactic or apotropaic attributes. However, it should be noted that this association began to wane in the Negova Helmets phase, possibly around the same time that bird imagery disappeared from narrative scenes in situla art. It is unclear if this was simply due to changing aesthetic values, or possibly something broader related to the increasing importance of new Celtic imagery and possibly ideologies in this period.

In situla art bird symbolism circulates within the realm of ritual, community, and hierarchy. Birds were strongly associated with ceremonial and potentially highly ritualized activities, particularly those highlighting the sacred and worldly power of premier elite males. Bird imagery appears on insignia of power such as metal vessels, wagons, and scepters; birds are frequent participants in processions, particularly of wild animals; and their role as observing and/or marking scenes of animal sacrifice has been demonstrated. The omnipresence of birds and their role as observers, possibly with knowledge about and access to other realms, was highlighted in local iconography. Dolenjska Hallstatt peoples drew on the ambivalent nature of birds in their depictions – they are omnipresent but on the peripheries. Most birds maintain their distance from humans, but are comfortable with other wild animals. The quotidian experience of birds as omnipresent but apart from humans may have made them particularly appropriate for depictions on artifacts that were ultimately deposited during funerary rituals. In mortuary contexts these avian representations crosscut gender; it may be that the ideological significance

of birds was potent for both men and women, and their symbolism as observers was key. It may be that because of these attributes birds were considered important mediators between humans and other animals, as well as between humans and extra-human forces.

V.2.A.vii Bear

The zooarchaeological remains only hint at the presence of bears, let alone their symbolic or cultural significance, and the iconographic record is silent in the Dolenjska Hallstatt region. There is a single find of bear remains – a pierced claw in the burial of a probable male in Grave V/11 at Laščik near Magdalenska gora. Bear remains are also attested in very low numbers from Cvinger near Vir pri Stični[235] (Bökönyi 1994:192, 201). A few other pierced bear claws are known from Hallstatt period graves in the wider region: from Germany in Grave 88 at Dreitzsch, Grave 30 at Riedenburg-Untereggersberg, Grave 14 at Werbach, and in Austria from Grave 99 at Hallstatt (Hansen 2013:252; Nikulka 1998:235-236; Pauli 1975:130; Simon 1972:32; Wehrberger 1984:189).

Ludwig Pauli in his study of Iron Age amulets noted that bear canines were the second most common animal teeth after boar tusks, found with primarily women and children at Chouilly Les Jogasses, Dürrnberg, Söllingen, Kuffarn, and Hallstatt (Pauli 1975:129-130). Bear remains are also sporadically attested throughout central Europe in the Early Iron Age, leading Peter Trebsche to argue that the hunting of fur-bearing mammals has been underestimated[236] (Trebsche 2013:222). It is likely that bears were occasionally hunted for their pelts, though the rare finds of bear bones have led to the proposal that they were likely skinned where they were

[235] The minimum number of individuals was three (Bökönyi 1994:192).

[236] Since wild animal remains are consistently rare in the Early Iron Age he used ubiquity analysis rather than NISP to determine how widespread hunting may have been in this period. He assessed 74 faunal assemblages and bear remains appeared in 28.8% of the assemblages (Trebsche 2013:222).

killed and only the pelts were brought back to settlements (Green 1992:54). Supporting this is a new find of a bear skin in the central burial in Tumulus 17 in the Speckhau mound group near the Heuneburg hillfort in Germany, the first such find from the continental European Early Iron Age (Rast-Eicher in prep; Schönfelder 1994).[237]

The zooarchaeological and iconographic evidence indicates that either bears were rarely encountered and not well known, or alternately that they may have been avoided. In other parts of Europe the discovery of these amulets with women and children has led to the proposal that they served a prophylactic function and were not hunting trophies (Hansen 2013:252); however, the fact that the most dangerous parts of the bear were harvested and retained indicates that these were quite literally hunting trophies, though this does not preclude more esoteric functions. Whatever the beliefs about bears may have been, it seems that they were rarely hunted and were not part of the iconographic repertoire, despite the frequent depictions of other wild animals. This does imply that interactions with and conceptions of wild animals were likely more complex and nuanced than is often assumed.

V.2.A.viii Wild Boar

The wild boar remains something of an enigma in Dolenjska Hallstatt culture. At least 12 individual wild boars were identified at Cvinger near Vir pri Stični, and though the sample of wild animals is small boars are the most common wild animal at the site (Bökönyi 1994:192). A wild boar was identified on a single poorly preserved belt plate from Grave 48/104 at Gomile near Stična (see Figure IV.34). Only part of the scene can be deciphered and depicts a dog pursuing a boar. One additional possible wild boar was identified outside the dataset, on an

[237] Thanks are due to Bettina Arnold for providing me with a pre-publication version of this analysis.

unprovenienced belt plate from Vače depicting three boars, two water birds, and a feline (see Figure IV.35). Despite the apparent importance of boar as a commonly encountered and hunted wild species, they do not appear frequently in local iconography and are outnumbered by depictions of less common wild animals. In this way the situation of boars is similar to that described in the case of pigs, where economic and iconographic significance clearly diverge (see section V.2.A.iv). However, at least seven boar canines have been identified at sites around Vače, though most are unprovenienced and were excluded from the formal study.[238] Several of these are pierced, or show regular discoloration that may be from materials used to suspend these items, indicating they may have been worn as pendants.

Boars can be fearsome creatures, and were popular quarry in ancient Europe. They can weigh up to 200 kilograms, and their tusks can grow up to 25 centimeters (Morris, C. 1990:152). They are extremely aggressive when threatened, and may trample or gore those perceived as a threat (Kitchell 2014:150; Morris, C. 1990:153). Mediterranean art and literature attest to the hunting of boars, particularly the importance of such hunts for proving the masculinity and prowess of men (Eibner 2001a; Kitchell 2014:150). Boars frequently appear in Late Iron Age imagery, especially on martial equipment – depictions which are proposed to harness the aggressive power of the boar and protect warriors (Green 1992:46, 89). Greek imagery provides some insight into modes of hunting boar, which most often was done with dogs and nets (Kitchell 2014:150) – this may fit the Dolenjska Hallstatt practices, since the Stična belt pairs a dog and a boar. Whether such hunting was essential to presentations of masculinity and status, as has been proposed for other regions, remains an open question for this area (Arnold 2010a; Eibner 2001a; Green 1992:52).

[238] Narodni muzej P 727, 728; Naturhistorisches Museum Wien 7643, 8021, 6523, 14233.

V.2.A.ix Canids

Canids in the iconographic dataset may include wolves, foxes, and jackals. Foxes and wolves are attested from zooarchaeological remains at Cvinger near Vir pri Stični – remains of at least seven wolves were also identified, as well as three metatarsals from a single fox (Bökönyi 1994:192, 203). The matched metatarsals likely indicate that this particular fox was skinned, or otherwise disarticulated to preserve the paw. The wolf remains encompass a wider variety of elements, and indicate probable on-site processing of the remains.

Canids are identified on 13 artifacts in the dataset – situlae, belt plates, and earrings decorated in the situla art style, as well as fibulae. The situlae depicting canids seem to be predation scenes – large canids follow lines of ungulates including deer, ibex, and goats. The size of these canids indicates that they are likely wolves, which is supported by the fact that wolves most often prey on ungulates (Gorman 2008:27). This is in contrast to the other large canids, golden jackals, which are primarily nocturnal scavengers preying on smaller species (Gorman 2008:36). The situlae from Novo mesto, Kapiteljska njiva Graves VII/19 and XIV/7 both show two canids (see Figure V.12). This also supports the hypothesis that these likely depicted wolves, since wolves live and hunt in packs and are particularly dangerous to domestic flocks such as the goats depicted on the situla from Grave XIV/7. The belt plate from Grave XI/21 from Branževec 2 at Dolenjske Toplice also depicts a predation scene, with a canid with defined claws biting the back of an ungulate (see Figure IV.123k). Predation scenes are a recurring theme in these depictions of canids, one that is maintained by the fibulae depicting a canid behind a bird.

Other fibulae and the earrings depict very schematic canids, so determining probable species or any deeper iconographic meaning is difficult. The attribute highlighted in depictions of canids is their predatory nature, and in certain cases the threat they posed to local flocks. It is

clear that these animals were hunted to a limited extent, possibly for their skins, and perhaps to protect flocks, though any other relationships with these animals or broadly held perceptions of them remain elusive.

V.2.A.x Felines

Felines were depicted on six artifacts in the dataset, on fibulae as well as on a belt plate. Unfortunately, not much can be said about the lion belt plate because of repairs that hid the front half of the lion; it is unknown what the lion was doing (see Figure IV.43). It is also possible that the lion was already obscured by the time the belt came into the possession of local Dolenjska Hallstatt people, if it was an imported piece. The lion may have been viewed as a mythical creature, or an altered version of the more familiar local wildcats. The fibulae in turn depict a feline behind a small bird, the feline appears to be stretching backward with hindquarters slightly raised in a very typically feline position (Figure V.15). The docked tails on all of these fibulae could indicate that they were intended to depict lynxes. However, lynxes are very rarely seen – they are nocturnal and go out of their way to avoid people (Gorman 2008:30). They also prefer medium-sized prey, so a depiction of them pursuing a bird would likely not reflect behavior observed in the wild (Gorman 2008:32). Wildcats however do prefer birds, and are more likely to approach settlements to pursue small rodents and other creatures attracted to stores of grain (Faure and Kitchener 2006:226-227). Images of wildcats have also

Figure V.15. Top: Lynx with the distinctive arched back (© Konrad Wothe/gettyimages.com; ARKive). Bottom: Fibula from Grave 2/o at Magdalenska gora, Preloge. Narodni muzej P 4004.

been reported in the rock art at Val Camonica, but otherwise wildcat imagery is restricted to the Mediterranean (Anati 1965:127-127; Green 1992:52). Thus far neither remains of wildcat nor lynx have been recovered from Dolenjska Hallstatt contexts, so we can only speculate as to how local peoples might have encountered these animals.

It is also possible that these are depictions of domestic cats, which are known in Etruscan contexts in this period. They are still quite limited in the Early Iron Age however, and seem to be restricted to elites (Ashmead 1994; de Grossi Mazzorin 1989; Ruffo 1988; Trentacoste 2014:65). Similar fibulae are found in Friuli, so it may be that the design for such fibulae originated on the Italian peninsula where people were familiar with these new creatures, and was adopted by Dolenjska Hallstatt people. However, this particular variant is most common in Slovenia, which problematizes the likelihood that it was an imported item (Nascimbene 2009:161-162). Wherever felines were being encountered, or where the impulse to depict them came from, there is no evidence that they were encountered frequently or that they formed an important part of the Dolenjska Hallstatt artistic repertoire. Except for the lion on the belt plate from Grave 2/58 at Preloge near Magdalenska gora, feline images are only known from stylized fibulae where they are depicted pursuing a bird, perhaps ready to pounce. Based on the dimensions of the intact fibulae, they may all have come from a single mold, indicating that these may have been a very specific phenomenon that may reveal more about the development of various forms of animal fibulae than about perceptions of felines in general.

V.2.A.xi Deer

Red deer are the most common wild animal remains associated with Dolenjska Hallstatt settlements, and roe deer are extremely common as well (Bökönyi 1994). In the iconographic

repertoire deer appear primarily on objects decorated in the situla art style, six situlae and four belt plates, as well as on two matching crossbow fibulae. Red deer are identifiable in narrative scenes on situla art on the basis of their antlers, and they most often appear in processions and hunting scenes, as well as a single scene that may indicate animal sacrifice.[239] This is the only scene of its kind in the Dolenjska Hallstatt repertoire; however, it does have important parallels in the Etruscan world. Initially this scene seems unlikely to portray a real event, since it would be very difficult to capture a live deer and transport it for sacrifice without injuring it, and it would be exceptional to harness a deer and lead it tamely to its death (Basson and Hofmeyr 1973:151-160; Fowler 1995:57-66). However, Etruscan art depicts the capture and restraint of deer in multiple images (Figure V.16), as well as the more feasible use of drive nets that would allow deer to be captured alive (Rask 2014:303). Etruscan art also shows scenes of deer sacrifice, and sanctuaries and graves also contain the remains of deer (Rask 2014:296-307). There are several explanations that may suit the Dolenjska Hallstatt deer sacrifice imagery. It is possible that the artisan who created the situla or other Dolenjska Hallstatt individuals were familiar with these Etruscan practices or images, and this scene is specifically intended to reference such images. It may also be that Dolenjska Hallstatt peoples captured and sacrificed deer as well, though since this is the only extant scene we cannot be sure. Horse sacrifice is better known since the imagery and intact bodies of horses support the likelihood that they were graveside sacrifices, while no intact deer are currently known and

Figure V.16. Plaque from Orvieto depicting two men wrestling with a fallow deer stag. Circa 700-650 BCE (Rask 2014:303 Fig. 3).

[239] The situla from Grave 13/55 at Preloge near Magdalenska gora depicts a harnessed red deer stag being led by a man with an axe (see Figure V.13a).

deer remains in graves are relatively rare. It is also possible that deer sacrifice was unknown to Dolenjska Hallstatt people, and instead this scene purposefully portrays what was considered an impossible circumstance, possibly intended to depict extreme control over nature through the provision of a truly extraordinary sacrifice.

The hunting scenes show deer hunts both on foot and on horseback using arrows and spears, and all show the assistance of dogs. Zooarchaeological remains from Cvinger near Vir pri Stični support the preference for red deer as prey: remains of at least 29 individuals were identified. A large amount of antler was also found at the site, and interestingly none of it was identified as shed antler (Bökönyi 1994:192, 201). Roe deer was much less common; the MNI at Cvinger was only eight animals, which is supported by their apparent absence[240] from local iconography. However, this is unexpected based on the local prevalence of each species, and probable encounters with and experience of red deer versus roe deer. Red deer primarily inhabit mixed forest, though they will come out into fields at dusk and in the evening to graze. Roe deer in turn are much more ubiquitous in open environments, especially near agricultural fields, where they can be major pests (Gorman 2008:39, 41).

Red deer stags are particularly impressive animals. They are very large creatures, and during rutting season dominant stags will assemble harems of hinds, bellow frequently to warn off other stags, and when directly threatened stags will lock antlers and fight for mating rights (Gorman 2008:50). The situla from Grave V/6-7-7a at Laščik near Magdalenska gora may indicate the noisiness of stags in rut – stags and hinds alternate in a procession in the upper register, and only the stags have scrollwork coming from their mouths that may indicate bellowing (Figure V.17). Roe deer are also noisy creatures; males and females both produce

[240] It is only possible to identify the species of deer for male animals due to the distinct antler morphology of red deer and roe deer. Since there are many female deer depicted, it is possible that some of these were intended as depictions of roe deer.

sharp barking noises that can sound like dogs (Gorman 2008:41). The noisiness of female roe deer may be depicted on the bottom register of the Vače situla (see Figure V.13b), where two of the hinds have scrollwork coming from their mouths, perhaps indicating vocalizations. However, it is also possible that local people did not have a clear understanding of the vocalizations particular to each species, and believed all deer to be loud animals.

Figure V.17. Situla depicting red deer stags and hinds in the upper register. Magdalenska gora, Laščik Grave 6-7-7a. Peabody Museum inv. no. 34-25-40/8418 (Hencken 1978:146 Fig. 111).

Despite the prevalence of red deer at settlements and in the iconography, two of the three graves containing deer remains are of roe deer. Laščik Grave V/2 and Preloge Grave VII/38 in the Magdalenska gora complex both contain deer – the former contains fragments of metatarsals, and the latter contains a left cranial fragment. Reber Grave 2 near Vače also contained the remains of deer limbs, though specific elements and deer species were not recorded. Two of these three graves are identified as belonging to probable females. This exposes some possible contradictions, or more complex associations between deer and humans – based on the iconography it was men who hunted deer, particularly red deer. These depictions of deer are also more strongly associated with male graves. Red deer would have been less frequently

encountered than roe deer, yet their remains are more prevalent at settlements indicating that these hunting scenes likely reflect real preferential hunting practices. However, the zooarchaeological remains from graves indicate that the less preferred roe deer were deposited in female graves. Both zooarchaeological and iconographic evidence indicate that there were species-based preferences for red deer as prey and artistic subjects, though they were less commonly encountered. It is possible that their size, their impressive mating displays, or other attributes made them good to think, hunt, eat, and depict (*sensu* Lévi-Strauss 1991:89); more so than their more common relative the roe deer.

V.2.A.xii Ibex

Ibex appear on four artifacts, three situlae and a bronze lid, all decorated in the situla art style. They are always part of processions with other ibex, and on the three situlae the processions show a mix of deer and ibex. The situla from Grave 13/55 at Preloge near Magdalenska gora is very unusual, it shows a harnessed ibex being led by a man, followed by a second ibex (see Figure IV.13a). This scene likely indicates that the ibex are being taken for sacrifice, since it mirrors scenes with horses and axe men. The difficulty of capturing wild ungulates for sacrifice was discussed for deer in the previous section, however it nonetheless seems to have been practiced by the Etruscans (Rask 2014). The main issue for Dolenjska Hallstatt people capturing ibex would be access, since ibex are well equipped to escape to places human cannot easily reach, live in less accessible regions, and would need to be transported quite a distance to reach Dolenjska Hallstatt sites for sacrifice.

It is notable that male ibex are not depicted with beards, which they exhibit in modern times. This may be due to the fact that all modern Alpine ibex are descended from a group of 40

individuals after attempts to save them from extinction in the 19th century (Gorman 2008:46). It is possible that the ubiquity of beards in modern ibex populations is due to this genetic bottleneck, and that there was more phenotypical variety in pre-modern Alpine ibex.

Ibex are known to a very limited extent from Cvinger near Vir pri Stični; at least four were identified in the zooarchaeological study, adults and subadults, all represented by metapodial fragments (Bökönyi 1994:192, 201). It is not surprising that there are relatively few represented – Alpine ibex usually reside high in the mountains above 2000 meters elevation, and only descend below the tree line in the spring to graze (Gorman 2008:46). They are extremely agile, jumping and climbing on cliffs and rocky scree where humans cannot reach. When they are in rut in the winter the males fight for dominance and access to females, jumping in the air to gain greater force as they lock horns and attempt to push the opposing male to the ground (Gorman 2008:46). Based on the limited zooarchaeological finds, they were occasionally hunted by Dolenjska Hallstatt peoples, though it is unlikely that they would be seen near settlements; instead it is more likely that hunters went into the mountains to pursue them.

Their depiction exclusively on objects decorated in the situla art style may indicate that ibex were considered high status animals due to their rarity and association with extreme landscapes, only encountered by those who traveled a long distance from Dolenjska Hallstatt sites. It may also be that they were less familiar and thus had fewer cultural associations that made them appropriate subjects to represent on a variety of objects. The four artifacts with ibex nonetheless seem a disproportionately high level of representation compared to the frequency with which local people would likely have encountered these animals. Their appearance in processions with deer on three of the four objects is also puzzling, since these are not species that would interact in the wild due to their mutually exclusive environmental ranges. Nonetheless,

there seems to have been some association between ibex and deer in the minds of local people, leading to their frequent representation together. For these wild ungulates, the purposeful presentation of unnatural behaviors and unlikely scenarios may have been part of the appeal of this art, subverting lived experience and presenting extraordinary vignettes meant to incite commentary.

V.2.A.xiii Hare

Hares are the second most common wild animals depicted in the dataset, on a total of 18 artifacts. Fourteen of these are plate bronze earrings with hares depicted in the situla art style, while hares are also depicted in the situla art style on three bronze belt plates, as well as on a cast bronze button. Thus far remains of hares have not been recovered from mortuary contexts, and at Cvinger near Vir pri Stični only three elements were identified representing three animals (Bökönyi 1994:192). It is possible that the limited number of hare remains is taphonomic, since hare bones are more fragile and less likely to survive in the archaeological record than bones of larger animals (Green 1992:50; Méniel 1987:89-100).

The belt plate from Grave III/12 at Kapiteljska njiva near Novo mesto depicts a hare in a net or a snare, providing insight into local hunting practices (see Figure IV.56a). However, due to the limited number of remains it is difficult to determine if hares were frequently hunted or if this depicts a relatively rare occurrence. The two other belt plates with hares, from Grave 1889/1 at Reber near Vače and Grave V/29 at Laščik near Magdalenska gora, both highlight the fleetness for which hares are known – the first depicts what initially looks like a procession of hares and birds, though the hares have light spirals coming from their joints and feet, possibly to indicate a sense of movement (Figure V.18, top). The latter shows a hare bounding ahead of a

deer, and is one of the few pieces where the figures are not all aligned on a ground line (Figure V.18, bottom).

The earrings depicting hares in the dataset are all from two sites – Preloge at Magdalenska gora and Branževec 2 at Dolenjska Toplice. It may be that they were made locally in one of these areas and their presence at the other site indicates a close relationship between the two areas – possibly through intermarriage, since earrings are exclusively women's ornaments.

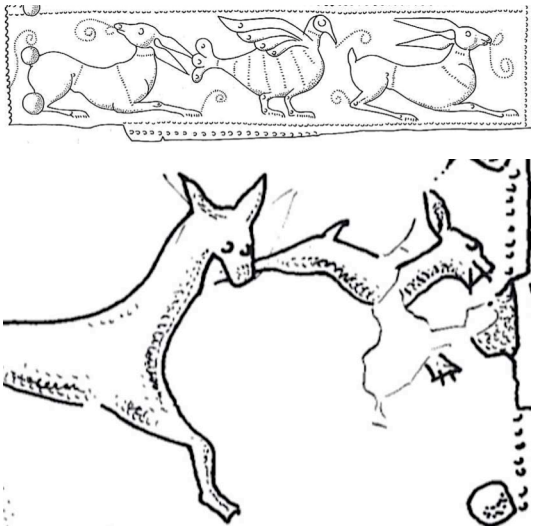


Figure V.18. Hares depicted in motion. Top: Detail from the belt plate in Grave 1889/1 at Reber, Vače. Narodni muzej P 80 (Turk 2005:49 Figure 71). Bottom: Detail from the belt plate in Grave V/29 at Laščik near Magdalenska gora. Peabody Museum 34-25-40/8516 (Tecco Hvala 2012:172 Figure 66).

Hares would likely have been familiar to Dolenjska Hallstatt people – hares like open spaces, particularly fields and pastures and would have been observed in the course of daily chores managing domestic herds and tending fields (Green 1992:50). Hares have some very unusual attributes compared to other mammals, which may have been noted by local people. Females are incredibly fertile, and can have up to four litters of young per year. In addition, they are known for a rare process called superfetation: they can become pregnant again while already carrying embryos. This was remarked on by Herodotus and Aristotle, and certainly could have been known to local people if they ever caught and slaughtered a pregnant hare (Boyle 1973:313; Kitchell 2014:82). Hares are also known for their boxing displays during mating, when females attempt to fend off eager males (Gorman 2008:59; Kitchell 2014:82).

The significance of hares in the Dolenjska Hallstatt region is unclear; imagery depicts them being hunted, but they are rare in zooarchaeological remains. Belt plates worn by males

seem to reference their fleetness of foot, though they appear most often on earrings, which were female ornaments. It may be that the strong association between females and hare imagery references fecundity, especially if these items marked women from particular sites and moved around with these women as they married and moved to marital communities. However, since the imagery is relatively static on earrings, simply showing a repeating motif of crouching hares, such associations remain speculation.

V.2.A.xiv Snake

Snakes are only known from the iconographic record, which limits any insight into Dolenjska Hallstatt observations of and interactions with snakes. There are ten artifacts in the dataset depicting snakes – nine are annular jewelry, including bracelets and torcs, and one is a bronze belt plate. The bronze belt plate from Grave 2/46 at Preloge near Magdalenska gora depicts a snake in the mouth of a bird, mirroring a natural occurrence. The annular jewelry is all very schematic – most often both terminals are in the form of stylized snake heads with discreet eyes, and occasionally other decoration that suggests scales.

Interestingly, four of the six snake bracelets are also ornamented with the circle-and-dot motif, which is a relatively high proportion for such a small artifact sample. This may indicate some knowledge or acceptance of Indo-European cosmologies where the sun moved through the sky during the day drawn by birds or horses, and at night the sun had a chthonic or watery passage associated with snakes and water birds (see section V.2.A.vi for discussion of the proposed cycle of the sun and its association with various animals). In Etruria and other parts of the Mediterranean snakes have strong chthonic associations, due to their ability to slither into and emerge from small crevices and hidden areas. The periodic shedding of their skin has also

led to connotations of renewal and rebirth, and their large clutches of eggs and forked penises have led to connections with fertility, while poisonous snakes may also represent threats (Green 1992:224; Kitchell 2014:173; Pieraccini 2016:92).

Essentially, people have developed a multitude of associations with snakes, both negative and positive. These may apply in the study area as well, though the sample is small and such conceptions are not clear. The association with circle-and-dot imagery may indicate beliefs analogous to those proposed for other parts of Europe in the Bronze and Iron Ages where the snake played a role in the daily cycle of the movement of the sun.

V.2.A.xv Fish

It is unclear if fish were an important resource for Dolenjska Hallstatt people. The only finds attesting to their significance are three fishhooks from Grave 34 at Borštek near Metlika, and the fish on the belt plate from Grave III/12 at Kapiteljska njiva near Novo mesto (see Figure IV.62; Dular 1979:Pl. 10 nos. 6-8; Dular and Tecco Hvala 2007:213; Križ 1997:28). It is likely that fish were important resources in some areas, particularly at settlements like Marof in Novo mesto, which is located on a meander in the Krka River, which has one of the largest fish populations in Slovenia (Dular and Tecco Hvala 2007:60). The zooarchaeological record does not shed more light on this issue, since no fish remains have been recovered through sieving or floatation at the settlements where these methods were utilized (Dular and Tecco Hvala 2007:213). The only physical remains come from the site of Dvorišče SAZU in Ljubljana, which was not included in the formal study, where a fragment of fish vertebra was recovered from Grave 154 (Škvor Jernejčič 2014:Appendix 4).

V.2.A.xvi Cowry

There are only two representations of cowry in the dataset, in Graves I/18 and I/80 at Hrib near Metlika (Grahek 2004). These items are imports from Picenum in eastern Italy, and their importance may have more to do with their status as imports than local perceptions of cowry as either shellfish or just shells. Much has been made of the resemblance of cowry shells to vulva, and contemporary amber cowry shell pendants from Italy are thought to have had an amuletic function related to fertility or childbirth (Causey 2011:93-94). The best support for the association between cowry and fertility comes from Egypt, where cowry shells were strung from belts and worn in the pelvic region (Andrews 1990:140-143, 1994:42). Their form has also been compared to a lidded eye, and it has been proposed that they were worn to ward off the evil eye (Golani 2014). Bronze cowry pendants are primarily known from Picenum, and closer to Hrib there is also an unprovenienced example from Vinji vrh nad Belo cerkvijo, a contemporary Dolenjska Hallstatt site.[241] There is another bronze example from further south at Prozor in modern Croatia, along with an amber cowry, similar to the amber cowry from nearby Kompolje (Grahek 2004:154 Fig. 42). Finally, there is a real cowry shell with pierced by a bronze loop that was recovered during the Duchess of Mecklenburg's excavations at Magdalenska gora; however its exact provenience is unknown so it was not included in this study.[242] Other shell pendants are known from Dolenjska Hallstatt sites that have not been included in the study since they are also without provenience. A whelk or snail shell was recovered from Magdalenska gora,[243] and pierced cockleshells are known from Vače and Vinica.[244]

Though particular local meaning attributed to cowries is unclear based on a sample of

[241] This find was not included in this study since the provenience is unknown (Grahek 2004:152).
[242] Peabody Museum Online Catalogue inv. no. 34-25-40/9339.
[243] Peabody Museum Online Catalogue inv. no. 34-25-40/9396.
[244] Vače: Naturhistorisches Museum Wien inv. nos. 14242 and 14243; Vinica: Peabody Museum Online Catalogue inv. no. 40-77-40/11908.

two, these items fit into a broader Adriatic phenomenon where cowries were used as pendants and beads. This may have been related to their visual similarity to vulvas, and an association with fertility or other female attributes. The use of such imagery also indicates a certain level of familiarity with and access to mollusks, though it is unclear whether they were consumed locally or primarily their shells were of interest.[245]

V.2.A.xvii Mythical Animals

Mythical creatures included in the Dolenjska Hallstatt iconographic repertoire include sphinxes and pegasi, though the lion could perhaps be included in this category as it is unlikely that anyone living in the study area encountered a lion (Teržan 2009). Only four artifacts depict mythical creatures, and it has previously been noted that local animals like wolves have been substituted in Orientalizing motifs that would otherwise include mythical creatures (Turk 2005:24-26, 35). Three of these artifacts are composite helmets topped by paired sphinx figures. Sphinxes are Orientalizing figures, though Biba Teržan argues that by the time this imagery was adopted in the Dolenjska Hallstatt region sphinxes were no longer the classic female hybrid figures of the Mediterranean world but instead represented male demons (2012). It is certainly possible that the sphinxes depicted on composite helmets were males – they lack the longer hair or breasts that indicate females in more western depictions. However, a closer analysis of the figures indicates that sex and/or gender may not necessarily be an essential factor in the Dolenjska Hallstatt depictions; instead a decreased humanity seems to be the focus.

The sphinxes on the helmets from Grave IV/3 at Preloge near Magdalenska gora and Grave XII/37 from Hojbi at Brezje pri Trebelnem both highlight the avian features of the sphinx

[245] Though presumably it was the latter based on the distance of Dolenjska and Bela krajina from the Adriatic Sea.

rather than any human features – the faces are very schematic, with wide slashes for mouths and beak-like noses (Figure V.19, top). The chests are also crosshatched with the same design as the wings, indicating a fully feathered body. This contrasts the more anthropomorphic sphinx figures on the helmet from Grave 1883/11-1 at Ravne njive near Vače that have more finely modeled features, a smooth chest, and clearly defined wings similar to Etruscan and other Orientalizing sphinxes that appear in depictions on the Italian peninsula (Figure V.19, bottom).

Figure V.19. Sphinx figures on composite helmets. Top: Helmet from Grave XII/37 at Hojbi, Brezje pri Trebelnem. Naturhistorisches Museum Wien inv. no. 33680. Bottom: Helmet from Grave 1883/11-1 at Reber near Vače. Naturhistorisches Museum Wien inv. no. 7583.

These distinctions relate to choices made by the craftsmen who made these helmets – and the choice of how human or avian to make the figure may have been a purposeful one. It may be that the more avian figures are local, whereas the more traditionally hybrid figures are from the Italian peninsula. This provides more data to address the controversy over whether these are locally made items, or items imported from Italic regions (Egg 1986:29-32; Gabrovec 1965-1966:83, 1992a, 1992b; Teržan 2008:315; Tecco Hvala 2012:151). It may not be a case of one or the other; rather there may have been multiple production areas that would explain some of the distinctions in the form of the sphinx figures. If this is the case, it may be that the Dolenjska Hallstatt people had different conceptions than Italic people of exactly what sphinxes were – one that may have focused much less on the human aspects of the creatures.

A much more conventional sphinx is represented on the belt plate from Grave 2/13 at

Preloge near Magdalenska gora, along with pegasi and what may have been a griffin (see Figure IV.66). This sphinx has the typical paws and body of a predator, elaborate wings with feathers similar to those of a peacock, and a relatively austere face – not dissimilar to the face and wings of the sphinx figures from the Vače helmet. The pegasi have similar wings, and also share the clawed feet of a predator rather than the hooves one would expect.

These animals are alien to Dolenjska Hallstatt depictions outside these four items, and would likely have been noted as foreign by those who saw them. It is intriguing that all the hybrid figures that appear in Dolenjska Hallstatt imagery have avian attributes – especially since other non-avian hybrid and monstrous creatures were known in Italic depictions (Warden 2004). The importance of birds in local depictions has already been discussed (see section V.2.A.vii), and it may be that there was something about the unique and ambivalent status of birds that made them appropriate for depictions that modified reality and blurred the lines between species (Frie 2016:78).

Studies of hybrid creatures from the surrounding regions have touched on the use of these images to create a sense of chaos and purposefully transgress boundaries, as transformational imagery associated with shape-changing, or as costumes put on to harness the qualities of animal others (Aldhouse-Green 2004:149-150; Shanks 1999:99, 102). It is possible that these images portrayed similar ideas – particularly on helmets associated with violence it may have been beneficial to reference the power of animal others, or to harness chaotic imagery. In turn, studies of Etruscan mythical creatures have focused on the elaborate belief system of the Etruscans where such seemingly imaginary creatures were thought to be real, in the way that gods and the afterlife were real: they were simply beyond the realm of human experience (Warden 2004). The apparent Dolenjska Hallstatt preference for local animals may indicate that they did not believe

in such fantastic creatures, which is tentatively supported by the fact that there are more composite helmets with avian sphinx figures than with truly hybrid figures. In general, the possibility that many of these items were imported supports the fact that fantastic creatures did not have a place in local taxonomies, and such hybrids may have been more interesting for their clear foreign origins or impulses than for their perceived depiction of the natural or supernatural world.

V.2.A.xviii Indeterminate Animals

Not much can be said about many of the indeterminate animals since they are largely categorized as indeterminate due to preservation issues – particularly the ungulates and some of the wholly indeterminate animals. It is quite likely that the number of artifacts with ungulates overall, and the number of ungulates depicted on these pieces, has been underestimated due to these issues. Indeterminate mammal in turn does seem to be a valid category – there was a widespread practice of depicting extremely schematic animals, highlighting only snouts and ears or horns. This is despite site-based production of ceramics, so there must have been some shared aesthetic or ideal about appropriate ways of depicting animals that did not require significant elaboration or detail. These figures may have marked a locally understood category that did not require additional distinction, or they may have stood in for a broader category encompassing many creatures, and the relative ambiguity of these depictions allowed them to encompass multiple local species. The same may be true for the Eastern Alpine animal head fibulae categorized as indeterminate animals – their schematic nature could be due to the fact that Dolenjska Hallstatt people knew what these items depicted without requiring additional details, or the fact that they depicted an animal was enough, and the ambiguity itself was significant.

V.2.B. Sex and Age

Interestingly, sex and age are only discernable in depictions of ungulates. The Vače situla from Grave 1881/1 at Reber and the similar situla from Grave 13/55 at Preloge near Magdalenska gora both represent animals with prominent testes – these are sacrificial animals with axe men (see Figure V.13). It is notable that not all male animals on these situlae have testes, or even all sacrificial animals. There is also an ithyphallic red deer depicted on the situla from Grave 2/a at Preloge (see Figure IV.81). The stag is following a female deer, so it may depict a mating scene. There is one other ithyphallic animal depicted on a ceramic lid from Grave III/3 at Kandija near Novo mesto, though the species cannot be determined (see Figure IV.143s).

It is much more common for antlers and horns to be used to indicate sex – in the case of deer, males have antlers while females lack them, male ibex have larger and more robust horns than females, and male goats have distinctive torqued horns. Overall there is a preference for depicting large male animals with prominent antlers and horns – the only female animals that are clearly indicated are hinds. There may be a few female ibex based on the depiction of smaller horns, though these may also indicate younger male ibex.

Age is even more rarely depicted than sex. The size and number of prongs depicted on antlers indicates age, though most stags are depicted with very large antler racks. There is a single clear exception – the situla from Grave III/12 at Kapiteljska njiva near Novo mesto depicts two stags as part of a hunting scene, and the front male is depicted with much larger antlers than the second male (Figure V.20). The only other animal that appears younger than the animals around it is a possible fawn depicted on the belt plate from Grave V/29 at Laščik near Magdalenska gora (Figure V.21). This is an unusual item in that not all animals are in contact with the ground line, in contrast to other situla art depictions. It is also possible that this fawn is

just a smaller hind that is supposed to be further away from the viewer – though this would diverge from other known situla art images through the use of perspective.

Figure V.20. Detail from the situla in Grave III/12 at Kapiteljska njiva, Novo mesto. Dolenjski muzej P 2164 (Image courtesy of the Dolenjski muzej).

Overall the preference when portraying sex seems to have been for large male animals. These appear almost exclusively on situlae and belt plates, items that are overwhelmingly associated with males. It is plausible that these clearly male animals in the prime of life, apparently quite virile animals in certain cases, may have been desirable images for items that were strongly associated with elite male bodies in the case of belts or displays of power and largess in the case of bronze drinking vessels.

Figure V.21. Detail from the belt plate in Grave V/29 at Laščik, Magdalenska gora. Peabody Museum 34-25-40/8516 (Tecco Hvala 2012:172 Fig. 66).

V.2.C. Summary: The variable relationships with animals

When the specific taxa are addressed individually, with reference not only to the iconography, but also to available zooarchaeological evidence and ethological and environmental information, it becomes clear that there is no unitary category of Animal. There are significant distinctions in the species preferred, their modes of depiction, and their associations. Not all of these can be summarized here, but the main threads can be identified.

There is significant variation in the depiction of domesticates, possibly based on the familiarity with these animals in life that facilitated the development of unique ideas about each species and led to particular human-animal relationships and nuances in their depiction. Horses are the most ubiquitous, and horses used for riding seem to have been considered companions to

certain Dolenjska Hallstatt males, though their imagery resonated with the wider population as well. In turn, there is no clear evidence beyond a single burial that dogs were considered pets, and they may have been most important as working animals. Depictions of sheep may have been indexical for the significance of wool as a secondary product, one particularly tied to local female economies. Goats in turn have more masculine associations, and there is a possibility that populations of feral goats were cited in the local imagery. The most important subsistence animals – cattle and pigs – are much more rare in depictions. Cattle appear on ceramics and a few other items, but there is no clear unity in the modes of depiction or their significance. Pigs are significant for their iconographic absence and physical rarity in mortuary contexts, and there may have been an ideological reason for proscriptions against depictions or sacrifice of pigs.

Despite the number of wild animals depicted, these depictions are much more uniform and largely restricted to situla art. In particular processions, predation, and hunting scenes are most common, and prey animals are the focus of most of these depictions. Local predators seem less significant, or nearly absent in the case of bears. It is possible that depictions of wild canids may in some cases be domestic dogs in herding scenes, and the few feline images may have less to do with the animals themselves than with adoption of foreign imagery or the production of one particular fibula form.

Birds however present an entirely different story. Birds are the most common animals depicted in the dataset overall, appearing on a wide range of objects, particularly personal ornaments and drinking vessels. Birds do not fit neatly into the category of wild animals however, and in depictions it is unclear if they are intended to blur the boundaries between wild and domestic through their associations with both, or if they are categorically distinct. Bird imagery draws together associations with ritual, cosmology, hierarchy, and community. They are

omnipresent in situla art depictions, and contextual and iconographic analysis indicates that they may have been considered observers, guardians, or mediators between human and non-human agents.

V.3. Are any of these representational artifacts or taxa preferentially associated with elites or other identifiable social roles?

Many of the themes covered in this section have been touched on in previous sections of this chapter. To avoid repetition this section is briefer, and highlights where associations of particular artifacts and taxa intersect with human social roles – in particular rank, gender, and age.

V.3.A. Rank

Pursuing the study of elites and social status in prehistory can be a fraught exercise. Trying to extrapolate status primarily from grave goods and other archaeological remains is problematic, especially in a prehistoric context without reliable contemporary texts that might illuminate local configurations of power and authority. One issue is the conflation of wealth and power, and another is that when prestigious or exotic objects are identified, it is not always clear that modern estimations of value are equivalent to value assessments in the past. However, elites are nonetheless frequently discussed in studies of Iron Age Europe, and it is necessary to engage explicitly with their presence and identification. It is also necessary to engage with the overlapping nature of social status and other social identifications including but not limited to gender, age, and role. Here I use Bettina Arnold's definition of status as "a vertical, hierarchical category of social differentiation" as opposed to role which is horizontal and heterarchical, in that it may be unranked or ranked in a number of different ways (e.g., gender; Arnold 2006:150-

151, 2011:153-4; Crumley 1987, 1995; Levy 2006).

With these caveats in mind, it is necessary to confront the reality that there was enormous disparity in the grave goods deposited with Hallstatt peoples, and differential access to certain items does seem to indicate status differences that presumably had some bearing in both life and death. Grave goods, while certainly not the whole picture, can provide a window into the materialization of various social distinctions such as gender, age, role, and status. Grave goods themselves require explicit attention in terms of how they intersect with individuals. These artifacts were bound up in networks of meaning encompassing the living, the dead, material culture, and a variety of other material and immaterial entanglements. Certain grave goods can be interpreted as plausibly enmeshed in networks of meaning that reference high social status due to their inherent qualities or relational associations – e.g., rare or exotic raw materials, high levels of craftsmanship, non-local source, important ritual or communal function, or connection to esoteric knowledge or abilities (Gell 1992, 1998; Gibson 1979; Helms 1988, 1993; Joyce 2000; Kenoyer 2000:90). These are items that were not accessible to the majority of the community, and those who possessed them in life or were gifted them in death were set apart.

It was hypothesized that there would be a more frequent association of elites with animal depictions, because of elites' access to a variety of non-perishable materials and skilled craftsmen. The data indicate that this was the case: of the 220 graves with artifacts depicting animals, 40% contained imported items (see section IV.6.B). The high proportion of graves with imported items, standing as a proxy for elevated status (Brown 1981; Cannon 1989; Champion 1982; Kenoyer 2000), demonstrate that elites are overrepresented in the dataset and more likely to be associated with animal imagery than non-elites.

There was a gendered aspect to this – female graves were more strongly associated with

imported items than male graves, at a rate of 70% compared to just 18% (see Figure IV.172). One explanation is that females had to be of higher relative status to be buried with animal depictions than males buried with similar items. It may also be that females were strongly associated with imported items since females had more robust non-local connections through birth – it has been suggested that they were more likely to move for marriage than men, and if this is the case they may have come into the Dolenjska Hallstatt region with items from their natal communities or have had continuing access to materials from these areas (Arnold 2005; Tecco Hvala 2012:366, 383). Males in turn had less personal access to imported items, or their burial with animal imagery or zooarchaeological remains was less dependent on status than was the case for females. To control for the fact that male and female status may not have been materialized in the same ways, and that imports may not have been important indicators of male status, the association of males with bronze defensive gear such as helmets and cuirasses was assessed.[246] There were 74 male graves in the dataset and 21 of them contained a helmet – this is still a much lower proportion of potentially high status males than females at 28%.

Children's graves in the dataset also demonstrated a high rate of burial with imported items (see Figure IV.174). Nine graves with artifacts depicting animals were identified as belonging to probable children; seven of these graves also contained imports. This also suggests that access to artifacts depicting animals was not open to everyone, though the particulars of children in the dataset will be discussed further in section V.3.C.

Bronze vessels were associated with elevated status, since they indicate access to skilled craftsmen, the ritual and social importance of alcohol, and the possible role of host at communal events (see section V.1.A). Situlae were not restricted by gender, though they were more

[246] Only one grave contained a cuirass, Grave IV/3 from Kandija near Novo mesto, which was a double grave of a male and female. Thus, only the presence of helmets in male graves with artifacts depicting animals or zooarchaeological remains was assessed.

common in male graves – fifteen male graves contained 16 situlae while only three female graves contained four situlae in the study sample. However, three situlae associated with female graves were decorated in the situla art style (75%), compared to six in male graves (38%; see Figure IV.133). The fourth situlae from a female grave was decorated with stamped ornaments of circle and dots, and there was only one situla of this type in a male grave. In contrast, the majority of situlae from male graves (56%) were undecorated. This supports the inference that females in general needed to be higher status to be buried with animal imagery, and in this case the decorated situlae may indicate that these were women of premier status. It seems there were more status grades available for men to inhabit: even men who did not have access to the restricted and highly elaborate decorated situlae were able to symbolize their roles as hosts and community leaders. Children in turn were not buried with situlae or other bronze vessels, and it seems that despite any inherited status possessed by these children, vessels associated with hosting or alcoholic beverages were not appropriate for them.

Eighty percent of the double graves in the dataset contained imports, all three of the male-male graves and five of the male-female graves (see Figures IV.172). Interestingly, while graves with two metal vessels were not uncommon, only three graves contained three metal vessels and all of these are double graves. These double graves also adhere to the inverse proportions of decorated and undecorated situlae described above – double male graves contained two undecorated situlae and one decorated in the situla art style, while male-female double graves contained three decorated situlae and only one undecorated situla (see Figure IV.133). It seems that even in the case of double graves, the females with artifacts depicting animals were of significantly higher status than males in what are otherwise apparently comparable situations.

Animal remains, particularly wild animal remains, were predicted to be more strongly associated with elites due to previous proposals that hunting was likely an activity largely restricted to elites (Arnold 2010a; Green 1992:52; Krausse 1990; Rebay-Salisbury 2012:99; Turk 2005:31-33). However, the only wild animal remains identified in graves were of bear and deer, and these are not clearly associated with elite individuals. Grave V/11 at Laščik near Magdalenska Gora with the bear claw pendant did not contain imported items or horse gear, though two of the three graves with deer remains did have imports (see Figure IV.177). It was also unexpected that deer remains were only identified in female and indeterminate gender graves, despite the fact that hunting is depicted as a male activity. The grave that was most obviously high status on the basis of the animal remains was Grave IV/43 at Preloge near Magdalenska gora, which contained tarsals from seven cattle and an entire horse, representing a significant amount of deadstock.

Horses overall show the most widespread and complex associations with status in the dataset. It was proposed that horse gear would provide a good proxy for status, though with the full dataset available it should be noted that horse burials as well point to elevated status via the conspicuous consumption of significant animals. Only 28% of graves with horse remains also contained horse gear, and it is clear that not all horses were outfitted with riding equipment in graves (see Figure IV.177). However, if a grave did include horse gear and faunal remains, these remains were always of horses. There were 59 graves overall that contained horse gear, and 38 of these did not contain animal bones at all, but instead belts, situlae, and bronze vessels with animal imagery were most strongly associated with horse gear (see Figure IV.176). As discussed previously, these also seem to be important status indicators so their clustering is not surprising. However, graves with artifacts depicting horses only contained horse gear in 12 cases (28%; see

Figure IV.175), and only one grave contained both horse remains and horse imagery.[247] It seems that horse imagery was distinguished from horse bodies and riding equipment.

Graves with horse remains presented the most surprising dataset – horse bones were recovered from 46 graves, 13 of which contained whole horses, and there were six burials of solely horses without a human in the grave (see Figures IV.168-170). The burial of horses was clearly a unique treatment, and the burial of horses without associated humans may indicate that a near-human status was granted to particular horses or horses of particular men. Burials with horse remains are clearly oriented toward males – twenty of the graves are associated with probable males, in addition to a double male grave that contained the remains of four horses (see Figure IV.169). What is clear is that all these datasets – graves with horse remains, horse gear, and horse imagery, show strong associations with males, and quite often with males of high status.

Horses have previously been noted as an aspect of elite male status in many parts of Hallstatt Europe (Bökönyi 1974:230; Dular 2007:737; Green 1992:66; Kmet'ová 2013a; 2013b; Kmet'ová and Stegmann-Rajtar 2014). This is evident in situla art, where the scenes including horses may be characterized as depicting elite male activities in general. Based on the available evidence, males had exclusive access not only to burial with whole horses, but also to horse gear, and possibly to equestrianism in general. For this reason it is not surprising that horses are so often discussed as part of a suite of elite signifiers, an element of the elite warrior package that developed as a transcultural phenomenon in the Bronze Age that has also been noted as an important expression of elite masculinity in the Early Iron Age (Carstens 2005; Kristiansen 1999; Robb 1997a, 1997b; Shennan 1993:144-154; Treherne 1995; Vankilde 2006, 2014).

[247] Novo mesto, Kandija Grave IV/3.

Building on the discussion of horses presented in section V.2.A.v, the data indicate that equestrianism was an important component of the expression of elite masculinity in the Dolenjska Hallstatt culture that peaked after the turn of the sixth century BCE. This was because the association with horses, particularly riding, was significant for the embodiment of distinction. In the Serpentine Fibulae phase (circa 600-520 BCE) elite male riders were able to defend their communities more effectively against foreign mounted warriors, and may have been the only individuals who were able to match the threat presented by incursions of mounted raiders from the east. The distinction of local equestrians would not only have been obvious with reference to other humans, but in addition it would certainly have been notable that they were able to extend their mastery to beings outside the human sphere, and in doing so were able to engage physically with non-human animals in a way that was impossible for most of the community. This served to further distinguish their power and physical prowess, facilitating the embodiment and crystallization of the elite warrior ideal. Horses allowed particular men to not just present, but actually embody social distinction through their abilities and their participation in a unique human-animal relationship.

Status distinctions evidenced by burial with animal imagery or animal remains clearly have gendered aspects. Females had access to images and practices involving animals; however it seems that most of these females were of higher status, as evidenced by their access to imports. The implication is that non-elite women were less likely to have access to animal imagery or burial with animal remains than non-elite men. The male graves in the dataset demonstrate greater status disparities in the quantity and quality of grave goods, indicating that for men lower status was not necessarily an impediment to accessing animal imagery or animal bodies. Males possessed community status symbols such as bronze vessels relatively frequently. However, only

four female graves contained bronze vessels in the dataset – and of the four situlae all are ornamented in some way, three with elaborate situla art imagery. While women were not apparently restricted from access to important symbols of community power, the only women who had them were apparently of extraordinarily high status, which may mean that overall it was more difficult for women to inhabit these positions of power than it was for men. High status men in turn seem to have had nearly exclusive access to horses and likely also the ability to ride. There is no evidence that women were riders, and the only female graves with horse bones are all dated to the very end of the Early Iron Age, possibly showing a breakdown of previous gendered and status prohibitions related to horses.

V.3.B. Gender

Overall, of the 220 graves with artifacts depicting animals, 55 were graves of probable males and 62 were probable females (see Figure IV.2). Fifty-four[248] graves contained animal remains, 25 were identified as male graves, while only eight were identified as female graves (See Figure IV.167). It is readily apparent that deposits of faunal remains were more likely to be included in male graves, while animal imagery as a whole were less strictly tied to a single gender, though within each dataset there are some gendered nuances.

In general, males had far fewer artifacts depicting animals per grave than females – the clearest difference was in the number of personal ornaments (see Figure IV.101). The only personal ornaments exclusively associated with males were belt plates (see Figure IV.102). Males were also found with zoomorphic fibulae, annular jewelry, and occasionally beads, though none of these were restricted to males. The distinction of belt plates from other personal

[248] Not including the six burials of horses not associated with a human burial.

ornaments was one of narrative content and iconographic elaboration. Belt plates very often depicted complex scenes of animals, sometimes with humans as well.

There seems to be an almost exclusive restriction of narrative situla art to males in general – situlae decorated in the situla art style are almost exclusively found in male graves, and there are only three female graves in the dataset with such imagery (see Figures IV.102 and IV.133)[249]. This was also reflected in the situla art itself, in which women were very rarely depicted. Only nineteen artifacts depicted humans at all; men appeared on 17 of these and women on only four (see Figure IV.100). While women were depicted serving men or in scenes depicting sex,[250] men were depicted leading animals, riding horses, in processions, and driving or riding in wagons and chariots, hunting, dumbbell boxing, and in scenes of violent confrontation (see section IV.4.F). Narrative situla art scenes[251] may be characterized as focused on elite male activities in general. These depictions have been proposed to represent only the highest strata of society, and it is important to emphasize that they depict an almost exclusively masculine sphere (Eibner 1981, 2001b, 2006, 2007; Frey 2011:293; Križ 2012:55, 58-9; Kromer 1980:225-40; Teržan 2007, 2011; Turk 2005:34-40).

Hunting is a classically masculine activity depicted in situla art (Arnold 2010a:198-200; Eibner 2001a; Turk 2005:31-33). Not only are men the hunters, there are also no depictions of hunts associated with female graves, and the primary hunting companion, dogs, are solely associated with males, even beyond artifacts with situla art (see section IV.3.A.vii). Horses are the other clear companions of males in situla art, and the importance of horses for constructions of elite masculinity has already been discussed (see section V.3.A). Women are never depicted

[249] Grave III/33 from Kandija at Novo mesto and Grave 2/a from Preloge at Magdalenska gora contained decorated situlae, and Grave 2/p from Preloge at Magdalenska gora contained a bronze lid to a ciborium decorated in the situla art style.
[250] Though the belt plate from Grave VI/30 at Gomile near Stična depicts a woman participating in a procession.
[251] In contrast to those that depict a single animal or a repetitive motif of a single animal.

as equestrians, or even in contact with horses, though female graves did contain artifacts depicting horses and three graves contained horse remains. However, not only were males buried with almost twice the number of artifacts depicting horses compared to females, the number of horses depicted on artifacts in male graves is significantly higher than for artifacts recovered from female graves. Horse gear is also restricted to male graves, both zoomorphic horse gear as well as undecorated horse gear recorded in the course of this project (see sections IV.4.C and IV.6.B). Of course one of the most essential examples of this relationship was the sacrifice of horses associated with the burials of certain men, materializing the close ties between men and horses in both life and death (see sections V.1.B and V.2.A.v for discussions of horse sacrifice and its interpretations).

Interestingly, martial gear is only rarely decorated with animal imagery, despite being the most prototypically masculine artifacts, to the extent that such items are used to identify probable males in mortuary contexts. Five helmets, a scabbard, and a dagger depict animals – three of the helmets depict sphinxes, one also depicts a horse (see section IV.4.B).[252] Finally, the dagger and the scabbard depict birds. This consists of a relatively large amount of avian imagery, when one considers that essential features of the sphinx figures are their wings. The role of birds as potential guardians has been discussed (see section V.2.A.vii), and the association of avian imagery with martial gear may have served an apotropaic purpose.

In addition to dogs and horses, animals that are strongly associated with males are goats (see section IV.2.A.iii). Goats appear on belt plates and situlae decorated in the situla art style, items rarely associated with female graves. Goats are most often depicted as male animals themselves, and their massive torqued horns mark them as powerful creatures. This is interesting

[252] An additional two helmets may also depict horses. Currently they are identified as portraying indeterminate mammals based on the criteria of the study, though other attachments for helmet crests depict horses and it is possible that these are intended to depict horses as well.

when contrasted with sheep, which have such strong associations with females (see section V.2.A.ii). Goats are not often depicted in direct contact with humans in situla art, the only exception being an unprovenienced situla from Vače that depicts a shepherd following a herd of billy goats (see Figure IV.18). It is possible that the daily care for and management of goats was a male activity, or that particular attributes of male goats, such as their sexual behavior, led to stronger associations between male goats and male humans in the artistic repertoire of the Dolenjska Hallstatt people (see section V.A.iii).

Ibex are also associated with males – they are very similar to goats in terms of the artifacts they are depicted on and the activities they are engaged in (see sections IV.2.B.vi and V.2.A.xii). They appear primarily in procession scenes, occasionally trailed by a predator. They too are restricted to situla art, so their associations with males could be related to attributes particular to ibex, though it may also be that artifacts decorated in the situla art style were primarily restricted to males.

As noted, females were buried with a wide variety of personal ornaments elaborated with animal motifs (see Figure IV.102). The ubiquity of personal ornaments with animal imagery may be one of the reasons that female graves overall contain more artifacts depicting animals. Beads are the most common personal ornament associated with females – particularly glass ram's head beads. This supports previous research stating that these are items most strongly associated with women, though it is notable that this is not exclusive, since two male graves also contain glass ram's head beads. An essential aspect of these beads may be to symbolize the importance of spinning and weaving wool as a female activity (see section V.2.A.ii). The ubiquity of these items supports the significance of females in the production of textiles, both as an economic activity and an aspect of female identity in this period (Barber 1991, 1994; Bonfante 1985;

Eibner 1986, 2005; Gleba 2009; Teržan 2004).

The strong association between females with artifacts depicting animals and imports has already been noted (see section V.3.A). Interestingly, one of the items most strongly associated with imports were these ram's head beads, which are believed to be local products (see section IV.4.A.ii). One possibility is that analogous to the use of imports such as pendants in the dataset to mark foreign origin and/or ties to distant regions, ram's head beads served as markers of local affiliation. If this is the case, Dolenjska Hallstatt women were using artifacts to signal the complexities of their personal identities – where ties to distant natal communities coexisted with ties to Dolenjska Hallstatt communities. These also indicated economic aspects of their identities, including participation in long-distance trade networks through personal connections and acquisition of non-local items, but also potentially via production if these ram's head beads signaled the centrality of textile production to female activities, since high-quality textiles were likely important trade products (Bonfante 2011; Gleba 2009; Nash Briggs 2003). The strong association between women, ram's head beads, and imports could even be due to the economic importance of textiles – where production of high quality textiles their importance in long distance trade networks provided greater access to imported goods in exchange.

Other personal ornaments with animal imagery may have played similarly important roles in social signaling – particularly aspects of local or regional affiliation, status or wealth, or access to restricted items or knowledge (Castor 2016; Joyce 2005; Hayeur-Smith 2004; Martin and Weetch 2017). One example of this may be the earrings that in the dataset are found only at Dolenjske Toplice and Magdalenska gora (see section IV.4.A.v).[253] It may simply be that these items were made at these two sites and access was limited to local women, or it may be that they

[253] The other earrings depicting animals are from Vače, though these were not included in the study since the grave groups are currently being reassessed for publication (Teržan forthcoming). One additional earring with animal imagery was recovered from Vinica, though the issues with this find are discussed in section V.1.A.

were produced at only one site but that there were significant ties between these two areas, possibly via intermarriage, which facilitated the exchange of these unique personal ornaments but restricted their movement beyond these sites and made them important markers of local identity (Tecco Hvala 2007). Interestingly, the most common animals depicted on these earrings are hares – one of the few animals more strongly associated with females than males. Except for these earrings, hares are rarely depicted,[254] and it seems that not only were sheet bronze earrings of unique importance at these two sites, but that hares were particularly significant, in contrast to their relative insignificance in the iconographic milieu as a whole as well as for subsistence (see section V.2.A.xiv).

In other parts of southeastern Europe fibulae depicting horses have been proposed as items that were largely restricted to elite females as a symbol of ritual competence and sovereignty via associations with female equestrians in mythology (Metzner-Nebelsick 2007). However, the data for the Dolenjska Hallstatt region do not clearly support such an association – animal fibulae depicting horses are relatively rare in the Dolenjska Hallstatt region, the later crossbow horse fibulae being much more popular (see section IV.4.A.i). There are four animal fibulae depicting horses in the dataset, and only three came from complete grave contexts. Of these, two were identified as probable female graves, however this sample is too small to determine whether Metzner-Nebelsick's hypotheses hold. One artifact that may demonstrate the association of female ritual authority with horses is the exceptional scepter from Grave XXIX/2 at Kapiteljska njiva, Novo mesto (see section IV.3.E.i). In general however, though female graves did contain artifacts depicting horses, females consistently lacked associations with equestrianism – females were never depicted near horses in situla art, females did not have horse

[254] Hares are otherwise only depicted on two belt plates and a button. See section IV.2.B.vii.

gear placed in their graves, and while there were three female graves containing horse bones, these were all temporally restricted to the end of the Early Iron Age and may have been a particular phenomenon (see section V.2.A.v). If anything, Dolenjska Hallstatt peoples seem to have stressed the strongly gendered nature of human-horse interactions as one that excluded women.

The inclusion of animal remains in female graves was also relatively rare (see section IV.5.A). Due to the limited number of graves known with species besides horses, it is difficult to tell whether there were significant associations between particular species and the gender of the deceased. Ungulates dominated the animal remains from female graves – sheep/goat, deer, and an indeterminate ungulate were all associated with female graves, and the three aforementioned female graves with horse remains fit in this category as well. All of these were deposits of partial remains or teeth in graves; thus far whole animals have not been recovered from probable female graves. The dog was the only non-ungulate associated with a female grave, though this was solely a tooth so it otherwise fits the pattern. It is difficult to interpret the deposition of animal remains in female graves since it is such a small sample – the partial remains may be from food deposits or feasting refuse, while the teeth may have had some apotropaic or prophylactic function as suggested by previous studies (Pauli 1975). It is important to note that the animal deposits from female graves did not clearly deviate from those associated with males, except for the clear association of horse sacrifice with male graves. Food deposits or evidence for feasting, even the use of teeth, horns, or bones as amulets, were uncommon overall and were not clearly influenced by the gender of the deceased.

There were many other parts of the study that did not show strongly gendered patterns, and more importantly, some that were apparently ungendered. Though overall more personal

ornaments with animal images are found with women, there were several types that were worn by both men and women (see Figure IV.102). Fibulae were the most common – they appeared in both male and female graves, but most often in graves where gender could not be determined, which may indicate that in addition to not being gendered items, these items were not necessarily high status.[255] Bracelets and torcs also appeared in both male and female graves – this stands in contrast to other parts of Hallstatt Europe where torcs were markers of premier status (Arnold 2004, 2011). Bronze vessels, particularly situlae, were deposited in both male and female graves – this is discussed in section V.3.A and patterning in the distribution of bronze drinking vessels is posited to relate more strongly to status than to gender. Ceramic vessels were also not distributed according to gender, and while these may have some similar associations as the bronze vessels, particularly the focus on consumption, most of these items did not have the overt status associations of bronze vessels. Rather, it seems that supplying the deceased with artifacts for consumption, and perhaps food and drink as well, was important no matter the gender or rank of the deceased (see section V.1.A).

Most of the animals that did not have clear associations with a particular gender were those that appeared on these ungendered artifacts. Birds, felines, deer, and snakes appeared in relatively similar numbers with both males and females, most often because they were depicted on fibulae or in situla art, and in the case of snakes on annular jewelry. In these instances the attributes of certain animals seem to have been more significant in relation to particular artifacts and the networks of meaning in which these items were enmeshed (e.g., Garstki 2016:98-99; Hodder 2012). In the case of birds the animal itself was apparently more important for determining the modes of depiction than variables such as gender or artifact type. Bird

[255] It is easier to determine the probable gender of higher status graves since they contain more artifacts overall, often including artifacts that are considered gender diagnostic.

iconography may have been less associated with particular artifacts or with social identities such as male, female, or elite; rather the symbolic capital of birds may have had more to do with their nature and their role in Dolenjska Hallstatt ideologies (see section V.2.A.vii). Finally, there are some species and artifacts for which there is not a large enough sample to determine any clear gendered associations, such as cattle, wild boar, felines, and fish.

V.3.C. Age

It is clear from the data that adults were most often buried with artifacts depicting animals or animal remains. Because of this, this section will focus solely on those items associated with subadults in this sample, to assess what might have set these youths apart and provided access to items usually restricted to older individuals.

Table V.6. Probable children's graves containing artifacts depicting animals.

Site Complex	Site	Context	Probable Gender/Age	# Artifacts	Artifact	Species
Magdalenska gora	Preloge	2/c	♀/Child	1	Bronze triga fibula	Bird (indt); horse
		2/o	Indt/Child	2	Bronze fibulae	Bird (indt); feline
		2/11	Indt/Child	1	Bronze fibula	Bird (indt); horse
Stična	Gomile	48/121	♀/Subadult	1	Glass bead	Mammal (indt)
		V/2	Indt/Child	2	Glass beads	Mammal (indt)
		VIII/1	Indt/Child	1	Bronze fibula	Indt animal; dog
Novo mesto	Kapiteljska njiva	XVI/12	Indt/Child	1	Bronze fibula	Bird (indt); duck
		XXIV/10	Indt/Child	1	Ceramic horn-handled bowl	Mammal (indt)
Metlika	Hrib	I/18	Indt/Child	1	Bronze pendant	Cowry
Totals	**4**	**9**		**11**		

Nine graves of probable subadults were identified in the dataset, containing 11 artifacts depicting animals (Table V.6). Three of the four sites where these children were buried were preeminent Dolenjska Hallstatt sites where artifacts with animal images cluster in general (see section V.1.D). It seems that at sites notable for large amounts of animal imagery, local children were more likely to be buried with such items. There is also the clear association of children with

animal fibulae – just over half the artifacts identified with children were animal fibulae. These were followed by glass beads depicting indeterminate animals, all from the site of Gomile near Stična, which may be a local phenomenon. A ceramic horn-handled bowl and a bronze pendant were also recovered from children's graves.

There is no clear evidence that images of domesticates or wild animals were preferentially associated with children, though artifacts depicting wild animals were slightly more common. What is clear is that birds were important – almost half the artifacts deposited with children depicted birds.[256] In this case the preeminence of birds in animal imagery overall may have led to their prominence in children's burial as well. Another aspect to note is that very few of these graves contained artifacts diagnostic of gender within the parameters of the project. Only two graves were identified as female. This may be reflective of a larger pattern noted for Hallstatt contexts, where gender is most likely to remain an unmarked category for subadults, or may be marked female when considering solely artifacts (Arnold 2016). The implication of this is that the artifacts that marked masculinity, and possibly the categorization as male in general, were restricted to adults. The nature of the dataset precludes determining if this is a widespread phenomenon in this area.

Previous studies associating animal fibulae with children are tentatively correct based on the results of this study. Alexia Nascimbene's work noted that cat-bird fibulae and triga fibulae were associated with children, which is born out by two graves in this study (2009:160-165; 168-172). However, it seems that other animal fibulae were also associated with children including dog-bird, horse-bird, and duck-bird fibulae. It may be more appropriate to posit that the animal fibulae with a small bird on the foot have strong, though not exclusive, associations with

[256] It is possible that the indeterminate animal on the fibula from Grave VIII/1 at Gomile near Stična also depicted a bird based on comparable artifacts. However, the form is very unusual and it cannot be visually identified as a bird, so the species categorization is listed as indeterminate.

children's graves. Carola Metzner-Nebelsick's proposed association between children and horse fibulae is not clear for the Dolenjska Hallstatt culture since only two of the six fibulae depict horses (2007).

The initial project hypotheses proposed that there would be a strong association between glass or amber zoomorphic artifacts and children, since these associations have been demonstrated for glass and amber in general in the Dolenjska Hallstatt area as well as other parts of Europe (Bakarić et al. 2006; Egg 2010; Frie 2010:45-51; Pauli 1975*)*. However, there are only three glass zoomorphic artifacts associated with children from two graves at Gomile near Stična. Though most of the animal artifacts associated with children are not made of glass or amber, six of the nine children's graves in the study contained glass or amber beads, supporting previous studies.

Since graves of children are relatively rare compared to the number of children we expect on the basis of Iron Age demographics and mortality rates, it is often thought that only high status children were buried.[257] While several of these graves have numerous or elaborate grave goods implying a high level of inherited status, two graves contain relatively few grave goods. Grave 2/o at Preloge near Magdalenska gora contained only the matched set of cat-bird fibulae (see Figure IV.42), while Grave XVI/12 at Kapiteljska njiva near Novo mesto contained only an iron knife and a bronze fibula (see Figure IV.105m).[258] There was also a less wealthy grave from Gomile near Stična – Grave VIII/1 contained only an animal fibula depicting a dog and an unknown animal, and an amber bead. The amber bead is certainly not an everyday item, or one that likely would have been possessed by an average Dolenjska Hallstatt child; however, these

[257] Or disposed of in an archaeologically visible way. There are many other possible treatments of dead bodies that may have been used for children and left little archaeological trace (Arnold 1991:113-122)

[258] This grave has not yet been published, and was categorized as the grave of a child on the basis of the size of the grave cut (Dolenjski muzej original documentation June 15, 2004).

distinctions in the quality and quantity of grave goods associated with children indicate that it was likely not solely the children of premier elites who were buried with animal depictions, or presumably buried at all.

V.3.D. Summary: Who are the animals for?

Animals were for elites – both men and women, though women dominate. To a lesser extent they were for elite children. It is clear from this analysis that various social roles relating to status, gender, and age were intersectional – particularly status and gender when it came to the apportionment of artifacts depicting animals and animal bodies. The study of animal imagery in particular, as well as animal burials, in conjunction with proxy status assessments provide broader insight into the materialization of distinction – and it seems that there were different avenues for males and females. Female status was indicated through their access to non-local goods and largely through personal ornamentation. Male presentations of status more often highlight their roles as hosts, warriors,[259] and riders. High status individuals, particularly females, are overrepresented in the dataset – 70% of females and 28% of males identified were buried with status indicators, imports for women and helmets for men. The high proportion of high status females indicates that women likely needed to be of relatively higher status than contemporary males to access animal imagery or to have animal remains deposited in their graves.

One particular status indicator that was apparently restricted to men until the very end of the Early Iron Age was burial with horses. Horses in particular were important for elite men to materialize their difference from the rest of the community via the bodily distinction allowed by

[259] Though this was less explicitly addressed, male graves were identified primarily by virtue of weaponry, making warrior status and violent potential an essential part of the presentation of masculine identity in the mortuary sphere.

equestrianism. In this case it was not only the restricted nature of horses suitable for riding, but also the unique abilities and relationship engendered by equestrianism, as well as the particular historic importance of the horse that led to their importance for embodying elite male identity circa 500 BCE.

Narrative situla art was also largely restricted to elite males, since such representations only appeared on situlae, belt plates, and occasional bronze lids. Only three female graves in the dataset contained such items, and based on the elaborate burials containing situlae these women were likely very important women within their communities. This is also reflected in the art itself, which rarely depicted women, instead focusing on the activities of premier males. The animals in this imagery associated with males were primarily ungulates, the ubiquitous horses, deer and ibex, as well as goats. The latter three were set apart by their large antlers and horns, marking many of those depicted as males in the prime of life.

In contrast, females were associated with a different ungulate – sheep. Glass ram's head beads, a local product, dominate this dataset. It is proposed that sheep imagery was particularly important to women because it indexed textile production, an important activity both economically and in the definition of the female sphere. Women were also strongly associated with hares – though the earrings ornamented with hare images are from only two sites in the study. It seems that these items had a very local distribution, perhaps through limited direct exchange or intermarriage, and it may be that hares had local significance that was not shared with the broader Dolenjska Hallstatt area.

Birds were the animal that most clearly crosscut gender, status, age, and artifact type. Birds were ubiquitous, and it is proposed that this had to do with Dolenjska Hallstatt conceptions of birds as important observers of human actions, ritual mediators, and possibly guides or

guardians. They were used to mark insignia of power for elite males, could move comfortably between domestic and wild animals, and seem to have been ritual mediators through their imagery on communal drinking vessels and their marking of sacrificial animals. The ambivalence and omnipresence of birds was highlighted in depictions, and it may be that this very ambiguity of birds as a category made them multivalent symbols that could be materialized in a wide variety of ways on different artifacts for different audiences. It also made them the most desired and ubiquitous animal symbol, apparently unrestricted by gender, age, or status.

Chapter VI. Conclusion

VI.1. Central Questions: What types of human-animal relationships characterized Early Iron Age Slovenia, and how were these relationships intertwined with conceptions about animals in local cultural frameworks?

Answers to these two questions are presented in the following sections, and organized in a scalar fashion. The first section addresses human relationships with different animal species as evidenced by the study, and particularly how the hypothesized variables of sociality and familiarity with different animals influenced local conceptions about them. The second section focuses on how animal concepts and categories develop out of relationships and experience, but also how animal categories are intertwined with other cultural concepts and practices. These linkages may ultimately take on a force of their own which can become disconnected from lived interactions with animals. Finally, the third section addresses how Dolenjska Hallstatt peoples may have conceived their world more generally – particularly how animal imagery and animal interactions may point to broader ontological systems that framed the animal categories and oriented people's interactions with the world around them.

VI.1.A. Familiarity, Sociality, and Modes of Interaction

The categorization of the world around them is one of the essential ways that humans make sense of their existence, particularly the fact that this existence is a shared one embedded in networks encompassing other beings and forces, often beyond easy comprehension (Douglas

1966). The ways that animals are categorized are influenced by local experiences and interactions, maintenance and care, and their incorporation into local activities and ideologies, all of which in turn recursively influences the way animals are perceived and treated (Marciniak 2011:59; Wapnish 1995). The initial hypotheses outlined at the beginning of this project proposed that important valences for interactions with and conceptions of animals would be sociality and familiarity. Based on the interpretations presented in the previous chapter, these do seem to be valid criteria for the Early Iron Age, though they were not the only factors determining the modalities of human-animal relations.

Sociality indicates the degree to which human-animal relationships had a social component involving care and daily interactions, but also encompasses more affiliative relationships beyond maintenance alone. Assessing sociality is particularly important in the case of domestic animals, since these animals participated in the day-to-day life of Dolenjska Hallstatt communities. The importance of different species for subsistence can provide some insight into daily interactions with animals. Based on the available zooarchaeological data, these were, in order of prevalence: cows, pigs, sheep, and goats (Bartosiewicz 1996, Bökönyi 1994). However, within this spectrum certain animals were more intelligent and more likely to bond with human caretakers – especially pigs, sheep, and goats. Though dogs and horses were not kept for food and may not have been as common as other domesticates, they are both much more social animals and often develop close relationships with the individuals that care for them. An essential feature of relationships engendered by the maintenance of domestic animals in general, particularly as opposed to hunted animals, is that in the former one relates to animals as individuals because each animal requires care throughout its life and becomes embedded in daily activities to form trans-species households (Armstrong Oma 2010; Meadow 1984; Mlekuž 2013;

Russell 2002:290; Theodossopoulos 2005:16). Pets are the most extreme version of this – their highly individual relationships with humans and the care accorded them can create the sense that they are virtual humans (Serpell 2002).

Horses exemplify this in the Dolenjska Hallstatt culture, though it is advisable to avoid the overtones of coddling and absolute dependence that accompany modern, urban conceptions of pets (Belk 1996; Fox 2006; Herzog 2014:300-301; Serpell 2002). The relationships that existed between particular Dolenjska Hallstatt men and horses, based on the iconographic evidence as well as animal remains, may classify them as comrades in arms. While there was certainly care and maintenance involved in the keeping of horses, horses seem to have reciprocated this care by enhancing the physical abilities and status of their riders, and provided both the utility and pleasure of riding. Men and horses were symbiotic in the equestrian relationship, coming together cooperatively, two beings working in concert (Argent 2012; Game 2001).[260] In this case the sociality of the horse, and the close, individual nature of human-horse interactions seems to have facilitated its importance in local iconographic schemes, as well as the ultimate extension of this human-horse relationship from life and into death via horse sacrifices and burials. Interestingly, the depictions and the human-animal burials elide the existence of the smaller, working horses, those so-called "western" horses that were too small for riding, and whose importance is so clearly attested in settlement faunal records (Bökönyi 1968, 1994). Despite their presence, and the fact that they were closely related to the larger, riding horses, the focus was apparently on their differences from riding horses, differences that apparently disqualified them from the materialization of social or ritual roles.

[260] It is likely that there were also less rosy versions of this relationship that involved coercion and punishment by the human to force the horse to act as desired. However, such modes of training are rarely as successful and may lead to instances of lack of control or danger to both man and horse, particularly if horses were used in raids and other high-stress activities (Argent 2013). It seems unlikely that the majority of equestrian relationships were antagonistic.

Dogs are uniquely suited to close, affiliative relationships with humans that may lead to their incorporation in communities as pets or individual companions. However, in the case of the Dolenjska Hallstatt culture there is no clear evidence that dogs had such relationships with humans. Dogs were primarily depicted as working animals; they were certainly aids in hunting. This may have led to them being held in high esteem, but there is only one case of a dog burial that may indicate a more personal relationship analogous to that evidenced between humans and horses in this period.

When considering sociality, the dominance of sheep in the iconographic dataset is somewhat surprising. While sheep are fairly social creatures, they are no more social than goats or pigs, which are underrepresented in the dataset. This indicates that the social aspects of inter-relationships between Dolenjska Hallstatt individuals and local sheep, or goats and pigs, were probably not the primary impulses for their appearance in imagery. Sheep are ubiquitous in the form of ram's head beads, more common than even horses. I have proposed that this was related to their importance for producing wool, indexing the importance of textiles in local economies and by extension female identity. In addition to the economic significance of wool production in this society, maintenance of sheep and the collection of their wool may have required more care than other domesticates. Another aspect of sheep that may have set them apart and precipitated greater familiarity with them is the fact that sheep's milk may have been particularly important for local subsistence. Though goats produce more milk, sheep produce higher fat milk that is better for cheese making and other forms of dairying (Degen 2006). Sheep may have been prized for this reason, or were more frequently interacted with for preferential milking. Sheep are also more docile than goats, and any or all of these qualities may have raised their status in the eyes of local communities, which may also have led to their more common depiction on certain

artifacts.

In the case of the other domesticates assessed in this study – cattle, goats, and pigs – the functional, utilitarian nature of their relationship with humans, and potentially the consumption of these animals, seems to have limited their value for depictions and possibly for other meaningful human-animal relationships, particularly relative to horses. The depictions of goats in turn do not align with probable lived interactions with goats, particularly the fact that there was a heavy focus on groups of male animals in imagery, which probably were not prevalent in domestic herds. The depiction of cows in turn is quite idiosyncratic and may have been oriented by local preferences, since these images largely appeared on locally made ceramics. Pigs are anomalous – despite their importance for local subsistence, they are absent from depictions and nearly absent from animal offerings as well. This is unexpected – pigs are very social and intelligent animals, though it may be that if they were kept out in pannage that the local communities were less intimately familiar with them. However, it may have been other aspects of the behaviors or perceptions of pigs that made them inappropriate to include in funerary activities either in images or physically.

The practices that demonstrated both the close social relationships with these domestic animals, as well as their familiarity for local people were their sacrifice and incorporation into funerary ritual. Animal sacrifice may seem callous from our modern perspective, where we are most often shielded from the reality of animal lives and deaths. However, in small communities that have raised and maintained these animals for years, killing them would have had different connotations. Killing an animal in an agrarian context is the final stage in a long-term relationship, and the animal's meat may be seen as an appropriate exchange in return for the care and protection given the animal throughout its life (Bock et al. 2007; Theodossopoulos 2005:24).

There may still be elements of sadness or regret that mark the end of such relationships, however this is nonetheless the natural and expected end of their life. More exceptional are the cases where such events were tied to the death of a human member of the community. It may be that the removal of a local animal, carefully cared for and essential to the local economy, made a striking statement about the priorities of the community and their willingness to alienate their economic/subsistence benefit (particularly in the case of horses) for more esoteric purposes. There may also have been important parallels between the death of a familiar animal and the death of a human member of the community.

The wild animals in turn are better assessed in terms of their likely familiarity for local peoples: most wild animals would have been known through observation, limited interactions where humans or wild animals strayed into each other's territory, and the moment of the wild animal's death. Based on a combination of zooarchaeological, ecological, and ethological data, the animals that were likely most familiar to people in decreasing order[261] were those that would encounter humans when they came into settlements or agricultural fields to feed (e.g., birds, hares, snakes, foxes, wildcats, roe deer), animals that were hunted (fish, birds, red deer and roe deer, wild boar, ibex), and predators that would have competed for access to wild animals or may have threatened local livestock (wolves, bears, and lynx).

Familiarity is clearly important in the depiction of domesticates versus wild animals – domesticates are more common overall, and if the overabundance of birds is taken into consideration, other wild animals are depicted very rarely. As anticipated, birds were the wild animals preferred for depiction – it seems that their ubiquity was specifically highlighted in imagery. However, their differences from humans and other animals distinguished them,

[261] Note that this order is a general estimation; there is no exact way to determine which animals would have been encountered most often since this would have varied according to settlement, local animal populations, and a number of other variables that that cannot be assessed from the archaeological data.

particularly since other familiar animals were mammals – they were set apart, and depictions often highlighted non-normative behaviors. Their familiarity but alterity made them important symbols for liminal and more clearly ritual contexts. They may have become indexical for ritual and liminality through their omnipresent depiction on bronze vessels and other symbols of communal and ritual authority such as wagons and scepters (Peirce 2012; Silverstein 1976). The unique nature of birds, their ability to move through multiple elements, and to interact with many different types of animals, was all showcased in depictions and may indicate that these characteristics set birds apart in local conceptions. Interestingly, the depictions of birds are distinct from domesticates as well as other wild animals, and they seem to have been categorically distinct overall.

Depictions of most wild animals either show them grazing, or involved in human activities as prey or sacrificial animals. It is possible that this was because local people lacked detailed knowledge about the behaviors and life cycles of these species, or simply that they were less familiar overall so their iconographic resonance was less widespread. The depictions of wild animals favor prey animals, while predators are often shown explicitly in scenes of predation. It may be that wild predators were not necessarily admired – in life they presented threats to livestock and occasionally to humans as well, which may have engendered ambivalent or outright negative perceptions of these animals. The depiction of wild animals in scenes of predation may have referenced threats to local life ways: "farmers are engaged in a constant, persistent 'struggle' to establish and defend 'order' in the constantly changing, regenerating and often threatening environment that physically surrounds them" (Theodossopoulos 2005:30). Seen in this light, rare depictions of wild animals and the focus on predation may not indicate admiration for the strength of wild animals as is commonly assumed, but rather may depict the

chaos of the outside world from which local peoples struggled to protect themselves and their trans-human communities.

While sociality and familiarity have some bearing on the choices made in depicting certain animals while sacrificing and physically depositing others in graves, clearly other variables affected these decisions as well, many of which remain opaque due to the limitations of our current knowledge. What is clear is that there does not seem to be either a strongly idealized or utilitarian thread to these practices: "Animals are not loved for themselves as members of the animal kingdom with their own beauty and peculiarity, but nor are they thought of in crude terms which involve only total exploitation of their productivity" (du Boulay 1974:86). Animals as a category may not even be appropriate – there is so much variation within the dataset that it is unclear that there was any fundamental unity perceived among all the animals depicted, sacrificed, or eaten, or instead if birds were considered entirely different from horses, and dogs, and so on. Ultimately, perspectives on different species do not adhere to what we would expect if individual relationships and familiarity were the key driving factors to iconographic salience (Armstrong Oma 2010:177; Brittain and Overton 2013:136). Perhaps unsurprisingly, artistic representation is much more complex, and does not tidily conform to lived experience.

VI.1.B. Animals as Individuals and Animals as Concepts

What processes are at work in the conceptual jump from experiences with particular animals or species to animal categories and the concepts associated with them? And how can tensions between the real experience of animals and animals as concepts be sustained? The move from lived experience to abstract concept is rooted in how humans categorize their world – in Lévi-Strauss' famous phrase "species are chosen not because they are 'good to eat' but because

they are 'good to think'" (1991:89). Animals are good to think because they are sentient beings, and not only do they act independently of human intervention, but many species may have similarities to humans biologically as well as socially that invite comparison to humans. Animals are some of the most complex non-human forces that humans experience, and animals not only invite, but perhaps even require, thought about how they do or do not relate to human beings. They serve as constant reference points as humans seek to comprehend and categorize their own lived experience, particularly in the realm of biology, sentience, and social relationships (Douglas 2005:34).

Biologically mammals demonstrate homologies with humans – particularly in the realm of sexual intercourse,[262] viviparous births, and lactation (Clutton-Brock and Wilson 2002:10-11). Animals are also sentient beings that clearly interact with the world around them, as well as social creatures that demonstrate parent-child and pair bonds, family groups, and larger group bonds that often correspond to configurations in human social interactions (Nadasdy 2007; Mlekuž 2007, 2013; Russell 2010). The many similarities that animals share with humans also invite contemplation of the way that animals are different from humans, physically, socially, and ultimately categorically.

Stanley Tambiah built upon Lévi-Strauss' discussion of animal categorization and the logic behind animal analogies and societal taboos, particularly relating to food and sex. A prehistoric archaeological study cannot provide significant insight into sexual taboos. However, his discussion of various animals species that were conceived as metonymous with or metaphorical for human society based on familiarity, care, and consumption does have important parallels with the data presented here and may provide insight into the impulses for and

[262] Biologically the genitalia of most mammals are similar, sexual intercourse takes place in the same way and even in similar positions, and there is the perception that animals experience pleasure during sex and may even have sex specifically for pleasure (Balcombe 2009; Berridge and Kringelbach 2008; Hird 2004:190-119).

organization of animal categories (Tambiah 1985:169-211). So-called "land animals," as distinguished from animals that fly or swim, are often viewed with ambivalence: "it is with respect to them that attitudes of affinity and separation, opposition and integration, fuse to produce the complex correspondence of sex rules, house categories, and animal distinctions" (Tambiah 1985:208). Domestic animals are the most familiar; because of this their similarities to humans are much clearer. There is a tension between what their similarities and differences to humans mean for their treatment and incorporation into society. They defy easy trans-species classification,[263] and relationships with them are largely negotiated on a species-by-species basis. In Tambiah's fieldwork the ambivalence about the categorization and treatment of dogs versus oxen is most comparable to the evidence in this study.[264] Dogs could not be eaten because they were too similar to humans; they were incorporated into extended households, and were considered non-human participants in society. This was also true of oxen as members of extended households and thus society; however eating them could be justified because they were more distinct from humans. In the Dolenjska Hallstatt context I would add horses to the inedible category with dogs based on the zooarchaeological evidence. Horses were also characterized by a focus on the explicitly social relationships engendered by riding, which may have made them inedible due to the close personal bonds they formed with humans. Other domesticates, including cattle generally, as well as sheep, goats, and pigs, are analogous to oxen in this example in that they were edible members of human society due to their perceived distinctions from humans.

Wild animals in turn have different significance because they are beyond the realm of the extended trans-species household and do not have personal relationships with humans. In

[263] I.e., the category of domestic animal may be entirely etic.

[264] This is an ethnographic study, and so the nuances of animal categories, the values, and the associations with different species are very complex – only those aspects that show parallels with the prehistoric case study are presented here. For the full study see Tambiah 1985, Chapter 5.

Tambiah's study this makes them generally inedible, which does not align with the results of this study. However, more pertinent is his finding that the foreignness of wild animals gives them important metaphorical significance for the unusual and out of the ordinary: "the uncommon man, royalty and bandits, the social and antisocial heroes" (Tambiah 1985:209-210). This focus on the exceptional, the things set apart from daily life, may provide some insight into the rarity and distinction of wild animals in depictions, which most often appear on elaborate items decorated in the situla art style. This extraordinary nature of wild animals also provides insight into the importance of portraying hunting as a restricted, elite activity (Arnold 2010a; Krausse 1990; Turk 2005:31-33), where the exceptional nature of elites was highlighted and reinforced by their access to exceptional animals.

Birds were totally distinct from land animals in Tambiah's study. Their biological uniqueness as avians rather than mammals, as well as their physical abilities, put them in a different category than both the domestic animals that were incorporated in local society and the wild animals that provided touchstones for outliers and the exceptional (Tambiah 1985:208). Birds are of less interest to Tambiah than other animals that circulated within or on the peripheries of human experience. However, this study demonstrates the salience of this alternate category – birds were able to inhabit an ambivalent, at times even liminal status due to their clear distinction from other animals. It also seems that they were attributed more esoteric roles in their interactions with society, possibly acting as mediators, guardians, or guides between humans and extra-human forces. There is another evocative distinction between birds and other animals – other animals were largely identifiable according to species, which seems to correlate with their distinct human-animal relationships and ideas about these species. In contrast, birds were rarely identifiable to even genera, and while some of this may be attributed to the stylized nature of

Early Iron Age depictions, it may also be that birds were distinguished as a category unto themselves in which more detailed sub-categorization was not pertinent to the conceptions of these animals, or their portrayal in local iconography. This could also stem from the early origins of bird iconography, ancient even in the Early Iron Age – the lack of clear identification of genera or species may be symptomatic of the alienation of birds as a conceptual category from actual living birds. Over time, ideas and categories may become so embedded that they gain a durability of their own, such that that they no longer clearly reference lived realities (Wapnish 1995:233).

This extended discussion is not intended to imply that Dolenjska Hallstatt animals were solely thought of in terms of their abstracted categories or as foils for human society. However, the importance of animals is that their biology, sentience, and sociality do actually make them "good to think." The conceptual significance of animals in this period is evidence by their ubiquity in representations, which were used by Dolenjska Hallstatt people to both materialize and negotiate the constitution of their world and their worldviews, the subject of the next section.

VI.1.C. Animals in Local Ontologies

Concepts of animals and interrelationships with animals are particularly compelling to analyze because they provide insight into prehistoric ontologies – that is, how prehistoric people made sense of the world, the place of humans and other forces within a shared world, and the nature of existence (Alberti et al. 2011; Mlekuž 2007; Nadasdy 2007; Shapland 2009). In this section I will discuss how the archaeological evidence of Dolenjska Hallstatt peoples' interactions with and conceptions of animals may provide insight into their perceptions of the world more generally, particularly their place within a world populated by animals as other

sentient beings.

Discussions of alternate ontologies have gained traction in anthropology and archaeology as we confront the fact that our discipline is founded on a modern, post-enlightenment conception of the world predicated on the essential homology of biological life and its evolutionary development over time (Descola 2006:146-147; Shapland 2009:110; Thomas 2000:82-84; Tilley 2004:23-24). While this has led to calls for explicit attention to the possibilities of alternate ontologies, this has also caused concern in that extreme views posit worlds that we cannot possibly comprehend from within our modern ontological framework (Alberti and Marshall 2009; Alberti et al. 2011; Henare et al. 2007; Holbraad 2009). However, the framing of ontology that I use here does not invoke the existence of incommensurable worlds, but rather sees ontological systems as different lenses through which the same world is perceived and made sense of. The explicit categorization of particular ontological systems is a heuristic device, since even accepted ontological frames such as animism and totemism encompass significant cross-cultural variation (Descola 2006:143-145, 2010; Shapland 2013:191-192, 194; Watts 2013:5-7).

From this perspective, Philippe Descola's work is particularly useful, in that it focuses the discussion of ontology on commonalities of the human experience that are shared through space and across time – what he refers to as physicality and interiority (Descola 2005:168, 2006:139-141). Physicality is simply having a human body through which one interacts with the world, while interiority may be defined as internal mental processes and self-awareness that can encompass everything on the spectrum of subjectivity to soul that we identify as unique to humans in our current ontological perspective (Descola 2006:140-141, 146). We use these two things that all humans share, physicality and interiority, to assess how similar or different the

other forces in the world that we encounter are – everything from parts of the environment such as rocks, trees, and animals, to non-physical forces such as spirits.

Table VI.1. Representation of the four ontological schemes based on shared or distinct physicality and interiority (after Descola 2005:175 and Watts 2013:7).

	Similar in Physicality	**Dissimilar in Physicality**
Similar in Interiority	Totemism	Animism
Dissimilar in Interiority	Naturalism	Analogism

Descola identifies four primary ontologies that frame human engagement with the world, which are shaped by where aspects of physicality and interiority are shared with these other forces, or are unique to humans (Table VI.1; 2005, 2006). Animism and totemism are well known due to foundational work by Durkheim, Radcliffe-Brown, and Lévi-Strauss among others, and have been a focus in the archaeological assessment of alternate ontological configurations (Alberti and Bray 2009; Alberti and Marshall 2009; Brown and Walker 2008; Durkheim 2008; Ingold 2000:89-131; Insoll 2011; Lévi-Strauss 1991; Radcliffe-Brown 1952). In Descola's configuration animism is the belief that interiority, particularly subjectivity, is not restricted to humans but rather is shared among forces that coexist with humans – particularly other living things such as plants and animals, as well as landscapes or spirits; however, all of these have distinct physicalities that structure their engagement with the world (Descola 2005:141-143).

Totemism in turn is the sharing of interiority and physicality between particular communities of humans and non-humans. That is, certain animal species, human communities, landscapes or other forces may share aspects of both their physical constitution, and in addition certain mindsets or personality traits that guide their subjective experience. Totemism creates extra-human communities that are distinguished from other extra-human communities through their particular traits. The eponymous totems need not be foundational spirits or creatures as

posited in early studies of totemism, but instead may be species or forces that are considered particularly emblematic of these shared community traits, though they are not necessarily preeminent within the community (Descola 2005:143-145). Naturalism is what Descola terms our modern, post-enlightenment ontology, where we recognize homologies and shared biological characteristics between all living things indicating a shared physicality, but nonetheless consider humans distinctive in our interiority – particularly our subjectivity, capacity for language, development of culture, etc. (Descola 2006:146-147).

The final ontological form is analogism, which is predicated on the dissimilarity of both physicality and interiority between humans and non-humans. Despite the name, the basis of analogism is difference:

> …the idea that all the entities in the world are fragmented into a multiplicity of essences, forms and substances separated by minute intervals, often ordered along a graded scale, such as in the Great Chain of Being that served as the main cosmological model during the Middle Ages and the Renaissance. This disposition allows for a recombination of the initial contrasts into a dense network of analogies linking the intrinsic properties of each autonomous entity present in the world. What is most striking in such systems is the cleverness with which all the resemblances liable to provide a basis for inferences are actively sought out. (Descola 2005:145)

I argue that analogism is the system that resonates best with the available evidence for Dolenjska Hallstatt engagements with and representations of their world. This argument is based on both the absence of evidence that would support the three other ontological frames, as well as lines of evidence that conform to the picture of an analogistic ontology, though this is necessarily tentative on the basis of archaeological evidence alone.

There is no current evidence that Dolenjska Hallstatt people perceived subjectivity in other beings, including animals, plants, or spirits, as would be expected in an animistic ontology. In contrast, an animistic ontology has been proposed for Minoan culture on the basis of representations showing people communing with and embracing rocks and trees (Herva 2005,

2006a, 2006b). Nor is there the transformational imagery often associated with animism, for example shape-shifting, that is proposed to represent certain powerful humans or animals that are able to take on the physicality of other beings and experience the world from a different perspective (Aldhouse-Green 2004:149-178; de Castro 1998; Ingold 2000:111-131; Price 2001; Willerslev 2007:82-88).

Totemism in turn is characterized by distinctive relationships and affiliations with animals, which superficially appears to match the Dolenjska Hallstatt evidence. However, despite the existence of trans-species households, there is no evidence that particular human groups considered themselves part of collectives sharing physicality and subjectivity with non-human animals, or that there are particular distinctions between collectives characterized by distinct social relations within each (Descola 2006:150-151). For example, the affiliation between certain men and horses is not apparently predicated on a sense of physical or mental isomorphism. Naturalism seems even less likely as a prehistoric ontological framework – there is no evidence that Dolenjska Hallstatt people maintained a modern mode of thinking and identified biological unity between living creatures. Possible evidence against a naturalistic ontology is that human-animal hybrid creatures like sphinxes were not popular in local images,[265] despite their ubiquity elsewhere, and it may be that there was no perception of physical continuity between humans and animals.

Though the identification of analogism as an explanation for the Dolenjska Hallstatt evidence is necessarily tentative, there are threads showing a focus on drawing analogies to order the world. Descola has assessed the modes of representation that may characterize different ontological forms, and one aspect of depictions within analogistic societies is that images show a

[265] This is also evidence against animism and totemism, which are noted for the importance of transformational imagery that highlights the permeability of physical bodies.

focus on relationships between beings, which matches the Dolenjska Hallstatt images (Ingold 2000:111-131; Descola 2010: 14, 165; Shapland 2013:196-197). This is evident in the focus on human-animal interactions in Dolenjska Hallstatt imagery such as horse/rider, hunter/hunting dog/prey, ritual practitioners/animal sacrifices, etc. In addition to drawing analogies between disparate entities to form conceptual categories, these categories are often hierarchically organized (Descola 2006:152-153). The Dolenjska Hallstatt categorization of animals apparent in imagery and zooarchaeological remains may be characterized as hierarchical – birds, edible domesticates, inedible domesticates, wild prey, and wild predators seem to be meaningful categories with nested subcategories that are hierarchically organized. For example, of the wild prey red deer are most significant in both art and life (see section V.2.A.xi), while among the edible domesticates cattle are the preeminent food though sheep are the domesticate with most symbolic significance (see sections V.2.A.i and V.2.A.ii).

The organization of situla art narratives may also be analyzed as hierarchical. Though outside the framework of an ontological assessment, several scholars have noted previously that processions of humans and animals occupy the top register of situlae, scenes of feasting and other communal rituals occupy the second, and the natural world populated by animals is the focus of the third register (Eibner 1981; Frey 1986; Križ 2012:59-61; Kromer 1980; Turk 2005:44). The second and third registers are most clearly distinguished – one is focused on the human world of elite activities, the other on the animal world, while the first register shows the permeability between the two.

The focus on ungulates in situla art may also reference analogism – ungulates are grouped together, even when they are from distinct environments, such as the inclusion of ibex with domestic ungulates (goats) and forest ungulates (deer). It may be that analogies of form

were key in drawing these otherwise distinct species together – it is the shorthaired ungulates whose males have prominent antlers or horns[266] (deer, goats, and ibex) that are prominent in situla art and frequently co-occur in processions. These species may have been grouped as a meaningful animal category based on these similarities. In turn sheep are excluded from this ungulate category, as are horses and pigs.[267] Analogism as an ontology framing Dolenjska Hallstatt experience is evidenced by the tensions between a focus on the distinctions between different species, while nonetheless clearly referencing categories predicated on analogies between these creatures.

There are other features of Dolenjska Hallstatt society that also support the identification of Descola's analogistic ontology as an essential organizing feature. Such societies are often categorically and hierarchically organized themselves – castes or descent groups may be of particular importance, creating chains anchoring society to the cosmos (Descola 2006:152). The importance of lineages in Hallstatt society is well known, and in particular the importance of foundational or even heroized ancestors as founding members of lineages has been identified as an explanation for elaborate central burials in prominent tumuli that are quite literally anchored in the earth (Arnold 2002:131-132, 2010b:163-166, 2011:167-172; Tecco Hvala 2012:374-375; Teržan 2008:192-225). These are the individuals who are clearly set apart, and who are more frequently buried with horses, horse gear, and imagery of birds, wagons, and chariots that are posited to reference the movement of the sun through the sky (Armstrong Oma 2013; Kaul 1998; Pare 1989, 1992). These grave goods could even indicate that these are individuals who were perceived as playing a role in such cosmological cycles (Kmet'ová 2013b:73-76; Kmet'ová and

[266] Particularly posterior or laterally oriented horns/antlers, which may have been a reason to exclude sheep from this category.
[267] There is no evidence that pigs were perceived as ungulates – that is, that they shared homologies with horses, ibex, sheep, goats, deer, etc.

Stegmann-Rajtár 2014:162; Kuzmina 2006:263, 265). This must remain speculation, but the lack of compelling evidence for animistic or totemistic beliefs, the implausibility of a naturalistic ontology, and the initial evidence of analogism, particularly the configuration of animal categories, is suggestive.

This leads to the question: what does analogism as an ontological framework suggest for nature as a concept in this period, particularly nature as separated from culture? The data examined in this study are inherently cultural, but nonetheless may illuminate aspects of what we would consider the natural world – i.e., animals. This study has demonstrated diverse human-animal interactions and relationships, and varied incorporation of animals into imagery, to the degree that "animal" may not have been a unitary category in this period. This is supported by the fact that analogism is an ontological system predicated on the importance of difference, where entities are distinguished by these differences and analogies are drawn between singular entities to create nested groups and categories (Descola 2005:145). Just as the overarching category of animal is potentially artificial and etic, nature as a category may be similarly problematic. This is because nature may be too all encompassing for a system that focuses on smaller rather than larger units. Large unitary categories such as animals and nature may not be appropriate for the Dolenjska Hallstatt context, whereas in our modern ontology of naturalism we focus on these large conceptual binaries, particularly the distinctions between humans and the rest of the world, which is the fundamental definition of culture versus nature.

VI.2. Significance

This project has many levels of significance, particularly methodological, culture-historical, and what it brings to studies of human-animal relations and the study of iconography

more broadly. At a fundamental level a new way of examining prehistoric human-animal relations in this region and time period has been developed here, and the focus on imagery rather than solely animal remains is also a new direction for inquiry.

The use of a dataset composed primarily of animal imagery is novel, and has provided a more nuanced understanding of the importance of animals in prehistoric southeastern European art, which are often thought of as analogous to scenery rather than as living agents. The use of a relational database in particular to assess prehistoric representation is uncommon – representations are often considered too individual to be assessed empirically via a large comparative dataset. However, this project has demonstrated the utility of such an approach, where broad patterns may be discerned and later supplemented with more subjective iconographic analyses. The inclusion of zooarchaeological remains within the same database also allowed a more detailed comparison of particular species and contexts where art and animal bodies were deposited, demonstrating important continuities and distinctions in the variable materialization of human-animal relations.

The results of the project exposed the overwhelming significance of mortuary contexts for the negotiation and materialization of Dolenjska Hallstatt conceptions of animals, despite the fact that the vast majority of lived interactions with animals took place in a range of contexts. The results also demonstrated that there are clear differences in the species that were significant in living interactions, in imagery, and in sacrifice. The imagery showed clear differences in species preferences and modes of representation on different artifact types, which likely had important connections to the individuals associated with these artifacts and the broader activities in which they were involved. The data make it abundantly clear that Dolenjska Hallstatt people drew upon interactions with and conceptions of animals and used these instrumentally via

imagery to demonstrate affiliation with distinct social roles and groups: in particular those based on gender and status, but also to indicate local or extra-regional ties, or community roles such as host.

The animal imagery, when combined with data about animal remains from mortuary and settlement contexts, indicates that Dolenjska Hallstatt people engaged in a spectrum of interpersonal relationships with animals that included observation, care, use, sacrifice for food and more esoteric purposes, and even avoidance. These interactions and their materialization also provide insight into the animal categories that may have organized Early Iron Age human-animal relations and that diverge in key ways from our modern conceptions. Dolenjska Hallstatt people maintained occasional personal relationships with animals, perhaps approaching the companionship we would expect from pets, but only with horses that were ridden. Dogs by comparison were working animals, and other domestic animals seem to have been viewed in a similarly utilitarian fashion. Wild animals were largely portrayed and presumably interacted with as predator and prey, though birds were an exception. Birds in the Dolenjska Hallstatt worldview seem to have been more than animals, ascribed capabilities that we would consider supernatural in the literal sense of the word. This provides a better perspective on how Dolenjska Hallstatt people conceptualized their world more generally, particularly the non-humans that inhabited their world and how they related to or did not relate to humans.

Finally, it is clear that we should not view Early Iron Age art as a mirror, perfectly reflective of life – it can provide insight into Dolenjska Hallstatt interactions and concepts, but in general it represents very select aspects and outright distorts or ignores others. Imagery was used instrumentally, particularly to illustrate distinction and convey information related to the social personae of those with whom it was associated. This study has also shed light on changing styles

of depiction over time, particularly the increasingly simplified situla art that characterized the end of the Early Iron Age, as well as the more schematic animals that appear on personal ornaments and ceramics at the same time. While it has been proposed that this indicates some decline in Dolenjska Hallstatt artistic skill, when situated in the broader field of animal imagery this instead may indicate changing aesthetic preferences, partially in reaction to shifting cultural connections away from northern Italian cultures and toward continental La Tène groups.

VI.3. Future Research Directions

The results of this project have provided an excellent basis for future comparative work. Productive lines of inquiry include assessing variation across space and through time. In the immediate future adding data from the Sveta Lucija and Stajerska cultures will expand the interpretive potential of the this study, through the comparison of distinct regional cultures, but also by shedding light on the role of geography and interregional connections in the conception and materialization of human-animal relationships. Stajerska is a pre-Alpine and steppe region in northern Slovenia that in prehistory had extensive contacts to the north and east with other sub-Alpine communities as well as eastern steppe groups. The Sveta Lucija culture is located in the northwest region of Posočje, an Alpine environment with deep river valleys that was closely connected to northern Italian groups in prehistory (Guštin 1991; Teržan 1977, 1990, 1998).

The study could even be extended beyond these neighboring cultures: it would be beneficial to assess animal imagery from other Early Iron Age archaeological cultures that also had robust traditions of figural depictions. Northern Italic cultures, particularly the Veneti, also produced situla art and clearly had strong connections with Slovenian Hallstatt groups, and it would be useful to assess how distinct their animal iconography was from Dolenjska Hallstatt

examples (Capuis and Chieco Bianchi 2006; Chieco Bianchi and Calzavara Capuis 1985; Frey 1969; Nascimbene 2009; Ridgway 1979). Austrian Hallstatt cultures, particularly material from sites including Kleinklein, Frög, and Hallstatt, would also provide interesting comparisons, since these areas have produced significant figural art though in a largely different style (Barth 1980; Dobiat 1985; Egg 1996, 2012; Gleirscher 2011). Comparison of the animals depicted in these images may show evidence of widely shared conceptions of animals, possibly relating to shared cosmological ideals, or instead may indicate the importance of local animal categories.

The chronological results of this project indicate that there are clear changes in animal depictions through time – expanding the data collection back into the Late Bronze Age, and forward into the Late Iron Age would illuminate more significant changes in the artistic milieu. Both of these periods are distinct from the Early Iron Age in burial and settlement practices, as well as in figural art. In addition to changing local artistic styles, it would be useful to determine if certain animals maintained cultural salience despite artistic changes, particularly birds, which have been linked to Bronze Age cosmologies, as well as which animals show more variability in their prevalence in imagery and their use in burials through time.

The productive results of this study have demonstrated that the methodology is sound and may provide insights into not only prehistoric human-animal relations and artistic practices, but also more widespread cultural processes. Future projects are expected to provide similarly positive results and will continue to shed light on the immense cultural variability as well as important cultural interconnections that characterized the Early Iron Age.

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Appendix A. The Prehistoric Zoological Situation

Table A.1: Species present in the zooarchaeological record from Late Bronze Age and Iron Age sites in Dolenjska and Bela krajina.

Common Name	Taxa	Site(s)	Time Period(s)	Citation(s)
Cattle	*Bos taurus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Cvinger near Korita	Early Iron Age	Bartosiewicz 1996
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Gradec near Vinkov vrh	Early Iron Age Late Iron Age	Bartosiewicz 1996
		Kučar near Podzemelj	Early Iron Age	Bartosiewicz 1996
		Libna (cemetery)	Early Iron Age	Bartosiewicz 1996
		Sv. Marjeta (Libna)	Early Iron Age	Vojaković et al. 2014
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Vače	Early Iron Age	Bartosiewicz 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU (Ljubljana)	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Sheep	*Ovis aries*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU (Ljubljana)	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Goat	*Capra hircus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Sheep/Goat	*Caprinae spp.*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Cvinger near Korita	Early Iron Age	Bartosiewicz 1996
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Gradec near Vinkov vrh	Early Iron Age Late Iron Age	Bartosiewicz 1996
		Kučar near Podzemelj	Early Iron Age	Bartosiewicz 1996
		Libna	Early Iron Age	Bartosiewicz 1996
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Vače	Early Iron Age	Bartosiewicz 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013

		Dvorišče SAZU (Ljubljana)	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Pig	*Sus scrofa*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Cvinger near Korita	Early Iron Age	Bartosiewicz 1996
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Gradec near Vinkov vrh	Early Iron Age Late Iron Age	Bartosiewicz 1996
		Kučar near Podzemelj	Early Iron Age	Bartosiewicz 1996
		Libna	Early Iron Age	Bartosiewicz 1996
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Vače	Early Iron Age	Bartosiewicz 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Chicken	*Gallus gallus domesticus*	Tribuna (Ljubljana)[268]	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Vir (Stična)	Late Iron Age	Borut Toškan and Lucija Grahek, personal communication
Horse	*Equus caballus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Gomile (Stična)	Early Iron Age	Bökönyi 1968
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Brezje pri Trebelnem	Early Iron Age	Bökönyi 1968
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Dog	*Canis familiaris*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Sv. Marjeta (Libna)	Early Iron Age	Vojaković et al. 2014
		Dvorišče SAZU (Ljubljana)	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Aurochs	*Bos primigenius*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Ibex	*Capra ibex*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994

[268] This find dates to House 12, phase IV of the settlement – phase IV has been dated to the Ha B3/C1, which is exceptionally early for chicken finds in Central Europe. However, Tribuna is a complex urban site and there has not yet been time to determine if these remains may be intrusive from a higher layer.

Red Deer	*Cervus elaphus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Roe Deer	*Capreolus capreolus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Kunkel near Vrhtrebnje	Early Iron Age	Bartosiewicz 1991
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Boar	*Sus scrofa*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Vesela gora v Brinju	Early Iron Age	Bartosiewicz 1991; 1996
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Brown Bear	*Ursus arctos*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Magdalenska gora	Early Iron Age	Bökönyi 1968
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Fox	*Vulpes vulpes*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
Wolf	*Canis lupus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
European Hare	*Lepus europaeus*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Beaver	*Castor fiber*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Badger	*Meles meles*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Weasel	*Mustela nivalis*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Marten	*Martes sp.*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009
Vole	*Arvicola sp.* *Microtus sp.*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014

		Vir (Stična)	Late Iron Age	Borut Toškan and Lucija Grahek personal communication
Shrew	*Crocidura sp.* *Sorex alpinus*	Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
		Vir (Stična)	Late Iron Age	Borut Toškan and Lucija Grahek personal communication
Field Mouse	*Apodemus sp.*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
House Mouse	*Mus musculus*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Door Mouse	*Glis glis*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Rat	*Rattus sp.*	Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014
Bat	*Chiroptera Gen. sp.*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Wild Bird	*Aves sp.*	Cvinger near Vir pri Stični	Early Iron Age	Bökönyi 1994
		Bela cerkev near Veliki Vinji Vrh	Early Iron Age	Bartosiewicz et al. 2002
		Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
Fish	*Pisces sp.*	Tribuna (Ljubljana)	Late Bronze Age Early Iron Age Late Iron Age	Vojaković 2013
		Dvorišče SAZU	Late Bronze Age Early Iron Age	Škvor Jernejčič 2014

Table A.2. Species present in the zooarchaeological record from Eneolithic, Early Bronze Age, and Roman period[269] sites in Dolenjska and Bela krajina. Only species that did not appear in Table 1.1 have been included.

Elk	*Alces alces*	Založnici (Ljubljana Marsh)	Early Bronze Age	Velušček et al. 2011
		Mali Otavnik	Early Bronze Age	Toškan 2008
European Bison	*Bison bonasus*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009
Feline	*Felis sp.*	Mali Otavnik	Early Bronze Age	Toškan 2008
Domestic Cat	*Felis catus*	Pečina near Gorenje Skopice	Roman Period	Djurić 2003; Borut Toškan, personal communication
European Otter	*Lutra lutra*	SNG Opera (Emona)	Roman Period	Dirjec et al. 2012
Black-Necked Grebe	*Podiceps nigricollis*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Duck - Eurasian teal	*Anas crecca*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Mallard	*Anas platyrhynchos*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Duck - Garganey	*Anas querquedula*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Duck – Northern Shoveler	*Anas clypeata*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Duck – Ferruginous Duck	*Aythya nyroca*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Duck – Tufted Duck	*Aythya fuligula*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Eurasian Coot	*Fulica atra*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Goose – Bean Goose	*Anser sp.*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009
Heron – Grey Heron	*Ardea cinerea*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009
Crane	*Various species*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Bartosiewicz et al. 2009
Pelican - Great White Pelican	*Pelecanus onocrotalus*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009
Eurasian Sparrowhawk	*Accipiter nisus*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – Common Rudd	*Scardinius erythrophthalmus*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – Common Roach	*Rutilus rutilus*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – Northern Pike	*Esox lucius*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – European Perch	*Perca fluviatilis*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – Tench	*Tinca tinca*	Črešnja pri Bistri (Ljubljana Marsh)	Eneolithic	Velušček et al. 2004
Fish – Carp	*Various species*	Ljubljana Marsh (various sites)	Eneolithic Early Bronze Age	Toškan 2009

[269] There are only two additional species noted from Roman era sites – there are not a large number of excavated Roman sites in Dolenjska or Bela krajina, and these sites primarily included species noted in the previous table.

Appendix B. The Dataset – Complexes, Sites, Zoomorphic Artifacts, and Faunal Material

Museums housing zoomorphic artifacts and faunal remains, abbreviations used in catalogue listed in parentheses:

Belokranjski muzej (Bm), Metlika, Slovenia
Dolenjski muzej (Dm), Novo mesto, Slovenia
Mestni muzej Ljubljana (MmL), Ljubljana, Slovenia
Museum für Vor- und Frühgeschichte Berlin (MVFB), Berlin, Germany
Narodni muzej (Nm), Ljubljana, Slovenia
Naturhistorisches Museum Wien (NHMW), Vienna, Austria
Peabody Museum of Archaeology and Ethnology (PM), Cambridge, MA, USA
Posavski muzej Brežice (PmB), Brežice, Slovenia
Universalmuseum Joanneum Graz (UJG), Graz, Austria

COMPLEX: N/A
Site: Ajdovski gradec

- Nearest Town: Vranje
- Type of Site: Cemetery
- Publications:
  - Logar, Nuša (1980) Dvoje prazgodovinskih grobov z Ajdovskega gradca pri Vranju / Zwei vorgeschichtliche Gräber auf Ajdovski gradec bei Vranje. In *Zbornik posvečen Stanetu Gabrovcu ob Šesdesetletnici / Festschrift für Stane Gabrovec*, edited by Tone Knez, pp. 295–300. Narodni muzej Slovenije, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Hallstatt Grave	**1**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Logar 1980:297-299 Fig. 2

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Deer	Protome Sexed Circle-and-Dot	Circle-and-Dot	Bronze	X: 7.2 cm Y: 2.2 cm Z: 4.9 cm		Nm P 14724

<u>COMPLEX</u>: Boštanj
Site: Gorenjčeve groblje

- Nearest Town: Dolenji Boštanj
- Type of Site: Tumulus Cemetery
- Publications:
    - Guštin, Mitja (1974) Gomile starejše železne dobe iz okolice Boštanja / Die eisenzeitlichen Grabhügel aus der Umgebung von Boštanj. In *Varia archaeologica*, pp. 87–119. Posavski muzej Brežice 1, Brežice.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Tumulus	**I**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	✓	-	Guštin 1974:89, 107 Pl. 7

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Mammal (indt)	Protome	None	Bronze Glass	X: 10.0 cm Y: 2.5 cm Z: 2.8 cm (across bow)		Nm P 6612a

COMPLEX: Boštanj
Site: Grmašca

- Nearest Town: Lukovec
- Type of Site: Tumulus Cemetery
- Publications:
  - Guštin, Mitja (1974) Gomile starejše železne dobe iz okolice Boštanja / Die eisenzeitlichen Grabhügel aus der Umgebung von Boštanj. In *Varia archaeologica*, pp. 87–119. Posavski muzej Brežice 1, Brežice.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Mali Lukovec	**4**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Guštin 1974:89, 109 Pl. 9

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Full Body Circle-and-Dot	None	Bronze	X: 3.2 cm Y: 2.3 cm		NHMW 67513

<u>COMPLEX</u>: Boštanj
Site: Kosmatec

- Nearest Town: Preska
- Type of Site: Tumulus Cemetery
- Publications:
  - Guštin, Mitja (1974) Gomile starejše železne dobe iz okolice Boštanja / Die eisenzeitlichen Grabhügel aus der Umgebung von Boštanj. In *Varia archaeologica*, pp. 87–119. Posavski muzej Brežice 1, Brežice.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Gomila pri Zlatem teletu	**20**	Indeterminate	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Guštin 1974:90, 93, 118 Pl. 18

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Fragmentary		NHMW 67610

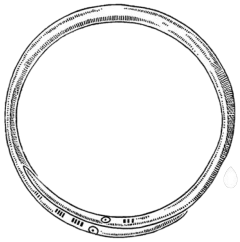
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Gomila pri Zlatem teletu	**26**	Indeterminate	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Guštin 1974:93, 117 Pl. 17

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Cattle	Protome	Animals Unknown	Ceramic	Appliqués: X: 4.0 cm Y: 3.5 cm Z: 4.0 cm		NHMW 67614

<u>COMPLEX</u>: Brezje pri Trebelnem
Site: Hojbi

- Nearest Town: Brezje pri Trebelnem
- Type of Site: Tumulus Cemetery
- Publications:
  - Kromer, Karl (1959) *Brezje: Halštatske gomile z Brezij pri Trebelnem / Hallstättische Hügelgräber aus Brezje bei Trebelno*. Vol. 2. Narodni muzej Slovenije, Ljubljana.
  - Dular, Janez, and Borut Križ (1990) Železnodobno naselje in grobišče v Brezjah pri Trebelnem / Die eisenzeitliche Siedlung und Nekropole in Brezje bei Trebelno. *Arheološki vestnik* 41: 531–556.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**1**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	✓	Dular and Križ 1990:535, 538; Kromer 1959:22-23, Pls. 20-21

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.1 cm Y: 2.5 cm Z: 3.4 cm		NHMW 33925
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.1 cm Y: 2.6 cm Z: 3.3 cm		NHMW 33925
Bracelet	Snake	Protome Body Suggested Circle-and-Dot Unknown	Animals	Bronze	X: 10.3 cm		NHMW 33911

		Ram's Head Bead	Sheep	Protome	None	Bronze	X: 1.7 cm Y: 1.7 cm Z: 1.2 cm		NHMW 33920

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**8**	Indeterminate	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Dular and Križ 1990:538; Kromer 1959:24

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bracelet	Snake	Protome Body Suggested Circle-and-Dot	Animals	Bronze	X: 7.4 cm Y: 7.3 cm Z: 0.7 cm		NHMW 33957

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**12**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Dular and Križ 1990:535, 538; Kromer 1959:22-24, Pl. 26

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Duck	Body Suggested	None	Bronze	X: 4.5 cm Y: 2.3 cm Z: 1.0 cm		NHMW 33973
Fibula	Duck	Body Suggested	None	Bronze	X: 3.0 cm Y: 2.3 cm Z: 1.0 cm		NHMW 33973

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**16**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	✓	Dular and Križ 1990:538; Kromer 1959:25-26, Pls. 28-29

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Bird	Protome	Animals Circle-and-Dot	Bronze	X: 21.0 cm Y: 24.5 cm Z: 20.5 cm		NHMW 33995
Situla	Bird	Protome	Animals	Bronze	Y: 23.0 cm		NHMW 33996

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**28**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Dular and Križ 1990:539; Kromer 1959:27, Pl. 47

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bracelet	Snake	Full Body	Unknown	Bronze	X: 9.0 cm Y: 8.9 cm Z: 0.8 cm		NHMW 34027

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**35**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Dular and Križ 1990:535, 538-539; Kromer 1959:22, 27, Pl. 6

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird	Protome Body Suggested	None	Bronze	X: 5.6 cm Y: 2.3 cm Z: 2.1 cm		NHMW 34048

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XII[270]	**37**	Early Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Dular and Križ 1990:541; Kromer 1959:11, 15, Pl. 7

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Helmet	Sphinx	Body Suggested	Animals Humans	Bronze	Sphinx: X: 3.6 cm Y: 2.8 cm		NHMW 33680

[270] Tumulus XII is labeled Tumulus I in Kromer's 1959 presentation of these finds. The tumulus was originally labeled Tumulus I by Pečnik, however when the topographic map of the site was created the tumulus was renumbered XII, and was referred to as Tumulus XII from that point on in Pečnik's notes. Despite this, the finds were inventoried under the designation "Tumulus I" at the Naturhistorisches Museum in Vienna, which led to Kromer's subsequent identification of this tumulus in the same way. Janez Dular and Borut Križ's analysis of the original sources clarified this issue, and this tumulus is referred to as Tumulus XII here to remain consistent with their work as well as with the final notes and maps generated by Pečnik.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XII	**51**	Indeterminate	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Dular and Križ 1990:541; Kromer 1959:16, Pl. 26

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Bird	Protome	Animals	Bronze	X: 22.8 cm Y: 24.8 cm Z: 21.0 cm		NHMW 33719

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XII	**67**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	-	-	Dular and Križ 1990:541; Kromer 1959:11, 17, Pl. 9

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 5.9 cm Y: 1.7 cm Z: 3.2 cm		NHMW 33735

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**6**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Adult	✓	-	Dular and Križ 1990:542; Kromer 1959:29-30, Pl. 35

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Pendant	Bird	Full Body	Animals Circle-and-Dot	Bronze	Drum/Bird X: 3.7 cm/ 2.2 cm Y: 4.1 cm/ 2.4 cm		NHMW 34101

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**8**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Dular and Križ 1990: 542; Kromer 1959:29-31, Pls. 36-37

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Dog Goat Bird Red Deer Ungulate	Full Body Sexed Moving Procession	Animals	Bronze	X: 8.7 cm Y: 7.2 cm		NHMW 34125

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**30**	Indeterminate	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Dular and Križ 1990:542-543; Kromer 1959:29, 34, Pl. 45

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Cattle	Protome	Unknown	Ceramic	X: 4.0 cm Y: 5.5 cm Z: 3.1 cm		NHMW 34220

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**49**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	-	✓	Dular and Križ 1990:542-543; Kromer 1959:29, 35, Pl. 43

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 5.5 cm Y: 2.5 cm Z: 2.9 cm		NHMW 34245

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**51**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Dular and Križ 1990:543; Kromer 1959:36, Pl. 40

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 6.7 cm Y: 2.9 cm Z: 3.6 cm		NHMW 34255

<u>COMPLEX</u>: Brezje pri Trebelnem
Site: Gomile

- Nearest Town: Brezje pri Trebelnem
- Type of Site: Tumulus Cemetery
- Publications:
  - Kromer, Karl (1959) *Brezje: Halštatske gomile z Brezij pri Trebelnem / Hallstättische Hügelgräber aus Brezje bei Trebelno*. Vol. 2. Narodni muzej Slovenije, Ljubljana.
  - Dular, Janez, and Borut Križ (1990) Železnodobno naselje in grobišče v Brezjah pri Trebelnem / Die eisenzeitliche Siedlung und Nekropole in Brezje bei Trebelno. *Arheološki vestnik* 41: 531–556.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**1**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Bökönyi 1968:16; Dular 2007:737; Dular and Križ 1990:535, 537; Kromer 1959:21, Pl. 17
VI	**2**	Indeterminate	Non-Sample	Problematic	N/A [Horse Grave]		-	-	Bökönyi 1968:16; Dular 2007:737; Dular and Križ 1990:535, 537; Kromer 1959:21, Pl. 52
VI	***1-2***[271]	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*See above*

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium Upper Limbs Trunk Lower Limbs	Whole	Specialist	2 skull fragments, 2 (left and right) fragments of mandible with the P1-M3, atlas, axis, distal part of left humerus, 2 (left and right) radii, proximal part of left metacarpal, proximal part of left femur, distal part of right femur	NHMW 33829
Horse	1	Cranium	Cranium	Specialist	Right upper P3, right upper M1, right upper M2, right upper M3, part of left mandible with P1-M3, part of right mandible with P2-M3, fragment of atlas	NHMW 33829
Horse	1	Upper Limb	Partial	Specialist	Fragment of right radius	NHMW 33829

[271] This is not a true grave – horse remains from Graves 1 and 2 were mixed in storage, and could not be separated. The grave contained bones from three horses, and the false context Grave 1-2 was created to capture the data.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**3**	Indeterminate	Non-Sample	Problematic	N/A [Horse Grave]		-	-	Dular 2007:738; Kromer 1959:21; Dular and Križ 1990:537
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Unknown[272]	Whole	Unknown	Unknown – "horse skeleton"		Collected?
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
VI	**5**	Early Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Dular and Križ 1990:535, 537; Kromer 1959:21, Pls. 18-19
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Unknown	Unknown	Unknown	Unknown – "cremated horse bones"		NHMW 33847 [may be solely urn]

[272] Assumed to be whole animal, since listed as "horse skeleton" in documentation.

<u>COMPLEX</u>: Dobrnič
Site: Cvinger near Korita

- Nearest Town: Korita
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1995b) Prazgodovinska višinska naselja v Suhi krajini / Vorgeschichtliche Höhensiedlungen in der Suha krajina. *Arheološki vestnik* 46: 89–167.

- **No zoomorphic finds pertinent to the study.**

COMPLEX: Dobrnič
Site: Gomile

- Nearest Town: Dobrava
- Type of Site: Tumulus Cemetery
- Publications:
  - Stare, Vida. (1973) Gomile pod Koriti na Dolenjskem / Hügelgräber bei Korita in Dolenjsko (Unterkrain). *Arheološki vestnik* XXIV: 744–779.
  - Parzinger, Hermann (1988-1989) Hallstattzeitliche Grabhügel bei Dobrnič / Halštatske gomile pri Dobrniču. *Arheološki vestnik* 39-40: 539–636.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
14	**15**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Parzinger 198891989:562, 565, Pl. 25

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 5.5 cm Y: 2.1 cm Z: 2.9 cm		NHMW 66392

<u>COMPLEX</u>: Dobrnič
Site: Koželjeva hosta

- Nearest Town: Reva
- Type of Site: Tumulus Cemetery
- Publications:
    - Križ, Borut (1991c) Reva pri Dobrniču. *Varstvo spomenikov (Monuments Conservation)* 33: 208.
    - Križ, Borut (1992b) *Reva pri Dobrniču*. *Varstvo spomenikov (Monuments Conservation)* 34: 293.

- **No zoomorphic finds or zooarchaeological remains pertinent to the study.**

<u>COMPLEX</u>: Dolenjske Toplice
Site: Cvinger

- Nearest Town: Dolenjske Toplice
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, and Borut Križ (2004) Železnodobno naselje na Cvingerju pri Dolenjskih Toplicah / Eisenzeitliche Siedlung auf dem Cvinger bei Dolenjske Toplice. *Arheološki vestnik* 55: 207–250.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: Dolenjske Toplice
Site: Branževec 2

- Nearest Town: Dolenjske Toplice
- Type of Site: Tumulus Cemetery
- Publications:
  - Teržan, Biba (1976) Certoška Fibula / Die Certosafibel. *Arheološki vestnik* 27: 317–443.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**2**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Teržan 1976:396-399, Pl. 4

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Hare	Full Body	Animals	Bronze	X: 1.5 cm		NHMW 56721

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**14**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Teržan 1976:396-399, Pl. 7

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Bird	Protome	Animals Circle-and-Dot	Bronze	Handle: X: 23.0 cm Y: 10.5 cm Z: 0.6 cm		NHMW 56770

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**16**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	✓	-	Teržan 1976:396-399, Pl. 8

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm		NHMW 56777
Earring	Hare	Full Body	Animals	Bronze	X: 1.6 cm Z: 1.2 cm		NHMW 56777
Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm Y: 1.1 cm Z: 1.5 cm		NHMW 56777

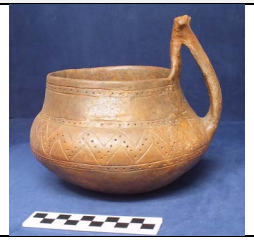
		Earring	Hare	Full Body	Animals	Bronze	X: 1.8 cm Y: 0.9 cm Z: 1.6 cm		NHMW 56777

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**23**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Dular 2003:142 Fig. 84; Teržan 1976:396-399, Pls. 11-12

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Dog Horse Bird Deer Ungulate	Full Body Sexed Moving Eating Hunting Procession With Rider Harnessed Unknown	Animals Humans Boxing Chariot Unknown	Bronze	X: 20.5 cm Y: 23.8 cm Z: 19.5 cm		NHMW 56801

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**30**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Teržan 1976:396-399, Pl. 14

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Mammal (indt)	Full Body	Unknown	Bronze	X: 1.7 cm		NHMW 56820

		Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm Y: 1.7 cm Z: 1.7 cm		NHMW 56820
		Earring	Mammal (indt)	Full Body	Unknown	Bronze	X: 1.8 cm		NHMW 56820
		Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm Z: 1.5 cm		NHMW 56820
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
II	**35**	Late Ha	Non-Sample	Unreliable	Double Grave – Probable Male and Female	Probable Adult	-	-	Teržan 1976:396-399, Pl. 16
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 11.5 cm Y: 15.3 cm Z: 12.2 cm		NHMW 56842

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**2**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Teržan 1976:400-403, Pl. 22
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Animals	Ceramic	Handle: X: 2.3 cm Z: 1.3 cm		NHMW 56895

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**9**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Teržan 1976:400-403, Pls. 24-26
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Cist	Bird	Protome	Animals Circle-and-Dot	Bronze	Fragmented		NHMW 56916

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**17**	Late Ha	Non-Sample	Unreliable	Double Grave – Probable Male and Female	Indeterminate	✓	-	Teržan 1976:400-403, Pls. 29-31
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	Handle: X: 16.5 cm Y: 8.0 cm Z: 0.5 cm		NHMW 56942

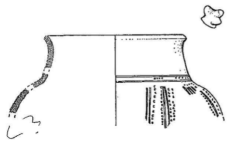
		Cauldron	Bird	Protome	Animals	Bronze	X: 25.5 cm Z: 25.0 cm		NHMW 56943

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**33**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	✓	Teržan 1976:400-403, Pls. 38-39

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 27.5 cm Y: 16.5 cm Z: 18.3 cm		NHMW 56997
Phalera	Horse	Protome Cultural Material on Body	Animals Circle-and-Dot	Lead	X: 4.7 cm Y: 4.7 cm Z: 0.4 cm		NHMW 56999
Phalera	Horse	Protome Cultural Material on Body Circle-and-Dot	Animals	Lead	X: 4.0 cm Y: 1.0 cm		NHMW 56999

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**34**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Teržan 1976:400-403, Pl. 37
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 17.2 cm Y: 20.2 cm Z: 18.3 cm		NHMW 57005

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**36**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Teržan 1976:400-403, Pl. 36
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 15.0 cm Y: 14.1 cm Z: 14.0 cm		NHMW 57012

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**43**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Teržan 1976:400-403, Pl. 43
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Not measured		NHMW 57027 [not found]

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**7**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Teržan 1976:406-407, Pl. 58
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.4 cm Y: 1.6 cm Z: 4.0 cm		NHMW 57168

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XI	**8**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Teržan 1976:407-408, Pl. 63
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Pendant	Horse	Full Body	None	Bronze	X: 4.5 cm Y: 2.6 cm Z: 0.5 cm		NHMW 57207

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XI	**12**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Teržan 1976:407-408, Pl. 66
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 2.2 cm Y: 1.0 cm Z: 1.7 cm		NHMW 57226

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XI	**21**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Teržan 1976:407-408, Pl. 69
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.1 cm Y: 2.7 cm Z: 4.2 cm		NHMW 57251
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.2 cm Y: 2.6 cm Z: 3.7 cm		NHMW 57251
		Belt Plate	Canid Ungulate	Full Body Moving Predation Cultural Material on Body	Animals Circle-and-Dot	Bronze	X: 5.7 cm Y: 4.6 cm Z: 0.1 cm		NHMW 57252

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**6**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	✓	-	Teržan 1976:409-410, Pl. 74
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	Unknown	Iron	X: 7.9 cm Z: 0.9 cm		NHMW 57333

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIII	**16**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Teržan 1976:409-410, Pl. 81

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Canid	Protome	Animals	Bronze	X: 5.3 cm Y: 2.8 cm Z: 3.7 cm		NHMW 57354

<u>COMPLEX</u>: N/A
Site: Gomile

- Nearest Town: Sajevce
- Type of Site: Tumulus Cemetery
- Publications:
    - Guštin, Mitja, and Andrej Preložnik (2005) Sajevce: Železnodobno gomilno grobišče ob Krki / Sajevce: An Iron Age barrow cemetery at the Krka River. *Arheološki vestnik* 56: 113–168.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Gomile

- Nearest Town: Velike Malence
- Type of Site: Tumulus Cemetery
- Publications:
    - Stare, Vida (1960-1961) Prazgodovinske Malence / The Prehistoric Malence. *Arheološki vestnik* 11-12: 50-87.
    - Guštin, Mitja (1996) Der Grabhügel der älteren Hallstattzeit aus Velike Malence (Brežice/Slowenien). In *Die Osthallstattkultur. Akten des Internationalen Symposiums, Sopron, 10.-14. Mai 1994*, edited by Erzsébet Jerem and Andreas Lippert, pp. 115–126. Archaeolingua, Budapest.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Gradec

- Nearest Town: Vinkov vrh
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1995b) Prazgodovinska višinska naselja v Suhi krajini / Vorgeschichtliche Höhensiedlungen in der Suha krajina. *Arheološki vestnik* 46: 89–167.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Gradišče

- Nearest Town: Dešen
- Type of Site: Fortified Settlement
- Publications:
    - Pavlin, Primož, and Janez Dular (2007) Prazgodovinska višinska naselja v Posavskem hribovju / Prehistoric hilltop settlements in the Posavje Hills. *Arheološki vestnik* 58: 65–120.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Gradišče

- Nearest Town: Valična vas
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, and Danilo Breščak (1996) Poznohalštatska hiša na Gradišču pri Valični vasi / Späthallstattzeitliches Haus in Gradišče bei Valična vas. *Arheološki vestnik* 47: 145–162.
    - Križ, Borut (1990b) Valična vas, Grosuplje. In *Arheološka najdišča Dolenjske : posebna številka, izdana ob 100-letnici archeoloških raziskav v Novem Mestu 13.9.1890-13.9.1990*, edited by Danilo Breščak, pp. 67-68. Arheo – Dossier Dolenjska. Narodni Muzej Slovenije, Ljubljana.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Gradišče

- Nearest Town: Vintarjevec
- Type of Site: Fortified Settlement
- Publications:
    - Stare, Vida 1999 Naselbina na Gradišču nad Vintarjevcem pri Litiji / The Settlement in Gradišče near Vintarjevec. *Argo* 42(1): 18–34.

- **No zoomorphic finds pertinent to the study.**

COMPLEX: N/A
Site: Kidričeva cesta

- Nearest Town: Zagorje ob Savi
- Type of Site: Flat Cemetery
- Publications:
  - Gabrovec, Stane (1966) Zagorje v Prazgodovini / Zagorje in der Vorgeschichte. *Arheološki vestnik* 17: 19–49.
  - Draksler, Matej (2007) Območje Zagorja ob Savi v prazgodovini / Das Gebiet von Zagorje ob Savi in der Vorgeschichte. *Arheološki vestnik* 58: 121-155.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Milač House	**Grave with the Belt Plate**	Late HA	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Draksler 2007:131; Gabrovec 1966:24-30, Pls. 5-8

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Limbs (indt)	Partial	Unknown	"The leg bones of a horse"	Nm P4356

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Dog Horse Red Deer Deer (indt)	Full Body Sexed Moving Predation Hunting With Rider Cultural Material on Body	Animals Humans	Bronze	X: 22.2 cm Y: 7.2 cm		Nm P 4340
Situla	Bird	Protome	Animals	Bronze	Handle: X: 17.9 cm Y: 8.0 cm Z: 0.4 cm		Nm P 4355

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Unknown	**Unknown**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Draksler 2007:131-132; Gabrovec 1966:24-30, Pls. 6-7

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Dog Bird	Full Body Predation	Animals	Bronze	X: 4.5 cm Y: 2.6 cm Z: 1.1 cm		Nm P 4346
Fibula	Dog Bird	Full Body Predation	Animals	Bronze	X: 5.2 cm Y: 2.9 cm Z: 1.0 cm		Nm P 4347
Torc	Snake	Protome Body Suggested	Animals	Bronze	X: 18.5 cm Y: 16.0 cm Z: 0.8 cm		Nm P 4343

<u>COMPLEX</u>: N/A
Site: Kostjavec

- Nearest Town: Tihaboj
- Type of Site: Fortified Settlement
- Publications:
    - Pavlin, Primož, and Janez Dular (2007) Prazgodovinska višinska naselja v Posavskem hribovju / Prehistoric hilltop settlements in the Posavje Hills. *Arheološki vestnik* 58: 65–120.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Kunkel

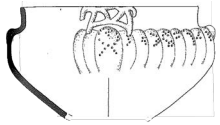
- Nearest Town: Vrhtrebnje
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1991) Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini / Befestigte prähistorische Siedlungen in der Mirenska dolina und der Temeniška dolina. *Arheološki vestnik* 42: 65–198.

- **No zoomorphic finds pertinent to the study.**

COMPLEX: Libna
Site: Deržaničev gozd

- Nearest Town: Libna
- Type of Site: Tumulus Cemetery
- Publications:
  - Guštin, Mitja (1976) *Libna*. Posavski muzej Brežice 3, Brežice.
  - Dular, Janez (2006) Železnodobno naselje in grobišča na Libni: Topografija in viri / Die eisenzeitliche Siedlung und die Gräberfelder auf der Libna: Topographie und Quellen. *Arheološki vestnik* 57: 163–181.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1942?	**Stray Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Guštin 1976:45, 112 Pl. 64
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Pendant	Bird	Full Body	Animals	Bronze	X: 2.9 cm Y: 2.9 cm		JMG 103184

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**Unknown**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:167; Guštin 1976:44, 103 Pl. 55
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Full Body	Unknown	Ceramic	Not measured[273]		NHMW 87082

[273] This object could not be found in the Naturhistorisches Museum depot.

COMPLEX: Libna
Site: Špiler

- Nearest Town: Libna
- Type of Site: Tumulus Cemetery
- Publications:
  - Knez, Tone, and Stanko Škaler (1968) Halštatska gomila na Libni / Der Hallstatt-Grabhügel auf der Libna. *Arheološki vestnik* XIX: 239–272.
  - Škaler, Stanko (1968-1969) Libna. *Varstvo spomenikov (Monuments Conservation)* 13-14: 181–182.
  - Guštin, Mitja (1976) *Libna*. Posavski muzej Brežice 3, Brežice.
  - Dular, Janez (2006) Železnodobno naselje in grobišča na Libni: Topografija in viri / Die eisenzeitliche Siedlung und die Gräberfelder auf der Libna: Topographie und Quellen. *Arheološki vestnik* 57: 163–181.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	4	Indeterminate	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Dular 2006:170-171; Guštin 1976:38, 54 Pl. 6; Knez and Škaler 1968:248, 251
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium Trunk	Partial	Specialist	21 molars, temporal, mandible, two vertebrae (16th-18th)		Unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
I	6	Early Ha	In Sample	Reliable	Probable Male	Indeterminate	-	✓	Dular 2006:170-171; Guštin 1976:38, 56-68 Pls. 8-10; Knez and Škaler 1968:250-251
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Teeth	Specialist	12 molars		Unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
I	Stray Finds	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:170-171; Knez and Škaler 1968:242, 251
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Teeth	Specialist	Four molars		Unknown

		Unknown	1?	Cranium	Teeth	Unknown	"Animal teeth" (Knez and Škaler 1968:251)		Unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
II	**1**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	✓	Dular 2006:171; Guštin 1976:37, 49-51 Pls. 1-3; Škaler 1968-1969:181
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium	Cranium	Unknown	Cranium		Unknown
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 25.0 cm Y: 26.0 cm		PmB 1076
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
II	**d**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	✓	Dular 2006:171, 2007:738; Guštin 1976:44, 108-109 Pls. 60-61
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium	Teeth	Unknown	"Horse teeth" (Guštin 1976:44)		Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 2**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 179; Guštin 1976:39, 71 Pl. 23

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bead	Mammal (indt)	Body Suggested Full Body	Unknown	Glass	X: 2.0 cm Y: 1.8 cm Z: 0.8 cm		NHMW 87232[274]

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 9**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 179; Guštin 1976:39, 72 Pl. 24

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Appliqué: X: 4.0 cm Y: 3.3 cm Z: 4.0 cm		NHMW 87244

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 16**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 180; Guštin 1976:40, 73 Pl. 25

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Teeth	Unknown	"Horse teeth" (Guštin 1976:40)	Not collected?

[274] Using updated inventory numbers, since the Naturhistorisches Museum Wien re-inventoried this collection and the former published inventory numbers are no longer used.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 25**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 180

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Cranium	Unknown	Cranium and teeth	Not collected?

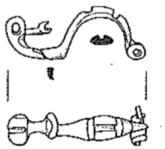
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 26**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 180; Guštin 1976:40, 74 Pl. 26

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Cattle	Protome	Animals	Ceramic	Appliqué: X: 4.6 cm Y: 5.9 cm Z: 5.2 cm		NHMW 87288

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 29**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177; Guštin 1976:40, 74 Pl. 26

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Animals Unknown	Ceramic	Appliqué: X: 3.5 cm Y: 3.6 cm Z: 3.1 cm		NHMW 87292

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 30**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 180; Guštin 1976: 40, 75 Pl. 27

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird	Protome Body Suggested	None	Bronze	Not measured[275]		NHMW 65802[276]
Fibula	Bird	Protome Body Suggested	None	Bronze	Not measured		NHMW 65802

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 31**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 180; Guštin 1976: 40, 76 Pl. 28

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome Unknown	Unknown	Ceramic	Not measured	Not photographed	NHMW [missing]

[275] I was not able to personally examine the objects from this grave.

[276] The original inventory numbers were used for these items, I was not able to look-up the updated inventory numbers at the Naturhistorisches Museum.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Find 38**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 181; Guštin 1976: 40, 76 Pl. 28

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird Feline	Full Body Predation	Animals	Bronze	X: 2.4 cm Y: 2.6 cm Z: 0.5 cm		NHMW 87325

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Stray Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Dular 2006:171-173, 177, 179; Guštin 1976:39, 71 Pl. 23

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Animals	Ceramic	Appliqué: X: 3.5 cm Y: 2.8 cm Z: 3.2 cm		NHMW 87283

<u>COMPLEX</u>: Libna
Site: Sv. Marjeta

- Nearest Town: Libna
- Type of Site: Fortified Settlement
- Publications:
    - Guštin, Mitja (1976) *Libna*. Posavski muzej Brežice 3, Brežice.
    - Dular, Janez (2006) Železnodobno naselje in grobišča na Libni: Topografija in viri / Die eisenzeitliche Siedlung und die Gräberfelder auf der Libna: Topographie und Quellen. *Arheološki vestnik* 57: 163–181.

- No zoomorphic finds pertinent to the study.

COMPLEX: Libna
Site: Volčanškova gomila

- Nearest Town: Krško
- Type of Site: Tumulus Cemetery
- Publications:
  - Guštin, Mitja (1976) *Libna*. Posavski muzej Brežice 3, Brežice.
  - Dular, Janez (2006) Železnodobno naselje in grobišča na Libni: Topografija in viri / Die eisenzeitliche Siedlung und die Gräberfelder auf der Libna: Topographie und Quellen. *Arheološki vestnik* 57: 163–181.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1889-1890	**aa**	Indeterminate	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Guštin 1976:42, 89 Pl. 41
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium Upper Limbs Trunk	Partial	Unknown	Cranium, ribs, upper limbs (Dular 2007:738)		Not collected?
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
1889-1890	**g**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Guštin 1976:41, 83 Fig. 35
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 17.0 cm Y: 14.0 cm Z: 18.5 cm		NHMW 86910

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1889-1890	**i**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Guštin 1976:41, 84-85 Pls. 36-37

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium Upper Limbs Trunk Lower Limbs	Whole	Unknown	Horse skeleton	Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1889-1890	**k**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Guštin 1976:41, 83 Pl. 35

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Water bird (indt)	Body Suggested Full Body	None	Bronze	X: 4.4 cm Y: 1.6 cm Z: 1.4 cm		NHMW 86932
Fibula	Water bird (indt)	Body Suggested Full Body	None	Bronze	Z: 1.7 cm		NHMW 86932

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1889-1890	**m**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Guštin 1976:42, 88 Pl. 40

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	Fragmentary		NHMW 86943

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1889-1890	**Unknown Provenience**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Guštin 1976:30

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Goat	1?	Cranium Unknown	Unknown	Unknown	Mandible “and other bones” (Guštin 1976:30)	Not collected?

<u>COMPLEX</u>: Magdalenska gora
Site: Laščik

- Nearest Town: Zgornja Slivnica
- Type of Site: Tumulus Cemetery
- Publications:
  - Hencken, Hugh (1978) *The Iron Age Cemetery of Magdalenska Gora in Slovenia*. Mecklenburg Collection Papers. American School of Prehistoric Research, Bulletin 32. Harvard University Press, Cambridge, MA.
  - Tecco Hvala, Sneža, Janez Dular, and Eva Kocuvan (2004) *Železnodobne gomile na Magdalenski gori / Eisenzeitliche Grabhügel auf der Magdalenska gora*. Katalogi in Monografije 36 / Catalogi et Monographiae 36. Narodni muzej Slovenije, Ljubljana.
  - Tecco Hvala, Sneža (2012) *Magdalenska gora: Družbena struktura in grobni rituali železnodobne skupnosti / Magdalenska gora: Social structure and burial rites of the Iron Age community*. Opera Instituti Archaeologici Sloveniae 26. Inštitut za arheologijo ZRC SAZU, Založba ZRC, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**2**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Hencken 1978:28-29, 141 Fig. 103; Tecco Hvala 2012:44, 346, 425
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Roe Deer	1?	Lower Limbs	Partial	Specialist	Metatarsi		PM 34-25-40/ 7680
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**5**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	✓	Bökönyi 1968:12; Dular 2007:738; Hencken 1978:28-30, 142 Fig. 106; Tecco Hvala 2012:44, 89, 109, 346
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Teeth	Specialist	Upper M3 (R), lower M2 (r)		PM 34-25-40/ 7682

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**6-7-7a**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Dular 2007:738; Hencken 1978:28 30-31, 143-147 Figs. 108-112; Tecco Hvala 2012:44, 89, 148, 158, 346, 361

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium Upper Limbs Trunk Lower Limbs	Whole	Field	Full skeleton	PM missing?

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Hook	Bird	Full Body Moving	None	Bronze	X: 7.5 cm Y: 3.1 cm Z: 1.1 cm		PM 34-25-40/ 8441
Situla	Bird Red Deer Deer (indt) Ibex Ungulate	Full Body Sexed Moving Eating Procession	Animals	Bronze	X: 22.5 cm (mouth), 16 cm (base) Y: 27 cm, 37.5 (with handle) Z: 22.5 cm (mouth), 15.5 (base)		PM 34-25-40/ 8418 (and one fragment at the Ashmolean Museum, inv. no. 1970.27)
Cauldron	Bird	Protome	Animals	Bronze	X: 24 cm Y: 10 cm		PM 34-25-40/ 8430

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**11**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Hencken 1978:28, 31-32, 150-151 Figs. 117-118; Tecco Hvala 2012:44, 346, 425

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Brown Bear	1	Limbs (indt)	Claw	Specialist	Bear claw	PM 34-25-40/ 8397

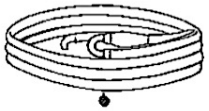
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**19-20**	Late Ha	Non-Sample	Unreliabla	Double Grave – Probable Male and Male	Probable Adult	✓	-	Hencken 1978:23, 33, 153 Fig. 125; Tecco Hvala 2012: 44, 85, 346, 426

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Unknown	1	Unknown	Partial	Unknown	Unknown	PM 34-25-40/ 8482

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Scabbard	Bird	Protome Circle-and-Dot	Animals Circle-and-Dot	Iron Bronze	X: 4.8 cm Y: 5.9 cm Z: 0.8 cm		PM 34-25-40/ 8477

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**29**	Late Ha	Non-Sample	Unreliable	Double Grave – Probable Male and Male	Probable Adult	✓	✓	Bökönyi 1968:12-14; Dular 2007:738; Hencken 1978: 28, 36-38, 160-171 Figs. 135-149; Tecco Hvala 2012:44, 85, 89, 134, 346, 360, 426

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	4	1. Lower Limb 2. Cranium Upper Limbs Trunk Lower Limbs 3. Cranium Upper Limbs Trunk Lower Limbs 4. Upper Limbs Lower Limbs	Partial Whole	Specialist	1. Tibia (R) 2. Cranial fragments, mandible, vertebrae, sacrum, scapulae, humeri, radii, ulnae, metacarpals, innominates, femurs, tibiae, right astragalus and calcaneus, metatarsals 3. Upper incisors, canines, premolars, and molars, mandible, vertebrae, sacrum, rib fragments, scapula (L), humeri, radii, ulnae, metacarpals, anterior phalanges, innominates, femurs, patellae, tibiae, metatarsals, posterior phalanges 4. Scapula fragment, femur (L), tibiae, astragalus (L), calcanei, metatarsal (R)	PM 34-25-40/ 7679
Unknown	1	Unknown	Partial	Unknown	Unknown	PM 34-25-40/ 8543

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bracelet	Snake	Protome Body Suggested	Unknown	Bronze	Unknown		PM unknown[277]

[277] This item could not located at the Peabody Museum, currently the drawing from Hencken 1978:165 Fig. 140c is the only available evidence for this artifact.

Belt Plate	Deer (indt) Hare	Full Body Sexed Moving	Animals	Bronze	X: 17.0 cm Y: 7.6 cm Z: 0.02 cm		PM 34-25-40/ 8516
Situla	Bird	Protome	Animals	Bronze	X: 20.0 cm (mouth), 27.3 cm (shoulder) Y: 4.5 cm (preserved height)		PM 34-25-40/ 8512
Cauldron	Bird	Protome	Animals	Bronze	X: 28.0 cm Y: 11.0 cm (preserved height)		PM 34-25-40/ 8509
Cauldron	Bird	Protome	Animals	Bronze	X: 29.0 cm Y: 13.0 cm (preserved height)		PM 34-25-40/ 8510
Cauldron	Bird	Protome	Animals	Bronze	X: 24 cm Y: 10 cm		PM 34-25-40/ 8430

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**31**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Hencken 1978:28, 38, 172 Fig. 151; Tecco Hvala 2012:44, 346, 426
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Phalera	Horse	Protome Circle-and-Dot Cultural Material on Body	Animals	Tin-Lead Alloy	X: 5.6 cm Y: 5.8 cm Z: 0.9 cm		PM 34-25-40/ 8550
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**36**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	-	✓	Hencken 1978:28, 39, 175 Fig. 157; Tecco Hvala 2012:44, 346, 426
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse[278]	Protome	None	Bronze	X: 6.1 cm Y: 1.7 cm Z: 2.9 cm		PM 34-25-40/ 8567
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**43**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Hencken 1978:28, 40, 140 Fig. 100, 180 Fig. 165; Tecco Hvala 2012:44, 346, 427
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 5.6 cm Y: 2.2 cm Z: 3.4 cm		PM 34-25-40/ 8602

[278] One of the few Eastern Alpine animal head fibulae for which species was identifiable – in this case as a horse on the basis of an incised mane.

<u>COMPLEX</u>: Magdalenska gora
Site: Preloge

- Nearest Town: Zgornja Slivnica
- Type of Site: Tumulus Cemetery
- Publications:
  - Hencken, Hugh (1978) *The Iron Age Cemetery of Magdalenska Gora in Slovenia*. Mecklenburg Collection Papers. American School of Prehistoric Research, Bulletin 32. Harvard University Press, Cambridge, MA.
  - Tecco Hvala, Sneža, Janez Dular, and Eva Kocuvan (2004) *Železnodobne gomile na Magdalenski gori / Eisenzeitliche Grabhügel auf der Magdalenska gora*. Katalogi in Monografije 36 / Catalogi et Monographiae 36. Narodni muzej Slovenije, Ljubljana.
  - Tecco Hvala, Sneža (2012) *Magdalenska gora: Družbena struktura in grobni rituali železnodobne skupnosti / Magdalenska gora: Social structure and burial rites of the Iron Age community*. Opera Instituti Archaeologici Sloveniae 26. Inštitut za arheologijo ZRC SAZU, Založba ZRC, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**11**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Child	✓	-	Tecco Hvala 2012:20, 37, 44, 259, 346, 411; Tecco Hvala et al. 2004: 124-125, 128, Pl. 20B

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse Bird	Full Body	Animals	Bronze	X: 5.5 cm Y: 3.1 cm Z: 2.1 cm		NHMW 22055

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**13**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Tecco Hvala 2012:20, 44, 81, 89, 128, 159, 346, 411; Tecco Hvala et al. 2004:124-125, 129, Pls. 23-27

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium Unknown	Whole	Unknown	Mandible, teeth, unknown. Excavator implied full skeleton.	NHMW 22100

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Bird Pegasus	Full Body Eating Moving Procession	Animals	Bronze	X: 32.5 cm Y: 6.8 cm		NHMW 22083
Bridle Button	Cattle	Protome	None	Lead	X: 1.5 cm Y: 1.1 cm Z: 0.8 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: 1.4 cm Y: 1.1 cm Z: 1.0 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: 1.4 cm Y: 1.1 cm Z: 0.9 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: 1.5 cm Y: 1.1 cm Z: 0.6 cm		NHMW 22109

Bridle Button	Cattle	Protome	None	Lead	X: 1.4 cm Y: 1.1 cm Z: 0.7 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: 1.2 cm Y: 0.9 cm Z: 0.4 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: too bent Y: 1.2 cm Z: 0.6 cm		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	Fragmentary		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	Fragmentary		NHMW 22109
Bridle Button	Cattle	Protome	None	Lead	X: 1.4 cm Y: 1.1 cm Z: 0.7 cm		NHMW 22109

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**17**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Tecco Hvala et al. 2004:36-37, Pl. 20E

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Unknown	Unknown	Bronze	Unknown	None available	NHMW 22616 (missing)

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**31**	Indeterminate	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346, 412; Tecco Hvala et al. 2004:124-125, 131, Pl. 32A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Protome: X: 3.81 cm Y: 4.55 cm Z: 3.14 cm		NHMW 22678

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**32**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346, 412; Tecco Hvala et al. 2004:124-125, 131, Pl. 32B

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 16.4 cm		NHMW 22680

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**34**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346, 412; Tecco Hvala et al. 2004:124-125, 132, Pl. 33A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	Y: 11.4 cm		NHMW 22685

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**38**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:20, 33, 346, 412; Tecco Hvala et al. 2004:124-125, 132, Pls. 34-36

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Phalera	Horse	Protome Eating	Animals Humans	Lead	X: 4.0 Y: 4.0 Z: 0.4		NHMW 22912

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**44**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Tecco Hvala 2012:20, 44, 346, 412; Tecco Hvala et al. 2004:124-125, 133, Pl. 33D

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals Unknown	Ceramic	X: 13.9 cm		NHMW 22955

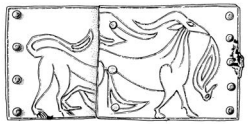
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**46**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346, 412; Tecco Hvala et al. 2004: 124-125, 134, Pl. 41-44A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Horse Bird Snake	Full Body Eating Harnessed With Rider Predation	Animals Humans Boxing	Bronze	X: 25.4 cm Y: 10.3 cm		NHMW 22962

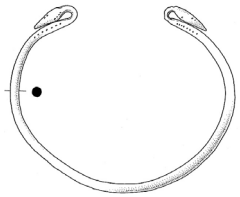
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**57**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	✓	Dular 2003:134 Fig. 78; 2007:738; Tecco Hvala 2012:20, 31, 44, 89, 346, 413; Tecco Hvala et al. 2004:124-125, 135-136, Pls. 50-52

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Unknown	Unknown	Unknown	Unknown	Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**58**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346; Tecco Hvala et al. 2004:124-125, 136, Pls. 53-54A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Goat Bird Lion Mammal (indt)	Full Body Sexed Predation	Animals	Bronze	X: 14.6 cm		NHMW missing
Horn-Handled Bowl	Cattle	Protome	Animals	Ceramic	Handle: X: 5.9 cm Y: 6.8 cm Z: 4.4 cm		NHMW 86635

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**67**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	-	-	Tecco Hvala et al. 2004:46 Pl. 59a

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Torc	Snake	Protome Body Suggested	Animals	Bronze	X: 13.5 cm		NHMW 86682

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**69**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	-	Tecco Hvala 2012:20, 31, 44, 89, 346, 413; Tecco Hvala et al. 2004:124-125, 138, Pl. 58

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Unknown	1?	Cranium	Teeth	Field	Teeth	Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**88**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Probable Adult	✓	-	Dular 2007:738; Tecco Hvala 2012:20, 31, 44, 346, 414; Tecco Hvala et al. 2004:124-125, 140, Pl. 63

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Teeth	Field	Teeth	Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**a**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:20, 37, 44, 284, 346, 410; Tecco Hvala et al. 2004:124-125, Pls. 7-8

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Horse Goat Bird Duck Red Deer Deer (indt) Ungulate Mammal (indt)	Full Body Sexed Moving Procession Cultural Material on Body Unknown	Animals Humans Axe Man Boxing Music Unknown	Bronze	X: 20.2 cm Y: 25.8 cm		Nm P 4280

		Situla	Bird Water Bird	Full Body Moving Procession	Animals Circle-and-Dot	Bronze	X: 21.8 cm Y: 24.8 cm	 279	Nm P 4283
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
2	**b**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Tecco Hvala 2012:20, 44, 346, 410; Tecco Hvala et al. 2004:124-125, Pl. 9
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Sheep	Protome	None	Bronze	X: 7.4 cm Y: 2.4 cm Z: 3.3 cm		Nm P 4000
		Fibula	Sheep	Protome	None	Bronze	X: 7.4 cm Y: 2.2 cm Z: 3.4 cm		Nm P 4001
		Situla	Horse Bird	Full Body Moving Procession Harnessed	Animals Humans	Bronze	X: 19.6 cm Y: 24.0 cm Z: 12 cm (base)	 280	Nm P 4281

[279] Photos of both situlae by Tomaž Lauko, © Narodni muzej Slovenije.
[280] Photo by Tomaž Lauko, © Narodni muzej Slovenije.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**c**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Child	✓	-	Tecco Hvala 2012:20, 37, 44, 259, 346, 410; Tecco Hvala et al. 2004:124-125, Pl. 10A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse Bird	Full Body Moving Harnessed	Animals Humans Chariot Circle-and-Dot	Bronze	X: 5.3 cm Y: 2.7 cm Z: 1.6 cm		Nm P 4004

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**o**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Child	-	-	Tecco Hvala 2012:20, 37, 44, 346, 411; Tecco Hvala et al. 2004:124-125, 127, Pl. 14B

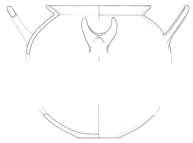
Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird Feline	Full Body Predation	Animals	Bronze	X: 4.2 cm Y: 2.3 cm Z: 0.5 cm		Nm P 4002
Fibula	Bird Feline	Full Body Predation	Animals	Bronze	X: 4.2 cm Y: 2.3 cm Z: 0.6 cm		Nm P 4003

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**p**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:20, 44, 346, 411; Tecco Hvala et al. 2004:124-125, 127, Pl. 14

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Horse Bird	Full Body Moving Procession Harnessed Unknown	Animals Humans Axe Man Boxing Unknown	Bronze	X: 27.0 cm Z: 26.5 cm	 [281]	Nm P 4282

[281] Photo by Tomaž Lauko, © Narodni muzej Slovenije.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**10**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	✓	-	Tecco Hvala 2012:27, 45, 346, 375, 414; Tecco Hvala et al. 2004:142-144, Pls. 68-69A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Crater	Mammal (indt)	Protome	Unknown	Ceramic	X: 21.4 cm		NHMW 27377
Crater	Mammal (indt)	Protome	Animals	Ceramic	X: 16.4 cm		NHMW 27378

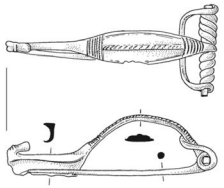
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**53**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:27, 45, 346, 416; Tecco Hvala et al. 2004:142-143, 149, Pl. 82B

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.3 cm Y: 2.5 cm Z: 4.9 cm		NHMW 27530

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**55**	Late Ha	Non-Sample	Problematic	Double Grave – Probable Male and Female	Indeterminate	-	-	Dular 2003:139 Fig. 81; Tecco Hvala 2012:27, 44, 83, 84 Fig. 34A, 346, 416; Tecco Hvala et al. 2004:142-143, 149, Pl. 83-85

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Helmet	Mammal (indt)	Full Body	None	Bronze	X: 29.25 cm Y: 18.5 cm Z: 34.0 cm		NHMW 27547
Situla	Bird Duck Red Deer Deer (indt) Ibex Ungulate	Full Body Sexed Eating Moving Procession Harnessed Unknown	Animals Humans Axe Man Feasting Music Circle-and-Dot	Bronze	X: 15.7 cm Y: 19.4 cm		NHMW 27550

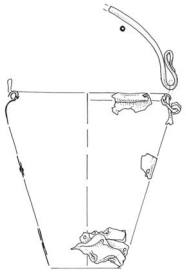
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**65**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	✓	-	Tecco Hvala et al. 2004:63, Pl. 88C

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 6.5 cm		NHMW 27582

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**87**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:22, 27, 45, 89, 346, 417; Tecco Hvala et al. 2004:142-143, 152-153, Pl. 95A

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Dog	1	Cranium	Tooth	Unknown	Canine tooth	NHMW 27674

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**95**	Early Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	✓	Tecco Hvala 2012:22, 27, 62, 66-67, 93-94, 234-235; Tecco Hvala et al. 2004:67, Pl. 97B-98A

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Situla	Bird	Protome	Animals	Bronze	17.0 cm		NHMW 27697

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**97**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:27, 43, 346, 417; Tecco Hvala et al. 2004:142-143, 154, Pl. 100

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.7 cm Y: 0.9 cm Z: 0.8 cm		NHMW 27727

Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.9 cm Z: 0.7 cm		NHMW 27727
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.7 cm Y: 1.0 cm Z: 0.8 cm		NHMW 27727
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.5 cm Y: 0.8 cm Z: 0.7 cm		NHMW 27727
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.7 cm Z: 0.8 cm		NHMW 27727
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 1.0 cm Z: 0.7 cm		NHMW 27727
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.7 cm Z: 0.7 cm		NHMW 27728

Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.7 cm Z: 0.7 cm		NHMW 27728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.7 cm Z: 0.7 cm		NHMW 27728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.7 cm Z: 0.7 cm		NHMW 27728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.6 cm Z: 0.7 cm		NHMW 27728

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**117**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:27, 37, 45, 346, 418; Tecco Hvala et al. 2004:142-142, 156, Pls. 105-106

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Canid	Full Body	Animals	Bronze	X: 3.4 cm Y: 1.9 cm Z: 2.2 cm		NHMW 27784

Earring	Canid	Full Body	Animals	Bronze	X: 3.4 cm Y: 1.9 cm Z: 2.2 cm		NHMW 27784
Earring	Canid	Full Body	Animals	Bronze	X: 3.3 cm Y: 2.1 cm Z: 2.5 cm		NHMW 27785
Earring	Canid	Full Body	Animals	Bronze	X: 3.4 cm Y: 2.1 cm Z: 2.4 cm		NHMW 27785
Earring	Hare	Full Body	Animals	Bronze	X: 2.6 cm		NHMW 27787
Earring	Hare	Full Body	Animals	Bronze	X: 2.5 cm Y: 1.7 cm Z: 1.5 cm		NHMW 27787

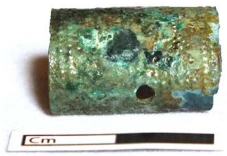
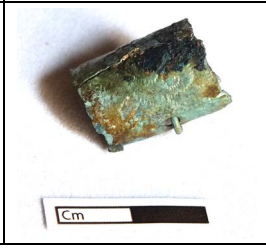
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**119**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Dular 2007:738; Tecco Hvala 2012:27, 31, 37, 45, 89, 346; Tecco Hvala et al. 2004:142-142, 156, Pls. 107-109
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium Unknown	Unknown	Field	Teeth, unknown		Not collected?
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals Circle-and-Dot	Bronze	X: 18.0 cm Z: 11.2 cm (base)		NHMW 27828

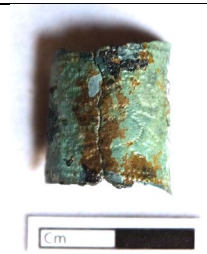
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**132**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Tecco Hvala 2012:22, 27, 31, 45, 89, 346; Tecco Hvala et al. 2004:142-143, 158, Pl. 113B
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Goat	1	Cranium	Horn	Unknown	Horn		NHMW 27862

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**150**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Tecco Hvala 2012:27, 37, 45, 346, 419; Tecco Hvala et al. 2004:142-143, 160, Pl. 117A
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 5.8 cm Y: 2.2 cm Z: 3.1 cm		NHMW 27920

		Fibula	Horse	Protome Unknown	Unknown	Bronze	Unknown	-	NHMW missing

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
13	**160**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:27, 45, 346, 420; Tecco Hvala et al. 2004:142-143, 161, Pl. 120B

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Indeterminate	Unknown	Unknown	Bronze	X: 1.9 cm		NHMW 27967
Earring	Indeterminate	Unknown	Unknown	Bronze	X: 2.0 cm Y: 0.9 cm		NHMW 27967
Earring	Indeterminate	Unknown	Unknown	Bronze	X: 2.1 cm Y: 1.8 cm		NHMW 27967

		Earring	Indeterminate	Unknown	Unknown	Bronze	X: 1.7 cm Y: 1.3 cm		NHMW 27967
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
13	**163**	Early Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	✓	-	Tecco Hvala 2012:26-27, 45, 63-64, 79, 94, 346, 375-376, 420; Tecco Hvala et al. 2004:142-143, 162, Pls. 123-124
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Sheep/Goat	1?	Unknown	Unknown	Field	"Unburned bones of a caprovid" (Tecco Hvala 2012:31)		Not collected?
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
13	**Individual Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Tecco Hvala 2012:27; Tecco Hvala et al. 2004:142-143, 163, Pl. 125
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Canid	Protome	None	Bronze	X: 4.9 cm Y: 1.5 cm		NHMW 28029
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.8 cm Y: 1.8 cm Z: 2.9 cm		NHMW 28030

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**2a**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Hencken 1978:13, 98 Fig. 13; Tecco Hvala 2012:44, 346, 422

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Bird	Full Body	Animals	Bronze	X: 1.7 cm Y: 2.0 cm Z: 1.9 cm		PM 34-25-40/ 8071

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**15**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Hencken 1978:13, 15, 100 Fig. 25; Tecco Hvala 2012:44, 346, 422

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird Feline	Full Body Predation	Animals	Bronze	X: 4.6 cm Y: 2.3 cm Z: 0.2 cm		PM 34-25-40/ 8101

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**17**	Indeterminate	Non-Sample	Unreliable	Probable Female	Probable Adult	-	-	Hencken 1978:13, 15; Tecco Hvala 2012:44, 346

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Ungulate	1?	Cranium	Horn	Unknown	"Two worked pieces of horn" (Hencken 1978:15)	PM missing

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**3 [M[282]]**	Early Ha	Non-Sample	Unreliable	Male	Adult	✓	-	Angel 1968:95; Hencken 1978:17-18, 108 Fig. 39; Tecco Hvala 2012:44, 346, 423; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Helmet	Sphinx	Body Suggested	Animals	Bronze	X: 19.0 cm[283] Y: 18.0 cm Z: 20.0 cm		PM 34-25-40/ 8152

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**3 [Pečnik]**	Early Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Tecco Hvala 2012:44-45, 346, 414; Tecco Hvala et al. 2004:25, 50, 141, Pl. 65C

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 13.6 cm Y: 14.4 cm		NHMW 55491

[282] Excavated by the Duchess of Mecklenburg

[283] Helmet was measured without the brim originally. Brim identified under two additional inventory numbers in November 2016 by Sneža Tecco Hvala and reconstructed by myself. See Figure II.19 for side view showing sphinxs and bowl of helmet prior to reconstruction.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**16**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Hencken 1978:20, 113 Fig. 52; Tecco Hvala 2012:44, 346, 423; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Phalera	Horse	Protome Harnessed Circle-and-Dot	Animals Circle-and-Dot	Tin-Lead Alloy	X: 3.9 cm Y: 4.4 cm Z: 0.8 cm		PM 34-25-40/ 8192

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**19**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	-	-	Hencken 1978:17, 20, 115 Fig. 55; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 5.8 cm Y: 1.6 cm Z: 3.0 cm		PM 34-25-40/ 8199
Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm Y: 1.7 cm Z: 1.5 cm		PM 34-25-40/ 8200

Earring	Hare	Full Body	Animals	Bronze	X: 2.0 cm Y: 1.7 cm Z: 1.5 cm		PM 34-25-40/ 8200
Earring	Hare	Full Body	Animals	Bronze	X: 1.8 cm Y: 1.6 cm Z: 1.5 cm		PM 34-25-40/ 8200
Earring	Hare	Full Body	Animals	Bronze	X: 1.8 cm Y: 1.8 cm Z: 1.7 cm		PM 34-25-40/ 8201
Earring	Hare	Full Body	Animals	Bronze	X: 1.7 cm Y: 1.8 cm Z: 1.7 cm		PM 34-25-40/ 8201

		Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 1.8 cm Y: 1.0 cm Z: 1.5 cm		PM 34-25-40/ 8202
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
IV	**24**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	✓	-	Hencken 1978:17, 21, 118 Fig. 62; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Indeterminate	Mammal (indt)	Protome	None	Iron Glass	X: 0.1 cm Y: 2.7 cm Z: 0.9 cm		PM 34-25-40/ 8222
		Indeterminate	Mammal (indt)	Protome	None	Iron Glass	X: 0.1 cm Y: 2.5 cm Z: 0.8 cm		PM 34-25-40/ 8222
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
IV	**30**	Late Ha	Non-Sample	Unreliable	Male	Adult	-	✓	Angel 1968:95; Hencken 1978:17, 22, 121 Fig. 69; Tecco Hvala et al. 2004:25, 50
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Unknown	Unknown	Field	Unknown[284]		Not collected?

[284] Referred to as "Horse Grave I" by the excavator. Other graves designated "horse grave" contained whole horse skeletons (Hencken 1978:22).

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**30a**	Late Ha	Non-Sample	Unreliable	Probable Female	Probable Adult	-	-	Hencken 1978:17, 22, 122 Fig. 70; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.1 cm Y: 3.0 cm Z: 2.4 cm		PM 34-25-40/ 8247

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**32**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Dular 2007:738; Hencken 1978:17, 23, 123 Fig. 72; Tecco Hvala 2012:44, 346; Tecco Hvala et al. 2004:25, 50

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Trunk	Partial	Unknown	Rib, scapula, vertebrae	PM 34-25-40/ 7677

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 14 cm Y: 8.5 cm Z: 0.7 cm		PM 34-25-40/ 8261
Situla	Bird	Protome	Animals	Bronze	Y: 22 cm		PM 34-25-40/ 8262

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**34**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	✓	-	Hencken 1978:17, 24, 125 Fig. 75; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.7 cm Z: 0.8 cm		PM 34-25-40/ 8278

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**38**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Hencken 1978:17, 24, 127 Fig. 79; Ložar 1934:12; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome	None	Bronze	X: 5.8 cm Y: 1.9 cm Z: 4.1 cm		Nm P 6804

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**40**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Hencken 1978:17, 25, 127 Fig. 81; Tecco Hvala 2012:44, 346, 424; Tecco Hvala et al. 2004:25, 50

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Unknown	Whole	Unknown	Unknown[285]	PM missing

[285] Called "Horse Grave III" by the excavator, and assumed to have contained a full skeleton (Hencken 1978:35).

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**43**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	✓	✓	Bökönyi 1968:11-12; Dular 2007:738; Hencken 1978:17, 25-26, 130-132 Figs. 84-86; Tecco Hvala 2012:44, 89, 109-110, 424; Tecco Hvala et al. 2004:25, 50

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Cattle	7	Lower Limbs	Partial	Specialist	Astragali (7 left and 2 right), calcanei, centrotarsal (L)	PM 34-25-40/ 7678
Horse	1	Cranium Upper Limbs Trunk Lower Limbs	Whole	Specialist	Cranial fragments, deciduous and permanent upper premolars, permanent upper molars, mandible, deciduous lower incisor, deciduous and permanent lower premolars, permanent lower molars, vertebrae, rib fragment, scapula fragments, humeri, radii, ulnae, carpals, metacarpals and anterior phalanges, innominates, femurs, patellae, tibiae, astragali, calcanei, tarsals, metatarsals, posterior phalanges	PM 34-25-40/ 7678

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**8**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Hencken 1978:41-43, 192 Fig. 182; Tecco Hvala 2012:45, 81, 346, 427

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 5.9 cm Y: 2.6 cm Z: 2.2 cm		PM 34-25-40/ 8653

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**30**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Hencken 1978:41-42, 47, 205 Fig. 204; Tecco Hvala 2012:45, 346, 428

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.2 cm Y: 2.4 cm Z: 2.5 cm		PM 34-25-40/ 8714

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**33a**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Hencken 1978:41-42, 48, 208 Fig. 208; Tecco Hvala 2012:45, 346, 428

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 2.4 cm Y: 0.5 cm Z: 1.0 cm		PM 34-25-40/ 8727

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**34**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	✓	-	Hencken 1978:41-42, 48, 208 Fig. 209; Tecck Hvala 2012:45, 346, 428

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 6.3 cm Y: 1.4 cm Z: 3.1 cm		PM 34-25-40/ 8731

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**13**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	-	-	Hencken 1978:51, 53, 222 Fig. 232; Tecco Hvala 2012:45, 346, 429

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 6.7 cm Y: 1.9 cm		PM 34-25-40/ 9805

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**29**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Hencken 1978:51, 56; Tecco Hvala 2012:45, 346, 430

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Sheep/Goat	1	Trunk	Partial	Unknown	Vertebra	PM 40-77-40/ 7689

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**30**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Hencken 1978:51, 56, 232 Fig. 250; Tecco Hvala 2012:45, 346, 430

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Indeterminate	Full Body	None	Bronze	X: 1.6 cm Z: 1.5 cm		PM 34-25-40/ 14023

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**38**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	✓	-	Bökönyi 1968:14; Dular 2007:738; Hencken 1978:51, 57; Tecco Hvala 2012:45, 346
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Lower Limbs	Partial	Specialist	Tibia (L)		PM 34-25-40/ 7685
		Roe Deer	1	Cranium	Cranium	Specialist	Cranium (L)		PM 34-25-40/ 7685
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
VII	**39**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	✓	Dular 2007:738; Hencken 1978:51, 58, 237 Fig. 259; Tecco Hvala 2012:45, 159-160, 346, 350, 430
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium Unknown	Unknown	Unknown	"Some bones and teeth" (Hencken 1978:58)		PM missing
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
VII	**51**	Indeterminate	Non-Sample	Unreliable	Probable Male	Indeterminate	-	-	Hencken 1978:51, 61, 248 Fig. 273; Tecco Hvala 2012:45, 89, 346, 430
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Dog	1	Cranium	Tooth	Specialist	Pierced dog canine		PM 34-25-40/ 14101

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**Isolated Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Hencken 1978:62

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome	None	Bronze	X: 5.8 cm Y: 2.2 cm Z: 3.6 cm		Nm P 6807
Fibula	Bird	Body Suggested	None	Bronze	X: 6.5 cm Y: 2.6 cm		PM 34-25-40/ 14105

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VIII	**4**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Hencken 1978:62-63, 252 Fig. 279; Tecco Hvala 2012:45, 346, 431

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 5.3 cm Y: 1.4 cm Z: 2.3 cm		PM 34-25-40/ 14137

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**14**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Bökönyi 1968:14-15; Dular 2007:738; Hencken 1978:65-68, 260 Fig. 298, 266 Fig. 307; Tecco Hvala 2012:45, 85, 89, 346, 432
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Tooth	Specialist	Lower M3 (L)		PM 34-25-40/ 7680
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**18**	Late Ha	Non-Sample	Problematic	Female	Adult	-	-	Angel 1968:97; Bökönyi 1968:15; Dular 2007:738; Hencken 1978:65-68, 260 Fig. 298, 266 Fig. 307; Tecco Hvala 2012:45, 89, 346
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Tooth	Specialist	Upper premolar (L)		PM 34-25-40/ 7680
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**28**	Indeterminate	Non-Sample	Unreliable	Male	Adult	-	-	Angel 1968:95; Bökönyi 1968:15; Dular 2007:738; Hencken 1978:65-66, 70, 260 Fig. 298, 273 Fig. 319; Tecco Hvala 2012:45, 89, 432
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Tooth	Specialist	Upper M3 (R)		PM 34-25-40/ 7680 or 34-25-40/14413

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**36**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	✓	-	Hencken 1978:65-66, 72, 260 Fig. 298, 278 Fig. 327; Tecco Hvala 2012:45, 346, 433

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 7.0 cm Y: 2.1 cm Z: 3.2 cm		PM 34-25-40/ 14297

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**43**	Late Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Hencken 1978:65-66, 73-74, 260 Fig. 298, 281 Fig. 334

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 1.9 cm Z: 1.5 cm		PM 34-25-40/ 14321
Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 2.0 cm Y: 0.9 cm Z: 1.7 cm		PM 34-25-40/ 14321

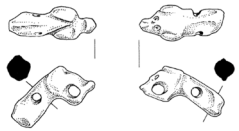
		Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 1.9 cm Y: 1.7 cm Z: 1.6 cm		PM 34-25-40/ 14321
		Earring	Mammal (indt)	Full Body	Animals	Bronze	X: 1.9 cm Y: 0.8 cm Z: 1.6 cm		PM 34-25-40/ 14321
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**48**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Hencken 1978:65-66, 74, 260 Fig. 298, 284 Fig. 338; Tecco Hvala 2012:45, 346, 433
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Sheep	Protome	None	Bronze	X: 7.1 cm Y: 2.2 cm Z: 3.3 cm		PM 34-25-40/ 14405
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**50**	Late Ha	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Hencken 1978:65-66, 74-75, 260 Fig. 298, 284 Fig. 339; Tecco Hvala 2012:45, 346, 433
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Canid	Protome Body Suggested	None	Bronze	X: 6.5 cm Y: 2.2 cm Z: 0.8 cm		NM P 6795a

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**52**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	-	-	Bökönyi n.d.; Hencken 1978:65-66, 75-76, 260 Fig. 298; Tecco Hvala 2012:45, 346
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Sus spp.	1	Unknown	Unknown	Specialist	Unknown[286]		PM 34-25-40/ 7686
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**71**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Probable Adult	-	-	Hencken 1978:65-66, 78-79, 260 Fig. 298, 292 Fig. 355; Tecco Hvala 2012:45, 346, 434
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Bird	Protome Body Suggested	None	Bronze	X: 4.4 cm Y: 2.1 cm		PM 34-25-40/ 9269
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
X	**76**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	-	-	Hencken 1978:65-66, 80, 260 Fig. 298, 295 Fig. 360; Tecco Hvala 2012:45, 346, 434
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.3 cm Y: 1.5 cm Z: 2.9 cm		PM 34-25-40/ 9289

[286] Though Dr. Sándor Bökönyi assessed these remains, he only indicated that they were "Sus" and gave no details as to the elements represented (Bökönyi n.d.).

<u>COMPLEX</u>: Magdalenska gora
Site: Voselca

- Nearest Town: Hrastje
- Type of Site: Tumulus Cemetery
- Publications:
  - Tecco Hvala, Sneža, Janez Dular, and Eva Kocuvan (2004) *Železnodobne gomile na Magdalenski gori / Eisenzeitliche Grabhügel auf der Magdalenska gora*. Katalogi in Monografije 36 / Catalogi et Monographiae 36. Narodni muzej Slovenije, Ljubljana.
  - Tecco Hvala, Sneža (2012) *Magdalenska gora: Družbena struktura in grobni rituali železnodobne skupnosti / Magdalenska gora: Social structure and burial rites of the Iron Age community*. Opera Instituti Archaeologici Sloveniae 26. Inštitut za arheologijo ZRC SAZU, Založba ZRC, Ljubljana.

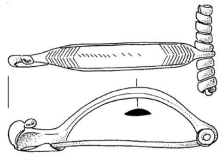
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1	1	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	✓	-	Tecco Hvala et al. 2004:81, Pls. 127-129
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Torc	Mammal (indt)	Protome	Animals	Bronze	X: 3.0 cm		NHMW 21740

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	6	Early Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Tecco Hvala 2012:44, 224-225, 328, 346, 420; Tecco Hvala et al. 2004:165-166, Pl. 133
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Duck	Full Body	Animals	Ceramic	X: 13.2 cm Y: 8.3 cm Z: 14.8 cm		NHMW 21930

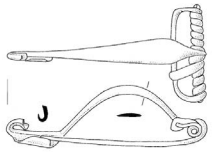
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**11**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Dular 2003:143 Fig. 85; Tecco Hvala 2012:44, 346, 421; Tecco Hvala et al. 2004:165-167, Pl. 135

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.3 cm Y: 2.4 cm Z: 3.3 cm		NHMW 21822
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.2 cm Y: 2.4 cm Z: 3.4 cm		NHMW 21823

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**17**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Tecco Hvala et al. 2004:86 Pl. 137

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 6.4 cm		NHMW 21856

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
2	**21**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	✓	-	Tecco Hvala et al. 2004:87, Pl. 139

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 7.2 cm		NHMW 21896

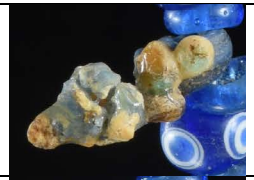
COMPLEX: N/A
Site: Medvedjek

- Nearest Town: Veliki Gaber
- Type of Site: Tumulus Cemetery
- Publications:
  - Breščak, Danilo (1982) Veliki Gaber. *Varstvo spomenikov (Monuments Conservation)* XXIV: 156–157.
  - Breščak, Danilo (1990) Medvedjek, Trebnje. *Arheo* Special Edition: Arheološka najdišča Dolenjske. Posebna številka, izdana ob 100-letnici arheoloških raziskav v Novem mestu 13. 9. 1890 - 13. 9. 1990: 43–44.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**8**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Breščak 1982:157 Fig. 24
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.9 cm Y: 2.1 cm Z: 3.9 cm		DM P 4718

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**17**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Breščak 1982:157, 158 Fig. 25, 1990:44
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	Unknown[287]		Dm P 4758

[287] I did not examine these beads in person or measure them since they were out of the country as part of a traveling exhibit during my research visit. The images of the beads are close-ups from a photograph of the entire necklace, kindly provided by the Dolenjski muzej.

Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758
Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758
Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758
Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758
Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758
Ram’s Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 4758

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**36**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Breščak 1990:44; Dular 2007:739-740 Fig. 1, 745

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium	Cranium	Specialist[288]	Upper and lower premolars and molars (left and right), maxillary fragments (left and right), mandibular fragments (left and right)	Dm P 4797

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 27.5 cm Y: 15.0 cm		Dm P 6411

[288] These are the only faunal remains that I personally examined. The remains included parts of the mandible and both maxillae with molars and premolars still in the alveolar processes. It is unclear if these were the only bones deposited or if the rest of the facial and cranial bones were not preserved, however mandibular and maxillary bones and teeth are preserved positioned in such a way that the jaws were likely interred articulated.

<u>COMPLEX</u>: Metlika
Site: Borštek

- Nearest Town: Metlika
- Type of Site: Flat Cemetery
- Publications:
    - Dular, Janez (1979) Žarno Grobišče na Borštku v Metliki / Das Urnenfeld auf Borštek in Metlika. *Arheološki vestnik* 30: 65–100
    - Dular, Janez (1985b) Borštek. In *Arheološka topografija Slovenije: Topografsko področje XI (Bela krajina)*, pp. 89. Slovenska akademija znanosti in umetnosti, Ljubljana.

- No zoomorphic or zooarchaeological finds pertinent to the study.

COMPLEX: Metlika
Site: Hrib

- Nearest Town: Metlika
- Type of Site: Tumulus Cemetery
- Publications:
  - Grahek, Lucija (2004) Halštatska gomila na Hribu v Metliki / A Hallstatt tumulus at Hrib in Metlika. *Arheološki vestnik* 55: 111–206.
  - Grahek, Lucija (2014) Metlika. In *Absolutno datiranje bronaste in železne dobe na Slovenskem / Absolute dating of the Bronze and Iron Ages in Slovenia*, edited by Biba Teržan and Matija Črešnar, pp. 519–523. Univerza v Ljubljani & Narodni muzej Slovenije, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**18**	Early Ha	In Sample	Reliable	Indeterminate	Probable Child	✓	-	Grahek 2004:116, 177-178, 180, Pl. 3, Pl. 18
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Pendant	Cowry	Full Body	None	Bronze	X: 1.1 cm Y: 2.2 cm Z: 0.8 cm		Bm A 536

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**80**	Early Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Grahek 2004:170, 177-178, 180, Pl. 12, Pl. 23
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Pendant	Cowry	Full Body	Animals	Bronze	Cowry/Full Pendant: X: 1.3 cm/ 4.9 cm Y: 2.5 cm/ 12.9 cm Z: 0.8 cm [only cowry]		Bm A 592

<u>COMPLEX</u>: Metlika
Site: Metlika

- Nearest Town: Metlika
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez (1985d) Proštijski vrt. In *Arheološka topografija Slovenije: Topografsko področje XI (Bela krajina)*, p. 91. Slovenska akademija znanosti in umetnosti, Ljubljana.
    - Dular, Janez (1985e) Veisovo dvorišče. In *Arheološka topografija Slovenije: Topografsko področje XI (Bela krajina)*, p. 93. Slovenska akademija znanosti in umetnosti, Ljubljana.
    - Biščak, Danilo (1992) Metlika. *Varstvo spomenikov (Monuments Conservation)* 34: 255–256.

<u>COMPLEX</u>: Mokronog
Site: Križni vrh

- Nearest Town: Beli Grič
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1991) Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini / Befestigte prähistorische Siedlungen in der Mirenska dolina und der Temeniška dolina. *Arheološki vestnik* 42: 65–198.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: Mokronog
Site: Sv. Križ

- Nearest Town: Beli Grič
- Type of Site: Flat Cemetery; Tumulus Cemetery
- Publications:
    - Breščak, Danilo (1987) Beli grič. *Varstvo spomenikov (Monuments Conservation)* 29: 238-239.
    - Svoljšak, Drago (1990) Mokronog. Trebnje. In *Arheološka najdišča Dolenjske : posebna številka, izdana ob 100-letnici archeoloških raziskav v Novem Mestu 13.9.1890-13.9.1990*, edited by Danilo Breščak, pp. 49-52. Arheo – Dossier Dolenjska. Narodni Muzej Slovenije, Ljubljana.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

COMPLEX: Molnik
Site: Grmada

- Nearest Town: Podmolnik
- Type of Site: Tumulus Cemetery
- Publications:
  - Puš, Ivan (1983) Podmolnik. *Varstvo spomenikov (Monuments Conservation)* XXV: 205–208.
  - Puš, Ivan (1986) Molnik. *Varstvo spomenikov (Monuments Conservation)* 28: 248.
  - Puš, Ivan (1987) Molnik. *Varstvo spomenikov (Monuments Conservation)* 29: 243–244.
  - Puš, Ivan (1991) Molnik, sedež prazgodovinskih knezov. *Zbirka Varia* 4. Mestni muzej, Ljubljana.
  - Tecco Hvala, Sneža (ed.) (Forthcoming) *Molnik pri Ljubljani v železni dobi / The Iron Age Site at Molnik near Ljubljana (Central Slovenia)*. Opera Instituti Archaeologici Sloveniae. Inštitut za arheologijo ZRC SAZU: Založba ZRC, Ljubljana.

Tumulus Number	Grave Number	Period	Sample	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
17	**6**	Early Ha	In Sample	Reliable	Probable Male	Adult	✓	✓	Puš 1987:243; Tecco Hvala et al. forthcoming
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Equus caballus	1	Cranium Upper limbs Lower limbs	Partial	Specialist	Tooth, humerus (L), ulna (L), radius, metacarpal (R), carpal (L), sesamoid, femur (R), metatarsal (L), calcaneus (L), tarsal (L), tarsal (R), phalanx		MmL unknown
		Sus scrofa domesticus	1	Upper limbs Trunk	Partial	Specialist	Humerus (L), cervical vertebra		MmL unknown
		Indeterminate	N/A	Cranium Trunk	Partial	Specialist	Cranial fragments, rib fragments, indeterminate elements		MmL unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
17	**10**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Puš 1987:243-244; Tecco Hvala et al. forthcoming

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Dog Red Deer	Full body Sexed Eating Hunting	Animals Humans	Bronze	X: 17 cm; 22.7 cm (original) Y: 10 cm Z: 0.01 cm		MmL 510

<u>COMPLEX</u>: Molnik
Site: Roje

- Nearest town: Orle
- Type of site: Flat Cemetery
- Publications:
    - Puš, Ivan (1984) Prazgodovinski Molnik / Das Vorgeschichtliche Molnik. *Arheološki vestnik* XXXV: 135–162.
    - Tomazo Ravnik, Tatjana (1984) Antropološko poročilo z grobišča Molnik / Anthropologischer Bericht aus der Nekropole Molnik. *Arheološki vestnik* XXXV: 163–165.
    - Tecco Hvala, Sneža (ed.) (Forthcoming) *Molnik pri Ljubljani v železni dobi / The Iron Age Site at Molnik near Ljubljana (Central Slovenia)*. Opera Instituti Archaeologici Sloveniae. Inštitut za arheologijo ZRC SAZU: Založba ZRC, Ljubljana.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

COMPLEX: Novo mesto
Site: Kandija[289]

- Nearest Town: Novo mesto
- Type of Site: Tumulus Cemetery
- Publications:
  - Knez, Tone (1986) *Novo mesto I: Halštatski grobovi / Novo mesto I: Hallstattzeitliche Gräber*. Dolenjski muzej, Novo mesto.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**3**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Knez 1986:67, Pl. 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Appliqué: X: 2.2 cm Y: 2.9 cm		Dm P 300

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**22**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Knez 1986:69, Pl. 5
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Bird Feline	Full Body Predation	Animals	Bronze	X: 3.3 cm Y: 2.0 cm Z: 0.5 cm		Dm P 365

[289] Also referred to as Znančeve njive in the literature (see Dular and Tecco Hvala 2007).

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**31**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	-	Knez 1986:71, Pl. 9

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Mammal (indt)	Protome	Animals	Ceramic	X: 11.8 cm Y: 22.9 cm Z: 14.3 cm		Dm P 430

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**Stray Finds**	N/A	In Sample	Unreliable	N/A	N/A	-	-	Knez 1986:72, Pl. 10

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Appliqué: X: 2.4 cm Y: 3.1 cm		Dm P 449

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**3**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	✓	-	Knez 1986:76, Pl. 11

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 9.9 cm Y: 9.5 cm		Dm P 493

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**5**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	-	Knez 1986:77, Pl. 15
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.4 cm Y: 2.8 cm Z: 2.4 cm		Dm P 534
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 6.2 cm[290] Y: 2.1 cm		Dm P 535

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**6**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	-	Knez 1986:77-78, Pls. 16-17; Križ 2012:96-97
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Goat Bird	Full Body Sexed Eating Procession	Animals	Bronze	Y: 28.0 cm		Dm P 543

[290] Measured with bow fragment, not photographed.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**2**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	-	Knez 1986:83-84, Pl. 23

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bracelet	Snake	Protome Body Suggested Circle-and-Dot	Animals	Bronze	X: 7.3 cm		Dm P 716

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**3**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Knez 1986:84, Pl. 24

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Mammal (indt)	Full Body Sexed	Animals	Ceramic	X: 18.0 cm		Dm P 735
Lid	Mammal (indt)	Protome	None	Ceramic	X: 13.7 cm Y: 7.3 cm		Dm P 736

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**31**	Indeterminate	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Knez 1986:86, Pls. 27 and 59
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 10.1 cm Y: 6.6 cm		Dm P 800
		Horn-Handled Bowl	Duck	Protome	Animals	Ceramic	X: 16.0 cm Y: 9.8 cm		Dm P 801

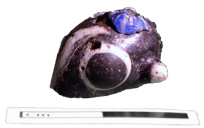
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**33**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Knez 1986:87, Pls. 28 and 59; Križ 2006:18
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Horse Bird Ungulate	Full Body Harnessed With Rider Moving Unknown	Animals Humans Axe Man Combat Music Circle-and-Dot Unknown	Bronze	X: 16.2 cm Y: 18.0 cm	 [291]	Dm P 821
		Situla	Horse Bird	Full Body Harnessed With Rider Unknown	Unknown	Bronze	X: 14.9 cm Y: 17.0 cm	 [292]	Dm P 822

[291] Križ 2012:70
[292] Križ 2012:74

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Stray Finds**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Knez 1986:87, Pl. 27
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Appliqué: X: 2.4 cm Y: 3.2 cm Z: 3.9 cm		Dm P 830

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**1**	Indeterminate	In Sample	Reliable	Probable Male	Indeterminate	-	-	Knez 1986:88, Pls. 29 and 60
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 31.0 cm Y: 18.0 cm		Dm P 839

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**3**	Late Ha	In Sample	Reliable	Double Grave – Probable Male and Female	Probable Adult	✓	✓	Dular 2007:739; Knez 1986:88-90, Pls. 30-37, Appendices 2-3; Križ 2012:41, 78, 91; Križ et al. 2014
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Cranium	Field	Horse cranium		Dm Unknown
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	Unknown	No photograph	Dm P 852 [Stolen]
		Fibula	Indeterminate	Protome	None	Bronze	Unknown	No photograph	Dm P 853 [Stolen]

Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.7 cm Y: 1.2 cm Z: 1.3 cm		Dm P 270
Situla	Goat Bird	Protome Full Body Sexed Moving Procession Eating	Animals	Bronze	X: 19.5 cm Y: 21.0 cm		Dm P 237
Situla	Horse Bird	Full Body Moving Procession Harnessed With Rider Cultural Material on Body	Animals Humans	Bronze	X: 23.5 cm Y: 21.5 cm		Dm P 239
Cist	Bird	Protome	Animals Circle-and-Dot	Bronze	X: 22.0 cm Y: 20.0 cm	 [293]	Dm P 241
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 13.0 cm Y: 11.0 cm		Dm P 240

[293] Križ 2012:78

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**22**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Knez 1986:92, Pl. 41
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 22.4 cm Y: 24.5 cm		Dm P 915

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**28**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	✓	-	Knez 1986:92, Pls. 42 and 60
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.0 cm		Dm P 937

COMPLEX: Novo mesto
Site: Kapiteljska njiva

- Nearest Town: Novo mesto
- Type of Site: Flat Cemetery; Tumulus Cemetery
- Publications:
  - Knez, Tone (1986) *Novo mesto I: Halštatski grobovi / Novo mesto I: Hallstattzeitliche Gräber*. Carniola Archaeologica 1. Dolenjski muzej, Novo mesto.
  - Knez, Tone (1993) *Novo mesto III. Kapiteljska njiva. Knežja gomila / Novo mesto III. Kapiteljska njiva. Fürstengrabhügel*. Carniola Archaeologica 3. Dolenjski muzej, Novo mesto.
  - Križ, Borut (1997a) *Kapiteljska njiva: Novo mesto*. Dolenjski muzej, Novo mesto.
  - Križ, Borut (1997b) *Novo mesto IV: Kapiteljska njiva Gomila II in gomila III*. Carniola Archaeologica 4. Dolenjski muzej, Novo mesto.
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Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
A	**4**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Knez 1986:33, 42, 95, Pl. 45

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Fragmentary		Dm P 66021

		Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Unknown		Dm P 66021 [not found][294]
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
A	**30**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Knez 1986:33, 42, 97, Pl. 48
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.2 cm Y: 2.6 cm Z: 4.0 cm		NHMW 66076
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
B	**64**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	-	-	Knez 1986:33, 42, 100, Pl. 50
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Horse	Protome Body Suggested	None	Bronze	Y: 2.3 cm Z: 4.0 cm		NHMW 66153
		Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.3 cm Y: 2.8 cm Z: 2.8 cm		NHMW 66153

[294] Though the two items are listed under the same inventory number, they do not appear to be from the same vessel. It was not possible to identify the ceramic appliqué in the museum depot.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**Central Grave**	Early Ha	In Sample	Reliable	Indeterminate	Probable Adult	✓	✓	Knez 1993:35, 55, 57-62 Pls. 1-6; Križ 1997a:98, 2013:17-19; Križ et al. 2014:474, 477-478; Teržan 2014

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium	Cranium	Unknown[295]	Mandible (left), maxilla (left), seven incisors.	Dm P 1334

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**5**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Knez 1993:37, 55, 67 Pl. 11; Križ 2013:17-19; Križ et al. 2014:474

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird	Full Body	None	Bronze	X: 2.6 cm Y: 1.9 cm		Dm P 1372

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**15**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Knez 1993:39-40, 71 Pl. 15; Križ 2013:17-19; Križ et al. 2014:474

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 15.2 cm Y: 12.5 cm		Dm P 1402

[295] A photo of these remains was published in Knez 1993:61 Pl. 5 allowing clear identification of left mandible and maxilla with molars still in the sockets, and seven loose incisors.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**27**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Knez 1993:47, 55, 82 Pl. 26; Križ et al. 2014:474
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Lid	Mammal (indt)	Protome	None	Ceramic	X: 12.0 cm Y: 6.5 cm		Dm P 1430

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**34**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Knez 1993:50, 55, 86 Pl. 30; Križ et al. 2014:474
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 26.1 cm Y: 15.4 cm		Dm P 1465

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**24**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Križ 1997b:15-17, 47, 101 Pl. 15
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.3 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2054

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**12**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	✓	Križ 1997b:19, 24-28, 58, 122-125 Pls. 36-39, Appendices 3-4

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Dog Horse Bird Hare Canid Mammal (indt) Fish	Full Body Moving Harnessed Hunting	Animals Humans Sex Unknown	Bronze	X: 124.0 cm Y: 4.0 cm	[Too large for a single photo, see Appendix 3 for drawing]	Dm P 2162
Situla	Dog Horse Sheep Bird Duck Red Deer	Full Body Sexed Harnessed With Rider Cultural Material on Body Moving Eating Hunting Procession	Animals Humans Wagon Unknown	Bronze	X: 24.3 cm Y: 24.1 cm	 [296]	Dm P 2164
Phalera	Horse	Protome Unknown	Animals Unknown	Tin-Lead Alloy	X: 5.2 cm Y: 4.8 cm		Dm P 2161

[296] Križ 1997b:26

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**19**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ 1997b:19, 63-66, 133 Pl. 47, Appendix 2

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Mammal (indt)	Protome	None	Ceramic	X: 13.0 cm Y: 3.5 cm		Dm P 2194
Lid	Mammal (indt)	Protome	None	Ceramic	X: 12.5 cm Y: 4.0 cm		Dm P 2195
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 11.5 cm Y: 10.5 cm Z: 9.3 cm		Dm P 2196

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**36**	Indeterminate	In Sample	Reliable	Probable Female	Probable Adult	-	-	Križ 1997b:19, 74, 146 Pl. 60, Appendix 2

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 20.0 cm Y: 14.0 cm		Dm P 2262

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**46**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Križ 1997b:19, 78-79, 153 Pl. 67, Appendix 2

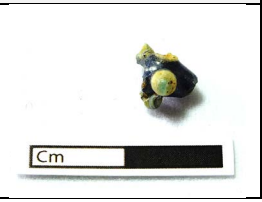
Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.3 cm Y: 3.0 cm Z: 3.1 cm		Dm P 2300

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**49**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ 1997v:19, 79-80, 155 Pl. 69, Appendix 2

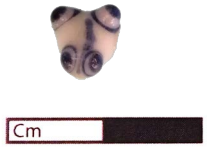
Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.4 cm Y: 1.3 cm Z: 1.3 cm		Dm P 2316

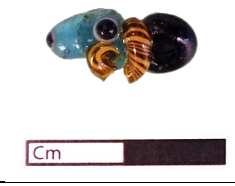
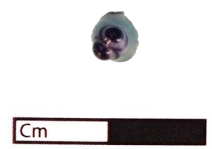
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**50**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Križ 1997b:19, 80, 156 Pl. 70, Appendix 2

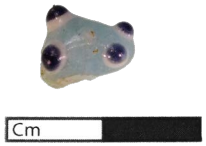
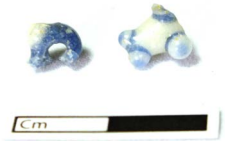
Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 7.5 cm Y: 2.2 cm		Dm P 2317

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**Stray Find**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Križ 1997b:19, 84, 161 Pl. 75
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Unknown	Ceramic	X: 2.1 cm Y: 4.3 cm Z: 2.0 cm		Dm P 2352
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
IV	**2**	Early Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ 2000:17-18, 47-48, 88 Pl. 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome Unknow	Unknown	Glass	Unknown	[No photos, object missing]	Dm P 2383 [missing]
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**31**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Križ 1997a:28, 2000:41, 61-62, 106 Pl. 20, Appendix 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.8 cm Z: 0.6 cm		Dm P 2479

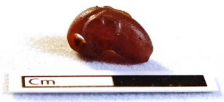
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.6 cm		Dm P 2479
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.8 cm Z: 0.7 cm		Dm P 2479
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.7 cm Y: 0.5 cm Z: 0.5 cm		Dm P 2479
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.7 cm		Dm P 2479
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**35**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ 2000:32-38, 41, 63-64, 108-110 Pl. 22-24, Appendix 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Avian Head Bead	Duck	Protome Body Suggested Circle-and-Dot	Animals	Amber	X: 1.5 cm Y: 0.7 cm Z: 1.4 cm		Dm P 2494

Avian Head Bead	Duck	Protome Body Suggested Circle-and-Dot	Animals	Amber	X: 1.5 cm Y: 0.9 cm Z: 1.5 cm		Dm P 2494
Avian Head Bead	Duck	Protome Body Suggested	Animals	Amber	X: 1.6 cm Y: 0.8 cm Z: 1.4\6 cm		Dm P 2494
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.6 cm Z: 0.6 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.8 cm Y: 0.4 cm Z: 0.7 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.8 cm Y: 0.4 cm Z: 0.7 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.6 cm Y: 0.4 cm Z: 0.4 cm		Dm P 2498

Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.6 cm Z: 0.6 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.5 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.7 cm Y: 0.5 cm Z: 0.5 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.7 cm Z: 0.6 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.6 cm Y: 0.5 cm Z: 0.5 cm		Dm P 2498
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2498

		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.6 cm Z: 0.7 cm		Dm P 2498
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**40**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Križ 2000:41, 65-66, 112 Pl. 26, Appendix 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.7 cm		Dm P 2503
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm		Dm P 2503
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
V	**45**	Indeterminate	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Križ 2000:41, 67-69, 115 Pl. 29, Appendix 2
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 30.5 cm Y: 20.0 cm		Dm P 2514

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**Stray Find**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Križ 2000:41, 83, 133 Pl. 47
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.7 cm Z: 0.7 cm		Dm P 2615

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**4**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	✓	-	Bakarić et al. 2006:186; Dolenjski muzej original documentation; Križ 1997a:28
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 7.0 cm	[Not photographed][297]	Dm P 2666
		Ram's Head Bead	Sheep	Protome	None	Amber	X: 1.2 cm Y: 0.6 cm Z: 0.6 cm		Dm P 2665
		Ram's Head Bead	Sheep	Protome	None	Amber	X: 1.0 cm Y: 0.6 cm Z: 0.6 cm		Dm P 2665

[297] Identified from in situ excavation photographs, the object could not be restored.

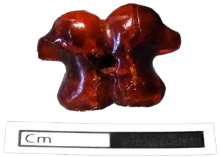
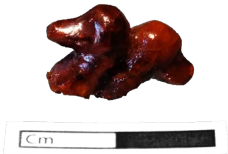
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**11**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Dolenjski muzej original documentation; Križ 1997a:117
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Lid	Mammal (indt)	Protome	Animals	Ceramic	X: 18.3 cm Y: 8.0 cm		Dm P 2676

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**16**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Bakarić et al. 2006:286-287; Dolenjski muzej original documentation; Križ 1997a:28, 77
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 1.4 cm Z: 1.6 cm		Dm P 2705

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**26**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Dolenjski muzej original documentation; Križ 1997a:28
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2728

Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.9 cm Z: 0.9 cm		Dm P 2728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.6 cm Z: 0.8 cm		Dm P 2728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.9 cm Z: 0.8 cm		Dm P 2728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.3 cm Y: 0.9 cm Z: 0.9 cm		Dm P 2728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.7 cm Y: 0.8 cm Z: 0.8 cm		Dm P 2728
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.7 cm Y: 0.9 cm Z: 0.8 cm		Dm P 2728

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**34**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Dolenjski muzej original documentation; Križ 1997a: 28, 74-75
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 16.1 cm Y: 14.1 cm Z: 9.2 cm		Dm P 2747
		Lid	Mammal (indt)	Protome	Animals	Ceramic	X: 17.0 cm		Dm P 2750

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**44**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	✓	-	Dolenjski muzej original documentation; Bakarić et al. 2006:188
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Avian Head Bead	Bird	Protome Body Suggested	Animals	Amber	X: 1.6 cm Y: 1.2 cm Z: 0.7 cm		Dm P 2762
		Avian Head Bead	Bird	Protome Body Suggested	Animals	Amber	X: 1.7 cm Y: 1.1 cm Z: 0.6 cm		Dm P 2762

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**Stray Find**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Križ 1997a:28, 90
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2770

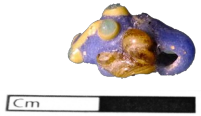
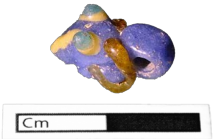
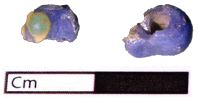
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**19**	Late Ha	In Sample	Reliable	Double Grave – Probable Male and Male	Probable Adult	✓	✓	Križ 1997a:29, 69-73, 2006:17, 2012:34
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 12.0 cm Y: 4.9 cm		Dm P 2907
		Situla	Bird Canid	Protome Full Body Predation Unknown	Animals Circle-and-Dot Unknown	Bronze	X: 18.0 cm Y: 23.5 cm	 [298]	Dm P 2908

[298] Križ 2012:116

		Cist	Bird	Protome	Animals	Bronze	X: 22.0 cm Y: 16.5 cm	 [299]	Dm P 2906
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
VII	**20**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Dolenjski muzej original documentation; Križ et al. 2009:281
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Kernos	Mammal (indt)	Protome	Animals	Ceramic	X: 25.3 cm		Dm P 2796
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
VII	**28**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	✓	-	Bakarić et al. 2006:189; Križ 1997a:29, 90; 2005:53;[300] Križ et al. 2009:257
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.8 cm Z: 0.9 cm		Dm P 2831

[299] Križ 2012:118

[300] Križ 1997a and 2005 have a typo and list these beads as coming from Grave VII/37 rather than the correct Grave VII/28.

Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.8 cm Z: 0.9 cm		Dm P 2831
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.5 cm Y: 0.4 cm Z: 0.8 cm		Dm P 2831
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.3 cm Y: 0.7 cm Z: 0.7 cm		Dm P 2831
Ram's Head Bead	Sheep	Protome	None	Glass	Fragmented		Dm P 2831
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.4 cm Y: 0.8 cm Z: 0.8 cm		Dm P 2831

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VIII	**2**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Bakarić et al. 2006:189-190
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.5 cm Y: 0.7 cm Z: 0.8 cm		Dm P 2859

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VIII	**5**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Dolenjski muzej original documentation; Križ 1997a:29, 2001:163
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Bird	Protome	Animals	Bronze	X: 32.5 cm Y: 36.0 cm		Dm P 3584

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**11**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Dolenjski muzej original documentation
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 9.3 cm Y: 9.9 cm		Dm P [not yet assigned]

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
X	**17**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Bakarić et al. 2006:178; Dolenjski muzej original documentation
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 27.0 cm Y: 24.0 cm		Dm P 3702

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIV	**7**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Križ 2012:124, 2013:44, 106-107, 174-176 Pls. 28-30; Križ et al. 2009:302-303
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Situla	Goat Bird Canid Indeterminate	Full Body Sexed Moving Procession Eating Predation	Animals Circle-and-Dot	Bronze	X: 23.0 cm Y: 24.0 cm	 [301]	Dm P 4624

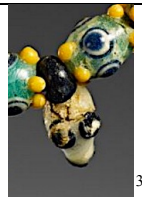
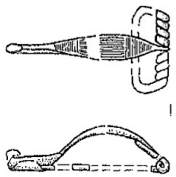
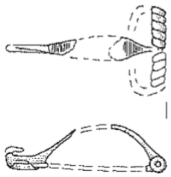
[301] Križ 2012:125

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIV	**33**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ 2013:36, 120-121, 192 Pl. 46

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Mammal (indt)	Protome	None	Ceramic	X: 11.8 cm		Dm P 5453

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XIV	**41**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Križ 2013:44, 126, 128, 198-199 Pls. 52-53

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.9 cm Z: 0.9 cm		Dm P 4557
Ram's Head Bead	Sheep	Protome	None	Glass	Fragmented		Dm P 4557

		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.6 cm Y: 0.7 cm Z: 0.6 cm		Dm P 4557
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 2.2 cm Y: 1.3 cm Z: 1.1 cm	 [302]	Dm P 4557
		Ram's Head Bead	Sheep	Protome	None	Glass	Fragmented		Dm P 4557
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XIV	**45**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Križ 2013:44, 46, 47, 130-131, 202-203 Pls. 56-57
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 4.8 cm Y: 1.4 cm		Dm P 5512
		Fibula	Indeterminate	Protome	None	Bronze	X: 4.9 cm Y: 1.4 cm		Dm P 5513

[302] Križ 2012:22-23

		Lid	Mammal (indt)	Protome	None	Ceramic	X: 11.7 cm		Dm P 5501
		Lid	Mammal (indt)	Protome	None	Ceramic	X: 11.8 cm		Dm P 5503
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XIV	**54**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Križ 2013:25, 33, 136-137, 208-209 Pls. 62-63
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 5.3 cm Y: 1.7 cm		Dm P 5552
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XVI	**11**	Indeterminate	In Sample	Reliable	Indeterminate	Indeterminate	-	✓	Dolenjski muzej original documentation; Dular 2007:738; Križ et al. 2014:474
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Cranium	Field	Teeth, possibly mandible fragments		Dm Unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XVI	**12**	Late Ha	In Sample	Reliable	Indeterminate	Probable Child	-	-	Dolenjski muzej original documentation; Križ 2012:143; Križ et al. 2014:474

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird Duck	Full Body	Animals	Bronze	X: 4.3 cm Y: 2.2 cm Z: 3.1 cm		Dm P 4562

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XVI	**26**	Indeterminate	In Sample	Reliability	Indeterminate	Probable Adult	✓	-	Dolenjski muzej original documentation; Križ et al. 2014:474

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Cattle	Protome	Animals	Ceramic	S: 32.5 cm		Dm P 4540

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XVI	**34**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Dolenjski muzej original documentation; Dular 2007:739; Križ et al. 2014:474, 480-482

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium Unknown	Unknown	Field	Teeth, other currently unidentified bones, possibly cranial	Dm P Unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XXIV	**4**	Indeterminate	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Dolenjski muzej original documentation; Križ et al. 2009:271
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Belt	Indeterminate	Full Body Body Suggested	Animals	Bronze	X: 5.5 cm Y: 3.0 cm Z: 0.3 cm		Dm P 4565
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XXIV	**10**	Late Ha	In Sample	Reliable	Indeterminate	Probable Child	✓	-	Dolenjski muzej original documentation
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 11.0 cm Y: 9.6 cm		Dm P [Not yet assigned]
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XXIX	**2**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Dolenjski muzej original documentation; Križ et al. 2009:123
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Scepter	Horse	Full Body	Animals	Bronze	Y: 46.0 cm		Dm P 4597

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
XXXIII	**19**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Križ and Stipančić 2014
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Bird	Full Body	None	Bronze	X: 12.0 cm Y: 3.9 cm		Dm P 6620
		Fibula	Bird Mammal (indt)	Protome Body Suggested Full Body	Animals	Bronze	X: 4.2 cm Y: 2.5 cm		Dm P 6623
		Lid	Water Bird	Full Body Procession	Animals	Bronze	X: 20.5 cm Y: 6.0 cm		Dm P 6640
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XXXIII	**26**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	-	-	Dolenjski muzej original documentation; Križ 2013:55 Fig. 50
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Indeterminate	Protome	None	Bronze	X: 6.0 cm	[Not photographed][303]	Dm P [Not yet assigned]

[303] The two fibulae were in Mainz for restoration during my research visit and so were not photographed.

		Fibula	Indeterminate	Protome	None	Bronze	X: 6.5 cm	[Not photographed]	Dm P [Not yet assigned]
		Lid	Mammal (indt)	Protome	None	Ceramic	X: 13.0 cm Y: 6.0 cm		Dm P [Not yet assigned]
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
XXXVI	**20**	Late Ha	In Sample	Reliable	Double Grave – Probable Male and Female	Probable Adult	✓	-	Dolenjski muzej original documentation
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	Not measured[304]	 [305]	Dm P [Not yet assigned]
		Ram's Head Bead	Sheep	Protome	None	Glass	Not measured	 [306]	Dm P [Not yet assigned]

[304] The two objects were not available to personally examine during my research visit, were not measured or photographed.
[305] Egg 2010:530 Fig. 3
[306] Egg 2010:530 Fig. 3

<u>COMPLEX</u>: Novo mesto
Site: Mestne njive

- Nearest Town: Novo mesto
- Type of Site: Flat Cemetery
- Publications:
    - Knez, Tone (1966) Zarno grobisce v Novem mestu / Das Urnengraberfeld in Novo mesto. *Arheološki vestnik* 17: 51–110.
    - Knez, Tone (1984) Žarno grobisce v Novem mestu: Začasno poročilo o raziskovanju v letu 1982 / Das Urnengraberfeld in Novo mesto: Vorbericht der Grabung 1982. *Arheološki vestnik* 35: 119–133.
    - Križ, Borut (1991b) Novo mesto Mestne njive, IX, 9, Novo mesto. *Varstvo spomenikov (Monuments Conservation)* 33: 199–202.
    - Križ, Borut (1992a) Novo mesto - Mestne njive. *Varstvo spomenikov (Monuments Conservation)* 34: 261.
    - Križ, Borut (1995) *Novo mesto pred Iliri / Novo mesto vor den Illyrern*. Dolenjski muzej, Novo mesto.
    - Križ, Borut (1996) Novo mesto. Mestne njive. *Varstvo spomenikov (Monuments Conservation)* 37: 76–77.
    - Križ, Borut (2001) Novo mesto - Mestne njive. *Varstvo spomenikov (Monuments Conservation)* 38: 79–80.

- No zoomorphic or zooarchaeological finds pertinent to the study.

<u>COMPLEX</u>: Novo mesto
Site: Marof

- Nearest Town: Novo mesto
- Type of Site: Fortified Settlement
- Publications:
    - Knez, Tone (1974) Novo mesto - Marof. *Varstvo spomenikov (Monuments Conservation)* XVII-XIX(1): 106.
    - Knez, Tone (1982) Novo mesto. *Varstvo spomenikov (Monuments Conservation)* XXIV: 152.
    - Knez, Tone (1986) *Novo mesto I: Halštatski grobovi / Novo mesto I: Hallstattzeitliche Gräber*. Carniola Archaeologica 1. Dolenjski muzej, Novo mesto.

- No zoomorphic finds pertinent to the study.

COMPLEX: Novo mesto
Site: Mačkovec

- Nearest Town: Novo mesto
- Type of Site: Tumulus Cemetery
- Publications:
  - Breščak, Danilo (1985) Mačkovec pri Dvoru. *Varstvo spomenikov (Monuments Conservation)* XXVII: 205.
  - Udovč, Katarina (2009) *Mačkovec pri Novem mestu*. Zavod za varstvo kulturne dediščine Slovenije, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**1**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	-	-	Udovč 2009:6, 12, 30, 32-37
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ciborium	Cattle	Protome	Animals	Ceramic	X: 21.5 cm Y: 22.2 cm		Dm P 4325

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**7**	Late Ha	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Udovč 2009:6, 17, 54-58
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Lid	Ungulate	Protome	Animals	Ceramic	X: 22.6 cm Y: 10.6 cm	 [307]	Dm P 4356

[307] Photo courtesy of the Dolenjski muzej.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**10**	Late Ha	In Sample	Reliable	Indeterminate	Probable Adult	✓	-	Udovč 2009:6, 8, 20, 30

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ciborium	Mammal (indt)	Protome	Animals	Ceramic	X: 26.8 cm Y: 27.8 cm		Dm P 4385
Ciborium	Mammal (indt)	Protome	Animals	Ceramic	Vessel/Lid X: 26.2 cm/ 14.0 cm Y: 28.0 cm/ 6.0 cm		Dm P 4386

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**12**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	-	-	Udovč 2009:6, 22, 30, 76-69

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Indeterminate	Protome	Animals	Ceramic	X: 29.5 cm Y: 27.7 cm		Dm P 4394

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	Stray Finds	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Udovč 2009:6

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 2.4 cm Y: 2.4 cm		Dm P 4403

<u>COMPLEX</u>: Novo mesto
Site: Malenškova njiva

- Nearest Town: Novo mesto
- Type of Site: Tumulus Cemetery
- Publications
  - Guštin, Mitja and Biba Teržan (1975) Malenškova gomila v Novem mestu: Prispevek k ponavanju povezav med jugozhodnim alpskim svetom, severozahodnim Balkanom in južno Panonijo v starejši železni dobi. *Arheološki vestnik* 26: 188–202.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Malenškova gomila	**1**	Early Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	✓	✓	Dular 2007:739; Guštin and Teržan 1975:188-189, 199-200 Pls. 1-2
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Upper Limbs Trunk Lower Limbs	Unknown	Unknown	"Horse bones" (Dular 2007:739 fn. 5)		Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Malenškova gomila	**2**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Dular 2007:739; Guštin and Teržan 1975:188, 201 Pl. 3
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Dog Bird [not preserved]	Full Body Predation	Animals	Bronze	X: 2.9 cm Y: 2.7 cm Z: 0.6 cm		Nm P 6383

		Fibula	Dog Bird [not preserved]	Full Body Predation	Animals	Bronze	X: 2.6 cm Y: 2.5 cm Z: 0.7 cm		Nm P 6384

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Malenškova gomila	**3**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Guštin and Teržan 1975:188, 190, 202 Pl. 4

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Unknown	Field	Cranium?	Not collected?

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Indeterminate	Full Body Unknown	Animals Unknown	Bronze	Fragmentary		Nm P 11619
Situla	Bird Water Bird	Full Body Moving Procession	Animals Circle-and-Dot	Bronze	X: 21.0 cm Y: 20.0 cm Z: 23.5 cm		Nm P 6347
Cist	Bird	Protome	Animals	Bronze	X: 23.5 cm Y: 18.5 cm Z: 22.5 cm		Nm P 6346

<u>COMPLEX</u>: Novo mesto
Site: Zagrebska cesta

- Nearest Town: Novo mesto
- Type of Site: Tumulus Cemetery
- Publications:
    - Breščak, Danilo (1979) Novo mesto. *Varstvo spomenikov (Monuments Conservation)* XXII: 274.
    - Knez, Tone (1985) Novo mesto - Zagrebska cesta. *Varstvo spomenikov (Monuments Conservation)* XXVII: 206–208.
    - Knez, Tone (1986) *Novo mesto I: Halštatski grobovi / Novo mesto I: Hallstattzeitliche Gräber*. Carniola Archaeologica 1. Dolenjski muzej, Novo mesto.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Tumulus	**Stray Find**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Breščak 1979:274; Knez 1985:206-208 Figs. 17 and 17, 1986:47, Pl. 55

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Cattle	Protome	None	Ceramic	X: 20.5 cm Y: 10.5 cm		Dm P 994

<u>COMPLEX</u>: Podzemelj
Site: Gomilica

- Nearest Town: Škrilje
- Type of Site: Tumulus Cemetery
- Publications:
  - Barth, Fritz Eckart (1969) *Die hallstattzeitlichen Grabhügel im Bereiche des Kutscher bei Podsemel (Slowenien)*. Rudolph Habelt Verlag GMBH, Bonn.
  - Dular, Janez (1978) *Podzemelj: Katalog najdb / Podzemelj: Katalog der Funde*. Katalogi in Monografije 16 / Catalogi et Monographiae 16. Narodni muzej Slovenije, Ljubljana.
  - Dular, Janez (1985c) Gomilica. In *Arheološka topografija Slovenije: Topografsko področje XI (Bela krajina)*, p. 83. Slovenska akademija znanosti in umetnosti, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**12 (m)**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Barth 1969:153, 156 Pl. LV
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Mammal (indt)	Protome	Animals	Ceramic	Fragmentary		NHMW 64416

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**34 (j)**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Barth 1969:153, 161, Pl. XXXVIII

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Rattle	Indeterminate	Protome Body Suggested	None	Ceramic	X: 5.6 cm Y: 9.0 cm		NHMW 64408

<u>COMPLEX</u>: Podzemelj
Site: Kučar

- Nearest Town: Podzemelj
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez (1978) *Podzemelj: Katalog najdb / Podzemelj: Katalog der Funde*. Katalogi in Monografije 16 / Catalogi et Monographiae 16. Narodni muzej Slovenije, Ljubljanar.
    - Dular, Janez, Slavko Ciglenečki, and Anja Dular (1995) *Kučar: Železnodobno naselje in zgodnjekrščanski stavbni kompleks na Kučarju pri Podzemlju / Kučar: Eisenzeitliche Siedlung und frühchristlicher Gebäudekomplex auf dem Kučar bei Podzemelj*. Opera Instituti Archaeologici Sloveniae 1. Znanstvenoraziskovalni Center SAZU, Ljubljana.

- No zoomorphic finds pertinent to the study.

<u>COMPLEX</u>: Podzemelj
Site: Steljnik

- Nearest Town: Grm
- Type of Site: Tumulus Cemetery
- Publications:
    - Barth, Fritz Eckart (1969) *Die hallstattzeitlichen Grabhügel im Bereiche des Kutscher bei Podsemel (Slowenien)*. Rudolph Habelt Verlag GMBH, Bonn.
    - Dular, Janez (1978) *Podzemelj: Katalog najdb / Podzemelj: Katalog der Funde*. Katalogi in Monografije 16 / Catalogi et Monographiae 16. Narodni muzej Slovenije, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**19 (u)**	Early Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Barth 1969:112-113, Pl. XIV

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.5 cm Z: 0.7 cm		NHMW 67253

<u>COMPLEX</u>: Podzemelj
Site: Vir

- Nearest Town: Škrilje
- Type of Site: Tumulus Cemetery
- Publications:
  - Barth, Fritz Eckart (1969) *Die hallstattzeitlichen Grabhügel im Bereiche des Kutscher bei Podsemel (Slowenien)*. Rudolph Habelt Verlag GMBH, Bonn.
  - Dular, Janez (1978) *Podzemelj: Katalog najdb / Podzemelj: Katalog der Funde*. Katalogi in Monografije 16 / Catalogi et Monographiae 16. Narodni muzej Slovenije, Ljubljana.
  - Dular, Janez (1985f) Vir. In *Arheološka topografija Slovenije: Topografsko področje XI (Bela krajina)*, p. 83. Slovenska akademija znanosti in umetnosti, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**9**	Indeterminate	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Barth 1969:144, 147-148, Pl. XXXII
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Cattle	Protome Body Suggested	None	Bronze	X: 4.2 cm Y: 1.9 cm		NHMW 67410

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
I	**13**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Barth 1969:144, 149, Pl. XXXIII
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Dog	1?	Cranium Upper Limbs Trunk Lower Limbs	Whole	Unknown	"Skeleton of a large dog" (Barth 1969:149)		Not collected?

<u>COMPLEX</u>: N/A
Site: Roje

- Nearest Town: Moravče pri Grabovki
- Type of Site: Flat Cemetery, Tumulus Cemetery
- Publications:
    - Vuga, Davorin (1977) Roje pri Moravčah pri Gabrovki. *Varstvo spomenikov (Monuments Conservation)* XXI: 290–295.
    - Vuga, Davorin (1979) Konservatorske ugotovitve o grobišču Roje / Conservator's Perceptions at the Burial-Place Roje. *Varstvo spomenikov (Monuments Conservation)* XXII: 145–151.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

COMPLEX: N/A
Site: Škodetov pruh

- Nearest Town: Volčje njive
- Type of Site: Tumulus Cemetery
- Publications:
  - Gabrovec, Stane (1956) Ilirska gomila v Volčjih njivah / The Illyrian tumulus at Volčje njive. *Arheološki vestnik* 7: 62–130.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Tločrt Gomile	**Stray Finds above Graves 3 and 4**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec 1956:90, 92-93, 118 Pl. XXII

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	Unknown		Dm P 84 [missing]

<u>COMPLEX</u>: N/A
Site: Špičasti hrib

- Nearest Town: Dole pri Litiji
- Type of Site: Fortified Settlement
- Publications:
  - Dular, Janez, Primož Pavlin, and Sneža Tecco Hvala (2003) Prazgodovinska višinska naselja v okolici Dol pri Litiji / Vorgeschichtliche Höhensiedlungen in der Umgebung von Dole pri Litiji. *Arheološki vestnik* 54: 159–224.

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Trench 1	**Layer 2**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Dular et al. 2003:199-200, 206-210 Pls. 4-8
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.3 cm Y: 0.7 cm Z: 0.7 cm		Nm P 23058

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Surface Find	**N/A**	Indeterminate	In Sample	Unreliable	N/A	N/A	N/A	N/A	Dular et al. 2003:200, 175 Fig. 23
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Button	Hare	Protome Circle-and-Dot	None	Bronze	X: 1.8 cm Y: 2.9 cm Z: 1.2 cm		Nm P 23161

<u>COMPLEX</u>: N/A
Site: Stari grad

- Nearest Town: Stari grad v Podbočju
- Type of Site: Fortified Settlement
- Publications:
    - Guštin, Mitja, Radovan Cunja, and Katarina Katja Predovnik (1993) *Podbočje / Stari grad*. Posavski muzej Brežice, Brežice.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Starograjska hosta

- Nearest Town: Otočec
- Type of Site: Tumulus Cemetery
- Publications:
    - Križ, Borut (1989) Otočec, *Varstvo spomenikov (Monuments Conservation)* 31: 213-214.
    - Križ, Borut (1990a) Otočec. Novo mesto. *Arheo*: 57–58.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

COMPLEX: Stična
Site: Cvinger

- Nearest Town: Vir pri Stični
- Type of Site: Fortified Settlement
- Publications:
  - Gabrovec, Stane, Otto-Herman Frey, and Stephen Foltiny (1969) Prvo poročilo o naselbinskih izkopavanjih v Stični. *Arheološki vestnik* 20: 177–196.
  - Gabrovec, Stane (ed.) (1994) *Stična I: Naselbinska Izkopavanja / Siedlungsausgrabungen*. Katalogi in Monografije 28 / Catalogi et Monographiae 28. Narodni Muzej Slovenije, Ljubljana.
  - Dular, Janez (1994) Sonda 11 / Schnitt 11. In *Stična I: Naselbinska Izkopavanja / Siedlungsausgrabungen*, edited by Stane Gabrovec, pp. 138–143. Narodni Muzej Slovenije, Ljubljana.
  - Teržan, Biba (1994) Sonde 9, 18 in 19 na prečnem nasipu gradišča / Die Schnitte 9, 18, und 19 im Querwall der Befestigungsanlage. In *Stična I: Naselbinska Izkopavanja / Siedlungsausgrabungen*, edited by Stane Gabrovec, pp. 120-137. Narodni Muzej Slovenije, Ljubljana.
  - Grahek, Lucija (2016) Stična. Železnodobna naselbinska keramika / Stična. Iron Age Settlement Pottery. Opera Instituti Archaeologici Sloveniae 32. Inštitut za arheologijo ZRC SAZU: Založba ZRC, Ljubljana.

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Trench 7	**House**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Gabrovec et al. 1969:189-191 Figs. 5-7, 192

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Firedog	Mammal (indt)	Protome Body Suggested	Animals	Ceramic	X: 23.5 cm Y: 15.0 cm Z: 6.4 cm		Nm P 18547

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Trench 11	**N/A**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Dular 1994:138-143

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bronze	X: 9.9 cm Y: 2.1 cm		Nm P 15207
Fibula	Dog Bird	Full Body Predation	Animals	Bronze	X: 4.1 cm Y: 2.4 cm Z: 0.6 cm		Nm P 15208

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Trench 14	**Complex 6/ Wall 3**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Grahek 2016:28, 32, 239-240

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Unknown	Ceramic	Handle: X: 4.5 cm Y: 5.6 cm Z: 3.1 cm		Nm P 6914

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Trench 19	**House 3**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Grahek 2016:88-89; Teržan 1994:123, 125, 127, 134-135 Pls. 4-5

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Firedog	Mammal (indt)	Protome	Unknown	Ceramic	X: 10.9 cm Y: 6.8 cm Z: 3.2 cm		Nm P 7129

Context ID	Feature ID	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
20	**Complex 8/ Wall II**	Late Ha	In Sample	Reliable	N/A	N/A	-	-	Grahek 2016:80-81

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Mammal (indt)	Protome	Unknown	Ceramic	Protome: X: 2.4 cm Y: 3.0 cm Z: 3.2 cm		Nm P 7320

<u>COMPLEX</u>: Stična
Site: Dole

- Nearest Town: Pristavlja vas
- Type of Site: Flat Cemetery
- Publications:
    - Možina, Alenka (1983) Pristavlja vas. *Varstvo spomenikov (Monuments Conservation)* XXV: 241 & 231.
    - Gabrovec, Stane (ed.) (1994) *Stična I: Naselbinska Izkopavanja / Siedlungsausgrabungen*. Katalogi in Monografije 28 / Catalogi et Monographiae 28. Narodni Muzej Slovenije, Ljubljana.

- **No zoomorphic or zooarchaeological finds pertinent to the study.**

COMPLEX: Stična
Site: Gomile

- Nearest Town: Griže pri Stični
- Type of Site: Tumulus Cemetery
- Publications:
  - Wells, Peter S. (1981) *The Emergence of an Iron Age Economy: the Mecklenburg Grave Groups from Hallstatt and Stična*. American School of Prehistoric Research, Bulletin 33. Harvard University Press, Cambridge, MA.
  - Dular, Janez (2003) *Halštatske nekropole Dolenjske / Die hallstattzeitlichen Nekropolen in Dolenjsko*. Opera Instituti Archaeologici Sloveniae 6. Inštitut za arheologijo ZRC SAZU: Zalžoba ZRC, Ljubljana.
  - Gabrovec, Stane (ed.) (2006) 2006 *Stična II/1. Gomile starejše železne dobe / Grabhügel aus der aelteren Eisenzeit*. Katalogi in Monografije 37 / Catalogi et Monographiae 37. Narodni muzej Slovenije, Ljubljana.
  - Gabrovec, Stane and Biba Teržan (eds.) (2008 [2010]) *Stična II/2. Gomile starejše železne dobe. Razprave / Grabhügel aus der aelteren Eisenzeit. Studien*. Katalogi in Monografije 38 / Catalogi et Monographiae 38. Narodni Muzej Slovenije, Ljubljana.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
5	**8**	Indeterminate	In Sample	Reliable	N/A [Horse Grave]		-	-	Gabrovec and Kruh 2006:137, 388 Fig. 114; Kruh 2008:92
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium Trunk Limbs (indt) Unknown	Whole	Field	Cranium, teeth, long bones, flat bones (Gabrovec and Kruh 2006:137)		Nm unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
5	**10**	Late Ha	In Sample	Reliable	Indeterminate	Adult	-	✓	Gabrovec and Kruh 2006:139, 389 Fig. 115; Kruh 2008:94
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Trunk Limbs (indt) Unknown	Partial	Field	"Long and single flat bones" (Gabrovec and Kruh 2006:139)		Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
5	**11**	Late Ha	In Sample	Reliable	Double Grave – Probable Male and Female	Indeterminate	✓	✓	Gabrovec and Kruh 2006:139-140, 390 Pl. 116; Kruh 2008:95-99

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Amber	X: 1.4 cm Y: 0.9 cm Z: 0.7 cm		Nm P 14587
Ram's Head Bead	Sheep	Protome	None	Amber	X: 1.5 cm Y: 0.7 cm Z: 0.8 cm		Nm P 14717

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
5	**Isolated Finds**	N/A	In Sample	Unreliable	N/A	N/A	-	-	Gabrovec and Kruh 2006:152, 403 Pl. 192

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse	Protome Body Suggested	None	Bronze	X: 3.1 cm Y: 1.9 cm		NM P 14721

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
28 or 29	**Cremation Grave (?)**	Early Ha	Non-Sample	Unreliable	Probable Female	Indeterminate	✓	-	Gabrovec et al. 2006:172-173, 420 Pl. 146

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	Handle: X: 29.0 cm Y: 11.0 cm Z: 0.8 cm		Nm P 12998

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**9 (?)**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec and Kruh 2006:14-15, 20-21, Pl. 5

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Horse Bird	Full Body Harnessed	Animals Humans Chariot	Bronze	X: 1.2 cm Y: 0.9 cm Z: 0.4 cm		Nm P 14777, 14778, 14782

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Find 23**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec and Kruh 2006:30, 288 Pl. 14

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 21.6 cm Y: 10.7 cm Z: 21.75 cm		Nm P 14870

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**27**	Early Ha	In Sample	Reliable	Female	Adult	✓	-	Dular 2003:128 Fig. 74; Gabrovec 2008:51-52; Gabrovec and Kruh 2006:32-36, 290-297 Fig. 16-23

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Indeterminate	Protome	None	Bone Bronze	X: 9.8 cm		Nm P 14900

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Horse Grave 31**	Indeterminate	In Sample	Reliable	N/A	N/A	-	-	Gabrovec and Kruh 2006:39-41

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium Upper Limbs Trunk Lower Limbs	Whole	Field	Horse skeleton	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Horse Grave 32**	Indeterminate	In Sample	Reliable	N/A	N/A	-	-	Gabrovec and Kruh 2006:39-41

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Cranium Upper Limbs Trunk Lower Limbs	Whole	Field	Horse skeleton	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**33**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	-	-	Gabrovec and Kruh 2006:39-41, 55, 299-300 Pls. 25-29

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Torc	Snake	Protome Body Suggested	Animals	Bronze	X: 7.4 cm Z: 10.9 cm		Nm P 14975

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**46**	Indeterminate	In Sample	Reliable	Indeterminate	Indeterminate	-	-	Gabrovec and Kruh 2006:47-49, 305 Pl. 31

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Cranium	Field	"Part of a horse's head" (Gabrovec and Kruh 2006:47)	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Find 56**	Indeterminate	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec and Kruh 2006:52, 308 Pl. 34

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Unknown	1?	Unknown	Unknown	Unknown	"Broken bones – (from animals?)" (Gabrovec and Kruh 2006:52)	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Horse Grave 71**	Indeterminate	In Sample	Reliable	N/A	N/A	-	-	Gabrovec and Kruh 2006:56

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Head Upper Limbs Trunk Lower Limbs	Whole	Field	Horse skeleton	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**72**	Early Ha	In Sample	Reliable	Probable Male	Probable Adult	✓	✓	Gabrovec 2008:49-52; Gabrovec and Kruh 2006:57-59, 311-314 Pls. 37-40; Teržan 2014:454, 457
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Vessel	Horse	Protome	Animals	Ceramic	X: 14.0 cm Y: 11.0 cm Z: 6.8 cm		Nm P 13311
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
48	**Find 77**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec and Kruh 2006:63, 320 Pl. 46
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Unknown	1?	Unknown	Unknown	Field	"Animal bones" (Gabrovec and Kruh 2006:63)		Nm unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
48	**Find 93**	Early Ha	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec and Kruh 2006:72, 75-76
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Unknown	1?	Unknown	Unknown	Field	"Animal bone fragments" (Gabrovec and Kruh 2006:72)		Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**98**	Late Ha	In Sample	Reliable	Probable Female	Indeterminate	✓	-	Gabrovec and Kruh 2006:72, 74-75, 328-329 Pls. 54-55

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Pendant	Cattle	Protome	None	Bronze	X: 1.6 cm Y: 2.5 cm Z: 0.5 cm		Nm P 13482

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**99**	Late Ha	In Sample	Reliable	Probable Male	Indeterminate	✓	✓	Dular 2003:137 Fig. 79; Gabrovec and Kruh 2006:72, 75-76; Tecco Hvala 2012:162-163

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Phalera	Horse	Protome	Animals	Bronze	X: 5.3 cm Y: 5.6 cm Z: 1.5 cm		Nm P 13462
Phalera	Horse	Protome	Animals	Bronze	X: 5.8 cm Y: 5.7 cm Z: 1.2 cm		Nm P 13496

		Phalera	Horse	Protome	Animals	Bronze	X: 6.2 cm Y: 5.7 cm Z: 0.8 cm		Nm P 13497
		Phalera	Horse	Protome	Animals	Bronze	X: 5.8 cm Y: 6.0 cm Z: 1.4 cm		Nm P 13498
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
48	**102**	Late Ha	In Sample	Reliable	Probable Female	Probable Adult	✓	-	Gabrovec 2008:50; Gabrovec and Kruh 2006:98, 334 Pl. 60
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Bird Mammal (indt)	Full Body Predation	Animals	Bronze	X: 3.2 cm Y: 2.5 cm		Nm P 13522
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
48	**104**	Late Ha	In Sample	Reliable	Probable Male	Probable Adult	✓	-	Dular 2003:137 Fig. 79; Gabrovec 2008:50; Gabrovec and Kruh 2006:79-80, 335-336 Pls. 61-62
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Trunk	Partial	Field	"Chest and vertebrae" (Gabrovec and Kruh 2006:79)		Nm unknown
		Unknown	1?	Unknown	Unknown	Field	"A small pile of burnt animal bones" (Gabrovec and Kruh 2006:79)		Nm unknown

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Belt Plate	Dog Boar Indeterminate	Full Body Moving Predation Cultural Material on Body	Animals Unknown	Bronze	Fragmentary		Nm P 13534
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	Fragmentary		Nm P 13532

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**114**	Indeterminate	In Sample	Problematic	Indeterminate	Indeterminate	-	-	Gabrovec 2006:21-22, 85-86, 340 Pl. 66

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Indeterminate	Full Body	Animals	Ceramic Tin Inlay	X: 15.6 cm		Nm P 13570
Lid	Mammal (indt)	Full Body	Animals	Ceramic Tin Inlay	X: 19.5 cm Y: 10.0 cm Z: 20.0 cm		Nm P 13568

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**115**	Indeterminate	In Sample	Problematic	Indeterminate	Indeterminate	✓	-	Gabrovec 2008:50; Gabrovec and Kruh 2006:86, 341 Pl. 67

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Unknown	1?	Unknown	Unknown	Field	"Animal bones" (Gabrovec and Kruh 2006:86)	Nm unknown

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**119-120**	Late Ha	In Sample	Problematic	Probable Female	Indeterminate	✓	-	Gabrovec and Kruh 2006:87-89, 342-343 Pls. 68-69

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Anklet	Bird	Full Body	Animals	Bronze	X: 15.0 cm Y: 3.5 cm Z: 15.0 cm		Nm P 13576
Anklet	Bird	Full Body	Animals	Bronze	X: 16.0 cm Y: 3.0 cm Z: 15.5 cm		Nm P 13577
Anklet	Bird	Full Body	Animals	Bronze	X: 16.5 cm Y: 2.3 cm Z: 15.0 cm		Nm P 13578

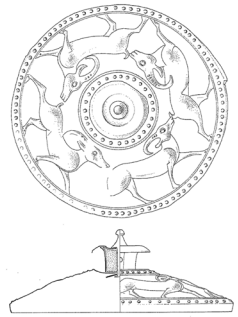
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**121**	Late Ha	In Sample	Reliable	Female	Subadult	✓	-	Gabrovec 2008:50; Gabrovec and Kruh 2006:89-92, 344-347 Pls. 70-73

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Animal Head Bead	Mammal (indt)	Protome Body Suggested	Animals	Glass	X: 1.5 cm Y: 1.4 cm		Nm P 13608

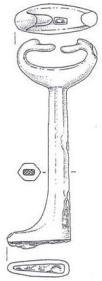
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
48	**Find 168**	N/A	In Sample	Unreliable	N/A	N/A	N/A	N/A	Gabrovec 2008:50; Gabrovec and Kruh 2006:116, 372 Pl. 98

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	Fragmentary		Nm 13852

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
76	**Grave with the Decorated Situla**	Early Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	✓	✓	Dular 2003:122 Fig. 68; Gabrovec and Kruh 2006:154-157, 404-408 Pls. 130-134; Tecco Hvala 2012:115

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Ibex	Full Body Sexed Moving	Animals Circle-and-Dot	Bronze	X: 22.2 cm Y: 8.3 cm		Nm P 6948

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
125	**Find 7, 9 and 10 = Grave**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Teržan and Gabrovec 2006:239-241, 473 Pl. 198

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Dagger	Bird	Protome	Animals	Bronze	X: 3.1 cm Y: 10.9 cm		MVFB IV. G. Inv. 67a

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**3**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Wells 1981:49-50, 153 Fig. 37

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 28.5 cm Y: 11.0 cm Z: 0.8 cm		PM 40-77-40/ 13161

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**4**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Wells 1981:49-51, 154-155 Fig. 38-39

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Vessel	Bird	Protome	Animals	Bronze	Handle: X: 24.7 cm Y: 11.0 cm Z: 0.5 cm		PM 40-77-40/ 13176

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
II	**6**	Indeterminate	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Wells 1981:49, 51, 156 Fig. 40

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 23.8 cm Y: 8.0 cm Z: 0.7 cm		PM 40-77-40/ 13188

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
III	**2c**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Wells 1981:53-54, 161 Fig. 48
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1?	Cranium Unknown	Unknown	Unknown	"Animal bones and several teeth" (Wells 1981:54)		Not collected?

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**10**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Wells 1981:55, 57-58, 166 Fig. 64
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Deer	Protome Body Suggested Sexed Circle-and-Dot	Circle-and-Dot	Bronze	X: 7.3 cm Y: 2.8 cm Z: 2.2 cm		PM 40-77-40/ 13299

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**16**	Late Ha	Non-Sample	Problematic	Probable Male	Probable Adult	-	-	Bökönyi 1968:15-16; Wells 1981:55, 58-59, 168 Fig. 70
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium Upper Limbs	Partial	Specialist	Fragment of left upper P3, fragment of left upper M1, fragment of left upper M2, right upper P3, right upper M1, right upper M2, right upper M3, 3 fragments of upper molars, left lower P2, left lower M1, left lower M2, left lower M3, fragment of left lower P3, right lower P3, right lower M1, right lower M2, right lower M3, fragment of a lower premolar, rib fragment, distal part of a left scapula, fragment of right humerus		PM 40-77-40/ 13343

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**32**	Early Ha	Non-Sample	Unreliable	Double Grave – Probable Male and Female	Probable Adult	✓	-	Wells 1981:55, 62-63, 178 Fig. 87

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird	Full Body	None	Bronze	X: 9.0 cm Y: 4.1 cm		PM 40-77-40/ 13447

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
IV	**47**	Late Ha	Non-Sample	Problematic	Probable Female	Indeterminate	✓	-	Bökönyi 1968:16; Wells 1981:55, 66, 184 Fig. 101

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1	Head Lower Limbs	Partial	Specialist	7 maxillary fragments, 2 (left and right) upper P2s, 2 (left and right) upper P3s, 2 (left and right) upper M1s, 2 (left and right) upper M2s, 2 (left and right) upper M3s. 4 fragments of a right tibia	PM 40-77-40/ 7687

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Rhyton	Sheep	Protome Circle-and-Dot	None	Ceramic	X: 7.7 cm Y: 18.5 cm Z: 15.5 cm		PM 40-77-40/ 13526

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**2**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Child	✓	-	Wells 1981:68-69, 188 Figs. 111-113, 190 Fig. 114

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Animal Head Bead	Mammal (indt)	Protome Body Suggested	Animals	Glass	X: 2.6 cm Y: 1.2 cm Z: 1.8 cm		PM 40-77-40/ 13591
Animal Head Bead	Mammal (indt)	Protome Body Suggested	Animals	Glass	X: 2.4 cm Y: 1.1 cm Z: 1.4 cm		PM 40-77-40/ 13591

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**8**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Wells 1981:68-70, 188 Figs. 111-113, 192 Fig. 119

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bead	Mammal (indt)	Protome	Animals	Glass	X: 2.9 cm Y: 0.8 cm Z: 2.8 cm		PM 40-77-40/ 13610
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.9 cm Z: 0.8 cm		PM 40-77-40/ 13611

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**14**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Wells 1981:68, 70, 193 Fig. 124
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Cauldron	Bird	Protome	Animals	Bronze	Handle: X: 30.0 cm Y: 10.5 cm Z: 0.7 cm		PM 40-77-40/ 13633

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**18**	Late Ha	Non-Sample	Problematic	Probable Male	Indeterminate	-	-	Wells 1981:68, 71, 196 Fig. 128
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Cauldron	Bird	Protome	Animals	Bronze	Handle: X: 18.0 cm Y: 12.0 cm Z: 0.7 cm		PM 40-77-40/ 13650

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
V	**Isolated Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Wells 1981:71-72
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Horse	1	Cranium	Teeth	Unknown	Teeth		PM 34-25-40/ 137043

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**7**	Early Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	✓	-	Wells 1981:72-73, 197 Fig. 131, 200 Fig. 137

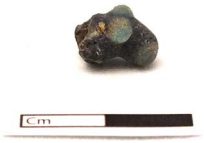
Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula Ornament	Duck	Full Body	None	Amber	X: 2.1 cm Y: 1.4 cm Z: 0.9 cm		PM 40-77-40/ 13669
Pendant	Chicken	Full Body Sexed Circle-and-Dot	None	Bronze	X: 3.6 cm Y: 2.3 cm Z: 0.3 cm		PM 40-77-40/ 13675
Pendant	Chicken	Full Body Sexed Circle-and-Dot	None	Bronze	X: 3.1 cm Y: 2.2 cm Z: 0.3 cm		PM 40-77-40/ 13676
Pendant	Chicken	Full Body Sexed Circle-and-Dot	None	Bronze	X: 1.8 cm Y: 2.7 cm		PM 40-77-40/ 13677
Pendant	Chicken	Full Body Sexed Circle-and-Dot	None	Bronze	Fragmented		PM 40-77-40/ 13678

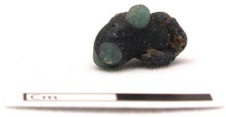
Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**8**	Indeterminate	Non-Sample	Problematic	Indeterminate	Indeterminate	-	✓	Wells 1981:72-74, 201 Fig. 138

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 25.5 cm Y: 12.5 cm Z: 26.5 cm		PM 40-77-40/ 13684

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**12**	Late Ha	Non-Sample	Problematic	Probable Female	Probable Adult	✓	-	Wells 1981:72, 74-75, 203 Fig. 143

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.8 cm Z: 0.8 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.6 cm Z: 0.7 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.2 cm Y: 0.7 cm Z: 0.8 cm		PM 40-77-40/ 13722

Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.7 cm Z: 0.7 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 0.9 cm Y: 0.7 cm Z: 0.8 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.8 cm Z: 0.8 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.7 cm Z: 0.7 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.0 cm Y: 0.8 cm Z: 0.8 cm		PM 40-77-40/ 13722
Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.7 cm Z: 0.7 cm		PM 40-77-40/ 13722

		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.6 cm Z: 0.7 cm		PM 40-77-40/ 13722
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.8 cm Z: 0.8 cm		PM 40-77-40/ 13722
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.1 cm Y: 0.8 cm Z: 0.9 cm		PM 40-77-40/ 13722

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**21**	Indeterminate	Non-Sample	Problematic	Indeterminate	Probable Adult	-	-	Wells 1981:72, 78, 209 Fig. 152

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Horn-Handled Bowl	Mammal (indt)	Protome	Animals	Ceramic	X: 1.8 cm Y: 2.7 cm Z: 2.7 cm		PM 40-77-40/ 13785

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**30**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	-	Wells 1981:80, 202 Fig. 160
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Belt Plate	Bird Canid	Full Body Procession	Animals Humans Axe Man Circle-and-Dot	Bronze	X: 26.0 cm	 [308]	MVFB UE 6

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VI	**Isolated Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Wells 1981:72, 80
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.8 cm Y: 0.9 cm Z: 0.7 cm		PM 40-77-40/ 13818

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**1**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	✓	-	Wells 1981:80, 215 Fig. 163
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Ram's Head Bead	Sheep	Protome	None	Glass	X: 1.5 cm Y: 0.7 cm Z: 0.8 cm		PM 40-77-40/ 13819

[308] Turk 2005:63 Fig. 93.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VII	**7**	Late Ha	Non-Sample	Problematic	Indeterminate	Indeterminate	-	-	Wells 1981:81, 215 Fig. 166

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Bracelet	Snake	Protome Body Suggested Circle-and-Dot	Animals	Bronze	X: 8.6 cm Y: 1.4 cm Z: 8.7 cm		PM 40-77-40/ 13831

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VIII	**1**	Late Ha	Non-Sample	Problematic	Indeterminate	Probable Child	✓	-	Wells 1981:81, 216 Fig. 168

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Dog Indeterminate	Protome Full Body Predation	Animals	Bronze	X: 4.3 cm Y: 2.4 cm		PM 40-77-40/ 13847

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
VIII	**2**	Indeterminate	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Wells 1981:81, 216 Fig. 168

Species	MNI	Body Zone	Completeness	Analysis	Elements	Museum & Inv. No.
Horse	1?	Cranium	Cranium	Unknown	Mandible	Not collected?

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Cauldron	Bird	Protome	Animals	Bronze	X: 26.0 cm Y: 12.5 cm Z: 27.0 cm		PM 40-77-40/ 13851

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Vas Vir	**11**	Indeterminate	Non-Sample	Unreliable	Probable Male	Indeterminate	-	-	Wells 1981:81, 84, 217 Fig. 170, 223 Fig. 181

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Lid	Horse Cattle	Protome	Animals	Ceramic	X: 8.8 cm Y: 3.3 cm Z: 2.3 cm		PM 40-77-40/ 13926

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
Vas Vir	**Isolated Finds**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Wells 1981:81, 86, 226 Fig. 188

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Fibula	Bird	Full Body	None	Bronze	X: 4.8 cm Y: 2.5 cm		PM 40-77-40/ 13958
Fibula	Water Fowl	Full Body	None	Bronze	X: 3.7 cm Y: 3.8 cm		PM 40-77-40/ 13959
Fibula	Bird	Full Body	Animals	Bronze	X: 6.5 cm Y: 3.8 cm		PM 40-77-40/ 13960

Fibula	Bird	Full Body	Animals	Bronze	X: 4.1 cm Y: 2.6 cm		PM 40-77-40/ 13961
Fibula	Bird	Full Body Unknown	None Unknown	Bronze	Left fibula: X: 3.0 cm Y: 1.9 cm		PM 40-77-40/ 13966
Fibula	Bird	Unknown	Unknown	Bronze	Middle: X: 2.0 cm		PM 40-77-40/ 13966
Fibula	Bird	Full Body Unknown	None Unknown	Bronze	Right: X: 1.2 cm		PM 40-77-40/ 13966
Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 4.3 cm Y: 5.3 cm Z: 5.6 cm		PM 40-77-40/ 13976
Vessel	Mammal (indt)	Protome	Animals	Ceramic	X: 4.2 cm Y: 6.1 cm Z: 4.8 cm		PM 40-77-40/ 13976

<u>COMPLEX</u>: Stična
Site: Marjanov hrib

- Nearest Town: Studenec
- Type of Site: Unfortified Settlement
- Publications:
    - Svoljšak, Drago (2003) Studenec pri Stični. In *The Earth Beneath Your Feet: Archaeology on the Motorways in Slovenia: Guide to Sites*, edited by Bojan Djurić and Damjana Prešeren, pp. 259–260. The Earth Beneath Your Feet: Archaeology on the Motorways in Slovenia: Guide to Sites. Institute for the Protection of Cultural Heritage of Slovenia, Ljubljana.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: N/A
Site: Sv. Ana

- Nearest Town: Vrhpeč
- Type of Site: Fortified Settlement
- Publications:
    - Tecco Hvala, Sneža (1990) Sv. Ana nad Vrhpečjo. In *Arheološka najdišča Dolenjske: posebna številka, izdana ob 100-letnici archeoloških raziskav v Novem Mestu 13.9.1890-13.9.1990*, edited by Danilo Breščak, pp. 65-66. Arheo – Dossier Dolenjska. Narodni Muzej Slovenije, Ljubljana.
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1991) Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini / Befestigte prähistorische Siedlungen in der Mirenska dolina und der Temeniška dolina. *Arheološki vestnik* 42: 65–198.
    - Udovč, Katarina (2007) Vrhpeč. *Varstvo spomenikov (Monuments Conservation)* 43: 240.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: Trbinc
Site: Kincelj

- Nearest Town: Trbinc
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1991) Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini / Befestigte prähistorische Siedlungen in der Mirenska dolina und der Temeniška dolina. *Arheološki vestnik* 42: 65–198.

- **No zoomorphic finds pertinent to the study.**

<u>COMPLEX</u>: Trbinc
Site: Devce

- Nearest Town: Trbinc
- Type of Site: Cemetery
- Publications:
    - Vuga, Davorin and Draško Josipovič (1981) Trbinc. *Varstvo spomenikov (Monuments Conservation)* 23: 217.
    - Vuga, Davorin (1982**)** Trbinc. *Varstvo spomenikov (Monuments Conservation)* 24: 254-256.

- **No zoomorphic finds or zooarchaeological remains pertinent to the study.**

COMPLEX: Vače
Site: Apno

- Nearest Town: Klenik
- Type of Site: Cemetery
- Publications:
  - Starè, France (1955) *Vače*. Arheološki Katalogi Slovenije / Catalogi Archaeologici Sloveniae 1. Narodni muzej Slovenije, Ljubljana.
  - Vuga, Davorin (1985) Klenik pri Vačah. *Varstvo spomenikov (Monuments Conservation)* XXVII: 202–204.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
N/A	**Finds above Graves 12-24**	N/A	Non-Sample	Unreliable	N/A	N/A	N/A	N/A	Starè 1955:122, 125
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Megalodon shark	1	Cranium	Teeth	Specialist	Tooth		Nm P 8256
		Cattle	1?	Unknown	Unknown	Field	Unknown		Nm P 8257

<u>COMPLEX</u>: Vače
Site: Ravne njive

- Nearest Town: Vače
- Type of Site: Tumulus Cemetery
- Publications:
  - Starè, France (1955) *Vače*. Arheološki Katalogi Slovenije / Catalogi Archaeologici Sloveniae 1. Narodni muzej Slovenije, Ljubljana.
  - Dular, Janez (2016) Der eisenzeitliche Zentralort Vače und seine kriegerische Elite / Železnodobno središče Vače in njegova bojevniška elita. *Arheološki vestnik* 67: 73–104.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1883	**11-1**	Early Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	✓	Dular 2016:61

Artifact	Species	Animal Description	Object Imagery	Material	Dimensions	Image	Museum & Inv. No.
Helmet	Horse Sphinx	Protome Body Suggested	Animals	Bronze	X: 15.75 cm Y: 19.00 cm (at crown); 21.50 cm (to sphinx) Z: 30.00 cm		NHMW 7583

COMPLEX: Vače
Site: Reber

- Nearest Town: Klenik
- Type of Site: Flat Cemetery; Tumulus Cemetery
- Publications:
  - Starè, France (1955) *Vače*. Arheološki Katalogi Slovenije / Catalogi Archaeologici Sloveniae 1. Narodni muzej Slovenije, Ljubljana.
  - Vuga, Davorin (1986) Klenik pri Vačah. *Varstvo spomenikov (Monuments Conservation)* 28: 248.
  - Vuga, Davorin (1988) Klenik pri Vačah. *Varstvo spomenikov (Monuments Conservation)* 30: 215–216.
  - Dular, Janez (2016) Der eisenzeitliche Zentralort Vače und seine kriegerische Elite / Železnodobno središče Vače in njegova bojevniška elita. *Arheološki vestnik* 67: 73–104.

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
N/A	2	Indeterminate	Non-Sample	Unreliable	Probable Female	Indeterminate	-	-	Starè 1955:71
		Species	**MNI**	**Body Zone**	**Completeness**	**Analysis**	**Elements**		**Museum & Inv. No.**
		Deer (indt)	1?	Limbs Unknown	Partial	Unknown	"The bones of the legs of a deer"		Unknown
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
N/A	14	Indeterminate	Non-Sample	Unreliable	Indeterminate	Probable Adult	✓	-	Starè 1955:72
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Figurine	Horse	Full Body Harnessed With Rider	Humans	Bone	X: 4.9 cm Y: 2.8 cm Z: 1.3 cm		NHMW 3615

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
N/A	**20**	Indeterminate	Non-Sample	Unreliable	Probable Female	Probable Adult	✓	-	Starè 1955:72
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Fibula	Bird	Full Body	None	Bronze	X: 7.4 cm Y: 3.0 cm Z: 0.7 cm		Nm P 164

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
N/A	**Grave with the Mounted Warriors Belt**	Late Ha	Non-Sample	Unreliable	Probable Male	Probable Adult	-	-	Turk 2005:63
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Belt Plate	Horse	Full body Harnessed With Rider	Animals Humans Combat	Bronze	X: 29.9 cm Y: 9.4 cm Z: 0.1 cm		NHMW 40141

Tumulus Number	Grave Number	Period	In Sample?	Reliability	Conservative Gender	Conservative Age	Imports?	Horse Gear?	Citations
1881	**1**	Late Ha	Non-Sample	Unreliable	Indeterminate	Indeterminate	-	-	Dular 2016:60
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Helmet	Mammal (indt)	Full Body	None	Bronze	X: 27.5 cm Y: 19.5 cm Z: 30.0 cm		NHMW 6481

		Situla	Horse Sheep Canid Deer (indt) Ibex Bird	Full Body Sexed Moving Eating Procession Harnessed With Rider	Animals Humans Feasting Axe Man Music Boxing Chariot Wagon	Bronze	Y: 23.8 cm		Nm P 581
Tumulus Number	**Grave Number**	**Period**	**In Sample?**	**Reliability**	**Conservative Gender**	**Conservative Age**	**Imports?**	**Horse Gear?**	**Citations**
1889	**1**	Late Ha	Non-Sample	Unreliable	Probable Male	Indeterminate	-	-	Dular 2016:61
		Artifact	**Species**	**Animal Description**	**Object Imagery**	**Material**	**Dimensions**	**Image**	**Museum & Inv. No.**
		Belt Plate	Bird Hare	Full Body Moving Eating Procession	Animals	Bronze	X: 17.2 cm Y: 8.7 cm	 [309]	Nm P 80

[309] Turk 2005:24 Fig. 24.

<u>COMPLEX</u>: Veliki Vinji vrh
Site: Dolge njive 2

- Nearest Town: Bela Cerkev
- Type of Site: Tumulus Cemetery
- Publications:
    - Mason, Philip (2003) Dolge njive near Bela Cerkev. In *The Earth Beneath Your Feet: Archaeology on the Motorways in Slovenia: Guide to Sites*, edited by Bojan Djurić and Damjana Prešeren, pp. 123–125. Institute for the Protection of Cultural Heritage of Slovenia, Ljubljana.

<u>COMPLEX</u>: Veliki Vinji vrh
Site: Ivanec

- Nearest Town: Družinska vas
- Type of Site: Tumulus Cemetery
- Publications:
    - Stare, Vida (1973b) *Prazgodovina Smarjete*. Katalogi in Monografije 10 / Catalogi et Monographiae 10. Narodni Muzej Slovenije, Ljubljana.
    - Dular, Anja (1991) *Prazgodovinska grobišča v okolici Vinjega vrha nad Belo cerkvijo / Die vorgeschichtlichen Nekropolen in der Umgebung von Vinji Vrh oberhalb von Bela Cerkev*. Katalogi in Monografije 26 / Catalogi et Monographiae 26. Narodni muzej Slovenije, Ljubljana.
    - Križ, Borut (1991a) Družinska vas - Gomila "Kopina." *Varstvo spomenikov (Monuments Conservation)* 33: 205–206.
    - Mason, Philip (2001) Družinska vas. *Varstvo spomenikov (Monuments Conservation)* 38: 24–25.
    - Breščak, Danilo, and Katarina Udovč (2007) Družinska vas - arheološko najdišče Kozjane. *Varstvo spomenikov (Monuments Conservation)* 43: 57–58.
    - Udovč, Katarina (2008) Družinska vas - arheološko najdišče Kozjane. *Varstvo spomenikov (Monuments Conservation)* 44: 60.

- No zoomorphic or zooarchaeological finds pertinent to the study.

<u>COMPLEX</u>: Veliki Vinji vrh
Site: Laze

- Nearest Town: Vinji vrh
- Type of Site: Tumulus Cemetery
- Publications:
    - Belak, Mateja (1990) Gomila Velše na Vinjem vrhu / The Barrow "Velše" on the Vinji vrh. *Dolenjski zbornik*: 9–22.
    - Dular, Anja (1991) *Prazgodovinska grobišča v okolici Vinjega vrha nad Belo cerkvijo / Die vorgeschichtlichen Nekropolen in der Umgebung von Vinji Vrh oberhalb von Bela Cerkev*. Katalogi in Monografije 26 / Catalogi et Monographiae 26. Narodni muzej Slovenije, Ljubljana.
    - Križ, Borut (1993) Vinji Vrh. *Varstvo spomenikov (Monuments Conservation)* 35: 169.

- No zoomorphic or zooarchaeological finds pertinent to the study.

<u>COMPLEX</u>: Veliki Vinji vrh
Site: Veliki Vinji vrh

- Nearest Town: Bela Cerkev
- Type of Site: Fortified Settlement
- Publications:
    - Svoljšak, Drago (1994-1995) Vinji vrh. *Varstvo spomenikov (Monuments Conservation)* 36: 246.
    - Dular, Janez, Borut Križ, Primož Pavlin, Drago Svoljšak, and Sneža Tecco Hvala (2000) Prazgodovinska višinska naselja v dolini Krke / Vorgeschichtliche Höhensiedlungen im Krkatal. *Arheološki vestnik* 51: 119–170.
    - Križ, Borut (2007) Veliki Vinji vrh. *Varstvo spomenikov (Monuments Conservation)* 43: 230-231.
    - Mason, Philip and Katarina Udovč (2007) Vinji Vrh. *Varstvo spomenikov (Monuments Conservation)* 43: 233-234.
    - Mason, Philip and Vesna Merc (2010) Vinji Vrh pri Beli Cerkvi - arheološko območje Vinji Vrh. *Varstvo spomenikov (Monuments Conservation)* 46: 257-258.

- No zoomorphic finds pertinent to the study.

<u>COMPLEX</u>: Veliki Vinji vrh
Site: Vovk

- Nearest Town: Bela Cerkev
- Type of Site: Unfortified Settlement
- Publications:
    - Križ, Borut (2003) Bela Cerkev – Pod Vovkom. In *The Earth Beneath Your Feet: Archaeology on the Motorways in Slovenia : Guide to Sites*, edited by Bojan Djurić and Damjana Prešeren, pp. 97–98. *Zemlja pod vašimi nogami. Arheologija na avtocestah Slovenije*. Institute for the Protection of Cultural Heritage of Slovenia, Ljubljana.

- No zoomorphic finds pertinent to the study.

<u>COMPLEX</u>: N/A
Site: Vesela gora

- Nearest Town: Brinje
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Borut Križ, Drago Svoljšak, and Sneža Tecco Hvala (1991) Utrjena prazgodovinska naselja v Mirenski in Temeniški dolini / Befestigte prähistorische Siedlungen in der Mirenska dolina und der Temeniška dolina. *Arheološki vestnik* 42: 65–198.

- **No zoomorphic finds pertinent to the study.**

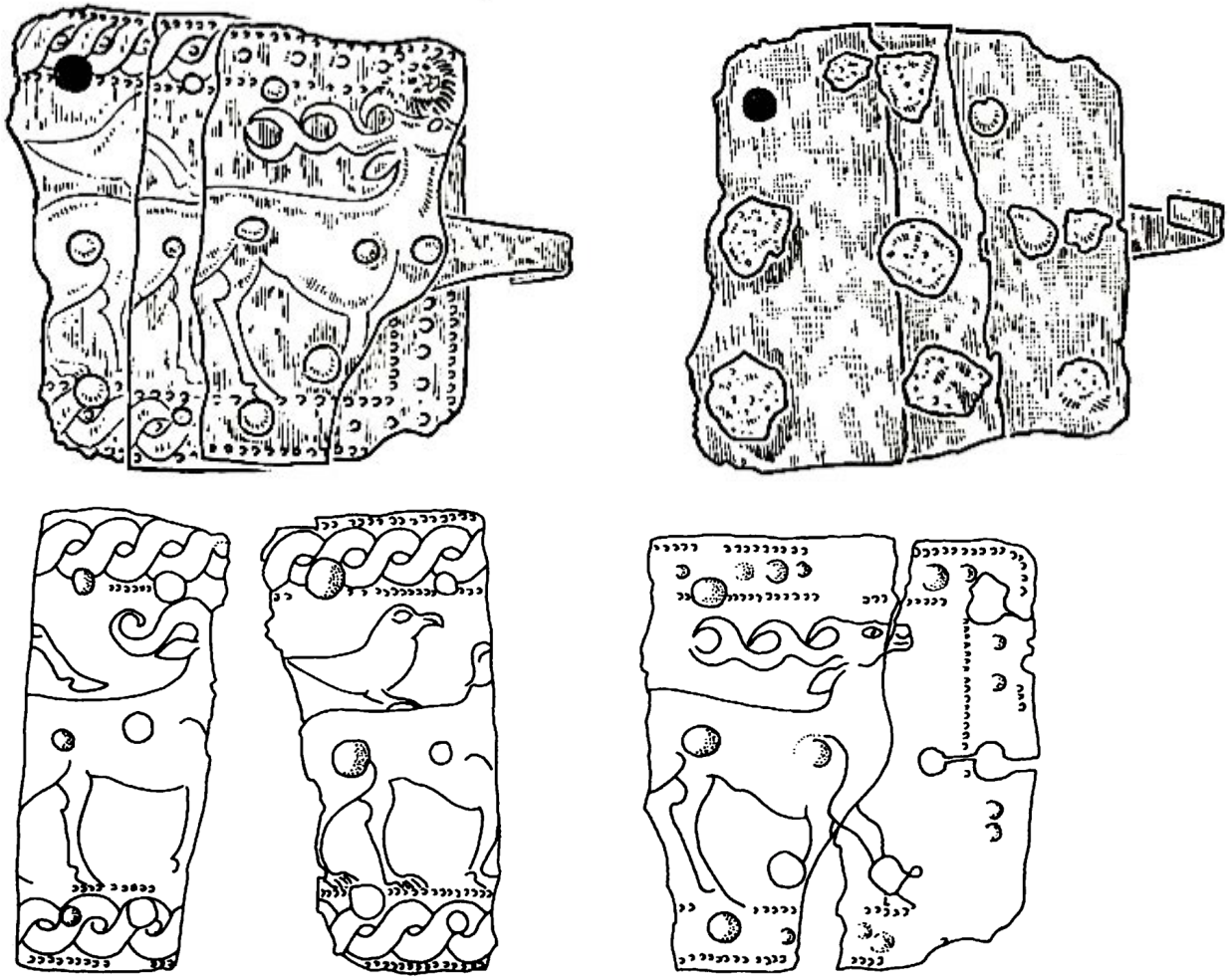
<u>COMPLEX</u>: N/A
Site: Zagrac

- Nearest Town: Vodice pri Grabovki
- Type of Site: Fortified Settlement
- Publications:
    - Dular, Janez, Primož Pavlin, and Sneža Tecco Hvala (2003) Prazgodovinska višinska naselja v okolici Dol pri Litiji / Vorgeschichtliche Höhensiedlungen in der Umgebung von Dole pri Litiji. *Arheološki vestnik* 54: 159–224.

- **No zoomorphic finds pertinent to the study.**

Appendix C. Situla Art in the Dataset

Brezje pri Trebelnem Complex
Hojbi Tumulus XIII, Grave 8
Naturhistorisches Museum Wien inv. no. 34125

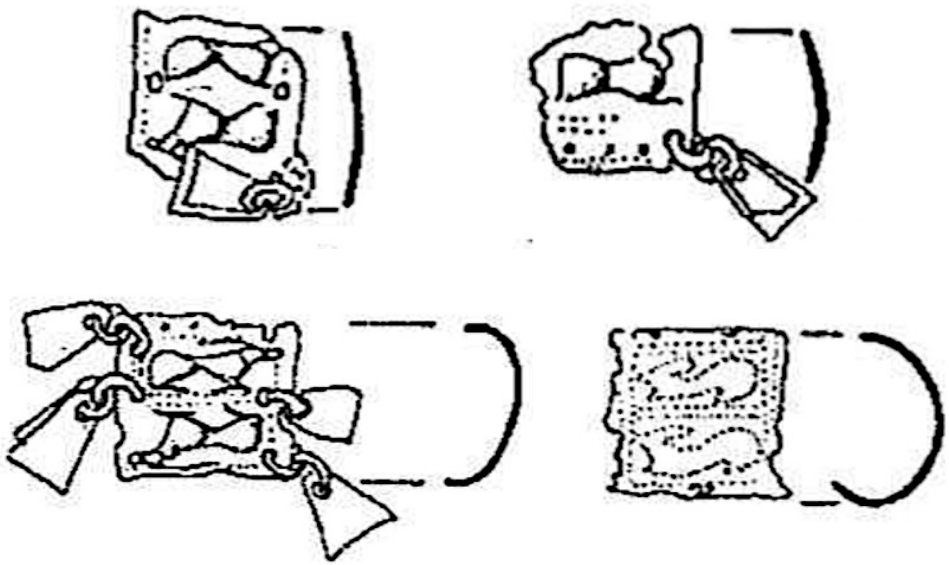


Top: Kromer 1959: Pl. 36 no. 5
Bottom: Turk 2005:23 Fig. 22

Dolenjske Toplice Complex
Branževec 2 Tumulus II, Grave 2
Naturhistorisches Museum Wien inv. no. 56721

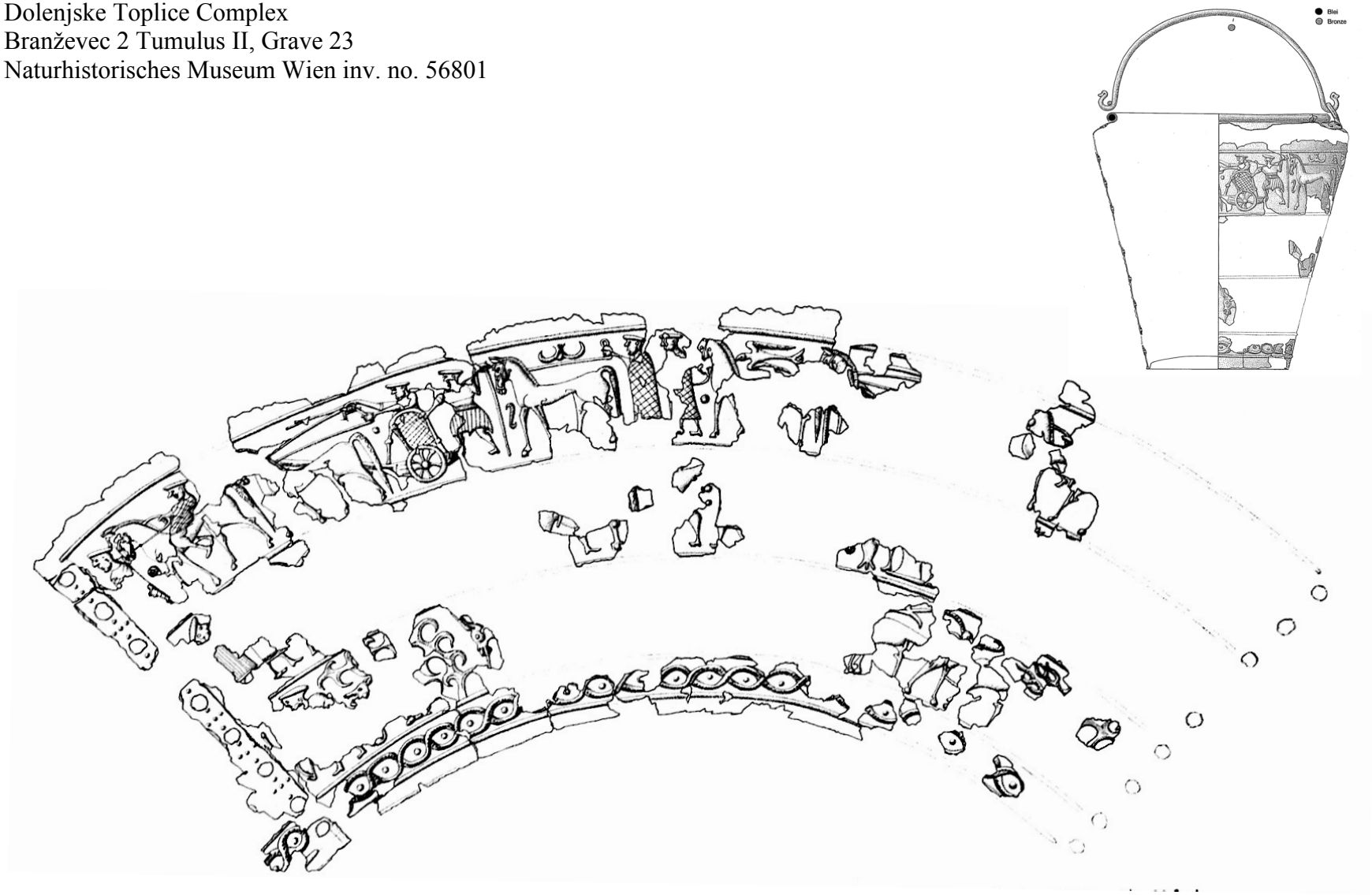
Teržan 1976: Pl. 4 no. 12

Dolenjske Toplice Complex
Branževec 2 Tumulus II, Grave 16
Naturhistorisches Museum Wien inv. no. 56777 (four earrings)



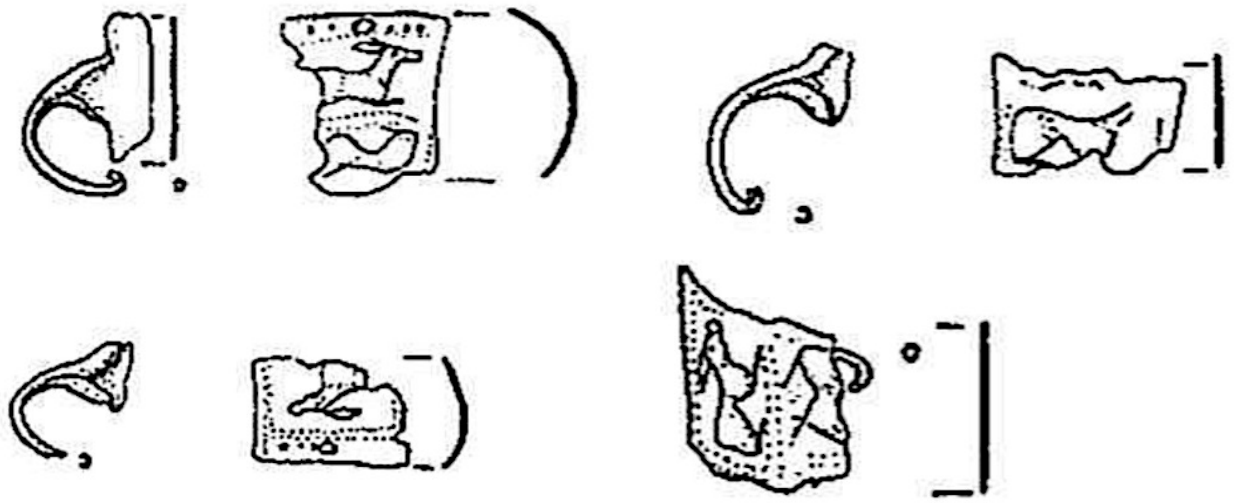
Teržan 1976: Pl. 8 nos. 4-7

Dolenjske Toplice Complex
Branževec 2 Tumulus II, Grave 23
Naturhistorisches Museum Wien inv. no. 56801



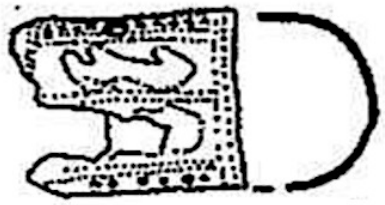
Egg and Eibner 1981:194 Fig. 3, 195 Fig. 5

Dolenjske Toplice Complex
Branževec 2 Tumulus II, Grave 30
Naturhistorisches Museum Wien inv. no. 56820 (four earrings)



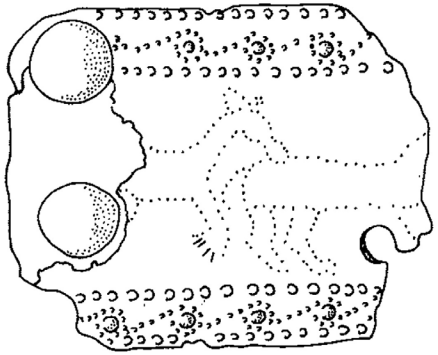
Teržan 1976: Pl. 14 nos. 6-9

Dolenjske Toplice Complex
Branževec 2 Tumulus XI, Grave 12
Naturhistorisches Museum Wien inv. no. 57226



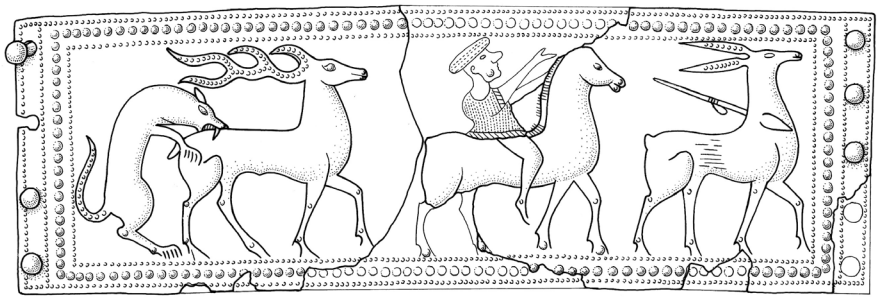
Teržan 1976: Pl. 66 no. 4

Dolenjske Toplice Complex
Branževec 2 Tumulus XI, Grave 21
Naturhistorisches Museum Wien inv. no. 57252



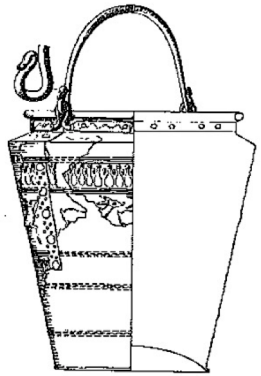
Turk 2005:73 Fig. 113

Kidričeva cesta [Zagorje ob Savi]
Milač House, Grave with the Belt Plate
Narodni muzej inv. no. P 4340



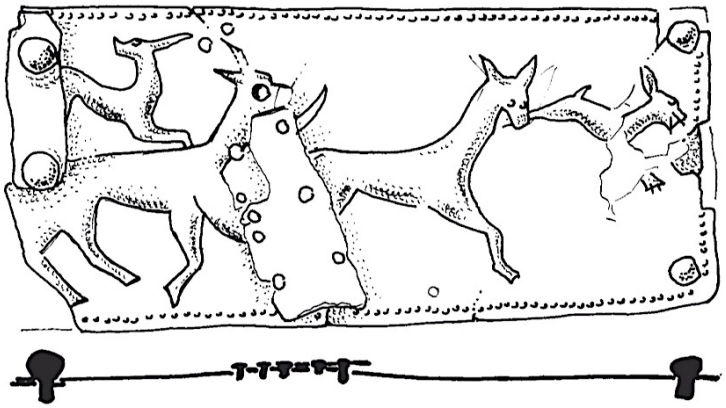
Turk 2005:32 Fig. 43

Magdalenska gora Complex
Laščik Tumulus V, Grave 6-7-6a
Peabody Museum inv. no. 34-25-40/8418



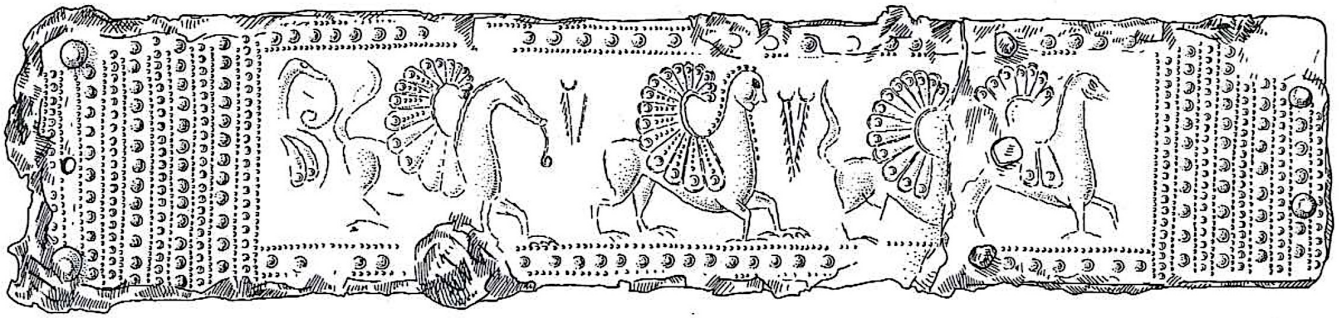
Hencken 1978:146 Fig. 111

Magdalenska gora Complex
Laščik Tumulus V, Grave 29
Peabody Museum inv. no. 34-25-40/8516



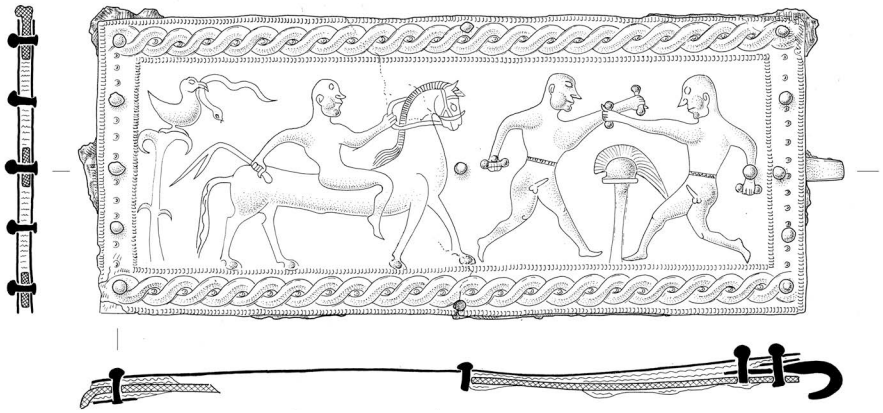
Tecco Hvala 2012:172 Fig. 66

Magdalenska gora Complex
Preloge Tumulus 2, Grave 13
Naturhistorisches Museum Wien inv. no. 22083



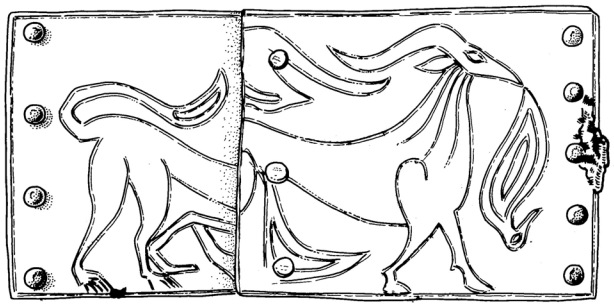
Turk 2005:25 Fig. 28

Magdalenska gora Complex
Preloge Tumulus 2, Grave 46
Naturhistorisches Museum Wien inv. no. 22962



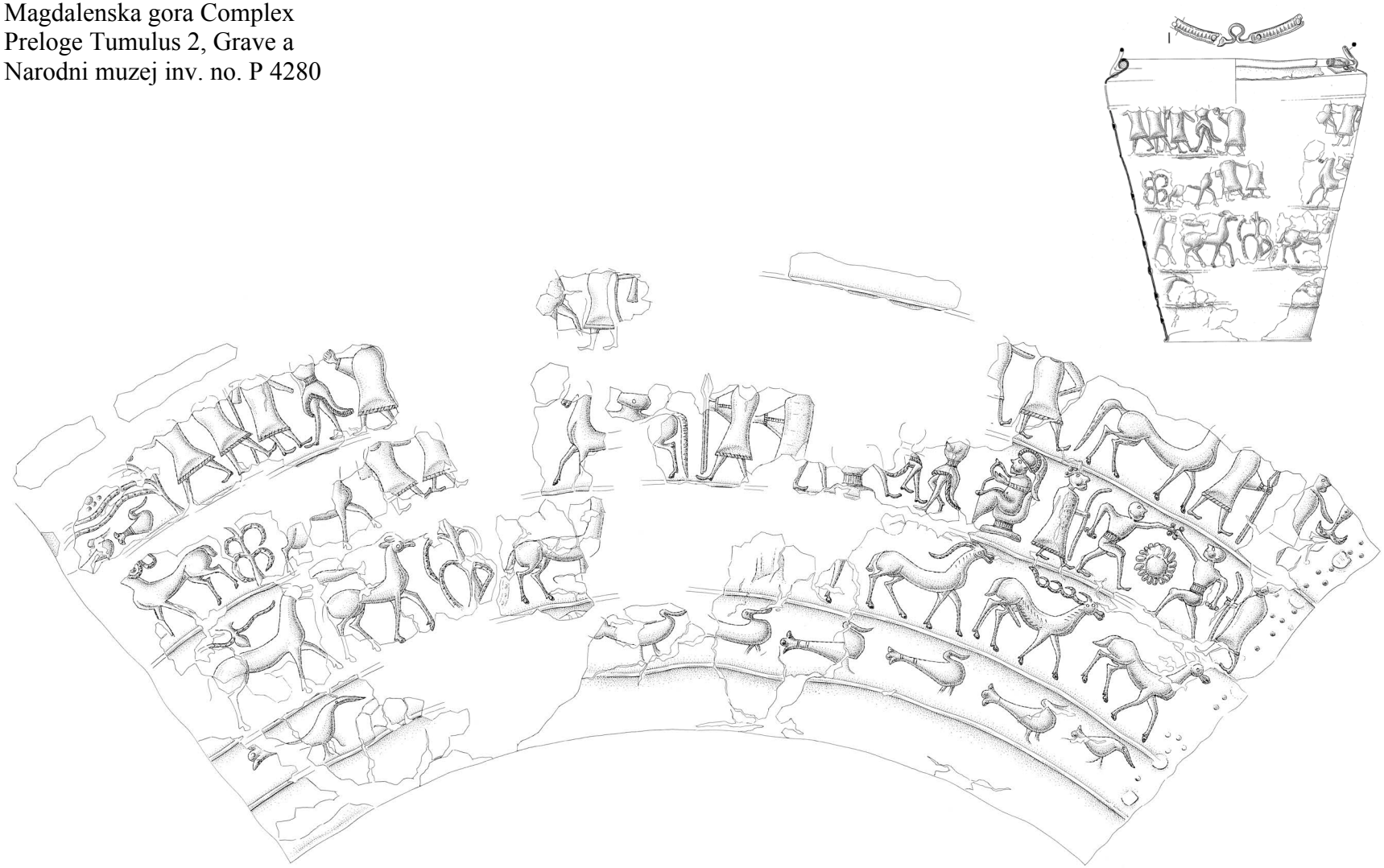
Tecco Hvala et al. 2004: Pl. 41 no. 1

Magdalenska gora Complex
Preloge Tumulus 2, Grave 58
Naturhistorisches Museum Wien, missing



Tecco Hvala et al. 2004: Pl. 53 no. 1

Magdalenska gora Complex
Preloge Tumulus 2, Grave a
Narodni muzej inv. no. P 4280

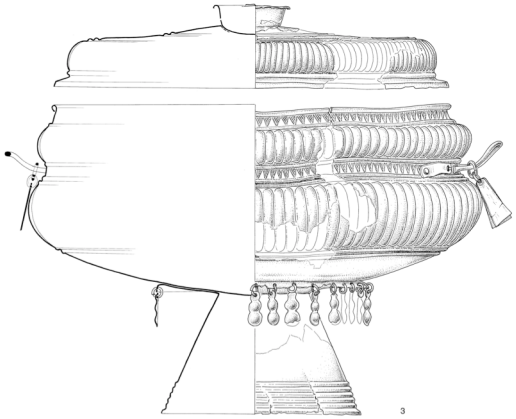


Tecco Hvala et al. 2004: Pl. 8 no. 8, Appendix 2

Magdalenska gora Complex
Preloge Tumulus 2, Grave b
Narodni muzej inv. no. P 4281

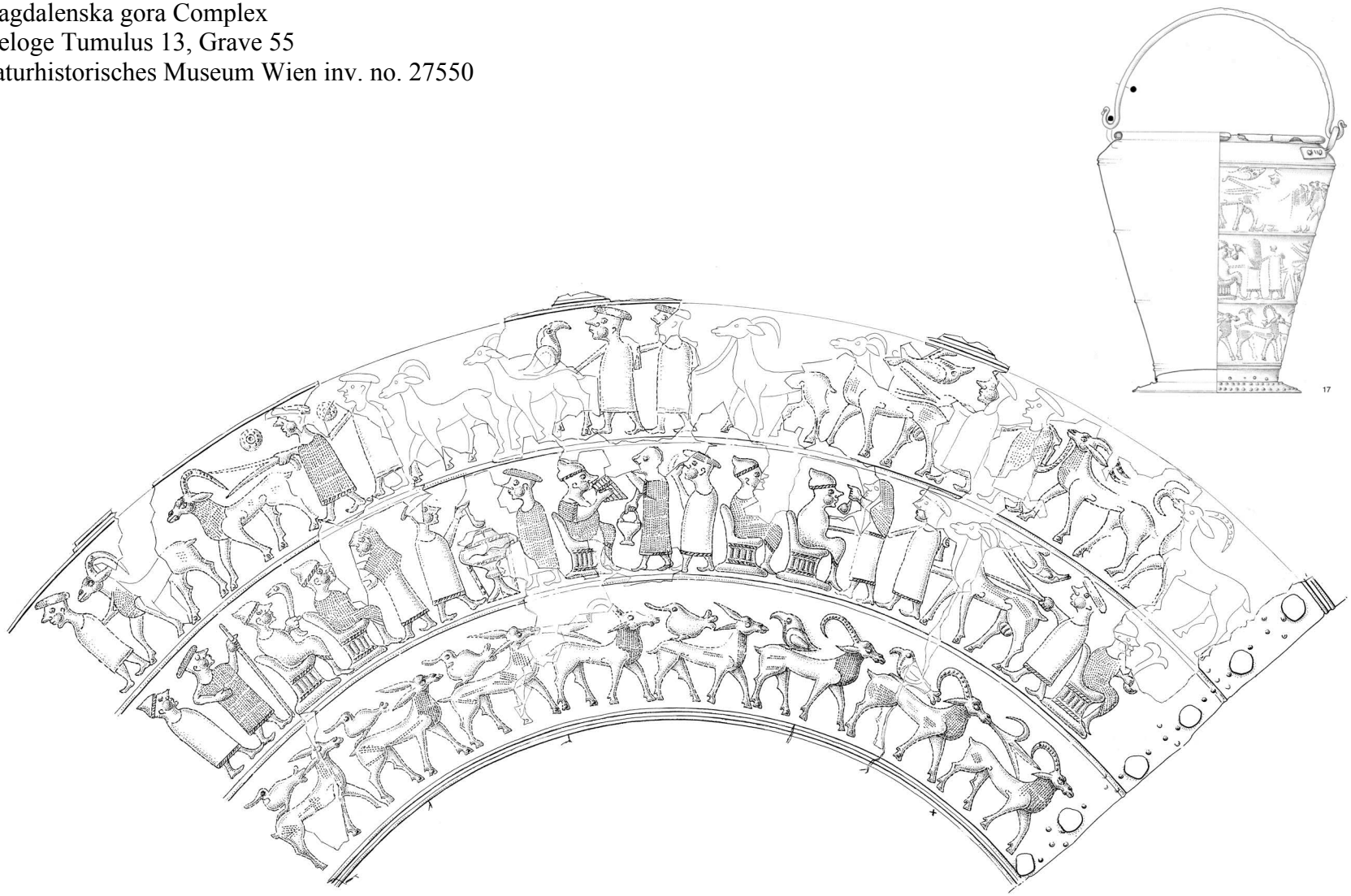
Tecco Hvala et al. 2004: Pl. 9 no. 3, Appendix 3

Magdalenska gora Complex
Preloge Tumulus 2, Grave p
Narodni muzej inv. no. P 4282



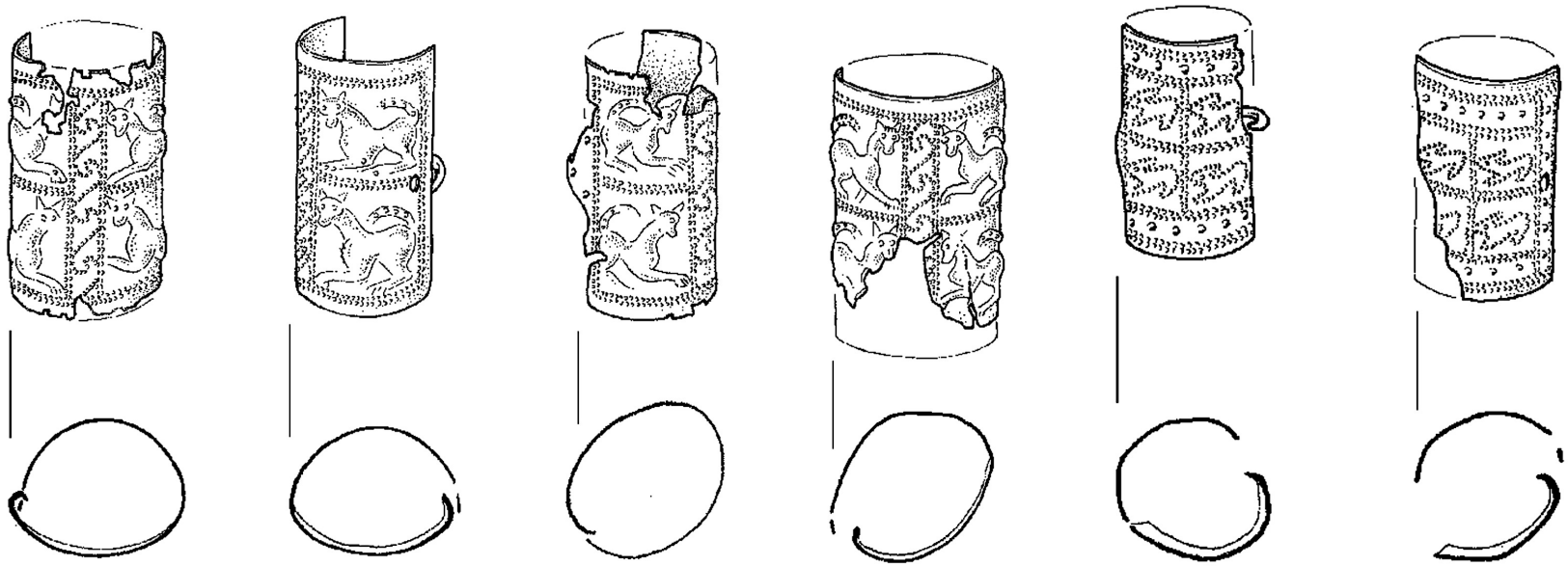
Tecco Hvala et al. 2004: Pl. 14 no. 3, Appendix 5

Magdalenska gora Complex
Preloge Tumulus 13, Grave 55
Naturhistorisches Museum Wien inv. no. 27550



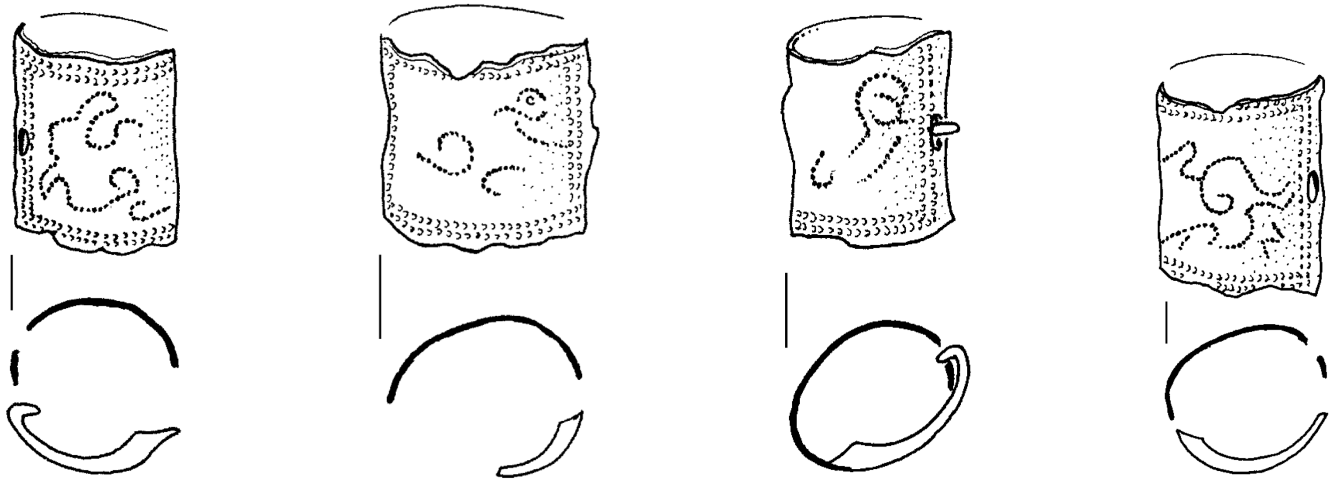
Tecco Hvala et al. 2004: Pl. 85 no. 17, Appendix 5

Magdalenska gora Complex
Preloge Tumulus 13, Grave 117
Naturhistorisches Museum Wien inv. no. 27784 (six earrings)



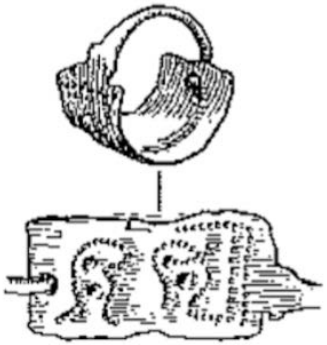
Tecco Hvala et al. 2004: Pl. 105 nos. 1, 2, 3, 4, 7, 8

Magdalenska gora Complex
Preloge Tumulus 13, Grave 117
Naturhistorisches Museum Wien inv. no. 27967 (four earrings)



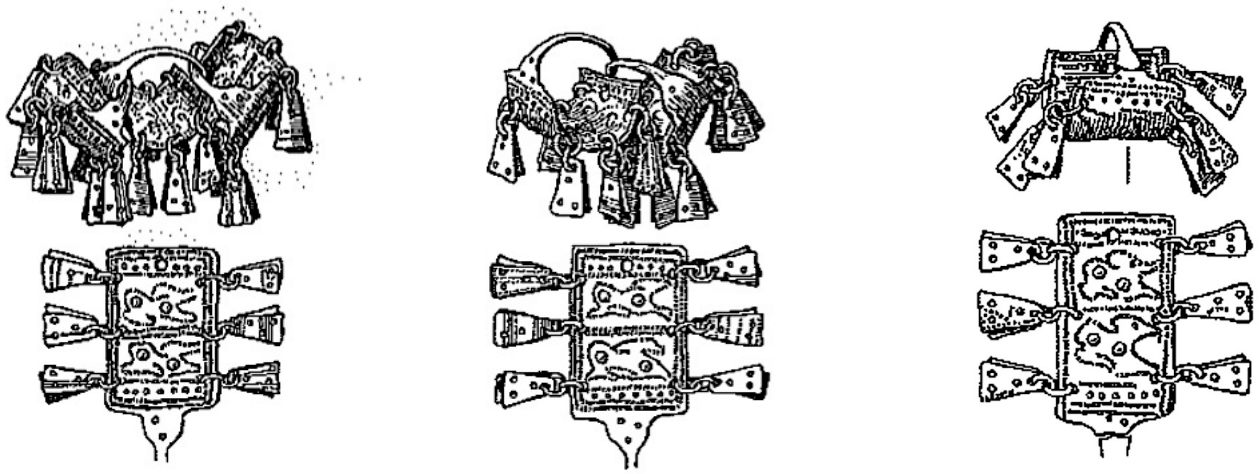
Tecco Hvala et al. 2004: Pl. 120B nos. 1, 2, 5, 6

Magdalenska gora Complex
Preloge Tumulus II, Grave 2a
Peabody Museum inv. no. 34-25-4-/8071



Hencken 1978:98 Fig. 13c

Magdalenska gora Complex
Preloge Tumulus IV, Grave 19
Peabody Museum inv. no. 34-25-40/8200 (three earrings, only one drawn), 34-25-40/8201 (two earrings, only one drawn), 34-25-40/8202 (one earring)



Hencken 1978:115 Fig. 55b, c, e

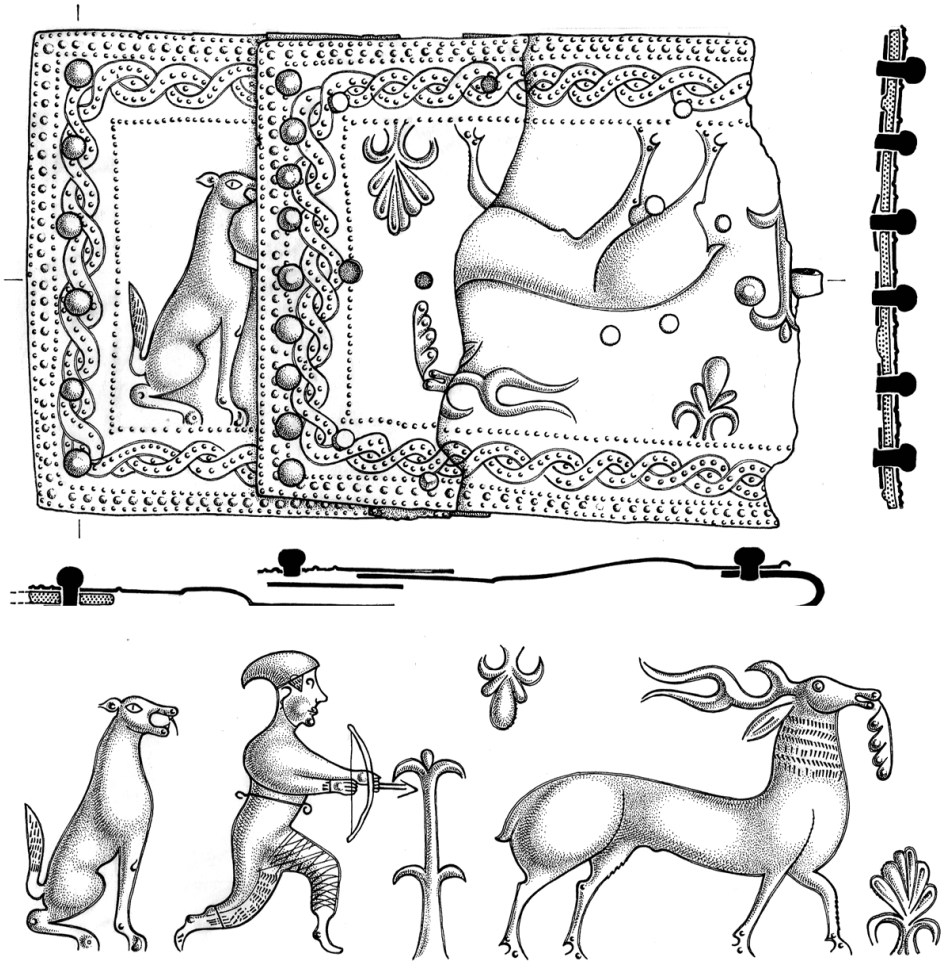
Magdalenska gora Complex
Preloge Tumulus VII, Grave 30
Peabody Museum inv. no. 34-25-40/14023

Hencken 1978:232 Fig. 250a

Magdalenska gora Complex
Preloge Tumulus X, Grave 43
Peabody Museum inv. no. 34-25-40/14321 (four earrings, only one drawn)

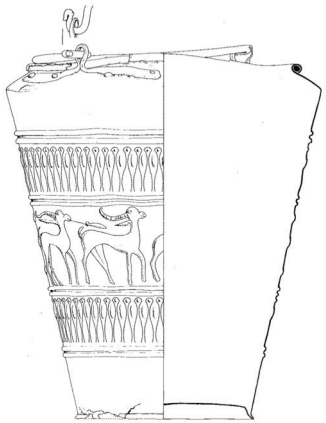
Hencken 1978:281 Fig. 334j

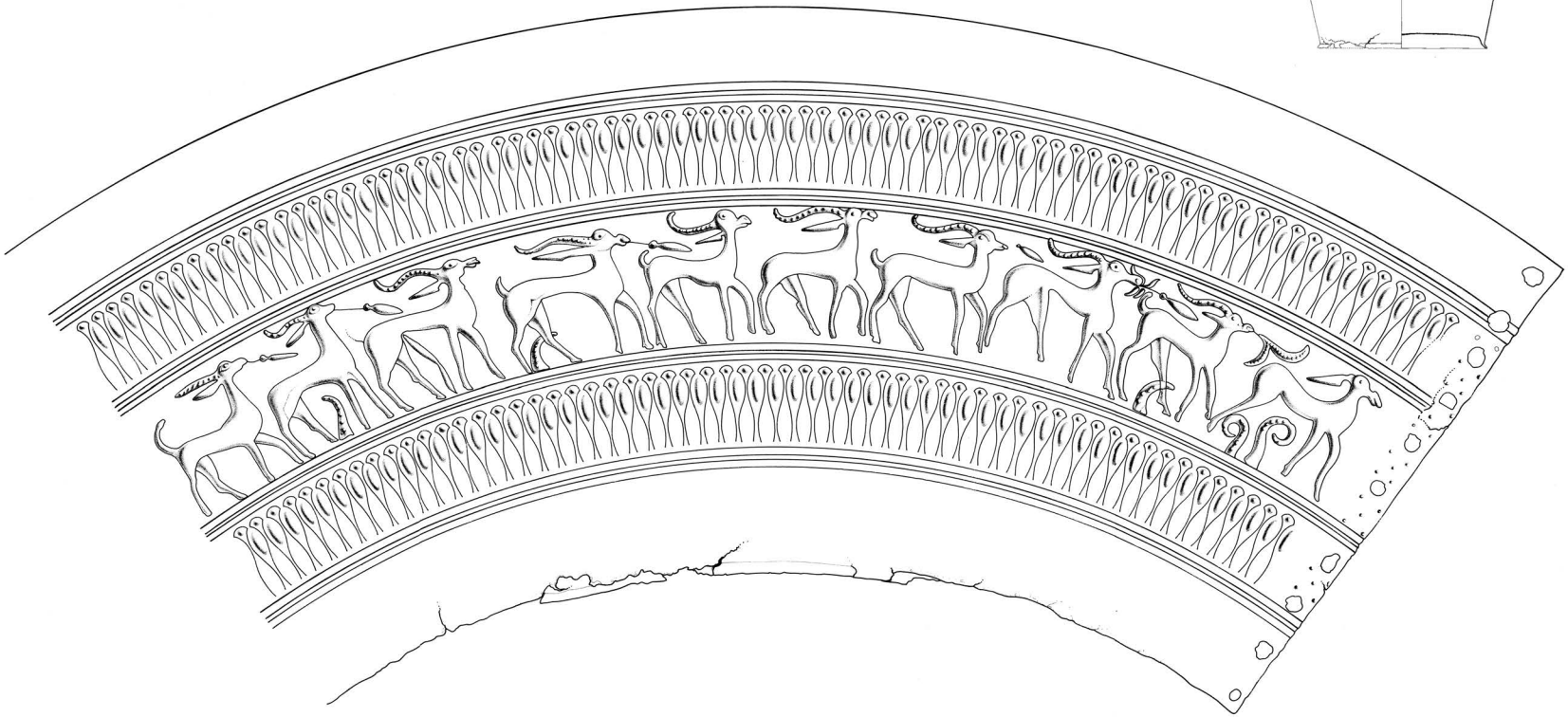
Molnik Complex
Grmada Tumulus 17, Grave 10
Mestni muzej Ljubljana inv. no. 510



Tecco Hvala Forthcoming: Pl. 32 no. 2

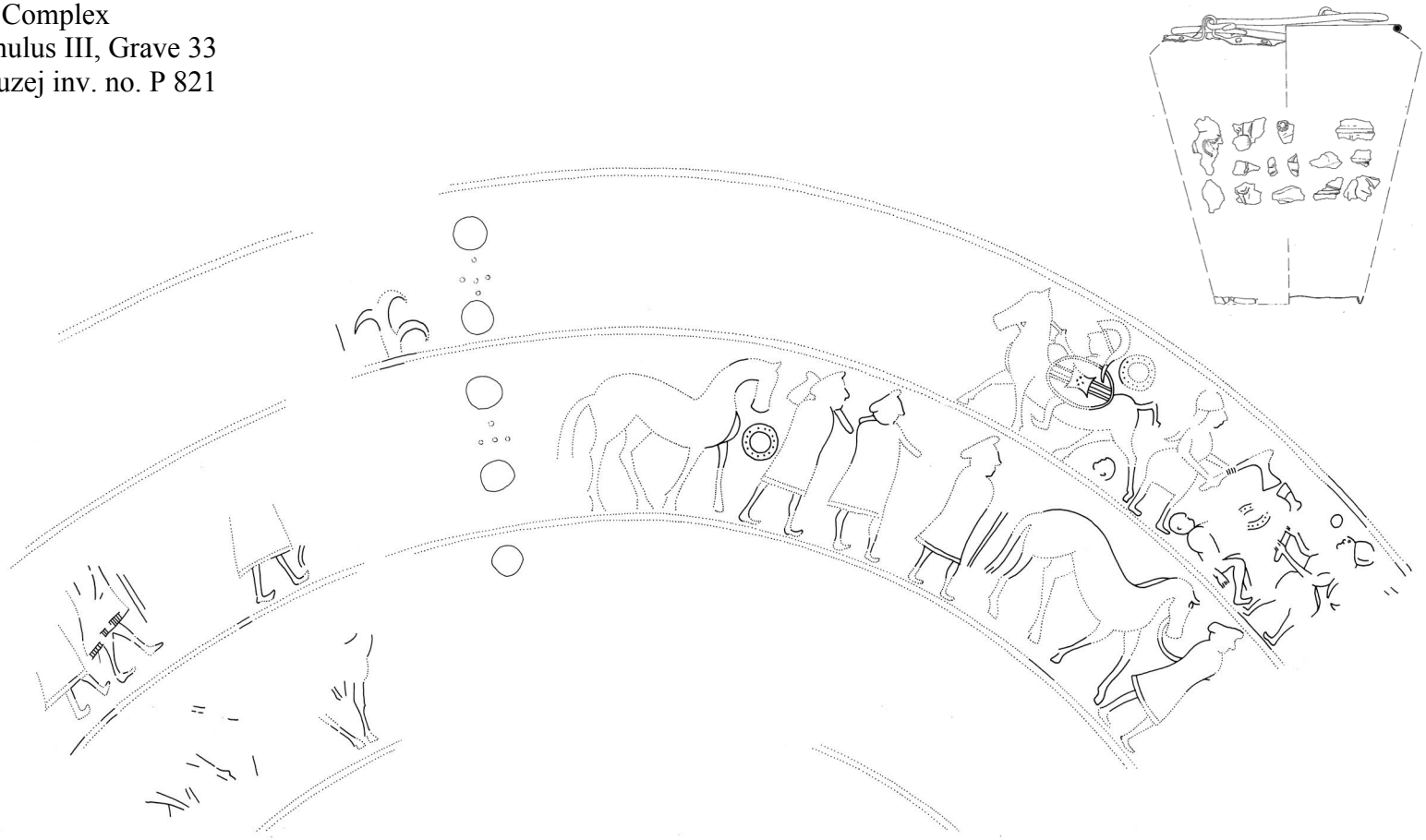
Novo mesto Complex
Kandija Tumulus II, Grave 6
Dolenjski muzej inv. no. P 543





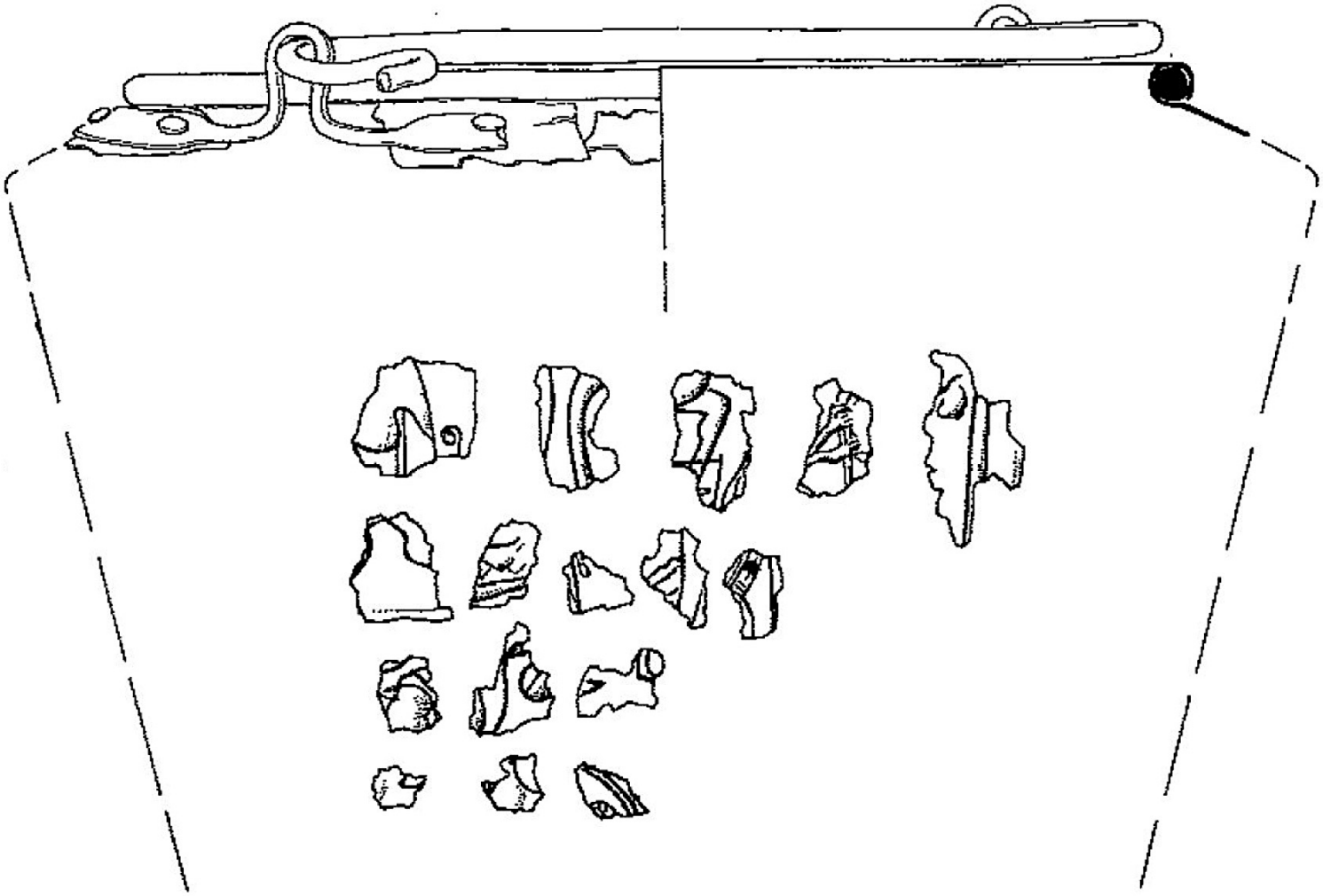
Knez 1986:Pl. 16 no. 3 (full situla), and image courtesy of the Dolenjski muzej (roll-out).

Novo mesto Complex
Kandija Tumulus III, Grave 33
Dolenjski muzej inv. no. P 821



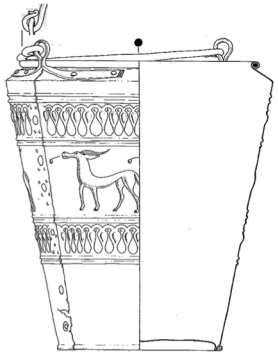
Knez 1986:Pl. 28 no. 15 (full situla), and image courtesy of the Dolenjski muzej (roll-out).

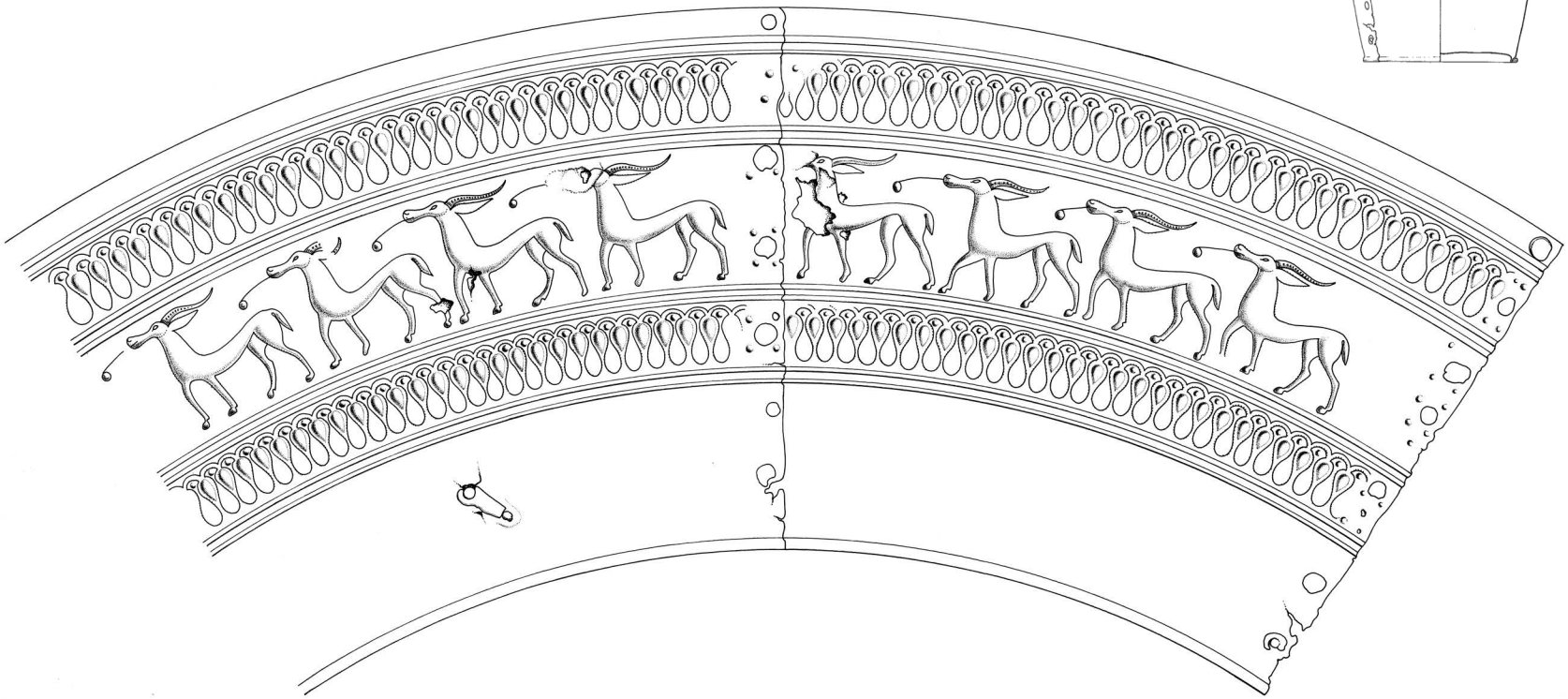
Novo mesto Complex
Kandija Tumulus III, Grave 33
Dolenjski muzej inv. no. P 822



Knez 1986:Pl. 28 no. 14.

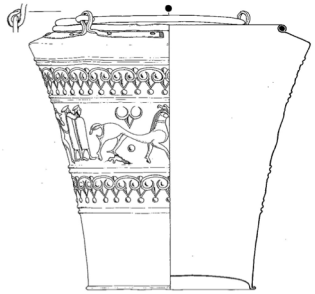
Novo mesto Complex
Kandija Tumulus IV, Grave 3
Dolenjski muzej inv. no. P 237

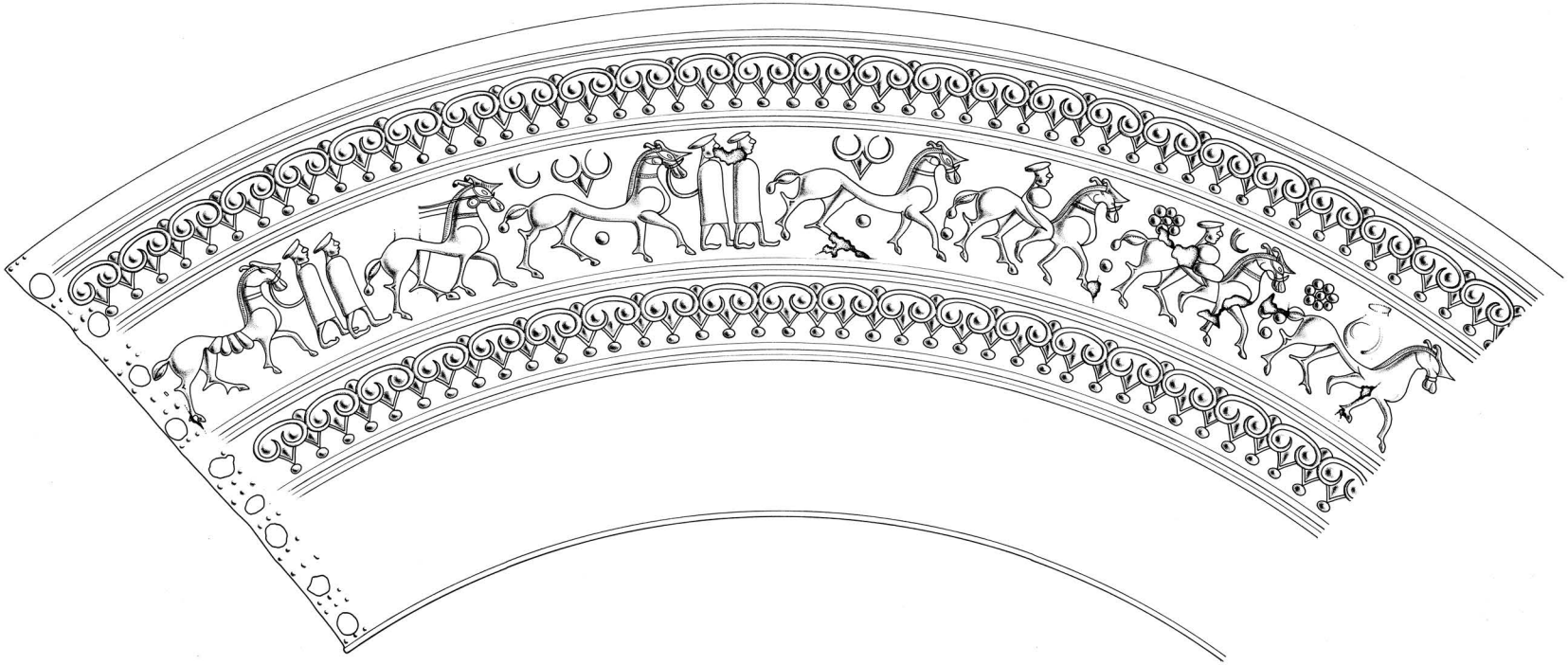




Knez 1986:Pl. 32 no. 1, and image courtesy of the Dolenjski muzej (roll-out)

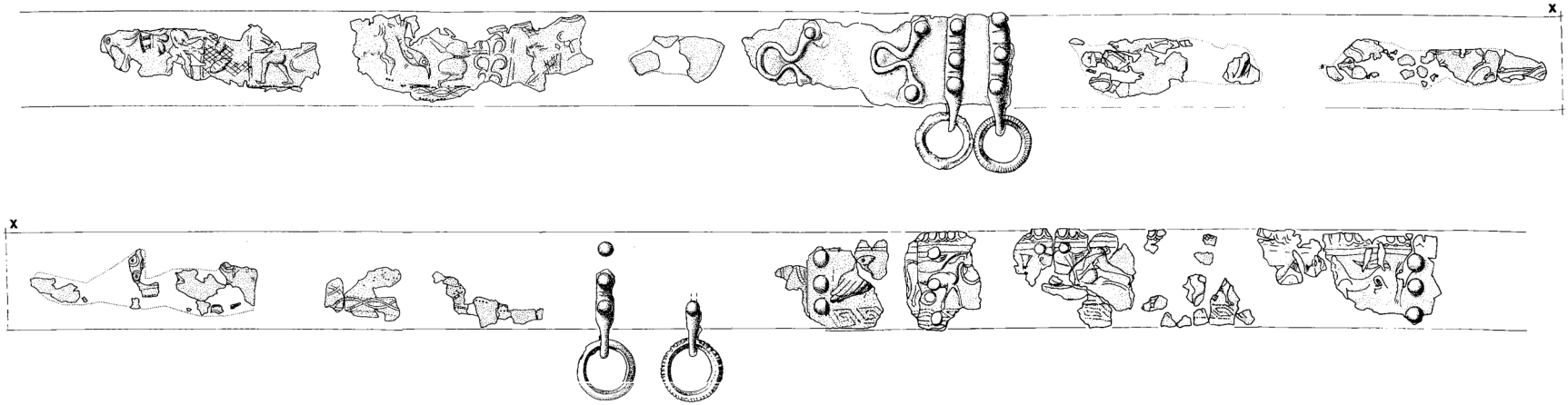
Novo mesto Complex
Kandija Tumulus IV, Grave 3
Dolenjski muzej inv. no. P 239





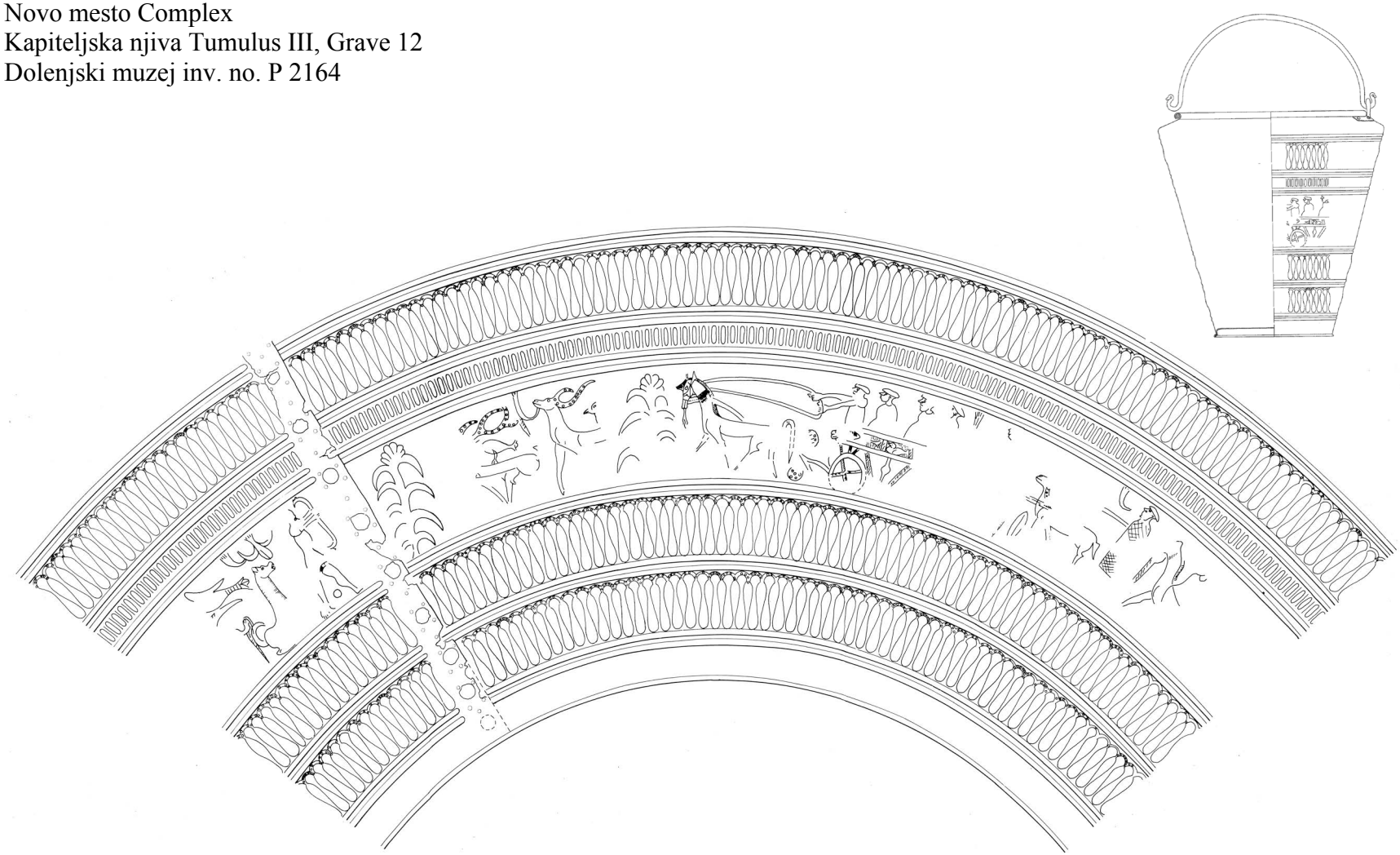
Knez 1986:Pl. 32 no. 2, and image courtesy of the Dolenjski muzej (roll-out)

Novo mesto Complex
Kapiteljska njiva Tumulus III, Grave 12
Dolenjski muzej inv. no. P 2162



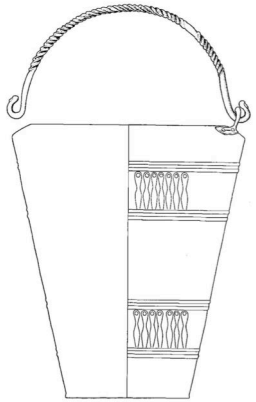
Križ 1997: Appendix 4

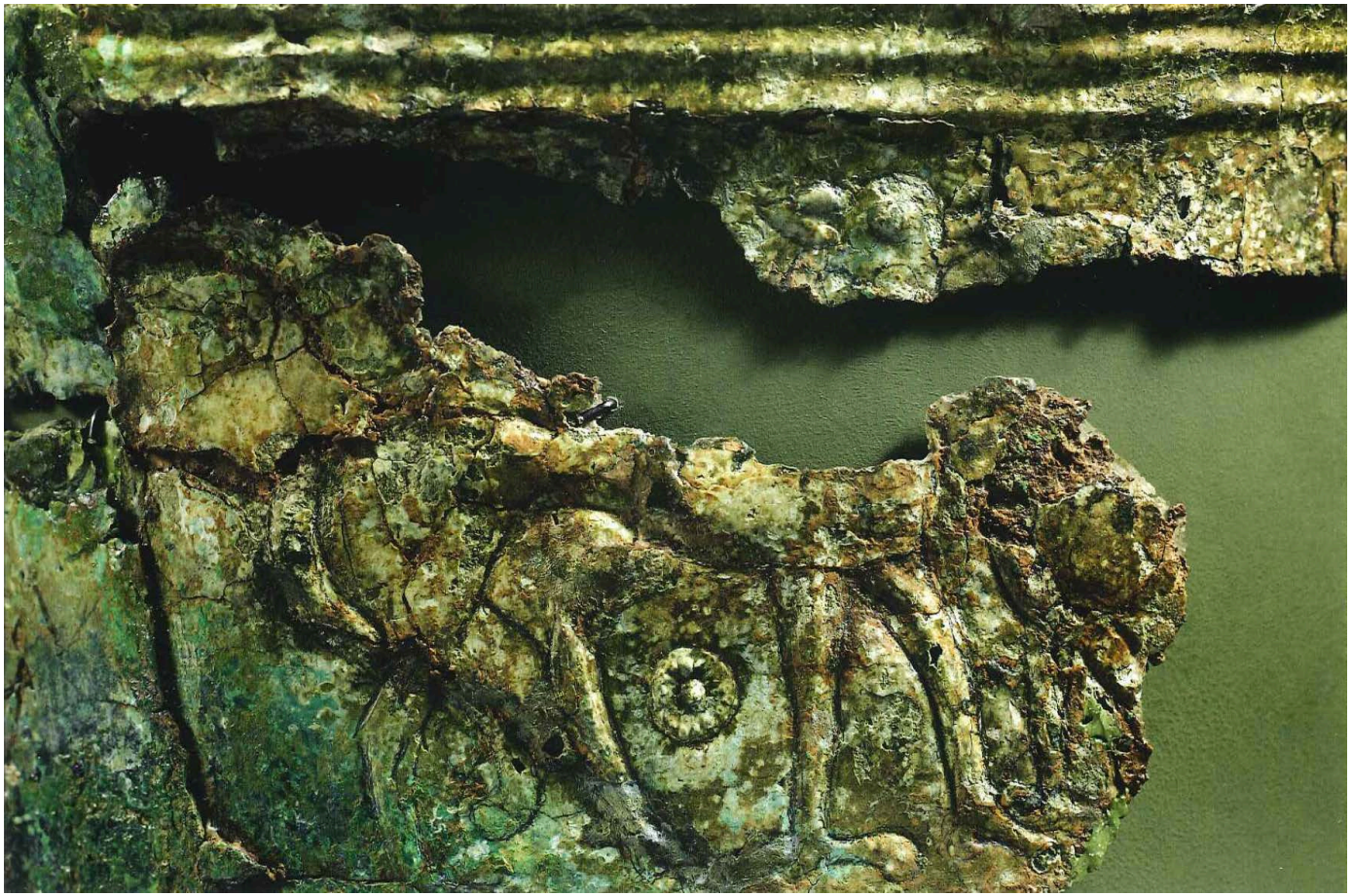
Novo mesto Complex
Kapiteljska njiva Tumulus III, Grave 12
Dolenjski muzej inv. no. P 2164



Križ 1997:Pl. 39 no. 9, and image courtesy of the Dolenjski muzej (roll-out)

Novo mesto Complex
Kapiteljska njiva Tumulus VII, Grave 19
Dolenjski muzej inv. no. P 2908



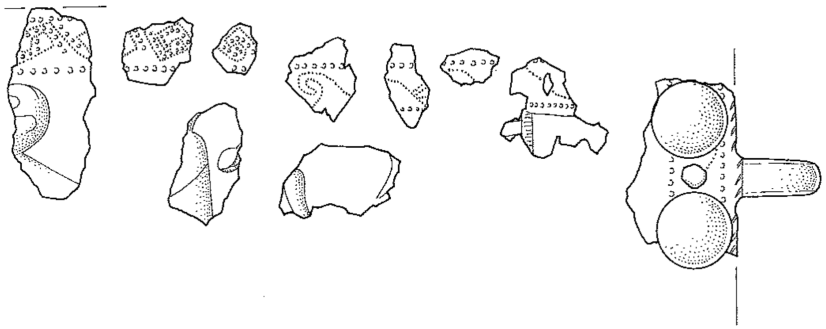


Egg 1999:339 Fig. 16 no. 1 (full situla); Križ 2012:124 (close-up – not yet drawn).

Novo mesto Complex
Kapiteljska njiva Tumulus XIV, Grave 7
Dolenjski muzej inv. no. P 4624

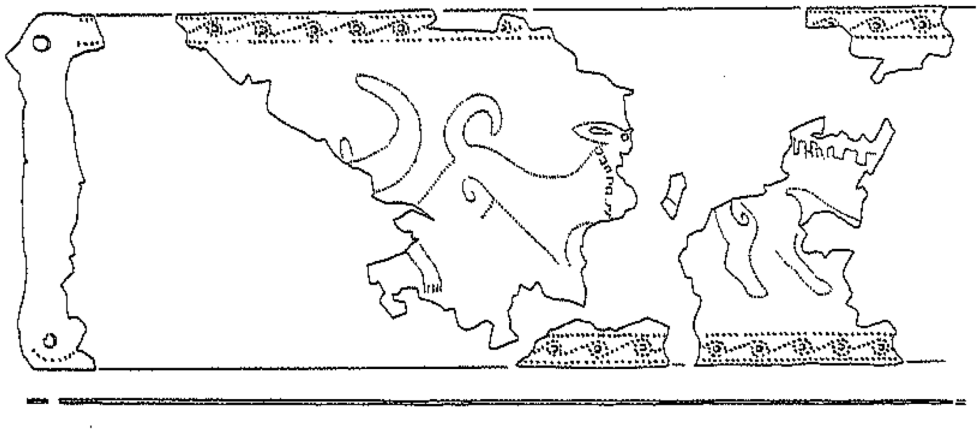
Križ 1997:175 Pl. 25 no. 2, and image courtesy of the Dolenjski muzej (roll-out)

Novo mesto Complex
Malenškova njiva, Malenškova gomila, Grave 3
Narodni muzej inv. no. P 11619



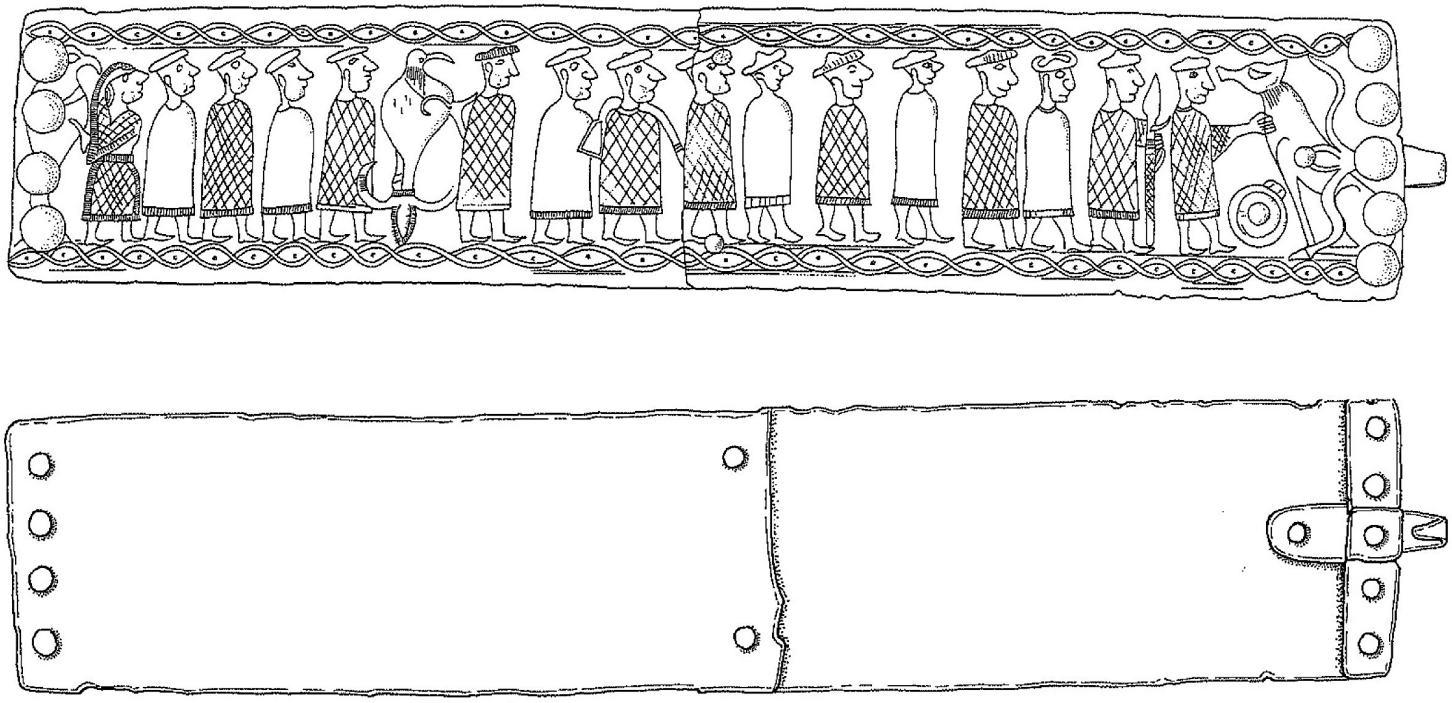
Turk 2005:66 Fig. 99

Stična Complex
Gomile Tumulus 48, Grave 104
Narodni muzej inv. no. P 13534



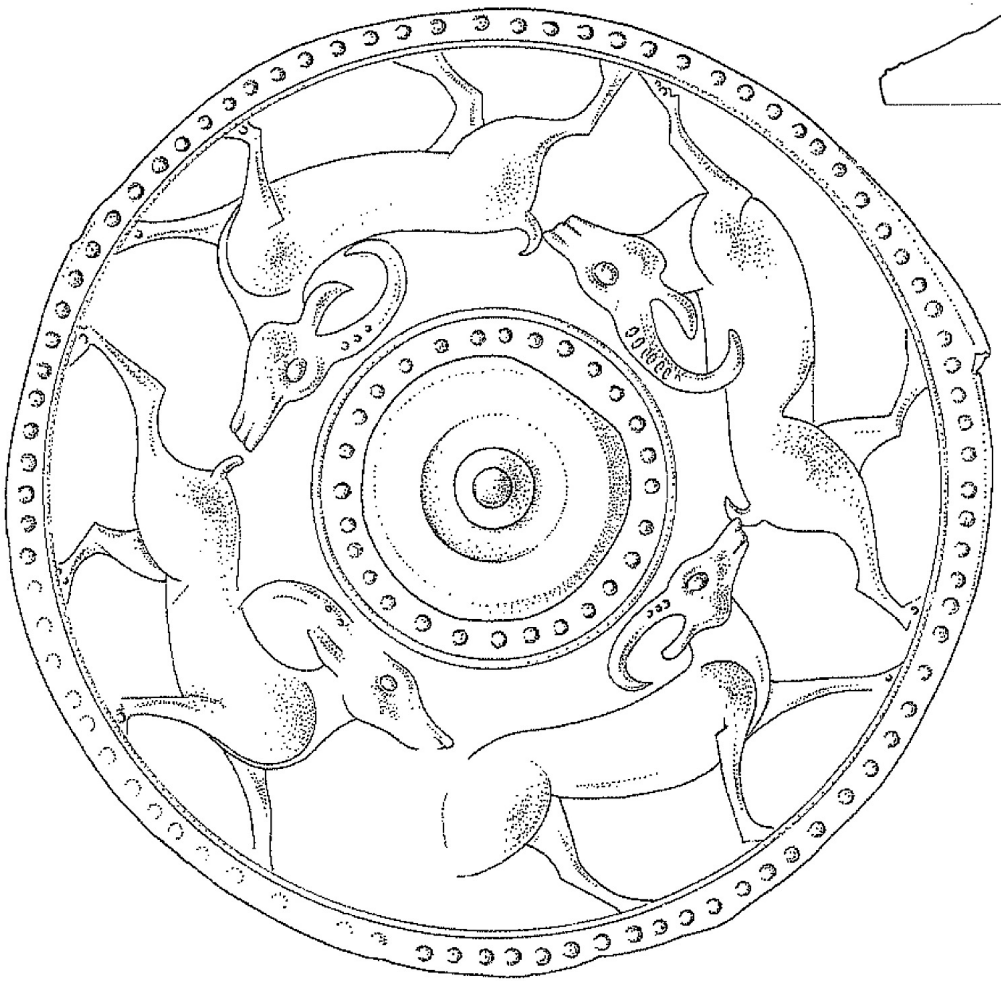
Gabrovec 2006:336 Pl. 62 no. 2

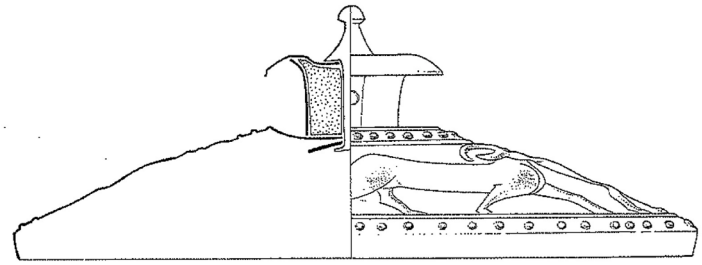
Stična Complex
Gomile Tumulus VI, Grave 30
Museum für Ur- und Frühgeschichte inv. no. UE 6



Gabrovec 2006:268 Fig. 71

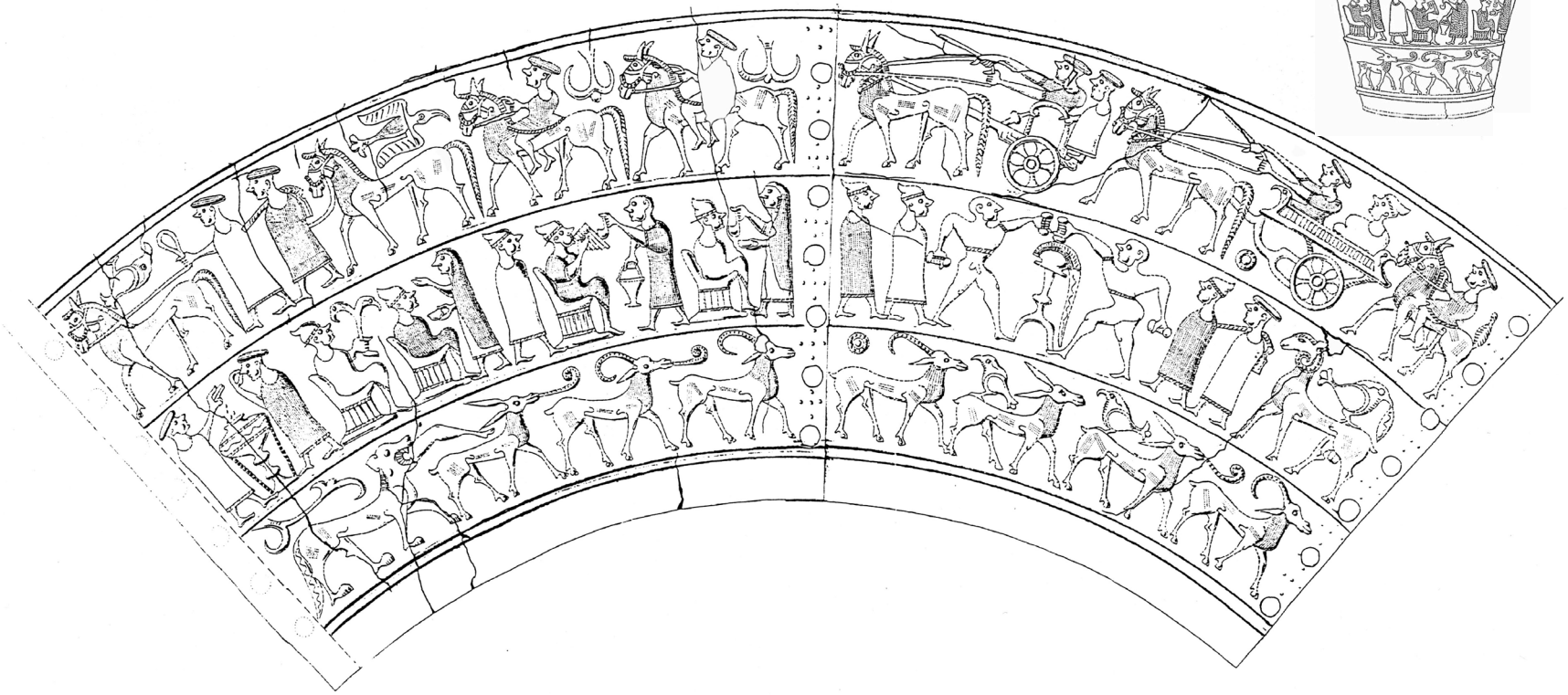
Stična Complex
Gomile Tumulus 76, Grave with the Decorated Situla
Narodni muzej inv. no. P 6948/1





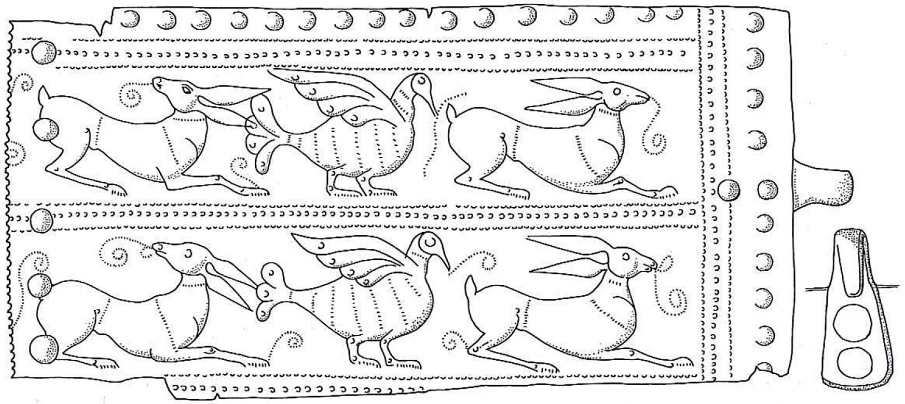
Gabrovec 2006:405 Pl. 131 no. 2

Vače Complex
Reber, Grave 1881/1
Narodni muzej inv. no. P 581



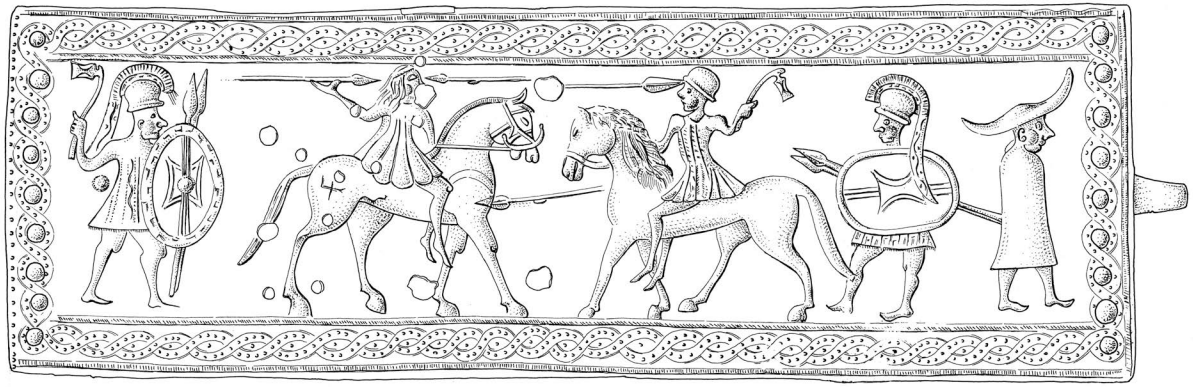
Dular 2016:83 Pl. 1 no. 7, Turk 2005:35 Fig. 52 (roll-out)

Vače Complex
Reber, Grave 1889/1
Narodni muzej inv. no. P 80



Turk 2005:49 Fig. 71

Vače Complex
Reber, Grave with the Mounted Warriors Belt
Naturhistorisches Museum Wien inv. no. 40141



Turk 2005:39 Fig. 58

ADRIENNE C. FRIE

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University of Wisconsin-Milwaukee
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EDUCATION

UNIVERSITY OF WISCONSIN-MILWAUKEE

PhD, Anthropology, May 2017
Dissertation – *Cultural Constructions of Nature: Animal representation and use in Early Iron Age southeastern Slovenia*

UNIVERSITY OF CHICAGO

MA, Social Sciences (concentrated in Anthropology), August 2010
Thesis – *Materials in Motion: Examining Ancient Systems of Value in Western Hallstatt Europe*

UNIVERSITY OF CALIFORNIA, SAN DIEGO

BA (*summa cum laude*), Anthropology with Highest Honors, June 2009
Minors: History and European Studies
Thesis – *Preciosities, Power and Long-Distance Trade: The Case of Anglo-Saxon Emporia*

UNIVERSITEIT LEIDEN NETHERLANDS

Faculteit der Archeologie, Exchange Student, January-June 2008

GRANTS, FELLOWSHIPS, AND AWARDS

- Wenner-Gren Dissertation Fieldwork Grant No. 9038, 2015-2016
- Fulbright IIE Slovenia, 2015-2016 – Declined
- University of Wisconsin-Milwaukee Distinguished Dissertation Fellowship, 2014-2015
- Fulbright IIE Slovenia, Alternate Candidate, 2013 & 2014
- The Jana Zemljarič Miklavčič Scholarship Trust for Slovene language study, 2013
- Distinguished Graduate Student Fellowship, UWM, 2012-2013
- First Year Student Success Award – recognized as a remarkable UWM Community Member named by a UWM first year student as the person on campus who has helped them the most in their college success, 2011
- Chancellor's Award, University of Wisconsin-Milwaukee, 2011-2013
- Provost's Scholar, UC San Diego, 2009
- Robert McCormick Adams Award for achievements in Anthropological Archaeology, UCSD, 2009

PUBLICATIONS

Forthcoming 2018 Horses and the Embodiment of Masculinity in the Dolenjska Hallstatt Culture. *Oxford Journal of Archaeology* 37(1).

2016 Assembling Animals: Actual, Figural, and Imagined. In *Incomplete Archaeologies: Assembling Knowledge in the Past and Present*, edited by Emily Miller Bonney, Kathryn J. Franklin, and James A. Johnson, pp. 64-83. Oxford: Oxbow.

2012 The Multiple Temporalities of a Burial Monument: The Tumulus at Hrib. *Field Notes: A Journal of Collegiate Anthropology* 4(1): 129-143.

BOOK REVIEWS

2014 Review of *Amber in the Ancient World*. Faya Causey. Los Angeles, CA: The J. Paul Getty Museum, 2011. 144 pp. ISBN 978-1-60606-082-7. $25.00. *Field Notes: A Journal of Collegiate Anthropology* 6(1): 62-66.

2013 Review of *How Ancient Europeans Saw the World.* Peter S. Wells. Princeton, NJ: Princeton University Press, 2012. 304 pp. ISBN 0691143382. $35.00. *Field Notes: A Journal of Collegiate Anthropology* 5(1): 80-85.

INVITED PRESENTATIONS

Dec. 2015 *Cultural Constructions of Nature: Animal representation and use in Early Iron Age southeastern Slovenia.* Guest lecture given to the Institute of Archaeology at the Research Centre of the Slovenian Academy of Sciences and Arts (Inštitut za arheologijo, Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti). Ljubljana, Slovenia.

April 2015 *Historical Craniotomy and Autopsy Practices at the Milwaukee County Institutional Grounds Poor Farm Cemetery*. 80th Annual Meeting of the Society for American Archaeology (SAA). San Francisco, California.

April 2014 *Attitudes towards Animals – Connections between the representation and use of animals in the Steppes and Southeastern Slovenia.* 79th Annual Meeting of the Society for American Archaeology (SAA). Austin, Texas.

Sept. 2013 *Assembling Animals: Actual, Figural and Imagined.* 19th Annual Meeting of the European Association of Archaeologists (EAA). Pilsen, Czech Republic.

CONFERENCE PRESENTATIONS

March 2017 *Something Other – Birds in Early Iron Age Slovenia*. 82nd Annual Meeting of the Society for American Archaeology (SAA). Vancouver, Canada.

Sept. 2016 *Omniscient or just omnipresent? The perceived role of birds in Early Iron Age Slovenia.* 22nd Annual Meeting of the European Association of Archaeologists (EAA). Vilnius, Lithuania.

Sept. 2015 *Iron Age Art in Life: The role of animal depictions in Dolenjska Hallstatt society.* 21st Annual Meeting of the European Association of Archaeologists (EAA). Glasgow, United Kingdom.

April 2015 *Animals for the Dead: Animal sacrifice in Iron Age funerary rites*. Stichting Archaeological Dialogues, 22nd Archaeology and Theory Symposium, Mortuary Archaeology: Methodology and Theory, Universiteit Leiden. Leiden, The Netherlands.

Sept. 2014 *Ritual Creatures: The role of animals in the performance of Iron Age funerary rites*. 20th Annual Meeting of the European Association of Archaeologists (EAA). Istanbul, Turkey.

Sept. 2013 *Burial Mounds and Social Animals: The social implications of the deposition of animal remains and animal artifacts in Dolenjska Hallstatt tumuli.* 19th Annual Meeting of the European Association of Archaeologists (EAA). Pilsen, Czech Republic.

May 2013 *Materiality of a Burial Mound: The Materialization of Identity, Community, and Place in the Tumulus at Hrib.* Theoretical Archaeology Group (TAG), University of Chicago. Chicago, Illinois.

March 2013 *Constraints and Opportunities: Transhumant Pastoral Communities in Prehistory.* Second City Anthropology Conference, University of Illinois at Chicago. Chicago, Illinois.

Feb. 2013 *Transhumant Pastoralism in Prehistory: An Undertheorized Mode of Subsistence*. Anthropology Student Union Student Colloquium, University of Wisconsin-Milwaukee. Milwaukee, Wisconsin.

October 2012 *The Multiple Temporalities of a Burial Monument: The Tumulus at Hrib*. Eurasian Archaeology Conference, Cornell University. Ithaca, New York.

May 2012 *Valued Materials: moving beyond economic theories of value in Western Hallstatt Europe*. Theoretical Archaeology Group (TAG), SUNY Buffalo. Buffalo, New York.

March 2012 *Amber and Coral: Valued Materials in Western Hallstatt Europe*. Anthropology Student Union Student Colloquium, University of Wisconsin-Milwaukee. Milwaukee, Wisconsin. Winner of 2nd place paper prize.

Feb. 2012 *Object Trajectories: Tracing value in Western Hallstatt Europe*. Boston University's Tenth Biennial Open Forum for Graduate Students, Found Objects, Past Lives: Archaeological Perspectives on Material and Materiality. Boston, Massachusetts.

May 2010 *Materiality in Motion: Examining Ancient Systems of Value in Western Hallstatt Europe.* TAT conference, Thinking about 'Things': Interdisciplinary Futures in Material Culture, University of Michigan at Ann Arbor. Ann Arbor, Michigan.

ARCHAEOLOGICAL EXPERIENCE

ATHIENOU ARCHAEOLOGICAL PROJECT

Senior Staff Member: June-July 2017 **Athienou, Cyprus**

Leading the Filemaker Pro Server database reorganization to transition the project from data capture to data analysis in preparation for producing the final publication. Also assisting in excavation at the Cypro-Geometric through Roman sanctuary as well as ongoing interpretation of the faunal material.

ZAVAROVALNO ARHEOLOŠKO IZKOPAVANJE PRAZGODOVINSKEGA GROBIŠČA NA KAPITELJSKI NJIVI NOVO MESTO [RESCUE ARCHAEOLOGICAL EXCAVATIONS OF THE PREHISTORIC CEMETERY ON KAPITELJSKA NJIVA NOVO MESTO]

Field Technician: July 2016 **Novo mesto, Slovenia**

Aided in the excavation of inhumation graves from Tumulus L and LI of the Early Iron Age (Hallstatt) portion of the site of Kapiteljska njiva, in Novo mesto, Slovenia.

MILWAUKEE COUNTY INSTITUTION GROUNDS (MCIG) CEMETERY PROJECT

Lab Assistant: October 2012-March 2015 **Milwaukee, WI**

Analyze adult human remains from the Milwaukee County Institution Grounds (MCIG) cemetery, a collection of over 2000 individuals. Determine age, sex, and stature, identify pathologies and abnormalities for later investigation, and identify taphonomic modifications.

Undertook independent research recording and analyzing historical craniotomy and autopsy practices demonstrated by the population.

UWM CULTURAL RESOURCE MANAGEMENT SERVICES (UWM-CRM)

Field Technician: October 2012-January 2015 **Milwaukee, WI**

Work as a field technician on projects in the state of Wisconsin. Primarily Phase I survey, as well as some Phase II and III excavation.

KRELJEVA 6 OSTEOLOGICAL ANALYSIS

Lab Assistant: July 2012 **Koper, Slovenia**

Assisted Mateja Kovač with the secondary analysis of skeletal material from the medieval site at Kreljeva 6 in Koper, Slovenia.

ZAVAROVALNO ARHEOLOŠKO IZKOPAVANJE PRAZGODOVINSKEGA GROBIŠČA NA KAPITELJSKI NJIVI NOVO MESTO [RESCUE ARCHAEOLOGICAL EXCAVATIONS OF THE PREHISTORIC CEMETERY ON KAPITELJSKA NJIVA NOVO MESTO]

Field Technician: July 2012 **Novo mesto, Slovenia**

Aided in the excavation of inhumation and cremation graves from Tumulus XLII of the Late Bronze Age (Urnfield) and Early Iron Age (Hallstatt) portion of the site of Kapiteljska njiva, in Novo mesto, Slovenia.

LANDSCAPE OF ANCESTORS DIGITIZING PROJECT

Lab Assistant: April 2012-June 2012 **Milwaukee, WI**

Digitized materials from the 1999-2000 and 2002 field seasons of the Landscape of Ancestors: The Heuneburg Archaeological Project. Digitized all planum maps and profiles using Canvas 9 for records and publication.

ST. ANTOINE'S GARDEN HISTORICAL ARCHAEOLOGY PROJECT

Lab Assistant: March-June 2010 **Chicago, IL**

Conducted analysis on 18-19th century material under the direction of Dr. Shannon Lee Dawdy. Analyzed various artifacts, including glass, ceramics, metal, and organics. Completed contextual analyses for incorporation into the final excavation report.

QWU?GWES MUD BAY ARCHAEOLOGICAL PROJECT

Supervisor & Scientific Illustrator, Squaxin Island Tribe site: Summer 2009 **Olympia, WA**

Trained and supervised field school students in both wet and dry site excavation and lab procedures. Conducted excavation and laboratory work and directed a student team. Served as primary scientific illustrator and instructor for student scientific illustration. Produced maps and illustrations of major finds that were included in final site report.

PROYECTO DE INVESTIGACIÓN Y DIFUSIÓN SOBRE EL PATRIMONIO ARQUEOLÓGICO PROTOHISTORICO DE LA PROVINCIA DE ZAMORA

Field Technician: July 2008 **Palacios de Sanabria, Spain**

Excavated Iron Age hillfort: focused on changing structural elements through time as well as identifying ceramic assemblages for the period. Surveyed the surrounding region to map Iron Age remains, primarily contemporary hillforts and burials.

QWU?GWES MUD BAY ARCHAEOLOGICAL PROJECT

Field School Student, Squaxin Island Tribe site: Summer 2007 **Olympia, WA**

Excavated both wet and dry site contexts. Conducted individual research focused on examination and experimental reproduction of bone and antler artifacts. Produced scientific drawings of key artifacts for inclusion in field notes as well as pen and ink scientific illustrations of major finds, now on display in the Squaxin Island Tribe Museum.

TEACHING EXPERIENCE

BIOLOGICAL SCIENCES 202 – ANATOMY AND PHYSIOLOGY I

Teaching Assistant: Fall 2016-Present **University of Wisconsin-Milwaukee**

Teaching assistant for UWM's introductory anatomy course. Run the lab portion of the class, which requires lecturing, setting up and running laboratory experiments and activities, design and administer quizzes and practical exams.

ARHEOLOGIJA KOVINSKI OBDOBIJ [ARCHAEOLOGY OF THE METAL AGES]

Guest Lecturer: March 2015 **University of Primorska, Koper, Slovenia**

Guest lectured for a four-hour seminar focused on Early Iron Age Europe. The lecture covered the Early Iron Age of Continental Europe, the Slovenian Early Iron Age, Dolenjska Hallstatt Culture, Dolenjska Hallstatt art, and Dolenjska Hallstatt zooarchaeology and human-animal relations.

ANTHROPOLOGY 103 – DIGGING UP THE PAST: APPROACHES TO ARCHAEOLOGY

Teaching Assistant: Fall 2013-Spring 2014 **University of Wisconsin-Milwaukee**

Teaching assistant for UWM's introductory archaeology course. Lead three discussion sections covering material including the history of archaeology, archaeological theory, and archaeological methods.

CELTIC STUDIES 133 – CELTIC CROSSINGS: OVERVIEW OF THE HISTORY AND CULTURES OF THE CELTIC WORLD

Guest Lecturer: Fall 2012 **University of Wisconsin-Milwaukee**

Guest lecturer for two classes introducing the archaeology of Iron Age Celtic cultures. The first lecture focused on the background of Iron Age archaeology in Europe and the Hallstatt Culture. The second lecture covered the La Tène Culture and the Insular Celts.

ANTHROPOLOGY 101 – INTRODUCTION TO ANTHROPOLOGY: HUMAN ORIGINS

Teaching Assistant: Fall 2011-Spring 2012 **University of Wisconsin-Milwaukee**

Teaching assistant for UWM's introductory Biological Anthropology course. Cover material including the history of anthropology, genetics and evolution, primatology, paleoanthropology, as well as human biological variation.

SERVICE

ARCHAEOLOGICAL INSTITUTE OF AMERICA, MILWAUKEE SOCIETY

Vice President: May 2016-Present **Milwaukee, WI**

Assist the President with meetings and overseeing the lecture season. Organize and oversee International Archaeology Day, an outreach program designed to teach children about archaeology around the world.

ANTHROPOLOGY STUDENT UNION MENTORING PROGRAM

Mentor: February 2016-Present **Milwaukee, WI**

Participate in ASU's monthly workshops to assist beginning MS and PhD students with navigating graduate school. Propose topics, lead workshops, facilitate discussion and answer questions, and put together materials for mentees.

FIELD NOTES: A JOURNAL OF COLLEGIATE ANTHROPOLOGY

Reviewer: September 2011-Present **Milwaukee, WI**

Review and copyedit submissions for the journal *Field Notes: A Journal of Collegiate Anthropology*. Review articles and make publication recommendations, also advise submitting authors on changes that will aid in the final publication of a stronger article.

ANTHROPOLOGY STUDENT UNION

Secretary: August 2012-June 2013 **Milwaukee, WI**

As secretary, recorded and disseminated meeting minutes, organized social activities, wrote conference grants, and helped organize the ASU Student Colloquium.

FIELD NOTES: A JOURNAL OF COLLEGIATE ANTHROPOLOGY

Editor-in-Chief: September 2011-May 2013 **Milwaukee, WI**

Edited three volumes of *Field Notes: A Journal of Collegiate Anthropology*. Revived interest in the journal after a period of lapsed publication. Reorganized the review and copyediting process to aid authors as well as provide important experience for graduate student reviewers. Expanded the authorship and circulation of the journal and established an online presence to make the journal accessible to a wider audience (http://uwm.academia.edu/FieldNotesAJournalofCollegiateAnthropology).

ORIENTAL INSTITUTE MUSEUM, UNIVERSITY OF CHICAGO

Curatorial Intern: September 2009-August 2010 **Chicago, IL**

Curatorial intern for the special exhibit "Pioneers to the Past: American Archaeologists in the Middle East 1919-1920." Researched, wrote, and edited documents for the exhibit catalogue, text panels, and audio tour. Managed social networking media connected to the exhibit. Collected and analyzed membership and visitor data.

EMPLOYMENT

*See section on Archaeological Experience for other recent employment

LOCAL COURTS AND AFRICAN AMERICAN LIFE

Research Assistant: Sept. 2010-July 2011; Oct. 2014-Present **MILWAUKEE, WI**

Assist Dr. Dylan Penningroth on his project "Local Courts and African American Life," affiliated with the American Bar Foundation and University of California, Berkeley. Transcribe chancery, criminal, and law cases from the 1870s to 1960s into a database, and gather demographic information about litigants and lawyers from archival census material. Designed and built a more efficient database in Filemaker Pro for the analysis of this material, and most recently organized the upgrade to Filemaker Server.

UNIVERSITY OF WISCONSIN-MILWAUKEE

Editorial Assistant: October 2011-January 2012 **Milwaukee, WI**

Assisted Dr. Bettina Arnold on her edited volume: *Handbook of Continental Celtic Archaeology*. Focused on formatting and copyediting.

UNIVERSITY OF CHICAGO

Research Assistant: May 2010-May 2012 **Chicago, IL**

Assisted Dr. Maria Cecilia Lozada Cerna with research, accessing key resources, and copyediting. Aided with the logistics and media for the 2011 field school in the Vitor Valley, southern Peru. Also copyedited grant proposals, articles, and an edited volume for publication.

ORIENTAL INSTITUTE MUSEUM, UNIVERSITY OF CHICAGO **Chicago, IL**

Archives Assistant: June 2010-Sept. 2010

Assistant to the lead archivist. Aided in the rehousing of the archives: organized materials, inventoried and edited archival database. Preserved and scanned material for integration into the new database.

METHODS

- **Bioarchaeology** – trained in skeletal identification, ageing, sexing and identification of pathologies and taphonomy
- **Scientific Illustration** – illustration abilities in pen and ink, primarily artifacts for publication
- **Geographic Information Systems** – proficient in ArcGIS 10

RESEARCH LANGUAGES

- Slovene
- French
- German

PROFESSIONAL ASSOCIATIONS

- Archaeological Institute of America, Milwaukee Chapter
- European Association of Archaeologists
- Society for American Archaeology