

Mainland, I. and Batey, C. (2018) The nature of the feast: commensality and the politics of consumption in Viking Age and Early Medieval Northern Europe. *World Archaeology*, 50(5), pp. 781-803. (doi: [10.1080/00438243.2019.1578260](https://doi.org/10.1080/00438243.2019.1578260))

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Deposited on 9 April 2019

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World Archaeology (2019)

Final pre-publication submission, 30/1/19 (acceptance 27/1/19)

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The nature of the feast: commensality and the politics of consumption in Viking Age and Early Medieval Northern Europe

In Early Medieval Northern Europe, food was more than mere sustenance. Rather dietary choices were used to define and manipulate identity and shape power politics. Using the Norse Earldom of Orkney as a case study and commensality as an analytical framework, we explore how the archaeology of food, and in particular zooarchaeological evidence can be used alongside near contemporary historical sources to better understand the political and social role of food as well as the likely scale and impact of commensal activities on farming economies and environments in the Medieval North Atlantic. We argue that feasting and, by extension, the mechanisms by which preferentially consumed foodstuffs were grown, procured and processed, would have had a transformative impact on Norse society at diverse scales, from enabling individuals to participate in social negotiations to driving local and regional economies.

Keywords: commensality; zooarchaeology; Viking Age; Early Medieval; Scandinavia; North Atlantic

Introduction

In northern Europe, the first and early second millennium AD was a period of profound social and political change. A shift from fragmented or loosely aggregated political entities, ‘farmer republics’, to regionally based power centres and kingships is apparent in many areas (Fraser 2009; Hedeager 2012; Woolf 2007). From the 8th century AD onwards, extensive population migrations associated with the Viking settlement of the British and North Atlantic Isles further transformed insular societies and ecosystems (Graham Campbell and Batey 1998; Dugmore et al. 2012). Contemporary written sources begin to emerge in this period and, whilst still relatively rare, provide glimpses of these societies in transformation: from Iron Age chieftain-based warrior ideologies where power and status was dependant on horizontal and vertical bonds of ‘friendship’ and ‘gift-giving’ (Hermansson 2011) to the ‘top-down’ aristocratic and ecclesiastical power structures associated with the courts of the kings of

Norway, Denmark, Sweden and Scotland in which political, economic and religious power was being increasingly centralised and controlled by the elite (Crawford 2013; Steinsland 2011; Woolf 2007). These sources are, however, fragmentary, often literary ‘pseudo-histories’ (Fraser 2009, 9) and of variable historical accuracy (Noble et al. 2013; Fraser 2009, 9-10; Crawford 2013). Archaeological approaches thus have a significant role to play in widening understanding of the political and social processes which shaped these early historic societies (e.g., Noble et al. 2013; Zori et al. 2013; Sanmark 2017).

In this article, we explore the potential of commensality as an analytical and interpretative framework for the creation of new narratives of power for the ‘protohistories’ of first and early second millennium AD Northern Europe taking as a case study Viking and Late Norse Orkney and Shetland, the heartland of the powerful and influential Norse Earldom of Orkney (Crawford 2013). Sources such the Icelandic Sagas, the Irish laws and Old English epics and Saints’ lives suggest that feasting was an underpinning mechanism widely used at this time by powerful men and women to acquire and legitimise power through commensal hospitality (Bjørkan Bukkemoen 2017; Hedeager 1992, 89; Zori et al. 2013; Lucas and McGovern 2007; Arnold 1999; Sykes 2010). To assess how dietary choices were being used by the Orkney Earls to define and manipulate identity and shape power politics, we use multiple lines of evidence, bringing together zooarchaeological evidence for diet and animal husbandry with archaeological and historical data for the Northern Isles, where in depth designed methodologies for recovery and examination of faunal material now enable intra-site comparability and contextualised interpretation, addressing consumptive behaviour and associated mechanisms of food production at sites associated with the Earls of Orkney, their chieftains (*goði*) and others.

Power, politics and commensality in the Norse world

For human societies past and present, commensality - eating together and sharing food in specific and often culturally prescribed forms and settings - is a fundamental social interaction which is moreover widely implicated in both promoting and manipulating identity (Pollock 2012). Dietler (2001) argues that feasting embodies social practice, reproducing an idealised version of the social order, reflecting power structures, social and economic networks and authority which can moreover be manipulated for personal gains and create opportunities for social change. Commensal behaviour, but in particular feasts, can thus be viewed as a 'material manifestation of political action' (Hastorf 2017, 195). As such archaeologists now increasingly recognise that the study of feasting offers fundamental insights into past political economies (Rowley-Conwy 2018; Jinénez et al 2011; Hastorf 2017).

These considerations commonly focus on evidence drawn from prehistoric contexts, where the archaeological material stands without the written commentary or demands ethnographical interpretations (eg Jinénez et al 2011; Halstead 2012; Madgwick and Mulville 2015). For the Viking and Late Norse periods, however, the potential for a deeper and broader understanding of the activities and social implications of feasting arise when Icelandic saga sources can be integrated into the fabric of the discussion. Much as the written record of the Viking pagan burial witnessed by Ibn Fadlan amongst the Rus (Montgomery 2017) potentially illuminates the actions behind burial deposition, with its inevitable bias and potential for propaganda purposes, without such a source many less tangible, transient actions cannot be understood or even identified. The Icelandic sagas may be drawn into serve as a near contemporary view of embedded traditions and actions, but from the same cultural milieu. Selective use of these saga sources, most particularly for the Northern Isles the

Orkneyinga Saga which relates specifically to these islands, enables an insight into the sense of some of the activities which can be found more clearly in the archaeological record.

In a warrior society, albeit a settled farming one in secondary stages, the role of leader (political, social) remained paramount. Zori et al (2013) and Lucas and McGovern (2007) have recently explored the dynamics of feasting within the context of Viking Age Iceland. Lucas and McGovern (2007) link consumption and feasting with domestic animal sacrifice and outline the role of the *goði* in providing the mechanisms by which such activities are undertaken. They argue that feasting, as a corollary of sacrifice, played a significant role in establishing and reaffirming social networks and acted to mediate against violence by creating opportunities for social cohesion. Following Dietler (2001), and through analysis of the Icelandic Saga literature Zori et al. (2013) suggest that Viking Age feasts can be divided into two types (see Table 1 for definitions):

- reciprocal ‘entrepreneurial’ or ‘promotional feasts’ reflecting non-institutionalised power in which the leading farmers and larger landowners, hosted feasts for their peers, forming obligation bonds, for supporters, trades, marriage alliances;
- ‘patron-role’ feasts, non-reciprocal and often lavish feasts held by chieftains for their followers, and used both as statement and legitimization of power.

Further practices linking commensality and identity are evident in Scandinavia during this period, and are applicable across into the North Atlantic islands (Zori et al. 2013). Here, the physical manifestation of rulership was the hall, which acted as an ‘arena of power’ for the kings, magnates and the warrior elite within which ritual drinking, feasting and other

forms of gift-exchange took place (Sundqvist 2012; Hedeager 2012). As in Iceland during pre-Christian contexts, political power was also legitimised through religious activities, with kings and other leaders officiating at the *blót*, public sacrifices of animals and ceremonial feasts at sacred places (Sundqvist 2012). Written descriptions of these events exist, though their historical accuracy is debated (Hultgård 2012), with perhaps the best known being Adam of Bremen's description of activities at the 'cultic' centre at Uppsala (ibid).

Archaeological evidence from sites associated with religious activities such as Frösö, Uppåkra, Borg and Trelleborg does, however, confirm that animal sacrifice and consumption took place. This demonstrates selectivity in choice of species, age and sex with a particular preference for young pigs/piglets (Magnell and Irgen 2010; Gråslund 2012; Gotfredsen et al. 2015) and a predominance of skulls and mandibles, which has been interpreted as serving as a symbol of the sacrificial animal (Gotfredsen et al. 2015). Consumption of normally 'taboo' food species such as horse, dog and, potentially, wild carnivores like bear, may also have occurred (Magnell and Irgen 2010; Gotfredsen et al. 2015) (see also Table 1). There was likely little separation between religious and secular feasting locales, with the halls of the elite serving as multi-functional buildings, even during the early phases of Christianity.

Power, politics and commensality in Norse Orcadian society: the textual evidence

The *Orkneyinga Saga* (OS), probably brought together sometime around AD1190 (Guðmundsson 1993, 206; Beuermann 2011, 111) provides a commentary on the political activities of the Norwegian Earls in the Northern Earldom (Orkney, Shetland and Caithness). The original author is unknown, perhaps Ingimundr the Priest, based in Norway as well as Iceland, (Guðmundsson 1993, 206-210) or an unknown Orcadian (Beuermann 2011, 111, 154), but a copy of the original version is known to have been revised and edited in Iceland in the

1230s (Beuermann 2011, 111). It is clear however, that there must have been contacts with Orcadian informants, even family links, enabling a detailed understanding of both people and landscape in the islands; this sets the source apart from the general and extensive corpus of other saga literature. The main potential limitation of OS lies in the composition of the manuscript, which was edited at various subsequent stages, and the political purpose behind the commentary of activities of the power-mongering Norse Earls of the region, perhaps to be seen as a kind of legitimisation. The nature of the Earls' power in the Northern Earldom is all-encompassing, but most clearly demonstrated in the references to commensality as a means of enforcing relationships and emphasising the significance of consumptive behaviour to this society.

Commensal activity features at least twenty times within the *Orkneyinga Saga* (Pálsson and Edwards 1978). Different activities are described, related to sealing of agreements (OS Chap 16), the consolidation of friendship and loyalty bonds (OS Chap 21) and to the reinforcement of kinship (OS Chap 55). As in modern Orcadian society, arrival at another's home was greeted with food and perhaps, as mentioned in OS Chap 77, Earl Rognvald's Christmas feast at his farm in Knarston to celebrate the arrival of Bishop Jon of Atholl is as much a statement of welcome as of status. The role of different centres for the peripatetic Earls, moving amongst their subjects and reinforcing their social ties and economic obligations is also indicated by the reference to Knarston, but underlined also by the comment in OS Chap 92 about '*no preparations [being made] for a Christmas feast in any one particular place*'. This must surely suggest that no decision needed to be made because the feast would happen wherever and whenever the Earl arrived. Christmas feasting was common but other events such as weddings (OS Chap 94) were also provisioned by the Earldom lands. The significance of the farming seasons is underlined in the reference to the

chieftain Svein Asleifsson overseeing the sowing of crops and then heading away to carry on his raiding lifestyle until the crops were ripe and ready to be harvested (OS Chap 105). It would be safe to assume that the bringing in of the harvest, the fulfilling of the payments due to the Earl from the crop would have necessitated celebration.

An underlying theme within the narrative surrounding these events is an association with political change, where feasting either precipitates (e.g. the abduction and subsequent disappearance of Earl Paul while feasting with his *goði* Sigurd, OS Chap 74, 138) or is used to confirm change (eg where Thora hosts a dinner for her son, Earl Magnus' killer, Earl Hakon, OS Chap 52, 96). Equally significant is the use of feasting in the negotiation and reaffirmation of allegiances by the competing Earls of Orkney (at this time the Earldom of Orkney was often jointly ruled) (e.g. OS, Chap 16, 42-43 *ibid*). These accounts describe commensal activity broadly comparable with Zori's non-reciprocal category, ie feasts held by chieftains (here including the Earls) to reward their followers: *'He (Thorfinn) made something of a name for himself in Orkney by feasting his men, and others too, people of great reputation, on meat and drink throughout the winter in the same way that kinds and earls in other lands would entertain their followers around Christmas'* (OS Chap 51, 56). Although there is a greater indication of reciprocity in the relationship between the Earls' and the chieftains: *'After he had taken Earl Rognvald's ships, Earl Paul went back to Orkney with a victory he could be proud of, so he celebrated with a great feast, inviting all his most favoured chieftains.....[he] presented his friends with gifts, and all of them promised him their undying friendship'* (OS Chap 66, 112). It is clear also, that the Orkney chieftains hosted feasts for the Earl (OS, Chap 74, 138 *ibid*; OS, Chap 67, 28) as well as for their own followers: *'This was how Svein used to live. Winter he would spend at home on Gairsay, where he entertained some eighty men at his own expense'* (OS Chap 105, 215).

There is very little mention of the specific setting. It can probably be assumed that the hosting of these events took place in the multi-functional halls of the Earls and their goði, as is evident elsewhere (see above), although some may also have been outdoor events. A few halls (*skáli*) are mentioned in association with named individuals, e.g. Svein's hall at Gairsay (OS Chap 105) or the Earls, eg at the Bu in Orphir: “...*a great drinking- hall at Orphir, with a door in the south wall...and in front of the hall, just a few paces down from it, stood a fine church. On the left as you came into the hall... [were] a lot of big ale vats...*” (OS Chap 66). Such has been the desire to identify archaeologically the great hall at Orphir, that this had become an accepted identification in the earlier excavation report, although more recent re-assessment has cast doubt on the certainty of this (Batey 2003).

Zooarchaeological evidence for commensality in Scandinavian Orkney

The consumption and in particular sharing of meat, is recognized as a key element of commensal activities in pre-modern societies, where meat was rarely eaten but was often reserved for ‘special’ meals (Halstead 2012). Moreover, the sheer quantity of fresh meat generated by the culling of larger ungulates such as cattle and deer would have been beyond the needs of most households, necessitating larger inter-household consumption events and/or a redistribution of meat products (McCormick 2002; Sykes 2010). Faunal remains are, therefore an important source of material evidence for commensality within archaeology (Haydn 2001; 1). Following Zori et al. (2013) we take a regional approach to patterns of consumption across the Northern Isles, accepting that commensality is embedded in Norse society (see above) and seeking to identify what the manifestations and implications of this behavior are at an inter-site level by identifying variation in food choices, modes of food production and evidence for redistribution at sites of varying status. To this end, a synthesis

was undertaken of selected zooarchaeological data derived from all available archaeological sites covering the Late Iron Age (LIA) to Late Norse periods in Orkney & Shetland (ie c. AD300/400 to 1500AD). We then go onto look more specifically for evidence spatially differentiated refuse discard potentially indicative of episodes of ‘special’ or ‘unusual’ consumption events, ie feasts (after Rowley-Conwy 2018, 3 and 9-10), at two Orkney sites, Earl’s Bu and Snusgar. Here, a context-based analysis was employed to explore whether individual episodes of consumption were identifiable using correspondence analysis (CA) to identify any clustering of contexts on the basis of species and anatomical representation for cattle, sheep/goat and pig (after Colomias et al 2013).

CA is an exploratory multivariate ordination statistical approach which enables visualisation of large row and column data sets in a two-dimensional form (Greenacre 2007). An ordination diagram, normally a scatterplot, is created in which the distance between cases (here, archaeological contexts/layers) relates to their similarity in terms of overall variable values (here, analysis 1 = NISP for cow, sheep/goat and pig; analysis 2 = NISP for ‘feet’, ‘head’ and ‘leg’ elements). Variables can also be plotted and are interpreted in a similar way. An association between a variable and a particular case or group of cases is indicated where both lie in the same direction from the origin of the diagram. CA was performed using CANOCO (ter Braak and Smilauer 2002).

For the Norse period two sites considered here, the Earl’s Bu in Orphir and the Brough of Birsay, are known historically to have been the main residences and estate farms of the Earls of Orkney (Crawford 2013, 141, 143; Crawford 1983) and thus are clearly of the highest status for the region. The Earl’s Bu complex includes a Church and nearby dwellings as well as more recent discoveries which have added a Norse period horizontal mill in use for a relatively short time (Batey 1993) (Fig 1). The Brough Road site (Viking) and Beachview

(Late Norse) in Birsay, have also been argued to have been associated with the Orkney Earls (Morris 1986; 1989; Morris and Barrowman in press). Snusgar, which is unknown historically, has on the basis of hall-length, artefactual assemblage and place name evidence been interpreted as the residence of a head farm, perhaps estate centre, with proximity to a *Skáli* name potentially denoting a drinking hall or ‘chiefly’ residence (Griffiths et al in press), ie a settlement subordinate in status to the Earls’ residences or estates. Skaill, Deerness can be interpreted likewise (Griffiths and Harrison 2011). Quoygrew, by the Late Norse period is considered to be of low status, likely a small tenant farmer of the nearby Trenabie estate though may have formerly been a wealthier household (Barrett 2012, 276). The remaining Orkney sites likely fall somewhere in between these extremes. In Shetland, Scatness was the centre of a long established Pictish estate in the Late Iron Age and is assumed to have continued to be of significance in the Viking and Late Norse periods (Dockrill et al. 2010, 96-7).

Indicators of dietary choice: species representation

The Viking to Norse faunal assemblages in the Northern Isles are dominated by domestic species, in particular cattle, sheep and pig, reflecting comparable dietary choice and husbandry strategies to those evident at this time in Scandinavia and the North Atlantic (Dugmore et al 2012; Mainland et al. in press; Cussans and Bond 2010), but equally of the pre-Viking period in the Scottish Islands (Bond 2007)(Fig. 2). At most Viking-Late Norse sites, equivalent ratios of cow: caprine are apparent, although cattle would have provided the bulk of the meat given their larger size. In the Viking period, cattle are emphasised at the Brough of Birsay and Scatness but not at the Earl’s Bu, a situation which is reversed in the Late Norse period. Pig shows greater inter-site variability with lower frequencies of this

species at all sites except the Earl's Bu, the Brough of Birsay and Brough Road, Birsay, ie areas associated with the Earls. Pig representation in the LIA is elevated at two sites, Howe and Buckquoy. Avian species representation also varies at an inter-site level. Earl's Bu differs from all other sites in showing a preference for domestic species, chicken and pigeon/rock dove rather than seabirds which are more commonly found on Viking/Norse sites in the North Atlantic (Fig. 3)

Consumption of specific food parts and age groups: mortality profiles and anatomical representation

Culling strategies for cattle at the Earl's Bu, Beachview and Scatness and for sheep at the Earl's Bu and Beachview show a preference for animals at a prime meat age (ie 1-4 years) (Fig. 4). Elsewhere the presence of primarily older animals and neonates indicate that secondary products – dairying and wool - took greater precedence, reflected in the consumption of older, less succulent beef and mutton. Consideration of broad patterns of carcass utilisation for cattle, pig and sheep identifies distinctive practices at the Earl's Bu with for each species, relative frequencies of upper limbs, lower limbs, feet and heads differing from that expected had entire carcasses been present (Fig. 5). For pig, this equates to an over-representation of upper and lower limb elements (ie of 'meat-bearing' bones); for cattle and sheep there is also an over-representation of lower limbs in the Late Norse, but in the Viking contexts, it is the upper limb, the shoulder and haunch, ie the meatiest parts of the body, which is under-represented while mandibles are more common than expected. Skeletal data was not available for the Brough of Birsay, however, Seller (1986) notes that there were few low meat utility and/or feet bones of cattle in the Viking and Late Norse deposits here

too suggesting joints rather than whole carcasses. A similar observation was made by Harland (2006, 543, 596) who additionally found pigs at the Brough of Birsay to have a narrower age range (only adult adults) in comparison to other of the Birsay sites. Harland (2006, 526) inferred a network of sites in the Birsay Bay area (Buckuoy, Saevar Howe, Brough Road) supplying the likely high status residence on the Brough with meat rich carcass units (Harland 2006, 526). Scatness shows broadly similar trends to the Earl's Bu for pig and cattle.

Evidence for bone dumps and spatially distributed refuse the Earl's Bu and Snusgar

Faunal assemblages from the Earl's Bu derive almost exclusively from the rich midden deposits underlying and overlying the Norse mill (Batey 1993, 25). Stratigraphically these comprised distinct layers, which contained varying amounts of mammal bone and fish as well as diagnostic Norse artefacts, such as steatite vessels and ingot mould fragments, ring money and scraps of silver and gold. The upper, Late Norse midden contained several very big bone dumps in excess of 2000 fragments, with the largest approaching 10, 000 from an area of just 25 m x 10m max. There was no evidence during excavation for pits or other special deposits pointing to smaller special consumption events as, for example, identified at potential feasting sites in Scandinavia (Sanmark 2017, 134-5).. At Snusgar, where the excavation covered a larger area, faunal material was also found predominately within stratified middens with smaller amounts deriving from floors and other deposits associated with the Norse longhouses and related structures. Again there were no pits or special features containing mammal bone.

Despite this homogeneity in depositional environment, CA gives some indication of spatially distributed refuse at the Earl's Bu and Snusgar with the larger (ie >300 NISP) contexts grouping according to species and anatomical unit (Figs. 6-7). This suggests that at least some discard events may have arisen primarily from the processing and/or consumption of specific species or anatomical units. At the Earl's Bu pig bone waste shows the highest degree of separation by body part, particularly for contexts dated to the Late Norse period but, for each of the three species at the Earl's Bu, a small number of contexts associated primarily with meat-bearing elements limb bones are apparent, ie are potentially indicative of discrete consumption events. These vary in size, with the smallest representing 1-2 individuals but the largest contained at least 5 for cattle and 9 for pigs (Table 2). Domestic fowl and pigeon are also commonly found in these deposits. In general, however, most of the assemblages from the Earl's Bu contained a mixture of primary (head/feet) and secondary (meat) processing waste suggesting general refuse. The Snusgar assemblages form a distinct grouping within Fig. 6 testifying to a greater emphasis on sheep than at the Earl's Bu and highlighting a difference in dietary choice. There are no excessively large bone dumps and most contexts are undifferentiated waste.

Discussion

Identification of dietary behavior associated with commensality, power politics and the activities of the Norse earls or their *goði* within the zooarchaeological evidence from Orkney is complicated by the limited variability in foodstuffs consumed by the Norse. Unlike later Medieval society where exotic meats, wines, fruits and indeed fine tableware were used to differentiate status and to accentuate power (Woolgar 2016, 12-22, 172-194), the dietary

staples common to all Norse society were beef, mutton and pork together with barley (for beer and breads) and oats (eg Crossley-Holland 1982, Chpt 5). This basic dietary pattern is visible within the regional faunal record from the Northern Isles (Fig. 2) and although not discussed here, is also apparent in the archaeobotanical evidence which shows a dominance of barley at most sites (Aldritt in press; Bond 2007). Nevertheless, faunal assemblages derived from settlements associated with the Earls' of Orkney (Earl's Bu, Brough of Birsay, Brough Road Birsay) and at Scatness, a likely high status site in Shetland during this period, do emerge as distinctive in terms of quantity, species representation and culling patterns hinting at status-related differences in dietary choice and consumptive behavior. At the same time, the Saga evidence indicates that many of the commensal events taking place at these sites would have been imbued with significance and meaning and were intended as 'competitive' as opposed to 'solidarity' feasts (see Table 1 for definitions), designed in particular to create ties of obligation and indebtedness (promotional/entrepreneurial feasts) and enhance prestige ('patron-role' feasts).

The Earl's Bu assemblage is particularly distinctive. It is a very large midden deposit (>70,000 fragments) and exhibits mortality profiles indicative of consumption, emphasizing 'meat' rather than secondary products such as milk, the norm for sites of this period, in both cattle and sheep. As such it is commensurate with a large high status household which was regularly consuming large amounts of meat.

The identification of discrete dumps of bone, comprising selected species (cattle and pig) and an emphasis on 'meaty' elements, 'spatially differentiated discard' (Rowley-Conwy 2018,3) (Table 1), suggests that at least some of this bone derives from special consumptive events, ie feasting. Some of these may have been quite large: the dressed carcass weights of five Dexter cows (Table 2), a breed comparable in stature to Viking period stock (Mainland

et al. in press; Bond 2007) is 875kg (based on figures quoted in McCormick 2002), sufficient to feed a following of 80 men (eg OS Chap 105) for several days. Unlike the large bone accumulations associated with feasting debris in prehistoric contexts (eg Madgwick and Mulville 2015; Mainland et al. 2016), these bone dumps do not appear to have been marked out for display or distinguished in any way, eg by being deposited in special features but are incorporated within largely undifferentiated midden waste: it is only through the analytical approach used here (CA) that the Earl's Bu bone dumps were identifiable. Rowley-Conwy (2018, 13-4) has suggested that deposition of feasting refuse within everyday midden waste is to be expected under competitive feasting where a physical manifestation of the event is not required. Here the 'debt' created by the event varies according to an individual's relationship with the provider (what is received and by whom) and is recalled through social memory, which for Norse Orkney included incorporation into contemporary written narrative via the OS.

A specific feature of the Viking period mammalian assemblages at the Earl's Bu is the significantly higher numbers of sheep and cattle mandibles (Fig. 5) (Chi-square 19.61; 18.55, $p < 0.01$, 1df). This may reflect a particular culinary practice relating to the cheek meat or tongue. However, there is some indication for selective curation and 'special' deposition of mandibles and crania at early medieval elite and pagan sites in the wider Germanic and Scandinavian world. In Anglo-Saxon England, eg, concentrations of cattle crania have been equated with feasting debris at the royal site of Yeavering, while heads of cattle, sheep and pig are over-represented at various high status Anglo-Saxon settlement in the south of England (Sykes 2010). In Iceland, cattle burcrania adorned the hof-site at Hofstaðir, in Myvatnveit (Lucas and McGovern 2007) and mandibles of cattle, sheep and especially pig are emphasised at cultic sites in Sweden (Frösö), Norway (Borg) and Denmark (Trelleborg),

where they are associated with the *blót*, or sacrificial feasting (Magnell and Iregen 2010; Gråslund 2012; Gotfredsen et al. 2015). In all these contexts, it is argued that the mandible and/or crania symbolises the entire animal which has been consumed, typically during feasting events. Where crania are displayed, as has been argued for Hofstaðir, these serve as a memory of the sacrificial and/or consumption performance. In early medieval England, communal consumption involved a redistribution of food provided by both the host and the attendees but at the same time was increasingly being used diacritically to enhance the prestige of the provider. Sykes (2010) argues that in these contexts skulls are retained by the provider, typically the elite, as a manifestation of their ability to provide, and hence of their wealth, power and status. She notes an under-representation of high meat yielding elements at such sites and argues that this also reflects redistribution, with a division and sharing out of the carcass to dependants, most likely occurring during a communal consumption event. This resulting anatomical patterning (high mandibles, low high utility elements) is very similar to what is evident at the Earl's Bu during the Viking period for cattle and sheep, and may point to similar practices at this site. Quoygrewe also shows relatively high frequencies of mandibles for all species, but high utility elements are not lacking (Fig. 5), suggesting a different taphonomic process is represented.

Rowley-Conwy (2018) has recently argued that 'trophying' of this kind should not be apparent under competitive feasting unless it is associated with religion, in which case the material remains become 'ritually charged' and may require special disposal (Table 1). This accords with the use of animal sacrifice and religion by the Norse elite (eg Lucas and McGovern 2007) and the special deposits arising from these activities during the Viking age (c750/800-1050AD) when political power began to be legitimised through religion, with rulers claiming descendancy from gods and performing ritual roles such as sacrificial feasting (the *blót*) at public services, feasts, things and increasingly in their own halls (Sundqvist

2011; Lucas and McGovern 2007). The Earl's Bu sheep and cattle mandibles may point to similar practices at the Earls' residence at the Bu during the Viking period, with the Earls presiding over communal consumption events involving sacrifice and redistribution of meat to the participants.

The Earl's Bu is also unusual in showing high relative frequencies of pig and in the Late Norse period of the domesticated birds, chicken and pigeon. A comparable emphasis on pig is apparent only at the Brough of Birsay and Brough Road, which were also residences or estates of the Orkney Earls. Although not as marked, frequencies of pig are relatively higher at Snusgar, Skaill and Beachview, sites with large halls which potentially functioned as central places for the surrounding local community. None of these sites, however, show a comparable emphasis on domesticated avian species nor indeed on mandibles as evidenced at Orphir.

Pig, and perhaps domestic fowl/pigeon, thus emerge as species which are potentially being used by the Norse to denote elite culinary practice. Pig has been associated with high status consumption, sacrifice and ritual feasting activities in Scandinavia, with high frequencies noted at the Trelleborg wells and at cult houses in Borg and Frösö (Magnell and Irgen 2010; Gråslund 2012; Gotfredsen et al. 2015). As outlined earlier, there is also some indication that pork was the preferred meat for consumption at the *blót* (public sacrifice) meals. Further, in Old Norse mythology, a link has been suggested between pig, feasting and warrior elites through the myth of the male pig Sæhrímnir who was slaughtered each evening to feed the warriors of Valhalla (Gotfredsen et al. 2015). Higher frequencies of pig consumption have also been identified in many of the early urban centres in 8-11th century Scandinavia, such as Birka, Hedeby and Kaupang (Barrett et al. 2007; O' Connor 2010). Elite and/or communal consumption patterns in Orkney thus seem to demonstrate a continuation of

culinary and potentially religious traditions from the Scandinavian ‘homeland’. Moreover, in this choice of species, there is again the suggestion of an appropriation of religious power by the Orcadian elite. This choice may at the same time also be referencing pre-Viking elite dietary traditions, pig consumption being higher at presumed high status LIA sites such as Howe and Scatness (Fig 2a). This is in contrast with elsewhere in the Norse North Atlantic diaspora, where Zori et al. (2013) and Lucas and McGovern (2007) have argued cattle underpin feasting economies and that it is the sacrifice of cattle and consumption of beef which is used to acquire power and status. This difference in dietary choice may have purely practical origins: although present in the earliest settlement of these islands, pig husbandry did not appear to have been well suited to the Faroes, Iceland and Greenland and rapidly became a minority species. There are hints that pig may have played a more important role in the early settlement of Iceland, eg at the site of Hreishimer in Myvatn (McGovern et al. 2010), but more sites of this date need to be examined to assess whether different status-related dietary choices are visible at the time of initial settlement. Alternatively the focus in Iceland could point to differing traditions, perhaps reflecting a greater input from the Hiberno-Norse, where pre-Viking Irish society placed a stronger emphasis on cattle (McCormick 2014).

The greater distinction between Earl’s Bu and other sites in pig consumption during the Late Norse period, suggests that access to this species became increasingly restricted through time. Carcass utilisation practices also change during the Late Norse, with all meat-bearing elements well represented indicating that meat was not being redistributed away from the site. Thus a shift in commensal behavior can be inferred from one rooted primarily in gift-giving and reciprocity to ‘diacritical’ consumption practices whereby dietary choices are being used to demonstrate and emphasize existing inequalities in power relations (eg Hayden 2001), separating the Earls from their subjects and potentially even their *goði*. The Orcadian

Earls travelled widely, were welcomed into the 12th and 13th century courts of Europe (eg OS Chap 86, 165) and will have been aware of custom and behavior in these arenas. The consumption of domestic fowl, and the introduction of domesticated pigeons could reflect the adoption of new elite food traditions linking the Earls with the emerging European aristocracy (eg. Woolgar 2016, 172-194). Equally, the preference for pork may again reference Scandinavian dietary heritage, drawing on the associations between this species and the older traditions of sacrifice and religious power, thus stressing Norwegian rather than Scottish ancestry, a linkage also hinted at in the genealogical myths adopted by the Earls at this time (Beurmann 2011).

The clear differences between the Earl's Bu and other contemporary sites in Orkney poses the question as to the nature of the underlying farming system at these sites and in particular whether any of the food evidence represents food products in render, ie were the estate farms functioning as farms for the earls or merely as centres of redistribution. Mainland et al. (2016) and Jones and Mulville (2018) have argued that isotopic and other palaeodietary evidence is consistent with herds of sheep and cattle pastured and fattened up on established home fields and/or specific upland zones tied to the estate. Together with mortality profiles for these species, this suggests a site-based economy geared towards specific products, in this case meat: to sustain the Earl's retinue, his 'hird' and meet any other commensal obligations while the Earls were in residence. Both the anatomical representation and isotopic data for pigs at the Earl's Bu (which is more variable than for the other species, see eg Jones and Mulville 2018), suggests some inter-regional redistribution of pork haunches. The emphasis on pig feet and mandibles at Quoygrew may potentially reflect this process, indicating this site to be a producer rather than consumer of pork from which dressed carcasses were exported (Fig 5e-f).

Zori et al (2013) has recently argued that in Iceland, ‘competitive’ feasting for status amongst the aristocracy was a driver of economic production (there favouring cattle and barley). A similar argument has been made for Norway, where changes in methods of husbandry and food sourcing are introduced during the late Iron Age (6-7th centuries AD), to accommodate maintenance of chieftaincy through supply for followers, as well as potential increased preference for beef as a higher status feasting commodity (Bjørkan Bukkemoen 2017, 123, 127; Hedeager 1992, 89). The evidence presented for Earl’s Bu implies a similar role of feasting in Orkney (here pig, cattle and barley), and it might be expected that the estates of leading Orkney goði (eg. Sigurd at Westness, Svein Asleifsson in Gairsay, OS Chap 56) will have functioned likewise, ie as centres of production for commensality. If feasting is acting as a driver towards larger herds, then this will come with greater foddering and pasturage needs, with greater potential stresses on agricultural regimes and ultimately the landscape. The consequences of failing to provide for followers and/or peers may, eg., be reflected in the changing frequencies of pig consumption between the Viking and Late Norse periods at sites such as Quoysgrew (Fig. 2) which is concomitant with artefactual and structural changes indicating a lowering of status (Barrett 2012, 276); though equally this may reflect increasing control of land and resources by the Earls. Intensification through time during the Norse period is also evident at other, lower status sites, in dairying, possibly wool production (Fig. 4; Barrett 2012, 279; Hunter et al. 2007, 520-522; Mainland et al. in press); this likely representing production for taxation (wool, butter) to meet the Earls growing fiscal demands to finance (along with fish and grains) the developing Earldom, including a cathedral, and to participate in growing trade economies (Barrett 2012, 275-291; Barrett et al. 2011). An overall intensification in husbandry has implications for the dynamics of herding practice and its impact on the environment, particularly within a period of significant

changing climate with the onset of the Little Ice Age from the mid 13th century onwards (Dugmore et al. 2012).

Structural remains adjacent to the church at the Bu farm in Orphir have conventionally been interpreted as the Earls' drinking hall on the basis of antiquarian research. However, recent reassessment had questioned this interpretation, and thus the role of Earl's Bu as a central place for celebratory activities (Batey 2003), illustrating well some of the pitfalls of 'traditional' protohistoric approaches where archaeology is merely used to corroborate saga events or to identify specific locales of action (e.g. Friðriksson 1994). The analytical framework taken here, which integrates historical/literary sources with archaeological and, most significantly, ecofactual evidence demonstrates the unique character of the Earl's Bu material culture, broadening our understanding of the site as a whole and bringing it more in line with the historical accounts.

Conclusions

Archaeological narratives of power and identity in the Norse North Atlantic and Scotland have largely been transferred directly from historical sources. With some notable exceptions (Barrett 2012; Hedenstierna-Jonson et al. 2017; Lucas and McGovern 2007), there have been only limited attempts to use the multi-scalar potential offered by archaeological datasets to interrogate the dominant historical narratives of power; to explore, for example, how context-specific forms of identity and power may emerge from highly localised interactions (see eg Jervis 2018), such as the choice of materials used in social negotiations or regional economic drivers. Likewise, there has been little analysis of how such interactions may provide catalysts for change at diverse scales.

Using commensality as an analytical framework, we demonstrate how an integrated approach which draws together zooarchaeological evidence for diet and animal husbandry with archaeological and historical data can provide new insights into practices associated with food production, procurement and consumption and enable creation of new narratives of social interaction and transformation for this period. In Viking and Late Norse Orkney, as elsewhere in Early Medieval Scandinavia (Zori et al. 2013; Hedeager 2012), conspicuous consumption, manifest through the hosting of lavish feasts for followers was part of the paraphernalia of leadership, and played a significant role in maintaining elite power structures. Reciprocal or promotional feasting amongst peers was equally important, creating bonds of obligation between the leading landowners and chieftains and promoting societal cohesion and connectivity through marriage, trade and other exchanges. Through the politics of commensality, feasting and, by extension, the mechanisms by which preferentially consumed foodstuffs were grown, procured and processed, will thus have had a potentially transformative impact on Norse society. Barrett (2012; Barrett et al. 2011) has cogently demonstrated how the power politics of the Norse earldom of Orkney was based on the wealth of the sea. Here, we show that their power was also firmly rooted in the land, and moreover, that social negotiation in the form of commensality may have been an equally important regional economic driver as trading networks, shaping the agricultural landscape of the islands in terms of intensity of farming, species choice and husbandry strategies. Furthermore, we would suggest that the scale of consumption indicated at the Earl's Bu if replicated at other elite sites across the islands likely had longer term impacts, perhaps even contributing to the region's economic and political marginalisation during the later Medieval and Post-Medieval periods (eg Oram forthcoming).

There are hints that the nature of feasting changes during the course of the first millennium AD both in Orkney and more widely in Northern Europe. In Middle and Late Iron Age Scotland conspicuous consumption is visibly manifest in the form of large feasting middens in the ditches surrounding brochs, eg. at Scatness (Cussans and 2015) and Dun Vullan (Mulville 1999). At Mine Howe in Orkney, it has been argued on the basis of isotopic and mortality evidence that these feasting middens represent large seasonal gatherings with animals brought to the site from across the region and beyond (Mainland et al. 2016). Similar large, communal and probably generational consumption events are manifest at the Roman Iron Age and Migration period ‘cooking-pit’ sites in Norway, Denmark and southern Sweden and at the court-houses of Norway. Here again it is argued that midden refuse was visible or on display and likely served as a mnemonic of collective identity promoting social cohesion for the surrounding regions (Sanmark 2017, 134-135). These characteristics suggest solidarity feasts (Table 1). During the course of the first millennium AD across Northern Europe, it would appear that communal feasting was gradually appropriated by the elite, and was increasingly restricted to their halls or at events, such as the *blót*, over which they presided (Sundqvist 2012; Hedeager 2012; Sykes 2010), ie promotional feasting (Table 1). In our analyses of Late Viking and Norse Orkney, we have shown that these feasting traditions were more than just a by-product of status, and that the elite were actively manipulating food production and consumption processes. By extension, commensality may thus have been one of the mechanisms by which the ‘farmer republics’ of the first Millennium AD were transformed into petty kingships. Application of the approaches to commensality we have adopted here back into the Iron Age and geographically to other of the ‘protohistories’ of first millennium AD Northern Europe would allow articulation of these changing regional landscapes of power, in the same way that Noble et al (2013) have used settlement structure and architecture to explore political change in Late Iron Age Scotland.

Finally, Rowley-Conwy (2018) has recently cautioned against the uncritical use of the label ‘feast’ for accumulations of faunal material, arguing that it is often difficult to clearly distinguish such events from everyday food waste, especially on high status sites. This article has also been able to explore for the first time some of Rowley-Conwy’s (2018) expectations for different types of feast (‘competitive’ vs. ‘ritually charged refuse’ vs. ‘solidarity’) within the zooarchaeological record and has shown these to be broadly applicable within an early medieval context, at least. Moreover, in doing so we have outlined a methodology (CA) through which special consumptive events (ie ‘feasting events’) of varying scales can potentially be detected from other undifferentiated bone waste or general bone dumps within high status and other zooarchaeological assemblages.

Acknowledgements

Ingrid Mainland would like to acknowledge the support of a British Academy Mid-Career Fellowship (2014-5) for the collation of the data used in this article.

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Table 1 Definitions for feasting and how these might manifest in the material and faunal record

Table 2. Spatially distributed midden refuse at the Earl's Bu and Snusgar: contexts identified as being of predominately one species and having meat-bearing elements using CA (see Fig 5 for details). Analysis is based on contexts with >300 NISP. EB – Earls' Bu, SG – Snusgar.

Figure 1. The Earl's Bu Orphir, Orkney: shows the rich midden layers associated with the Late Norse horizontal mill under excavation. Image attribution: CD Morris/C Batey.

Figure 2a. Relative frequency of cow, sheep and pig (%NISP) in Late Iron Age (blue diamond), Viking (grey star) and Late Norse (open circle) sites from Orkney and Shetland. Open star indicates sites/ phases which span both Viking and Late Norse periods. The Late Iron Age was defined as falling between 300/400AD to 700-800AD (after Sharples 1998) with the upper date range characterised by a material culture which is predominately late Iron Age or 'Pictish' rather Scandinavian in nature (eg Ritchie 1977). Following Graham-Campbell & Batey (1998), Norse period assemblages were divided into those derived from the initial settlement of the islands, 'Viking' (end 8th century AD to 1050AD) and those relating to the Late Norse period (ie 1050-1300AD), with the lower date range characterised by the presence of a diagnostically Scandinavian material culture (eg Barrett et al. 2000)).

Figure 2b. Ratio of pig to bovid (cow and sheep) in Viking to Late Norse sites in Orkney and Shetland. Ratios are based on NISP (number of identified specimens) for each species. Sources: Pool - Bond (2007); Scatness – Cussans and Bond (2010); Snusgar – (Mainland et al. in press); Buckquoy – Noddle (1977); Saevar Howe – Rowley Conwy (1983); Earl's Bu (Mainland et al. unpubl.); Brough Road - Rackham (1989); Skaill – Noddle (1997); Quoygrew – Harland (2012); Beachview – Rackham (1996); Brough of Birsay (Seller 1986).

Figure 3. Relative frequency (% NISP) of domestic (Domestic goose, domestic fowl, pigeon). Sources: Quoygrew (Harland et al. 2012); Snusgar – Mainland et al. (in press); Scatness – Nicholson (2010); Brough Road – Rackham (1989); Pool – Serjeantson (2007); Skaill – Allison (1997); Earl's Bu – Mainland et al. (unpubl.); Beachview – Rackham (1996).

Figure 4. Cattle and sheep mortality (after Payne 1973) for Viking and Late Norse sites in Orkney and Shetland with available data (for chronologies and sources see Fig. 1)

Fig 4a. Cattle mortality - Viking

Fig 4b. Cattle mortality - Late Norse

Fig 4c. Sheep mortality - Viking

Fig 4d. Sheep mortality - Late Norse

Fig 5. Anatomical representation for Viking sites in Orkney and Shetland with available data: upper = prime meat bearing upper limb (scapula, humerus, pelvis, femur); lower = meat bearing lower limb (radius, ulna, tibia); feet = non-meat bearing (metapodials, phalanges, astragalus, calcaneum); jaw – mandible; whole carcass indicates expected ratio in an entire skeleton (for chronologies and sources see Fig. 1)

Fig 5a. Cattle anatomical representation for Viking sites in Orkney and Shetland

Fig 5b. Cattle anatomical representation for Viking sites in Orkney and Shetland

Fig 5c. Sheep anatomical representation for Viking sites in Orkney and Shetland

Fig 5d. Sheep anatomical representation for Late Norse sites in Orkney and Shetland

Fig 5e. Pig anatomical representation for Viking sites in Orkney and Shetland

Fig 5f. Pig anatomical representation for Late Norse sites in Orkney and Shetland

Figure 6. Identifying bone dumps and spatially distributed refuse at the Earls' Bu and Snusgar: correspondence analysis (CA) results on species representation for contexts with greater 300 NISP (SG – sheep/goat; open circle = Earl's Bu Viking; red circle = Earl's Bu; green diamond – Earl's Bu = Norse (use of mill); Late Norse; purple box = Snusgar Viking; yellow box = Snusgar Late Norse. Axis 1 contributes to 58% of variation (Eigenvalues: Axis 1 = 0.141; Axis 2 = 0.103).

Figure 7. Identifying bone dumps and spatially distributed refuse at the Earl's Bu and Snusgar: correspondence analysis (CA) results on anatomical representation for contexts with greater 300 NISP (open circle = Earl's Bu Viking; red circle = Earl's Bu; green diamond – Earl's Bu = Norse (use of mill); Late Norse; purple box = Snusgar Viking; yellow box = Snusgar Late Norse) (feet – metapodials, astragalus, phalanges; head – Skull, mandible, maxilla, horn core, axis, atlas; leg – scapula, humerus, radius, pelvis, femur, tibia; analysis

uses NISP and is corrected to account for differing occurrences of specific elements within the skeleton)

Figure 7a. Cattle. Axis 1 contributes to 79% of variation (Eigenvalues: Axis 1 = 0.166; Axis 2 = 0.044).

Fig. 7b. Sheep. Axis 1 contributes to 67% of variation (Eigenvalues: Axis 1 = 0.156; Axis 2 = 0.078).

Fig. 7c. Pig. Axis 1 contributes to 68% of variation (Eigenvalues: Axis 1 = 0.171; Axis 2 = 0.081).

Type (after Rowley-Conwy 2017)	Description	Material manifestation	Zooarchaeological expectations
Solidarity feasts (includes Haydn (2001, 54-8) 'promotional/alliance' feasts; Adams (2004, 61) 'solidarity feasts'; Dietler (2001, 70-85) 'empowering feasts')	Single host not responsible for food, rather brought by many people; feasting event used to enhance social cohesiveness; social differentiation is downplayed; visible record of consumption promotes group identity/cohesion	Prominent trophying of species or elements symbolic of the feast, used to evoke group memory of the event; may be large accumulations of bone refuse depending on size of gathering; prestige foods and items will not be consumed/displayed	Special food disposal features – eg bone dumps, feasting middens: Relative frequencies – NISP, MNI; Context of deposition Emphasis on specific species or selected elements: anatomical Representation, MNI; NISP Evidence of waste of food items – eg deposition of articulated joints/unprocessed bone: Anatomical representation Animals derived from several sources: Isotopes; microwear
Competitive feasts (includes Dietler (2001, 70-75) 'patron-role' and 'diacritical' feasts)	Host provides food; feasting event used to reinforce social ranking, create and/or legitimise power structures; creates a reciprocal debt between host and <i>individual</i> guests; meaning is imbued through performance (eg. choice of foods served), and is personalised (who receives what); significance retained via social memory rather than material record of the event	Presence at feast of prestige foods (eg labour intensive or exotic species; high meat-yielding cuts of meat) and other prestige items (eg vessels associated with feasting); visible memory not important; feasting refuse dumped in middens containing non-feasting refuse	Emphasis on prestige or exotic species , identification of which will be culturally specific (see text for Medieval North European examples): Relative frequencies – NISP, MNI Emphasis on specific species or selected elements: see above Evidence of waste of food items – see above Redistribution of food items – eg 'missing' elements: Anatomical representation Dumps of feasting material residue within undifferentiated midden refuse: Spatial patterning in species or element representation at a contextual level
'Ritually charged garbage'	Special treatment and disposal of refuse from religious feasts to avoid 'contamination'; potentially reflecting activities of a religious and/or social elite; these are to be seen as 'variants of competitive feasts' Rowley-Conwy 2017, 15)	Discrete deposits of selected elements or joints; special or unusual contexts; may be rapid burial as a single event	Emphasis on specific species or selected elements: see above Rarely consumed or taboo species (culturally specific, see text for N. European examples): Relative frequency – NISP, MNI Evidence for 'waste' of food items – see above Rapid burial: Limited evidence for weathering or carnivore gnawing Context of deposition: discrete deposits

Table 1

Site/Context	Period	Total NISP for context	Dominant species	MNI for dominant species	Anatomical representation for dominant species	Avian species
EB/195	LN	2207	Cow (73%)	Cow – 5	Cow – meat	Chicken, goose, pigeon, raven
EB/563	LN	331	Cow (73%)	Cow – 2	Cow – meat/head	Corvid
EB/237	LN	3765	Cow (68%)	Cow - 6	Cow – meat/head	None
EB/404	LN	741	Pig (71%)	Pig - 5	Pig – meat	Pigeon
EB/390	LN	2674	Pig (40%)	Pig - 9	Pig – meat	Pigeon
EB/458	LN	681	Pig (39%)	Pig - 2	Pig – meat/feet	Pigeon, guillemot
EB/371	Viking	759	Pig (39%)	Pig - 2	Pig – meat/feet	None
EB/510	LN	337	Sheep (71%)	Sheep - 1	Sheep – meat	None
SG/1504	Viking	649	Sheep (58%)	Sheep - 6	Sheep – meat/feet	Chicken, goose, gannet, guillemot
EB/421	Viking	686	Sheep (51%)	Sheep - 2	Sheep - meat	Chicken, grouse

Table 2



Fig 1



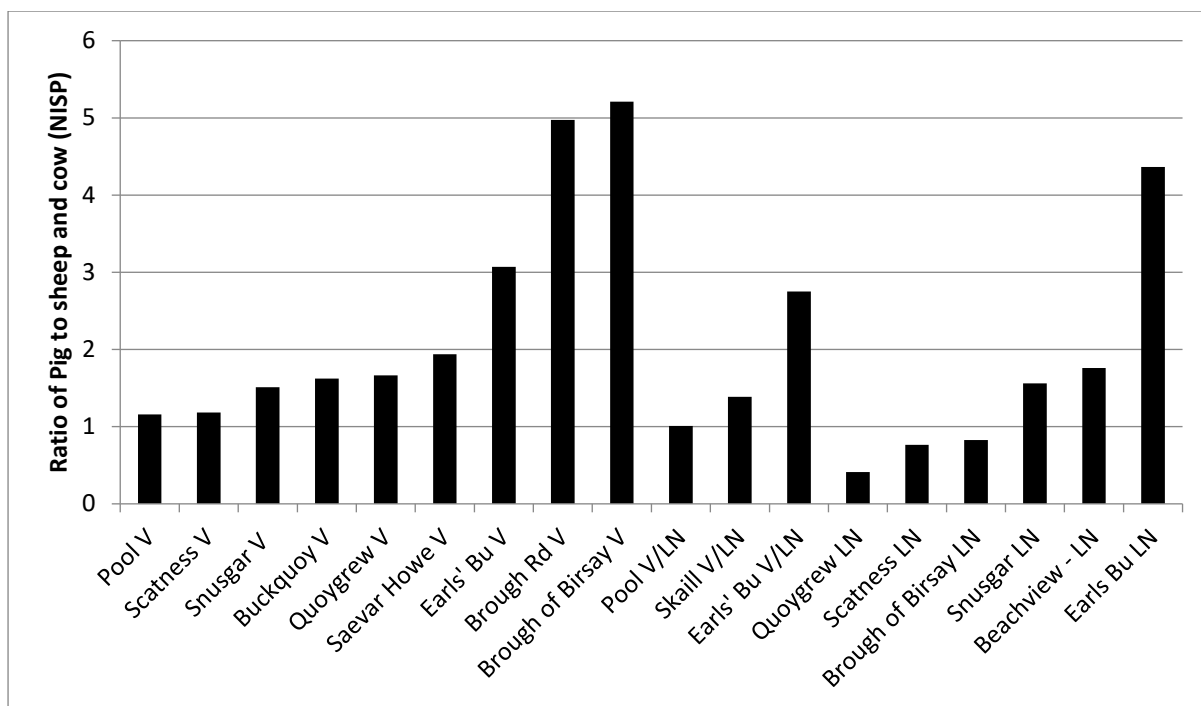


Fig 2b

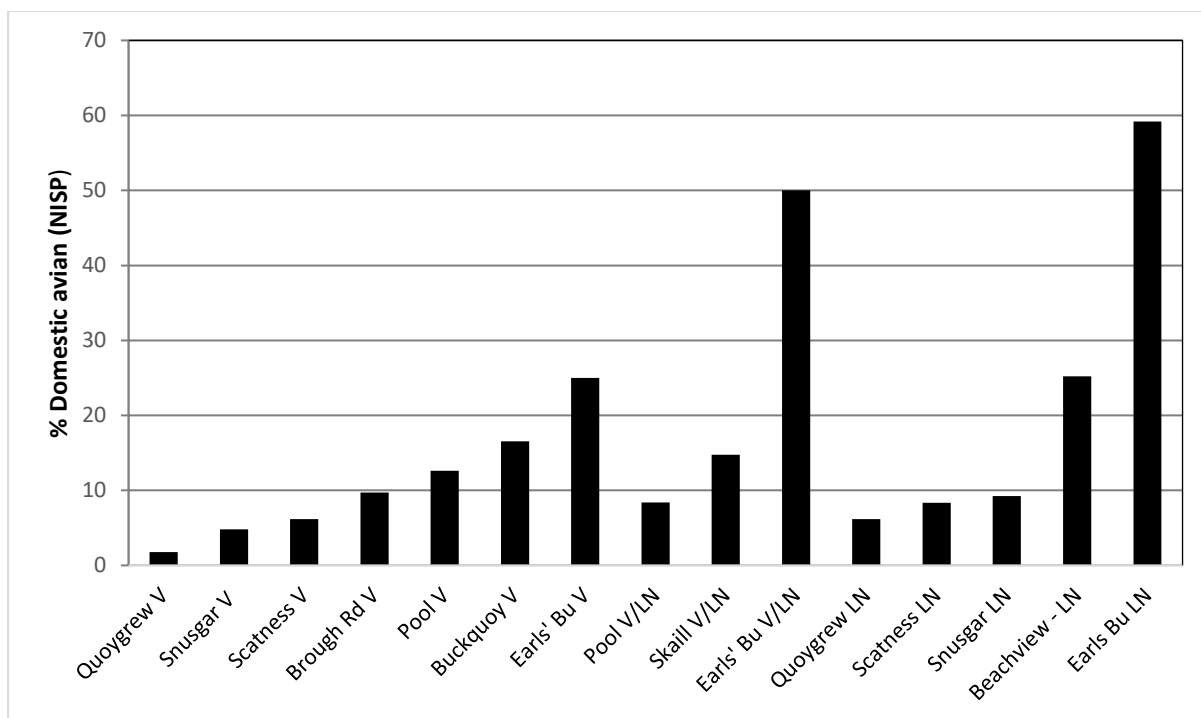


Fig 3

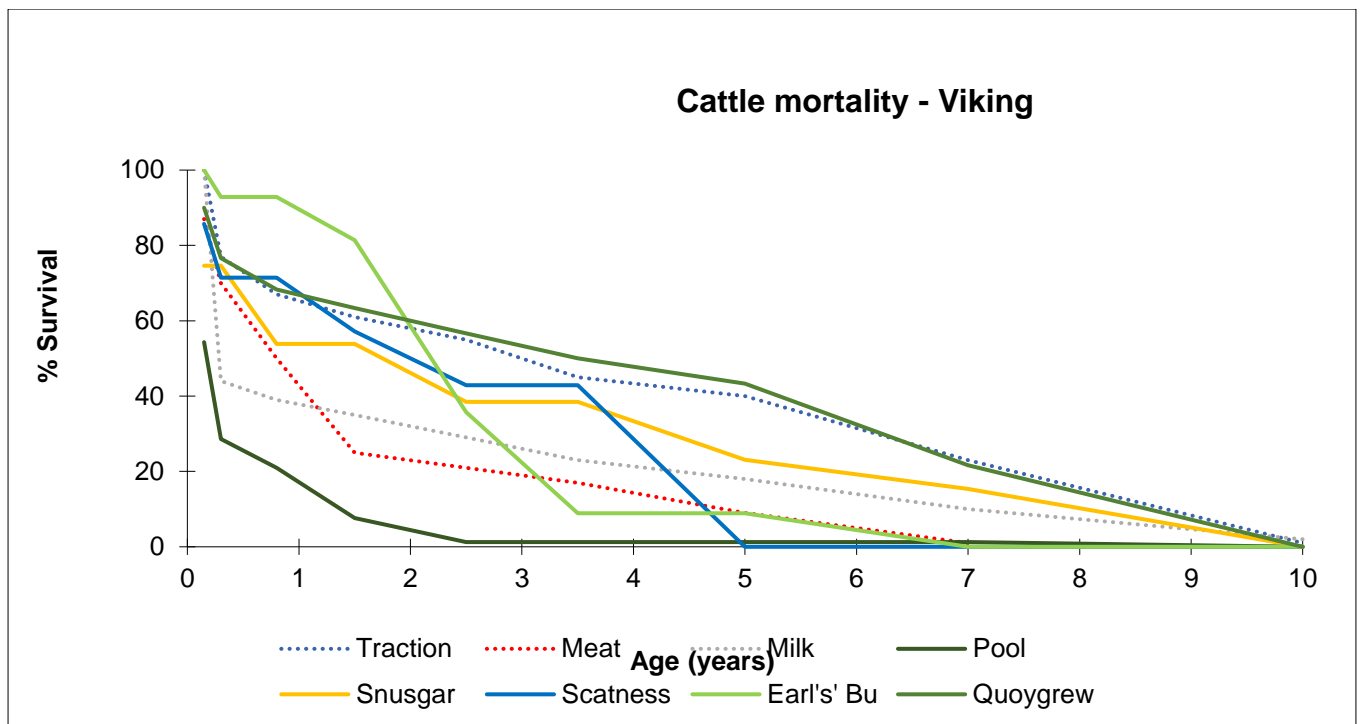


Fig 4a

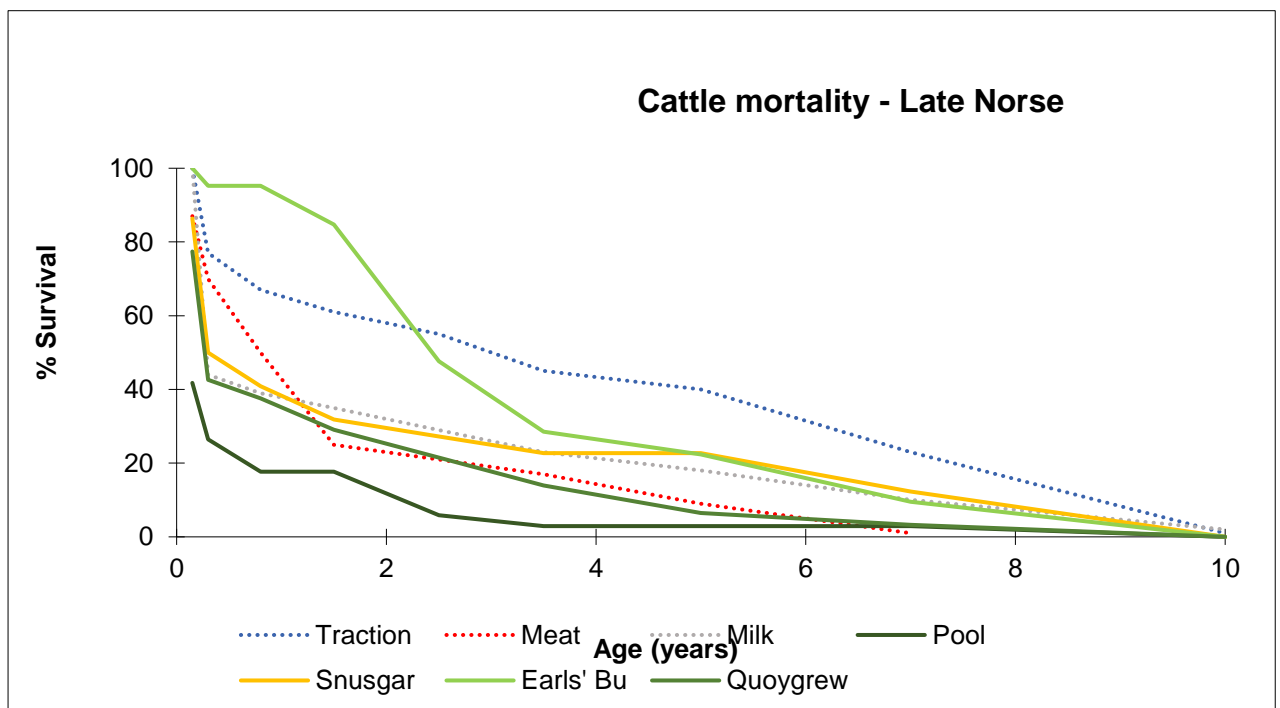


Fig 4b

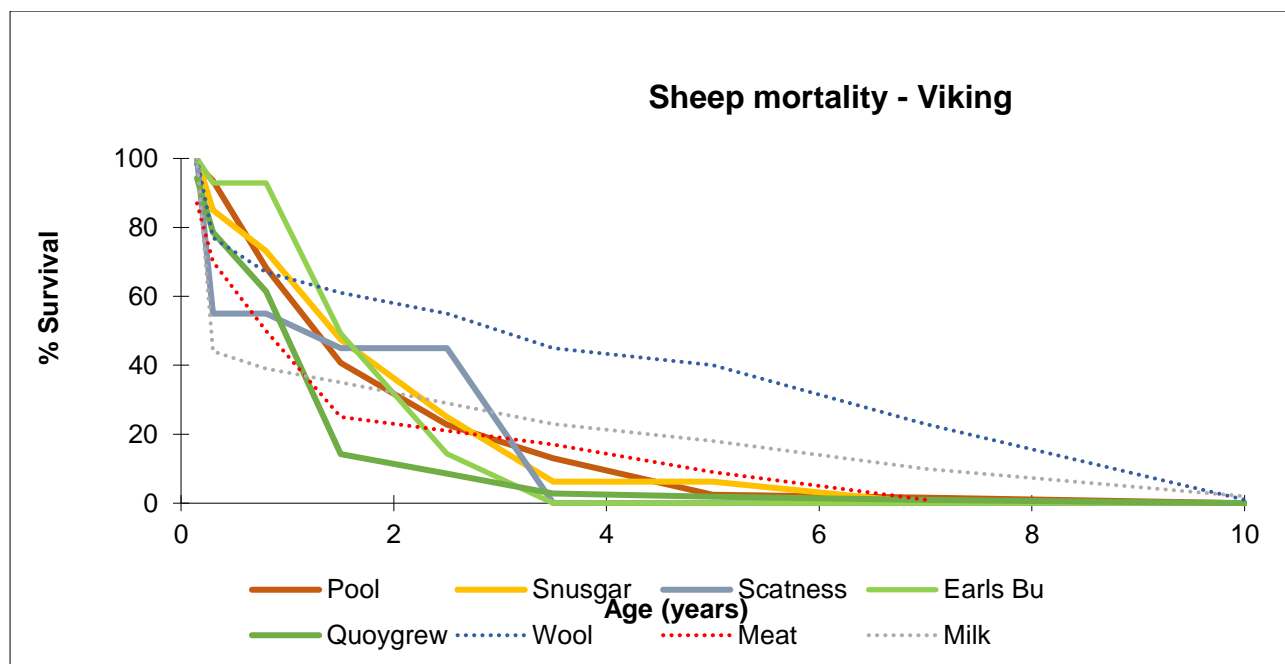


Fig 4c

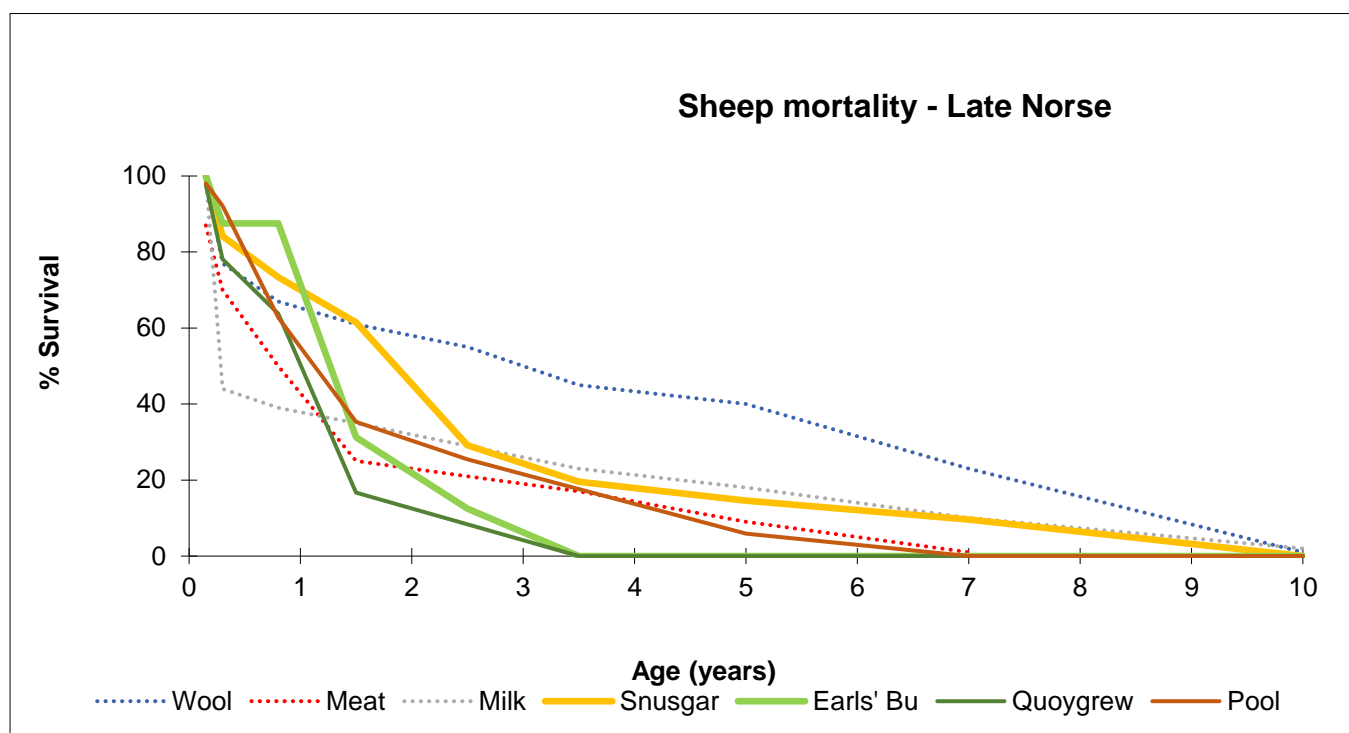
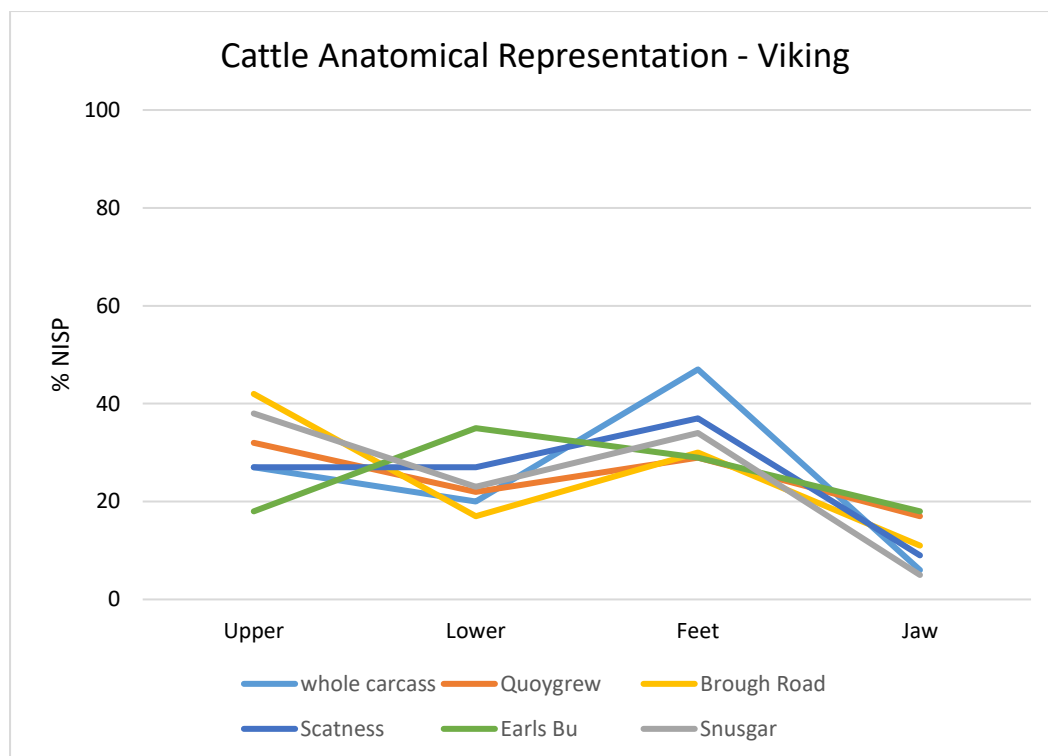


Fig 4d



5a

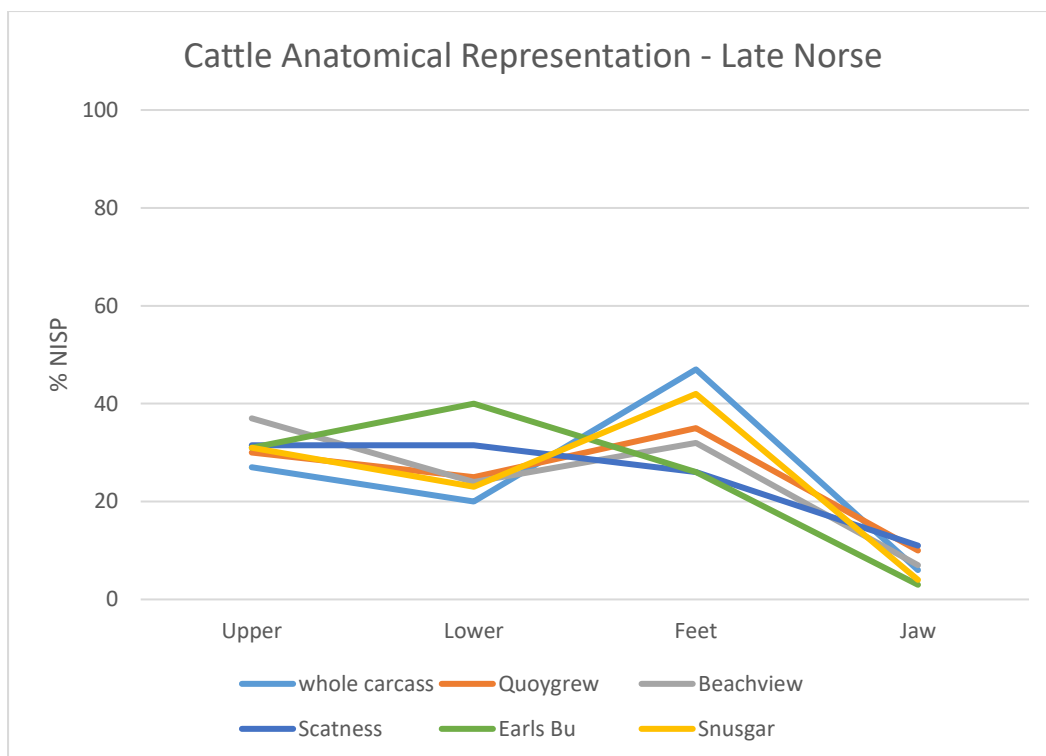


Fig 5b

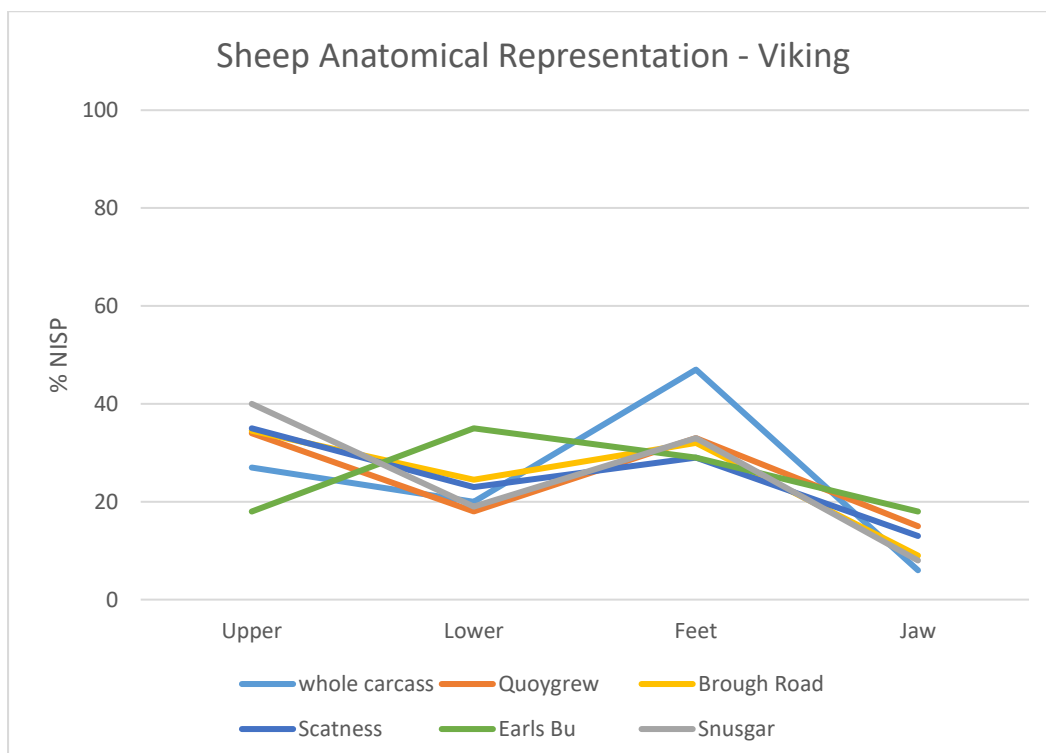


Fig 5c

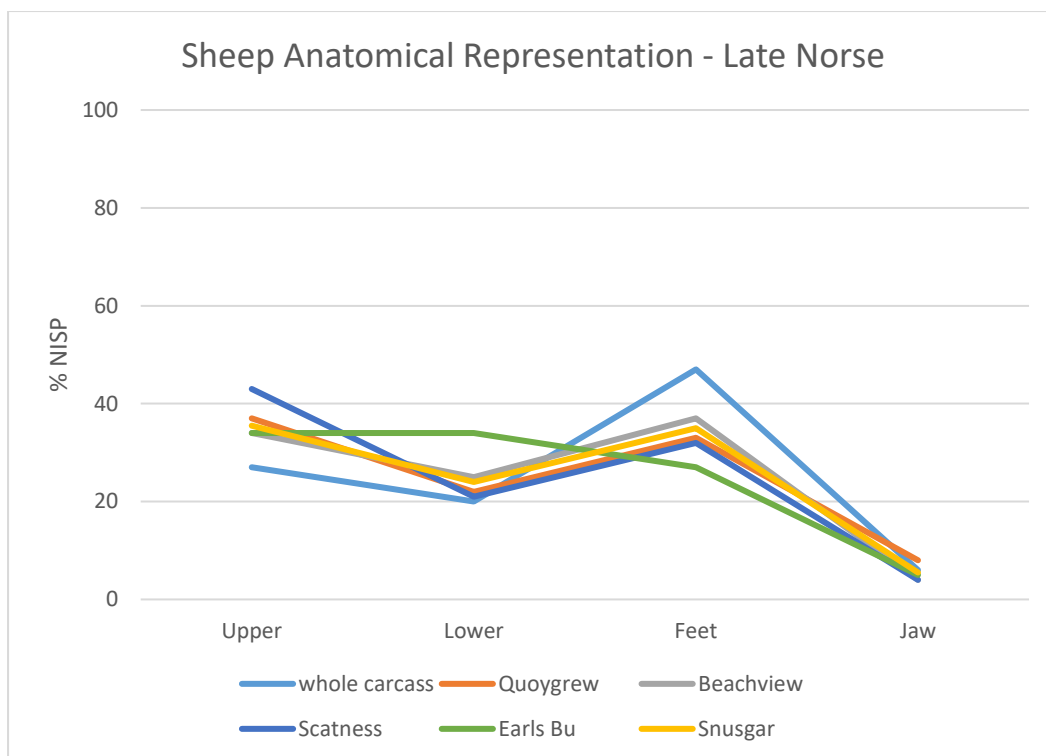


Fig 5d

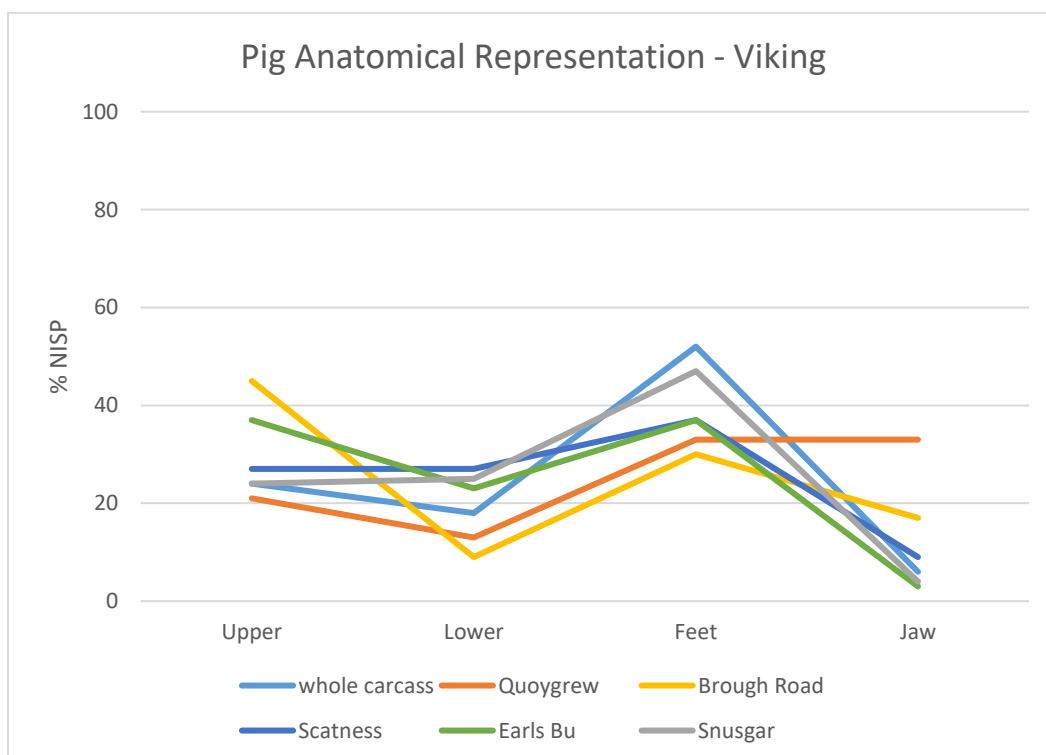


Fig 5e

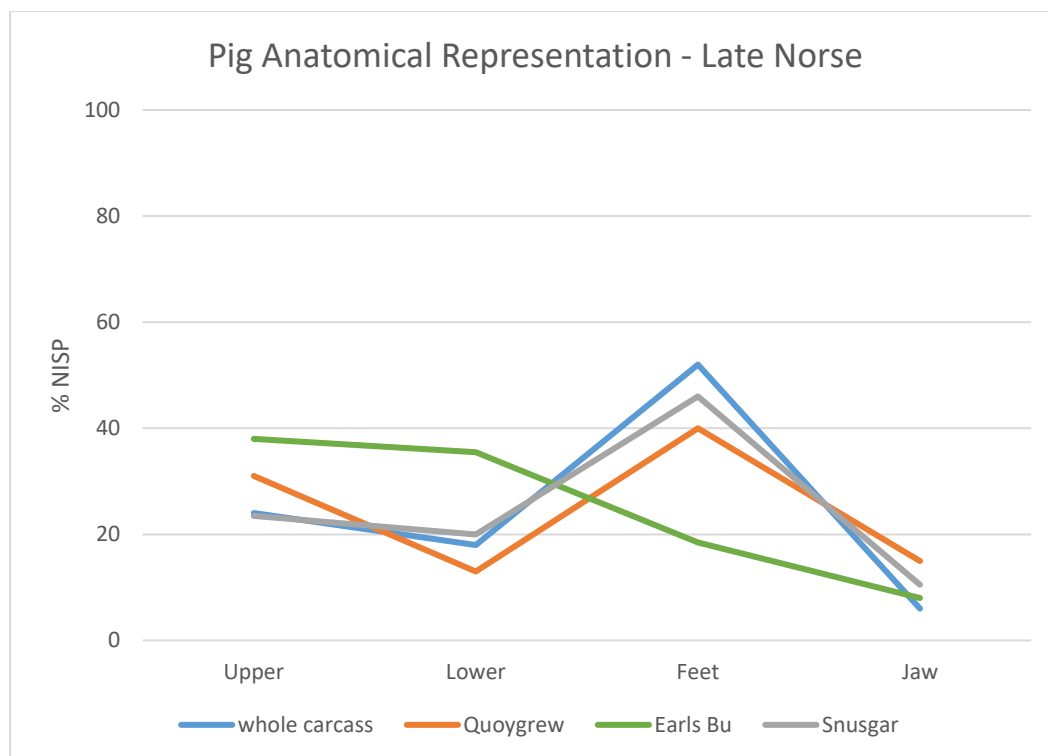


Fig 5f

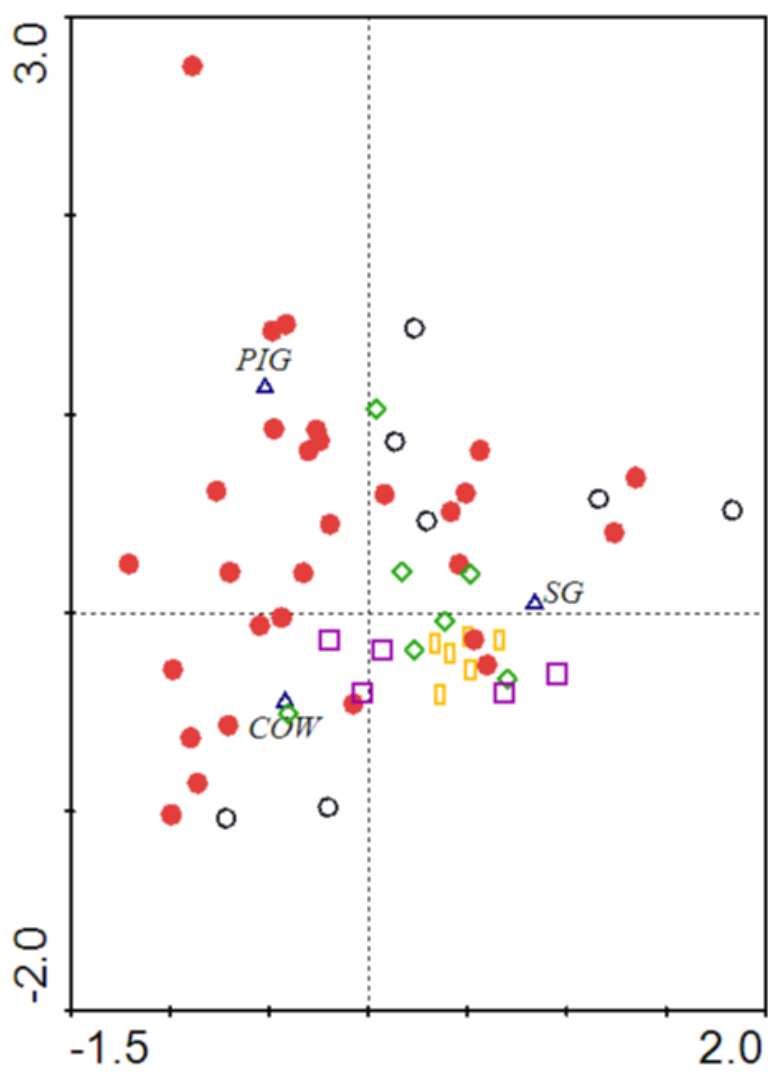


Fig 6

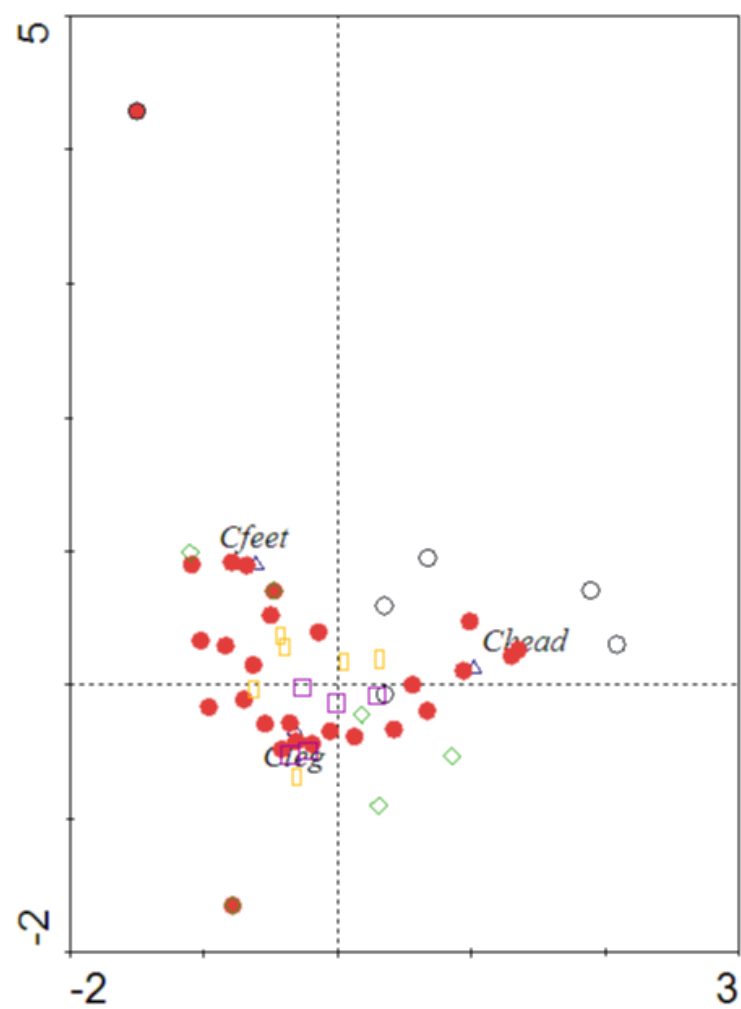


Fig 7a

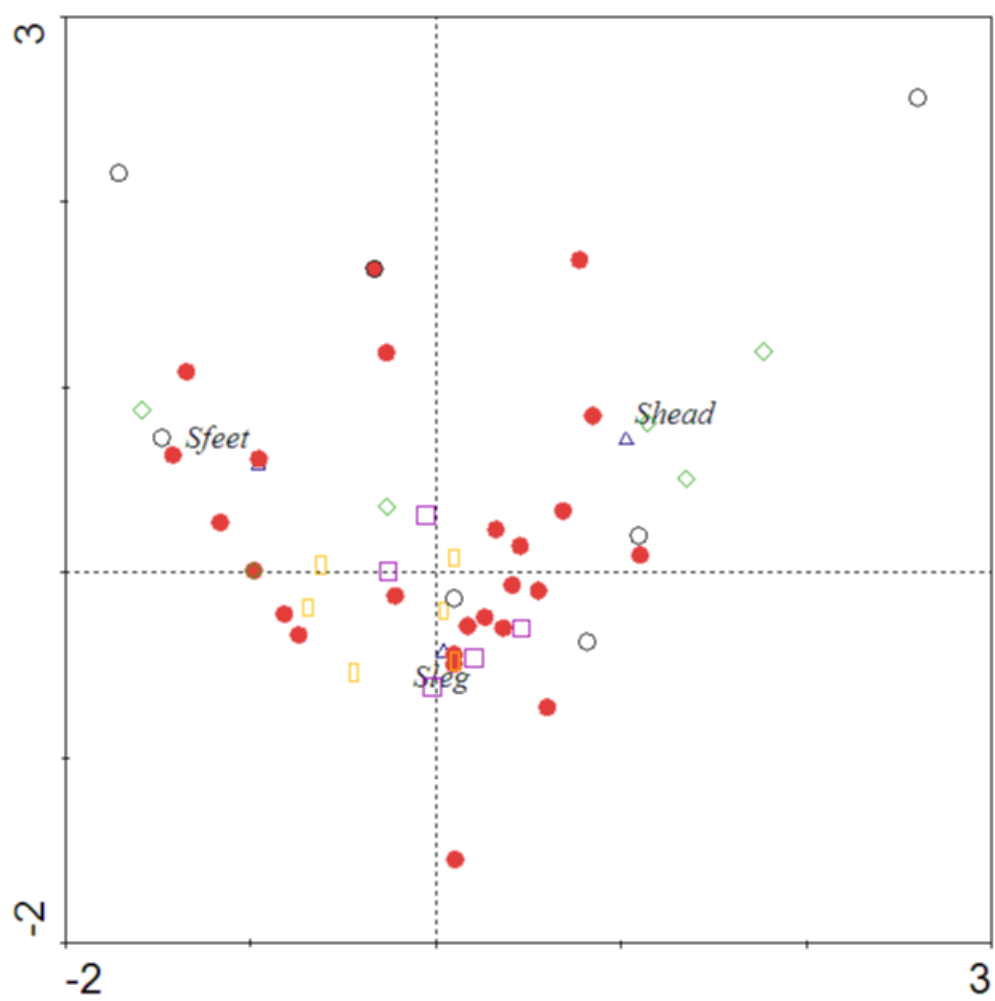


Fig 7b

