

# Commercial zooarchaeology of the 'modern' era: a survey of attitudes and practices

**Lee G. BRODERICK**

University of York, Department of Archaeology,  
King's Manor, York, YO1 7EP (United Kingdom)  
lee@zooarchaeology.co.uk

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## ABSTRACT

The study of animal bones dating to the 'modern' period (AD 1750-1950) has been perceived as neglected and undervalued by some zooarchaeologists working in Britain and Ireland, while North America is frequently held up as a beacon of good practice. Here, survey data are presented which compare practices and opinions between these two regions and the rest of the world. It is suggested that the principal difference may be one of perception and it is shown that research into the 'modern' era is undertaken by commercial zooarchaeologists in every region; however, outside of the white settler states (USA, Argentina, Australia, Canada, Chile, New Zealand, South Africa and Uruguay) it is very rarely published. A conclusion is reached that the gap may be bridged by raising awareness of how zooarchaeology can contribute to our understanding of the period.

## KEY WORDS

Commercial archaeology,  
commercial  
zooarchaeology,  
'modern' era,  
survey,  
zooarchaeological  
practice,  
attitudes  
to zooarchaeology.

## RÉSUMÉ

*Zooarchéologie commerciale de l'époque « moderne » : un survol des attitudes et des pratiques.*

L'étude des ossements d'animaux datant de la période « moderne » (1750-1950 AD) a été perçue comme négligé et sous-estimé par certains zooarchéologues de travail en Grande-Bretagne et en Irlande, tandis que l'Amérique du Nord est présentée comme un phare de bonnes pratiques. Cet article présente des données de sondage comparant les pratiques et opinions entre ces deux régions, ainsi qu'avec le reste du monde. Il est suggéré que la principale différence en est peut-être une de perception, et il est démontré que l'étude de l'époque « moderne » est entreprise par des zooarchéologues commerciaux dans chaque région; cependant, à l'extérieur des états coloniaux blancs (États-Unis, L'Argentine, l'Australie, le Canada, le Chili, la Nouvelle-Zélande, l'Afrique du Sud et l'Uruguay), cette recherche est très rarement publiée. La conclusion émise est que cet écart peut être refermé en sensibilisant la discipline à la manière dont la zooarchéologie peut contribuer à notre compréhension de l'époque « moderne ».

## MOTS CLÉS

Archéologie commerciale,  
archéozoologie  
commerciale,  
époque « moderne »,  
enquête,  
pratique  
zooarchéologiques,  
attitudes face  
à l'archéozoologie.

## INTRODUCTION

When the ICAZ 2010 session, *Animals, and their Bones, in the 'Modern' World* was announced, I was in the process of formalising an agreement to record, analyse and interpret the faunal material recovered during a major city centre redevelopment project in Britain. Zooarchaeological studies of the 'modern' era are apparently rare in the UK (for a recent review of this subject see Thomas 2009) despite the profound changes that occurred in industry, agriculture, diet, waste management, demography and human-animal relations. I saw the potential to begin to elucidate some of these issues and present the findings at an international conference to bring them to the attention of my peers. With the abstract submission deadline looming and analysis not yet begun, I asked one of the company directors roughly how much 'modern' era material there was in the assemblage. The answer was none: I was told that company policy was that 'modern' era material was not kept during the excavations unless it was "clearly a special or important deposit".

Alarmed by this attitude, I resolved to find out how widespread it was. The implications of this statement were that it is not simply that zooarchaeological studies of later post-medieval material are rare in the UK, but that faunal remains are not recovered and/or retained to use in such research. Since the majority of excavations undertaken in the UK today are developer funded and conducted by commercial companies, I conducted a survey among zooarchaeologists who had carried out commercial work recently in the UK and elsewhere in the world in order to obtain an overview of practices and attitudes to zooarchaeology of the 'modern' era. By assembling these data and analysing trends, it is possible to understand the paucity of zooarchaeological research in this period. This quantitative, global approach to the issue contrasts to previous, country-specific reviews (Landon 2005; Murphy 2007; Thomas 2009).

## METHODS

A survey was carried out over a ten-day period in February 2011, using the online survey software package limeask.com. This survey was promoted

TABLE 1. — The workplace location of respondents.

Region	No	%
UK and Ireland	34	47.89
North America	21	29.58
Netherlands	4	5.63
UK and elsewhere	2	2.82
Australia	2	2.82
Bolivia	1	1.41
Iceland	1	1.41
Israel	1	1.41
Norway	1	1.41
Romania	1	1.41
Spain	1	1.41
South Africa	1	1.41
Sweden	1	1.41
Total	71	100

through: e-mail discussion lists (ZOOARCH and ENV-ARCH); social networks (zooarchaeology.ning.com and academia.edu); the author's own homepage (zooarchaeology.co.uk); and direct e-mailing. Potential contributors were asked to participate in the survey if they had carried out commercial zooarchaeological work at some point during the preceding three years. In order to submit the online survey, a participant had to answer every question, which was typically presented in a multiple choice format with comments boxes. It was possible for participants to select more than one option in this survey, where they did so, the most commonly selected answer overall was used in the analysis; any accompanying comments were noted.

By adopting a targeted approach, the participation of zooarchaeologists who had carried out commercial work was maximised. Further, the 'modern' era was not mentioned in the survey description, to avoid the biases of self-selection and to capture the impression of the role of zooarchaeology of this period held by practitioners.

Statistical differences in responses were tested using chi-square tests.

## RESULTS

### THE POPULATION OF THE RESPONDENTS

Seventy one zooarchaeologists completed the survey of which just over half (36 individuals) had undertaken commercial work in the UK and Ireland (Table 1). A further 21 respondents worked in North America

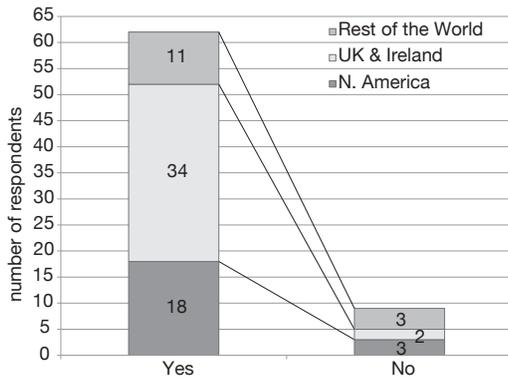


FIG. 1. – Has the company you carry out work for ever excavated sites with contexts dated after AD 1750?

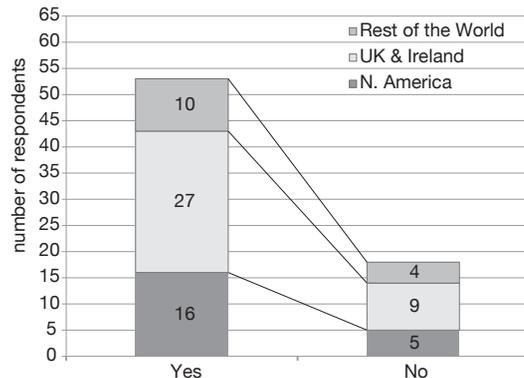


FIG. 2. – Have you ever discussed sites dated to the 'modern' era with anyone else at the company?

(here defined as USA and Canada, i.e. excluding the Latin American countries), meaning that tentative comparisons can be made between commercial zooarchaeology practices in the UK and Ireland, North America and the rest of the world. The remaining 14 respondents conduct commercial zooarchaeological work in nine different countries, including four in The Netherlands and two in Australia (Table 1). It is interesting to note the spread of commercial zooarchaeological work in this respect, with every inhabited continent represented by at least one individual.

**COMMERCIAL ARCHAEOLOGY OF THE 'MODERN' ERA**  
 89% of respondents confirmed that the company they worked for (defined in the survey as being either an employer or, in the case of freelance zooarchaeologists, a principal client) had excavated sites with contexts dating after AD 1750 (Fig. 1). Of these, one participant stressed that these were World War sites (and therefore probably of unusual or specific interest), whilst another, who had carried out work in both the USA and UK, stressed that their answer referred to the former, and not the latter. Of the eight respondents who answered in the negative, three were based in North America, two were from The Netherlands and from the UK, and one was from Israel. These data indicate that only 14% of respondents in North America and 6% of respondents working in the UK did not conduct faunal analysis for a company that had excavated sites with 'modern' contexts.

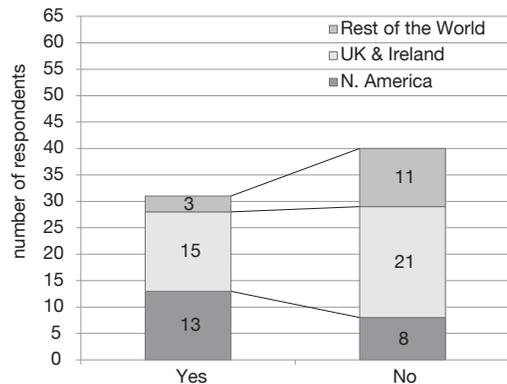


FIG. 3. – Are you ever involved with the planning of excavation and analysis strategies for sites with 'modern' era material?

Fifty-three respondents (75%) had discussed sites of this date with someone else at the relevant company (Fig. 2), a remarkably consistent figure across the different regions: 75% in the UK (27 respondents); 76% in North America (16 respondents); and 71% (10 respondents) in the rest of the world. Where people mentioned individuals that they discussed the sites with, they were variously said to be site directors or other post-excavation analysts.

Regional differences were discernible among respondents when asked whether or not they were ever involved with planning excavation and analytical strategies for sites dating to the period AD 1750-1950 (Fig. 3). Overall, 31 (44%) respondents recorded that they were in-

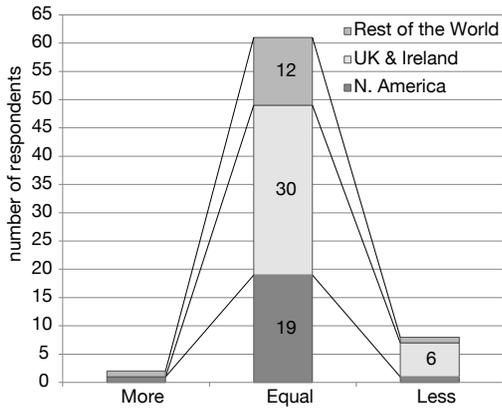


Fig. 4. – Do you believe that the analysis of zooarchaeological assemblages dating from the ‘modern’ era is of more, less, or equal importance to those from earlier periods?

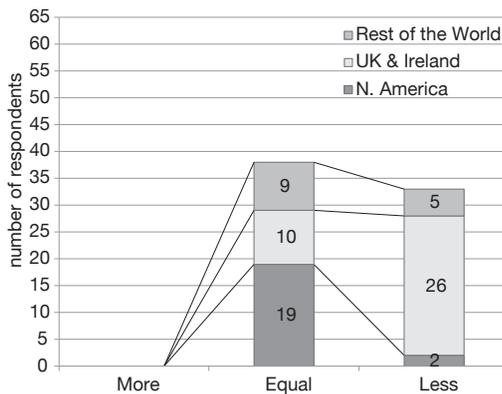


Fig. 5. – Do you think that your company director (or other manager) believes that the analysis of zooarchaeological assemblages dating from the ‘modern’ era is of more, less, or equal importance to those from earlier periods?

involved in the planning stages of such projects, although the proportion of positive respondents from North America was much higher (62%; 13 individuals); only three respondents came from outside of that region or the UK and Ireland. The pattern among respondents from the UK and Ireland most closely matched the overall pattern, with 15 (42%) respondents participating in these crucial stages of projects – this differed from the responses given in North America, albeit not significantly ( $\chi^2=0.06$ ). Of four com-

ments received with the question, three clarified their answers by stating that they were involved in planning analysis strategies only, whilst the other stressed that although they were involved, it was not routine; all four of these respondents worked in the UK.

#### ATTITUDES TO ZOOARCHAEOLOGY OF THE ‘MODERN’ ERA

The majority of respondents (86%) felt that zooarchaeological analysis of ‘modern’ period material was as important as the study of animal bones from earlier periods (Fig. 4). In North America and in the rest of the world (excluding the UK and Ireland), the distribution of responses was fairly similar. Of those respondents working in the UK and Ireland, however, none thought that it was more important and six (17%) of the respondents felt that it was less important; one of these stated that “we already know more through documentary records”. By contrast, one of those who thought that it was equally important noted that this was an “important period for agricultural improvement”.

When asked how they felt that their employer would answer the same question, however, 41 (58%) respondents felt that it would be considered as equally as important and 30 (42%) that it would be considered less important: none thought that their employer would consider it more important (Fig. 5). These ratios again varied by region: 19 (90%) respondents from North America thought that their employer considered zooarchaeology equally important in analysing and interpreting the ‘modern’ era, a proportion which declined to 57% (eight respondents out of 14) in countries outside of North America and the UK and Ireland, and to 39% (14 respondents out of 36) in the UK and Ireland. This difference in response between North America and the UK and Ireland is highly significant ( $\chi^2<0.01$ ). One of these British respondents commented that ‘modern’ era material was often discarded during the excavation phase of a project.

Similar results were obtained when participants were asked to assess the perceived value of faunal remains in relation to other archaeological material from the period AD 1750-1950 by

their employer. 38 (54%) respondents felt that it was considered as important and 33 (46%) that it was considered less important, none thought that their employer would consider it more important (Fig. 6). Variation of result by region was highly significant ( $\chi^2 < 0.01$ ): in North America, 19 (90%) respondents felt that their employer considered zooarchaeological material to be as important as other archaeological materials in this period; nine (64%) respondents in countries outside of North America and the UK and Ireland thought that their employers would share this attitude; while only ten (28%) respondents in the UK and Ireland thought that their employers felt this way. Three respondents from the UK and Ireland noted that on 'exceptional' sites the zooarchaeological material might be considered more important – their answers covered the range of options and they have been included in the 'equally as important' category here.

When asked whether this relationship between animal bones and other archaeological materials in this period was a special case, or if it remained constant through the archaeology of all periods, two respondents (3%) felt that zooarchaeological material was more valued in relation to other archaeological material when compared to earlier periods, 43 (61%) that it was equally valued and 26 (37%) that it was less valued (Fig. 7). One researcher in Britain felt that zooarchaeological material was of most interest to the company in relation to other materials for the Roman period, and ranked how they thought this interest became less important to their company as "prehistoric, medieval, Saxon [i.e. early medieval], post-medieval, [and least] modern". One respondent from Iceland felt that the relation to other archaeological material (in perceived importance) did not change with period but lamented that, "most excavation directors do not really understand zooarchaeology and how recovery methods such as sieving are necessary for high-quality data". One respondent from Bolivia noted the importance of broader research interests, however, in answering that it was of more importance; suggesting a flexible approach from the company in project planning.

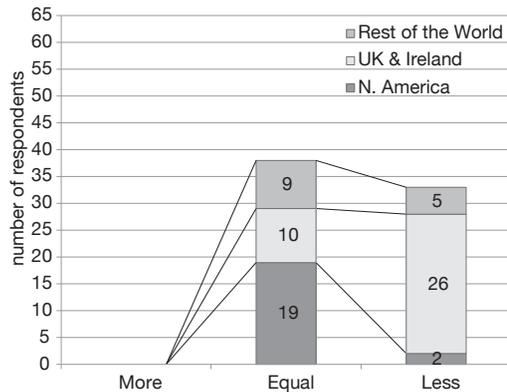


FIG. 6. – Do you feel that zooarchaeological material from the 'modern' era is treated as more, less, or equally important as other forms of archaeological material from the same period by your company?

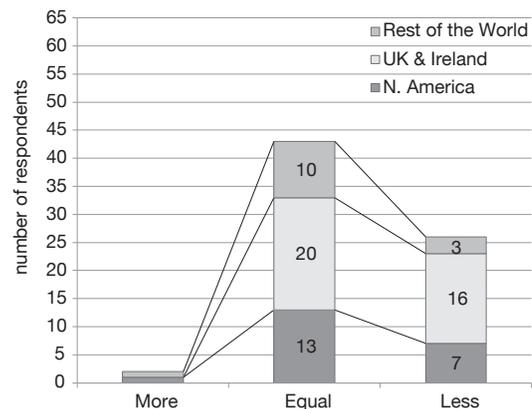


FIG. 7. – Do you feel that zooarchaeological evidence is perceived as more, less or equally important as other material in this period when compared to other periods by your company, or is status consistent throughout all periods?

#### ANALYSIS OF ZOOARCHAEOLOGY OF THE 'MODERN' ERA

When asked whether they had actually carried out any commercial zooarchaeology work for the 'modern' era, 54 (76%) respondents replied that they had (Fig. 8). This figure remained broadly consistent across the three regions defined in this paper, with 15 (71%) respondents working in North America, 29 (81%) in the UK and Ireland and 10 (71%) in the rest of the world. One respondent from the UK

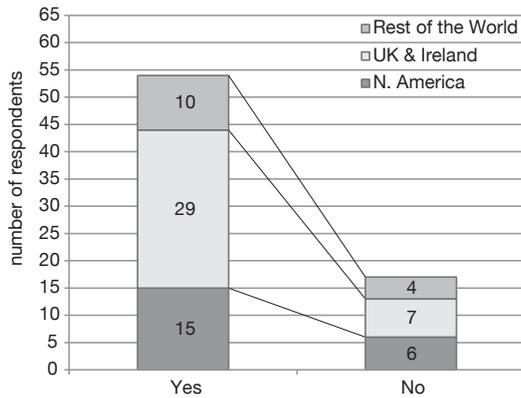


Fig. 8. – Are you ever presented with faunal assemblages for analysis from urban contexts dating after AD 1750?

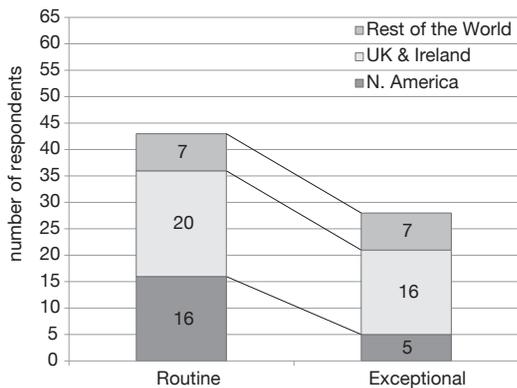


Fig. 9. – If you are presented with assemblages from urban contexts dating from 1750 or later, is it a routine practice of the commercial company, or is it exceptional? If exceptional, what criteria are used for making such a decision?

noted that this was typically as part of the analysis of multi-period sites.

Asked if this was routine practice on behalf of their employers, however, 43 (61%) respondents said that it was and 28 (39%) said that it was exceptional (Fig. 9). This figure shows some variation when analysed by region: 16 (76%) respondents from North America stated that this was a routine part of their employer’s practice, compared with only 20 (56%) in the UK and Ireland and seven (50%) in the rest of the world; the remainder all

noted that it was exceptional. One respondent from the UK clarified their ‘routine’ response by noting that this was to an assessment stage only – meaning that the material was scanned to ascertain its research potential, but never followed up with complete recording, analysis and interpretation. Comments on the ‘exceptional’ response were broadly similar across regions: one respondent each from Australia, The Netherlands and the UK stated that this was due to budgetary constraints and another from the UK stated that “developers view them as not as important as other material” but “sometimes [we] can sneak such assemblages through if developer not too worried about money”. The same respondent from The Netherlands and two more from the UK stated that they believed the stratigraphic integrity of most ‘modern’ era contexts was often insufficiently secure for analysis, whilst four more respondents from the UK stated that such analysis depended upon research questions and the developer’s wishes.

Respondents were asked who decides whether zooarchaeological material from ‘modern’ contexts should be analysed, and at what stages of the process this decision was made (Appendix 1). As a two-stage question, answers were necessarily qualitative and so difficult to represent graphically. Scrutiny of the responses indicate that the decision is most often made by the company or site director either prior to or during excavation. Two respondents from North America noted that such deposits are typically associated with urban areas, which their employers did not excavate, whilst a respondent from Iceland pointed out that all excavated material more than 100 years old is legally required to be assessed by archaeologists.

Finally, respondents were asked what efforts were made to publish the results of research into the zooarchaeology of the ‘modern’ era: 28 respondents answered that their reports were submitted as ‘grey’ literature, often within a site report, or more rarely a separate report, while eight further respondents said that little or no effort was made for publication (Appendix 2). Ten respondents, including eight from the USA and two from the UK, presented their research at conferences or public lectures, and the same number submitted papers to (often

local) journals. The greater access to publication of this research in North America was demonstrated in particular by three comments:

"My company has its own press, and we publish and disseminate our reports as widely as possible. Further, we [are] encouraged to present papers at regional and national (seldom international) meetings and, once the reports are finished and our clients have accepted the work as finished, we are free to publish the results of our work as we see fit - in journals, books, etc." (USA)

"I have offered several papers for publication in environmental archaeological relevant journals - but have been rejected on the basis of (I quote) 'environmental archaeologists are not interested in this recent material'" (UK)

"Conference paper and associated publication. Anonymous referee suggested it was not worth publishing". (UK)

One respondent in the UK indicated that they made sure that all of their reports were posted on the [zooarchaeology.ning.com](http://zooarchaeology.ning.com) social network, whilst another that they tried to post them on open access websites when developers allow.

## DISCUSSION

The good return rate means that the responses within this survey can be considered reliable of broader practice and attitudes. Indeed, 64% of the commercial zooarchaeologists identified in the UK in another recent survey (Morris 2010), were sampled. Most respondents work for companies that undertake archaeological work that include 'modern' era deposits and slightly less have discussed sites of this date with their colleagues. This would seem to indicate that zooarchaeologists are relatively good communicators within the workplace, recognising the importance of this both for raising the profile of their own work and for receiving input of different ideas and perspectives to their work.

Collaboration would seem to be limited to the post-excavation phase in many instances, however, with less than half of the commercial zooarchaeologists surveyed being involved in the planning process for either excavation or analytical strategies

outside of North America. This is a pity, since input by specialists into the early stages of project design can have tangible benefits to the project outcomes (O'Connor 2003: 78) and many freelance archaeologists, as well as in-house specialists, are happy to offer advice during these early stages (e.g. Broderick 2011; Holmes 2011).

It is concerning that some zooarchaeologists, particularly in the UK, believe that analysis of faunal remains from the 'modern' era is unimportant, especially if the only reason proffered here – that we have documentary sources of evidence for understanding the period – is a universally-held opinion (see also Murphy 2007; Thomas 2009). That zooarchaeologists believe their employers hold the material in even lower esteem is less surprising and only emphasises the importance of communicating the noteworthiness of studying the material, and the new insights that such studies provide, to the wider archaeological community. An exception to this situation seems to occur in North America, where the study of 'modern' era material has often been held up as an example of good practice (e.g. Thomas 2009).

The fact that one zooarchaeologist in the UK knew of material being discarded at the excavation stage by their company chimes with this author's own experience (see above). It should be of particular concern that less than a third of respondents in the UK believe that their employers consider animal bones in the same regard as other archaeological materials from sites dated to the 'modern' era. This would point to a problem peculiar to British commercial archaeology since fewer respondents from elsewhere felt this way. It should be noted, however, that British zooarchaeologists agreed with those in the rest of the world when asked if this relationship to other material changed through time. This question should probably have been worded better, and seemed to have confused a few respondents, so the answers cannot be held to be as reliable as others in this survey. Nevertheless, the general impression is that faunal remains from 'modern' era sites in Britain are undervalued.

Zooarchaeologists in Britain may also be underestimating their own contribution – three-quarters of those surveyed had carried out commercial zooarchaeological

work pertaining to the period AD 1750-1950. Since the survey was deliberately advertised without mentioning the 'modern' era, it seems unlikely that this represents only those commercial zooarchaeologists with an active interest in the period. Analysis of 'modern' era zooarchaeological material appears to be routine practice for commercial archaeology companies in North America too, but only half elsewhere. This situation appears to be partially a result of developer funding.

Communication may again lie at the root of the problem of under-appreciation – if developers are left with the impression that this work is of little importance then they cannot be blamed for being unwilling to fund it. That research questions were cited as the deciding factor in being able to study the material by four respondents could be read in this light. Profound changes occur in the 'modern' era in the areas of human-animal relations, husbandry practices, waste disposal, biogeography, industry and breed development – although only the latter two of these were noted by respondents – and yet zooarchaeology can aid our understanding of all of them. This needs to be made clear to colleagues, company and site directors and, ultimately, developers.

That we are more familiar with these changes in human-animal interactions in North America than in the UK and Ireland is probably not a reflection simply of the work being carried out. The results of this survey appear to indicate that zooarchaeological research into the 'modern' era is often conducted in the UK and elsewhere, albeit not as routinely as in North America. What this survey does suggest, however, is that even when zooarchaeologists are asked to analyse such material, the results of their analysis rarely make it into the public domain. This is a significant contrast with the situation in North America and suggests a general disregard for the worth of studying this material in the Old World.

## CONCLUSIONS

The statement at the start of this paper which inspired the research, that 'modern' era deposits were usually not kept at one commercial archaeology company unless special or important, is clearly at

odds with proper project planning, which requires prior consideration of excavation and sampling strategies (Lee 2009). One respondent's assertion that directors do not appreciate the need for systematic sampling and recovery strategies for robust zooarchaeological work may be true, but it appears as though most decisions as to whether or not 'modern' era material should be kept are made in the project planning stage, even if too often the decision is still a reactionary one by the site director. In any event, there appears to be more commercial archaeology being undertaken on 'modern' era sites than there is zooarchaeology. Compounding this issue is the fact that much commercial zooarchaeological research that is undertaken, particularly in the UK and Ireland, remains unpublished. Closed social networks such as zooarchaeology.ning.com may partially provide a solution to this problem, but granting access to fellow subject specialists will not resolve the issue entirely.

It is clear that the role of zooarchaeology in interpreting 'modern' era sites is more appreciated in North America than in the Old World. Whilst this might be seen as an effect of colonialism, of white settler states being principally interested in the development of those states and less in what came before, in truth it probably owes more to the accidental circumstance which saw many zooarchaeologists working in the same departments as historical archaeologists in the 1970s (Landon 2005). What those zooarchaeologists did was to explain to their colleagues how their research methods could contribute to answering questions in the 'modern' era. This kind of communication and promotion is necessary if zooarchaeology of the 'modern' era is to cease to be the poor relation in other parts of the world, particularly in the UK and Ireland – undervalued and ignored.

Zooarchaeologists must try and explain to their colleagues the research questions that they could contribute to if they are to be a valued part of the project. This is far more difficult for consultants than it is for in-house specialists but even they have opportunities to ask about forthcoming work in an informal capacity when discussing existing projects. In essence, it is easy to criticise developers or company directors for a perceived

lack of interest, but zooarchaeologists share the responsibility to explain clearly why it is important. At present, zooarchaeologists make it easy for their contribution in this period to be ignored in Britain and Ireland by focussing their own publication output on earlier periods. Even though far more work is carried out in this area than is often appreciated, much is immediately consigned to archives. Although commercial zooarchaeological research is often subject to confidentiality agreements specialists can, and should, bring pressure to bear on employers to publish their research. This may be the most direct way to demonstrate the contribution to our collective knowledge that this research can make.

#### Acknowledgements

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#### APPENDIX 1

Country of Work	If you are not routinely presented with 'modern' assemblages, why not? Who makes the decision (company director, site director, etc.) and at what stage is the decision made (pre-excavation assessment, during excavation, post-excavation assessment, etc.)?
Australia	Bones are not well preserved in Australia.
Australia	Funding by client.
Bolivia	I would be the person who looks at them, but they haven't been part of my research question. But will be in the future.
Canada	N/A
Canada	It is routine.
Canada	Primarily work on much older collections and when on occasion i get material from local, recent sites they are typically rural.
Canada	It is routine.
England	Often these assemblages will not be excavated; those that are rarely make it past assessment phase; others are pulled out by developer at final report stage.
England	Assessment is routine. Regardless of recommendations most small groups are binned to save storage space and not further analysed. Larger groups go through the system.

Country of Work	If you are not routinely presented with 'modern' assemblages, why not? Who makes the decision (company director, site director, etc.) and at what stage is the decision made (pre-excavation assessment, during excavation, post-excavation assessment, etc.)?
England	I am routinely presented with such material and it is company policy to look at any environmental evidence which may be significant and add to the overall picture.
England	It is routine.
England	It is routine.
England and USA	I think most amateur 'hunters' and even professionals are after either human remains or artefacts, i.e. arrowheads or pots or glassware, and simply don't realise the wealth of information and 'story' (for the general public or for exhibit purposes) that animal bones can potentially represent. The one opportunity to work on recent bone came for my company through a state park ranger who found a dead and skeletonised horse with the saddle still on the thorax, and immediately got online about it to news agencies -- but since he really knows nothing about bones, most of what he fed the media were wrong 'facts'. My function then became, through bringing to light the actual facts about the skeleton, to disabuse him and the media of his previous 'mis-statements'. The ranger wanted the publicity for purposes of personal advancement, but also just because he personally enjoys the lime-light. Bottom line: I got the contract for this study through the exercise of petty politics. Sad, isn't it?
Iceland	In Iceland the current law states that everything older than 100 years (so now predating 1911) are archaeological remains that cannot be removed without permission from the Archaeological Heritage Agency which in most cases requires 19th-century material to be collected if not always to the same standards as older material.
Israel	Company and site director
Norway	NA
Romania	The decision is usually made by the site director/archaeologist, mostly prior to the excavation. The reason is that usually there are plenty of written information or pictures to resort to in this period in order to reconstruct or find out more about a community's animal husbandry, hunting or alimentation strategies. Archaeozoology could not provide much more valuable information.
South Africa	I work alone and thus work on all material presented regardless of age.
Spain	Site director, post-excavation assessment
Sweden	State authorities decide what sites to excavate in 'rescue' situations.
The Netherlands	I used to work in the UK where I hardly ever saw so-called 'modern' material. Here in the Netherlands it is more common when it is stated in the Excavation Strategy Plan that these remains need analysis.
The Netherlands	Do not know
The Netherlands	The site director together with the company director and I, usually pre-excavation, in some cases during a later stage.
The Netherlands	My company (and many others) are not very interested in this period. Usually, these more recent finds are encountered during excavation of older features, and not the target of the investigation. The decision to discard/not select for analysis finds from after 1750 is made by the person directing the excavation, or by the person who advises whoever is in charge (person developing the land, or the city council). Because this is such a common attitude, the assumption is always there that finds from after 1750 will not be analysed. When a selection (of finds for analysis) has to be made after the excavation, these finds are the first to be de-selected.
UK	All bone from archaeological contexts are kept.
UK	N/A
UK	Do not know.
UK	Company director and project manager at post-excavation phase.
UK	Site director at post excavation stage.
UK	Why not: we may only have been asked to investigate specific time period. Who makes decision: in most cases, site director/on-site archaeologist What stage: most commonly during excavation; less commonly during post-excavation.
UK	The decision is always made during excavation.
UK	I have done a lot of post-1750 work in the US; it is routine there.
UK	I work freelance and no such contract has come my way.
UK	Any late post-medieval assemblages are usually very small (due to post-medieval/modern truncation and/or better waste management?), and thus of little zooarchaeological value. I would normally at the assessment stage recommend not to analyse them. If, however, it was a large late post-medieval assemblage, and the project research aims could show reason for analysis, I would recommend analysis.
UK	Variable.

Country of Work	If you are not routinely presented with 'modern' assemblages, why not? Who makes the decision (company director, site director, etc.) and at what stage is the decision made (pre-excavation assessment, during excavation, post-excavation assessment, etc.)?
UK	Faunal assemblages of this date are presented for assessment of potential, but almost never get analysed, because such recent time periods have very low priority in field archaeology.
UK	N/A
UK	Site director, after post excavation assessment.
UK	Often stripped out at surface, if not then considered of less (financial) value than other periods and removed at various stages.
UK	N/A
UK	I am usually presented with material from all periods of a particular site which may span from prehistoric to the modern period.
UK	The company management make the decision.
UK	N/A
UK	Not my decision - 'modern' material is rare but I analyse what I am asked to. The decisions have already been made by the time I get the material.
UK	Most of the assemblages that I have worked on for the last few years have been post-medieval/modern - the excavators recognise the importance of the material.
UK	We usually encounter these as part of multi-period sites and sometimes find that these later levels either lack stratigraphic integrity due to recent disturbance or contain very high levels of residuality. Good, well-dated deposits are considered important whether ancient or relatively modern- our priority is what we think we can learn from them. Decisions are made at all stages of the work and by project managers and site directors, often with input from specialist staff.
UK	The decision maker is highly variable - it depends upon project and person, I am freelance. What stage - not always clear but quite often assessment goes ahead then nothing more happens even if material is wonderful stuff.
UK	Variable.
UK	Unknown.
UK	Site director.
UK	No expertise, really. Linking the Breed Societies with actual bones should be a valued research area.
UK and Ireland	Snails from this period are less informative.
UK, Denmark, Egypt	N/A
USA	These sites are more often found in urban situations here and since I am located in a more rural area I see fewer of them.
USA	It is rare for us to work at such sites, and they typically do not have the kind of remains in which I specialise (mollusca).
USA	N/A
USA	I am routinely presented with these types of assemblages; in fact, they are all I work on.
USA	Site director makes decision to always recover, analyse, and report results, integrated with research design and archaeological results.
USA	Company director, pre-excavation.
USA	This is not applicable to me since I am presented with such assemblages, rather routinely.
USA	I have not worked with urban assemblages, little opportunity due to location.
USA	N/A
USA	My experience working with historic-period material is limited to museums and universities that are researching important questions on the colonial south-eastern United States. Faunal analysis is a strong component of these research plans.
USA	We are more interested in older sites.
USA	Urban assemblages are uncommon in my area, so there are few decisions to make. But, decisions are usually made during excavation.
USA	N/A
USA	If I am not routinely presented with such assemblages it is because we are not working on any sites that date to the 'modern' era. Most of our excavations are on earlier sites.
USA	The decision is made by a both the Principal Investigator (company director) and the project/site director, in consultation with myself, the company's resident zooarchaeologist.
USA	I am a private, self-employed consultant. These later assemblages are usually from sites on public historic sites and are deemed important. If faunal remains are recovered I am offered the contract to analyse the assemblages, usually at the post-excavation stage.

<b>Country of Work</b>	<b>If you are not routinely presented with 'modern' assemblages, why not? Who makes the decision (company director, site director, etc.) and at what stage is the decision made (pre-excavation assessment, during excavation, post-excavation assessment, etc.)?</b>
USA	I have looked at such assemblages.
Wales	Unknown.

## APPENDIX 2

<b>Country of Work</b>	<b>If you have analysed such material, what efforts are made to disseminate your results among the archaeological community?</b>
Australia	In one recent case a specimen was published in a peer-reviewed journal, but this is the only case that I have been involved in that information has been made available to the wider archaeological community.
Australia	Faunal report available online; journal publications.
Bolivia	At present, I have not analysed such materials. When I do, I will disseminate my results through journal articles and site reports.
Canada	None. A lot of the material I study is from quite small assemblages and material from the post-1750 period has quite poor chronological markers which makes my results quite general.
Canada	Monograph.
Canada	N/A
Canada	Local periodicals.
England	Treated as other sites - published in regional journal if it is worthwhile and archived online.
England	Conference paper and associated publication. Anonymous referee suggested it was not worth publishing as it did not say anything new.
England	None. A lot of the material I study is from quite small assemblages and material from the post-1750 period has quite poor chronological markers which makes my results quite general.
England	As I work for a commercial company it is included in the grey literature.
England	Archaeological journals usually.
England and USA	If I want to publish them, generally my employers not tell me I cannot. If it is worth publishing, I generally seek out a colleague who is still institutionally affiliated, because it tends to make getting the paper accepted easier.
Iceland	Unfortunately the samples that I have analysed so far have been very small and badly preserved and therefore not ideally suited for publication or dissemination.
Israel	High.
Norway	Internal reports or articles.
Romania	This mostly depends on me, if I want to publish it separately, I am allowed. If there is going to be a monograph about the site, my analysis would be included, especially if it brought new information.
South Africa	The excavator is presented with my report, which forms part of the overall report presented to the commercial company that employs him/her. The report includes a community knowledge share program that the archaeologist implements and oversees. I may or may not form part of this group.
Spain	None, I just write a short report for the company and the museum where the bones will be stored.
Sweden	I distribute my results and views about late material as it is important for the investigation of breed improvements that were undertaken in this period.
The Netherlands	I mainly see material from auguring and trial trenches, so no there is no need to formally publish these. The one big excavation I have been involved with will be fully available to the community and the general public at some stage.
The Netherlands	The results are presented in an excavation report together with all the other results. There is also the possibility to put the results in a national digital archaeological database.
The Netherlands	The usual: the results are published in reports.
The Netherlands	Writing up the results in an archaeological report.
UK	Most sites will be published either as journal articles or monographs, where the animal bone will be included. For very interesting sites a separate bone publication may be considered.

Country of Work	If you have analysed such material, what efforts are made to disseminate your results among the archaeological community?
UK	Grey literature reports that are accessible through the Counties HER (Historic Environment Record), and/or local transactions.
UK	It is just treated normally, as part of an excavation report.
UK	I have never analysed such material.
UK	Via grey literature.
UK	Results if analysed usually end up in grey literature, via Oasis. Earlier results (pre-Oasis) may have been deposited in RCAHMS (Royal Commission on the Ancient and Historical Monuments of Scotland) as part of site archive.
UK	Some become published. I intend to make all of my reports available online at some point when I have the time to upload them.
UK	Publication of reports and articles in edited volumes and journals.
UK	I have not analysed such material.
UK	I did analyse some small late post-medieval assemblages when I worked in Ireland, but the bone reports (of any time period) never got published - just archived as grey literature.
UK	These have only been for client reports/grey literature.
UK	No special effort is made to disseminate these. The dates of the deposits or phase are included in summary tabulations, and briefly compared and contrasted with earlier phases.
UK	Same as usual.
UK	Dissemination as standard archaeological procedure.
UK	Depends on end 'publication'.
UK	Little. Usually remains as grey literature report. Only lodged with relevant HER. Might be listed as a find with an OASIS submission.
UK	None, I occasionally put my reports on open websites to download but often my employer prefers that this does not happen.
UK	Zoobook is useful for grey literature.
UK	Larger assemblages go for publication; smaller assemblages generally remain as archive reports.
UK	Same as any assemblage.
UK	I have written detailed reports but they are seldom published. The same would not be true for material of earlier date. However, the excavators are keen for copies of the reports to be disseminated widely
UK	In my case, the assemblages have been very small and have usually remained as grey literature, although the reports are disseminated on OASIS.
UK	Conferences - e.g. Association for Environmental Archaeology; I am still waiting for most of my stuff to be properly published. Most sites do not produce material worthy of publication on its own merit, the whole idea of environmental material is to support and understand a site so we are left waiting for the archaeologists.
UK	Published as part of a site report/monograph/journal article.
UK	Little. Usually remains as grey literature report. Only lodged with relevant HER. Might be listed as a find with an OASIS submission.
UK	It becomes available in the county archive.
UK	It is a long time since I have had any.
UK and Ireland	I have offered several papers for publication in environmental archaeological relevant journals - but have been rejected on the basis of I quote "environmental archaeologists are not interested in this recent material".
UK, Denmark, Egypt	Little effort. I do not think it is even on the grey literature library with ADS (Archaeology Data Service).
USA	Same as with other results - publication, conference presentations, etc.
USA	I have analysed some; the results were published in a refereed journal.
USA	Prompted by me to present at conferences and publish in appropriate journals.
USA	Standard grey literature publishing of contract reports.
USA	Zooarchaeological results are integrated into site reports; in USA states most excavations must have approved research design and permit to excavate on public lands; agency cultural resource people and the state archaeologist must review and approve the report, which is then archived at one or more agencies to be available to researchers and land management folk. Sites of special significance are often published in regional and/or national journals or compendia.

Country of Work	If you have analysed such material, what efforts are made to disseminate your results among the archaeological community?
USA	Papers.
USA	My company has its own press, and we publish and disseminate our reports as widely as possible. Further, we encouraged to present papers at regional and national (seldom international) meetings and, once the reports are finished and our clients have accepted the work as finished, we are free to publish the results of our work as we see fit - in journals, books, etc.
USA	N/A
USA	Public talks.
USA	None yet aside from inclusion in the final site reports.
USA	N/A
USA	Reports, local conference presentations, posters, etc.
USA	The analysis typically becomes part of a larger 'grey literature' report.
USA	Publication
USA	We publish the material in a technical report, and I will often present the results at conferences, both local and regional.
USA	Several of these assemblages have been published in edited books after presenting papers at conferences, or, they published in limited edition reports.
USA	A report on the fauna was presented to the archaeologists for inclusion in their final draft.
Wales	Unknown - too early to say.