

Animal Bones and Archaeology: Guidelines for Best Practice.

Supplement 2: Excavating animal bones

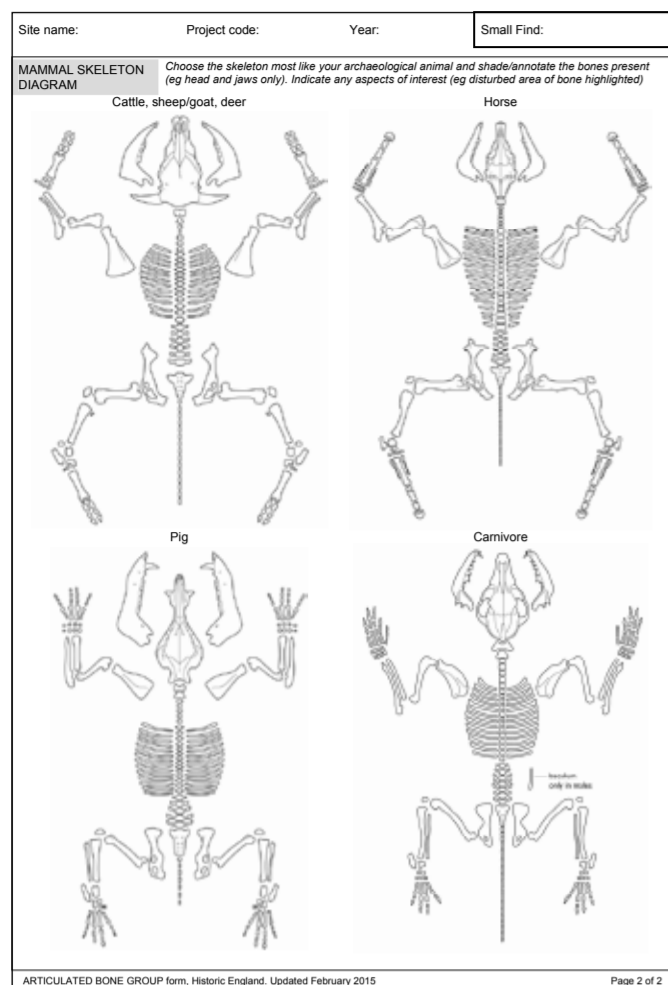


Fig S2.1 Example extract from an ABG recording form used for skeletons of different mammals.



Fig S2.2 Neonatal and infant human remains can look very similar to young bones of animals. (A) fox; (B) human; (C) sheep; (D) cattle; (E) guinea fowl.

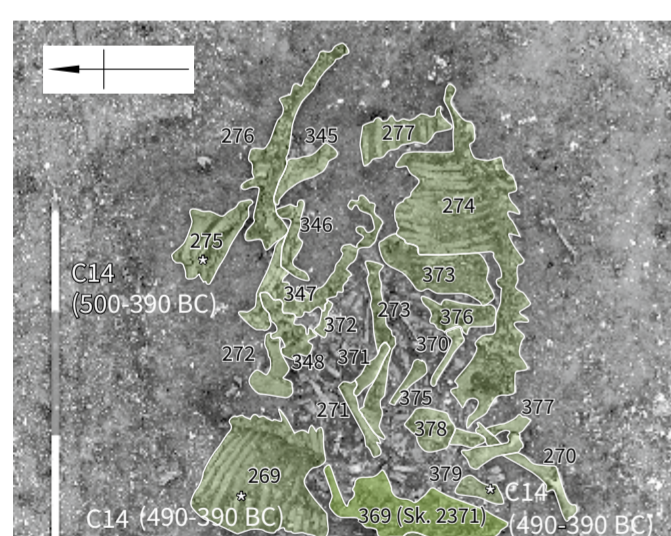


Fig S2.3 Iron Age ABGs individually numbered prior to lifting.



Fig S2.4 This pig mandible is likely to fragment and lose its teeth once lifted. All fragments and teeth must be kept together and not mixed with other bones and teeth from the context so that they can be used to age the animal.

Always make sure that you follow the project methods statement. This will reflect the needs of particular research questions, aims and objectives. Regular feedback between fieldwork staff (excavation and sample processing) and the zooarchaeologist can highlight changes to the excavation approach that will improve the interpretative potential of the bone assemblage.

When excavating bones:

- be careful to avoid breaking bones or damaging their surface
- collect all bones and teeth, including small fragments

If you are not certain how to proceed with an unusual animal bone deposit, ask the project zooarchaeologist. It may be useful for them to view or record the deposit *in situ*.

Excavating animal bone groups (ABGs: whole skeletons, articulated bones or unfused parts of bones) (see Sections 3.1.5.1)

Is it human or animal? If human obtain an excavation licence. The best way to check is to look at the skull or feet: shape and number of bones differ between species (see Fig S2.1). Infant or partial human skeletons can look like animal skeletons (Fig S2.2). Where possible the project zooarchaeologist should view *in situ* to confirm completeness.

- ✓ Photograph (Fig S2.3) and plan *in situ*.
- ✓ Assign ABG number and complete record form (eg Fig S2.1).
- ✓ Record any disturbance and associated finds.
- ✓ Take care to recover the whole skeleton. If the animal was pregnant, foetal bones may survive. Some male animals have a penis bone which is not articulated to other bones (eg dogs and many wild mammals).
- ✓ Take whole-earth samples where small bones may be present (eg around feet, pelvis or tail, and entire position of cat-sized and smaller animals).
- ✗ Don't mix ABG bones with other animal bones from the context.
- ✓ Bag up by skeleton part (left front leg, right front leg, skull, etc). It's not always possible to assign toes to the correct foot in the lab.
- ✓ If part of the ABG can't be excavated (eg continuing into a baulk that can't be removed), record and photograph the details of this (see also Section 3.1.3).
- ✓ If you find an ABG when half-sectioning a feature, **stop!** Record the section above the ABG, expose the complete ABG for full recording and recovery, and then continue your half section.

Excavating fragmented and fragile remains (see Section 3.1.5.5)

- ✓ Photograph the bones *in situ*.
- ✓ Keep fragments of a broken bone together and separate from other bones, especially jaws with loose teeth (Fig S2.4). Record the reason for separation to inform processing and analysis.
- ✓ Fragile (soft or brittle) bones may need block-lifting. The zooarchaeologist and conservator can advise whether this should be done. The zooarchaeologist may be able to record aspects of the bones *in situ*.
- ✓ Use rigid boards for block lifting and keep bones damp and cold until they reach a conservator.
- ✗ Don't use consolidants if you might need the bones for biochemical analysis (radiocarbon, isotopes, DNA etc) (see also Section 3.1.6).

Excavating bones and teeth from manufacturing waste or used as building material (see Sections 3.1.5.2 and 3.1.5.3)

- ✓ Photograph and plan *in situ* as required.
- ✗ Don't selectively collect the bones without zooarchaeological advice. If very large deposits are found, the zooarchaeologist may suggest a recovery strategy.
- ✓ Whole-earth samples may be needed to recover bones of smaller animals (see also Section 3.1.2).
- ✓ Inform the zooarchaeologist before excavating bones used in construction (pit lining, walls, floors): they may need to record some aspects *in situ*.

Taking samples for bones (see Section 3.1.2)

Sampling is important for the recovery of representative assemblages (eg of species, age groups, body parts).

- ✓ Samples should be whole-earth, ie retain all bones within the sample, unless too fragile. Any bones removed must be identified as from the sample.
- ✓ Samples for bones may need to be large, for example 100 litres, to recover a big enough assemblage to address the project's questions.
- ✓ Feedback on bones from processed samples and hand collection can highlight the need for altering the sampling approach or targeting excavation.
- ✓ Samples may also be needed where abundant, articulated or small animal bones are seen *in situ*. Seek advice from the project specialist.