

**APPENDIX A WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION AT HALL
GARTH FARM, BIRKIN, NORTH YORKSHIRE**
Heritage Unit, North Yorkshire County Council

1. Summary

- 1.1 An outline planning application has been submitted to Selby District Council for the erection of a dwelling on land at Hall Garth Farm, Birkin. The site lies within an area of potential archaeological significance, close to the medieval moated site known as Hall Garth and the later Hall which was built nearby, but no longer survives. In response to consultation on the planning application for the development of the site, the Archaeologist, Heritage Unit, North Yorkshire County Council has advised the District Council that a scheme of archaeological evaluation by trial trenching is undertaken, with a prior documentary and cartographic survey.
- 1.2 The aim of this work is to establish the nature, location, extent and state of preservation of archaeological remains within the proposed development area. The evaluation results will enable an assessment of the archaeological impact of the development proposals. An informed and reasonable planning decision can then be taken as to whether the development should be permitted. If so, this information will assist in identifying options for minimising, avoiding damage to, and/or recording any archaeological remains. This scheme of investigation has been prepared to define the scope of this archaeological evaluation for the applicant, Mr M Nunns.

2. Purpose

- 2.1 This written scheme of investigation represents a summary of the broad archaeological requirements to enable an assessment of the impact of development proposals upon the archaeological resource. This is in accordance with Policy ENV28 (modified from OM17) of the Selby District Local Plan and the guidance of Planning Policy Guidance note 16 on *Archaeology and Planning*, 1990. It does not comprise a full specification, and the County Council makes no warranty that the archaeological works are fully or exactly described. The details of implementation must be specified in a contract between the Client and the selected archaeological contractor.

3. Location and Description (centred at NGR SE 5312 2659)

- 3.1 An outline planning application was submitted by Mr M Nunns to Selby District Council in September 2003, application ref. 8/51/14H/PA. The development proposal comprises the erection of one dwelling, with associated detached garage in an area approximately 30m by 25m on land to the north of H&I Garth Farm, Birkin. The village of Birkin lies within the Selby District of North Yorkshire, to the south west of the town of Selby and five miles east of Pontefract. It lies between the villages of Byram-cum-Sutton and West Haddlesey, to the north of Beal. This is an area formerly within the West Riding of Yorkshire prior to 1972. Access to the development will be taken from the main road to the west from an existing track between St Mary's Church and Church Farm. The site is presently under grass and lies to the north of a range of agricultural buildings used for the housing of livestock, which lie to the north of a flood embankment along the Old Eye, a tributary of the River Aire which runs to the south. The proposed development layout is shown on a drawing submitted with the planning application, dated 18-05-01, resubmitted on 24-08-03, at 1:1250 and 1:200 scale (no drawing number). A Bioclear sewage treatment plant is proposed within the area of the Hall Garth moated site, with an associated land drainage outfall crossing the moated area to an existing watercourse to the north, which runs along the northern arm of the moat.
- 3.2 At the time of a site meeting with Mr Nunns and Mr Parkinson of Selby District Council, the application site was under grass. The extension of the present range of agricultural buildings to the east and south of the area was discussed and, whilst the southern extension has been implemented (application ref. 8/51/14F/PA, OSA 2003), the eastern area of the development has yet to take place. The eastern extension likely to occupy an area measuring approximately 20m by 40m and this area of proposed development will be considered as part of the evaluation, in addition to the site of the proposed house, garage and sewage outfall.

4. Historical and Archaeological Background

- 4.1 Pre-Conquest settlement is recorded at Birkin in the Domesday Book of AD 1086, which makes reference to four villagers, two smallholders and two ploughs. The Church of St Mary at Birkin is a complete Norman church, described by Pevsner as one of the most impressive Norman churches in Yorkshire. The proposed development site lies within an area of archaeological interest known as Hall Garth. This is a medieval moated site the location of which is recorded by the Ordnance Survey map of 1907. Whilst part of the western, northern and eastern arms of this moated site appear now to have been infilled, their extent can be traced from the old maps and from aerial photographic evidence, as plotted by the English Heritage Vale of York national Mapping Programme. There is a marked drop in level from the land east of the agricultural buildings down to the central area of the moated enclosure. This moated enclosure was associated with the site of the manor house and hall of the Birkin family which was built c. 1180 AD. The site of the former Church Hill Houses, a small terrace of dwellings, now demolished, replaced an earlier Hall to the west of the moat in the area of the proposed farm building extension. Remains of this former Hall are said to have been visible in 1905. At the time of the site visit, in 2002, a quarry tile floor was evident through the turf in this location, presumed to have been associated with the former terraced housing. A set of gate piers dated to c. 1700 and Listed Grade II are situated to the south east of the Church, close to the site of the agricultural buildings at Hall Garth Farm.
- 4.2 An archaeological watching brief was maintained during the excavation of foundation pits for the southern agricultural building extension at Hall Garth Farm in November 2002 (OSA 2002). Twelve 1m by 1m pits were monitored, all of which produced evidence for modern made ground comprising brick chalk end sandstone rubble. It is not known whether this deposit may be sealing potential archaeological deposits, or if its deposition may have removed any trace of earlier remains.
- 4.3 Additional archaeological information for this area is held by the North Yorkshire Sites and Monuments Record (SMR). The SMR can be consulted by prior appointment by contacting the SMR Officer, North Yorkshire County Council, Heritage Unit, County Hall, Northallerton, North Yorkshire, DL7 8AH; Tel. 01609 532331, Fax. 01609 779838.

5. Objectives

- 5.1 The objectives of the archaeological evaluation work within the proposed development area are:
- .1 to collate available archaeological and historical information to determine as far as is reasonably possible from existing documentary, cartographic and photographic sources the nature of the archaeological resource within the application site and any changes in land use through time.
 - .2 to determine by means of trial trenching, the nature, depth, extent and state of preservation of any archaeological deposits to be affected by the development proposals. Trial trenches of sufficient size and depth to provide this information will need to be excavated, and archaeological deposits will need to be explicitly related to depths below existing surface and actual heights in relation to Ordnance Datum,
 - .3 to prepare a report summarising the results of the work and assessing the archaeological implications, if any, of the proposed development,
 - .4 to prepare and submit a suitable archive to the appropriate museum.

6. Tenders

- 6.1 Archaeological contractors should submit their estimates or quotations to the commissioning body with reference to the County Council's *Guidance for Developers - Archaeological Work and Research Questions for Assessments, Evaluations and Small Scale Interventions in North Yorkshire*.

7. Variations to Work

- 7.1 An allowance of time, or a contingent sum for bad weather, should be agreed as part of any contract. Variations to work arising from the presence of structures or archaeological remains not anticipated by the written scheme of investigation or the archaeological contractor should be subject to consultation with the Archaeologist, NYCC and the commissioning body, and put into effect as appropriate with the written agreement of the parties involved.

8. Access, Safety and Monitoring

- 8.1 Access to the site should be arranged through the commissioning body.
- 8.2 It is the archaeological contractor's responsibility to ensure that Health and Safety requirements are fulfilled.
- 8.3 The project will be monitored by the Archaeologist, North Yorkshire County Council, to whom written documentation should be sent before the start of the trial trenching confirming:
- a) the date of commencement,
 - b) the names of all finds and archaeological science specialists likely to be used in the evaluation, and
 - c) notification to the proposed archive repository of the nature of the works and opportunity to monitor the works.
- 8.4 Where appropriate, the advice of the Regional Advisor for Archaeological Science (Yorkshire) at English Heritage will be called upon.
- 8.5 It is the archaeological contractor's responsibility to ensure that monitoring takes place by arranging monitoring points as follows:
- .1 a preliminary meeting or discussion at the commencement of the contract to agree the locations of the proposed trial trench.
 - .2 progress meeting(s) during the fieldwork phase at appropriate points in the work schedule, to be agreed.
 - .3 a meeting during the post-fieldwork phase to discuss the draft report and archive before completion.
- 8.6 It is the responsibility of the archaeological contractor to ensure that any significant results are brought to the attention of the Archaeologist, North Yorkshire County Council and the commissioning body as soon as is practically possible. This is particularly important where there is any likelihood of the contingency arrangements being required.
- ## 9. Brief
- 9.1 To undertake a preliminary appraisal of documentary and cartographic information relating to the site, collating (where appropriate and/or available):
- .1 data held by the North Yorkshire Sites & Monuments Record (SMR), including aerial photographs.
 - .2 printed and manuscript maps
 - .3 place and field-name evidence.
 - .4 other photographic/illustrative evidence.
 - .5 published and unpublished documentary sources.
 - .6 local museum catalogues and artefactual evidence.
 - .7 oral evidence.
 - .8 engineering/borehole data.
- 9.2 The aim of this preliminary aspect of the work is to assess the nature and extent of available evidence for Hall

Garth Farm and surrounding area within Birkin Village, with particular reference to the archives held for this area of the former West Riding by the University of York Borthwick Institute of Historical Research (1845 Tithe Award); North Yorkshire County Record Officer (1815 Enclosure Award) and the West Yorkshire Archive Service, Wakefield Headquarters, and the North Yorkshire SMR. This is with a view to assessing the potential impact of the proposals for the proposed new dwelling, sewage treatment plant, and potential eastern extension of the existing farm building range (see section 3 above). The aim of this appraisal of sources is to contribute towards an understanding of the archaeological resource associated with the medieval and later manorial/hall complex, and as an aid to its future management in relation to the development proposals.

- 9.3 Following a review of the evidence collected as part of 9.1 and 9.2 above, a minimum of three areas of trial trenching should be excavated within the application site for the proposed new dwelling, and the area of the proposed agricultural building extension. Archaeological contractors should quote for an area of 75m² to be investigated to determine the nature, depth, extent and state of preservation of archaeological deposits across the site. The precise location and size of the trenches must be agreed with the commissioning body, and the Archaeologist, North Yorkshire County Council prior to excavation (see 8.5.1 above). The project should be undertaken in a manner consistent with the guidance of MAP2 (English Heritage, 1991) and professional standards and guidance (IFA, 1999).
- 9.4 Archaeological investigation should be carried out over the full area of each trench, either by area excavation or sectioning of features in order to fulfil Objective 5.1.1 above. Sondages or slit trenches should be used only to facilitate the recording of the trench; they should not be used to provide a representative sample of the trench. Where excavation below a safe working depth constrains investigation, consideration should be given to stepping back or shoring the excavation. In case of query as to the extent of investigation, a site meeting shall be convened with the Archaeologist, North Yorkshire County Council.
- 9.5 All deposits should be fully recorded on standard context sheets, photographs and conventionally-scaled plans and sections. Each trench area should be recorded to show the horizontal and vertical distribution of contexts. Normally, all four sides of a trench should be recorded in section. Fewer sections can be recorded only if there is a substantial similarity of stratification across the trench. The elevation of the underlying natural subsoil where encountered should be recorded. The limits of excavation should be shown in all plans and sections, including where these limits are coterminous with context boundaries.
- 9.6 Overburden such as concrete, made ground, rubble or other superficial fill materials may be removed by machine using a mini-digger fitted with a toothless or ditching bucket. Mechanical excavation equipment shall be used judiciously, under archaeological supervision down to the top of archaeological deposits, or the natural subsoil (C Horizon or soil parent material), whichever appears first. Bulldozers or wheeled scraper buckets should not be used to remove overburden above archaeological deposits. Topsoil should be kept separate from subsoil or fill materials. Thereafter, hand-excavation of archaeological deposits should be carried out. The need for, and any methods of, reinstatement should be agreed with the commissioning body in advance of submission of tenders.
- 9.7 Metal detecting, including the scanning of topsoil and spoil heaps, should only be permitted subject to archaeological supervision and recording so that metal finds are properly located, identified, and conserved. All metal detection should be carried out following the Treasure Act 1996 Code of Practice.
- 9.8 Due attention Should be paid to artefact retrieval and conservation, ancient technology, dating of deposits and the assessment of potential for the scientific analysis of soil, sediments, biological remains, ceramics and stone. All specialists (both those employed in-house and those subcontracted) should be named in project documentation, their prior agreement obtained before the fieldwork commences and opportunity afforded for them to visit the fieldwork in progress.
- 9.9 All artefacts and ecofacts visible during excavation should be collected and processed, unless variations in this principle are agreed with the Archaeologist, North Yorkshire County Council. In some cases, sampling may be most appropriate.

- 9.10 Finds should be appropriately packaged and stored under optimum conditions, as detailed in First Aid for Finds (Watkinson & Neal, 1998). In accordance with the procedures of MAP2 (English Heritage, 1991) all iron objects, a selection of non-ferrous artefacts (including all coins) and a sample of any industrial debris relating to metallurgy should be X-radiographed before assessment. Where there is evidence for industrial activity, large technological residues should be collected by hand, with separate samples collected for micro-slugs. In these instances, the guidance of English Heritage/Historical Metallurgy Society (1995) should be followed
- 9.11 Samples should be taken for scientific dating, principally radiocarbon dating, where dating by artefacts is insecure and where dating is a significant issue for the development of subsequent mitigation strategies.
- 9.12 Buried soils and sediment sequences should be inspected and recorded on site and samples for laboratory assessment collected where appropriate, in collaboration with a recognised geoarchaeologist. The guidance of Canti, 1996 should be followed.
- 9.13 A strategy for the sampling of deposits for the retrieval and assessment of the preservation conditions and potential for analysis of all biological remains should be devised. This should include a reasoned justification for the selection of deposits for sampling and should be developed in collaboration with a recognised bioarchaeologist. Sampling methods should follow the guidance of the Association for Environmental Archaeology (1995). Bulk samples and samples taken for coarse-sieving from dry deposits should be processed at the time of fieldwork wherever possible.
- 9.14 Upon completion of archaeological field recording work, a full and appropriate programme of analysis and publication of the results of the evaluation should be completed, in the event that no further excavation takes place. The post-excavation assessment of material should be undertaken in accordance with the guidance of MAP2 (English Heritage, 1991).

10. Archive

- 10.1 Archive deposition should be undertaken with reference to the County Council's *Guidelines on the Transfer and Deposition of Archaeological Archives*. A field archive should be compiled consisting of all primary written documents, plans, sections and photographs. Catalogues of contexts, finds, soil samples, plans, sections and photographs should be produced and cross-referenced.
- 10.2 The archaeological contractor should liaise with an appropriate museum to establish the detailed requirements of the museum and discuss archive transfer in advance of fieldwork commencing. In this instance the Yorkshire Museum, York is suggested. The relevant museum curator should be afforded access to visit the site and discuss the project results.

11. Copyright

- 11.1 Copyright in the documentation prepared by the archaeological contractor and specialist sub-contractors should be the subject of a licence in favour of North Yorkshire County Council and the museum accepting the archive to use such documentation for their statutory functions, and to provide copies to third parties incidental to such functions.

12. Report

- 12.1 An evaluation report should be prepared following County Council's guidance on reporting: *Reporting Check-List*. The report should set out the aims of the work and the results as achieved. Diagrams should be included to illustrate the location and depth of archaeological deposits in relation to existing ground levels, and projected depths of disturbance associated with the development proposals, where these are known. The report should identify the archaeological potential of the site, the research questions applicable to the site, and the deposits, finds or areas needing further investigation. The report should also include a listing of contexts, finds, plans and sections,

and photographs.

- 12.2 All excavated areas should be accurately mapped with respect to nearby buildings and roads.
- 12.3 At least six copies of the report should be produced and submitted to the commissioning body, North Yorkshire County Council Heritage Unit, the Local Planning Authority, the museum accepting the archive, and the National Monuments Record, Swindon.

13. Further Information

- 13.1 Further information or clarification of any aspects of this brief may be obtained from:

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13.2 References

- Association for Environmental Archaeology. 1995. Environmental Archaeology and Archaeological Evaluations, Recommendations Concerning the Environmental Archaeology Component of Archaeological Evaluations in England. *Working Papers of the Association for Environmental Archaeology, Number 2*.
<http://www.envarch.net/publications/papers/evaluations.html>
- Canti, M. 1996. Guidelines for carrying out Assessments in Geoarchaeology, *Ancient Monuments Laboratory Reports* 34/96, English Heritage.
- English Heritage. 1991. *Management of Archaeological Projects (MAP2)*.
<http://www.eng-h.gov.uk/guidance/map2/>
- English Heritage/ Historical Metallurgy Society. 1995. *Archaeometallurgy in Archaeological Projects*.
<http://www.eng-h.gov.uk/guidelines/archmet.html>
- Institute of Field Archaeologists. 1999. *Standard and Guidance for Archaeological Field Evaluations*.
<http://www.archaeologists.net/docs/codes/fldeval2.pdf>
- On Site Archaeology. 2003. *Hall Garth Farm, Main Street, Birkin Report on an Archaeological Watching Brief* (Report no.0SA02WB39).
- Watkinson, D. & Neal, V. 1998. *First Aid for Finds (3rd edition)*, RESCUE & the Archaeological Section of the United Kingdom Institute for Conservation..



APPENDIX B INDEX TO FIELD FILE

CODE		DESCRIPTION	RECORD	FORMAT
Indices				
YO1		Index of notebooks	-	-
YO2		Index of contexts	2	A4
YO3		Index of features	1	A4
YO4		Index of structures	-	-
YO5		Index of drawings	1	A4
YO6	.0	Index of photographs	3	A4
	.1	Index of film processing	1	A4
YO7	.0	Index of finds	-	-
	.1	Index of finds by context	-	-
	.2	Index of finds by grid square	-	-
	.3	Sample Register	-	-
	.4	Artefact Register	-	-
	.5	Finds Storage Register	-	-
YO8		Index of geophysical data files	-	-
YO9	.0	Index of survey stations	-	-
	.1	Index of co-ordinate files	-	-
	.2	Index of topographic files	-	-
YO10		Index of interventions	-	-
Y1		Notebooks		
Contexts				
Y2	.0	Context Record	58	A4
	.1	Skeleton Record	-	-
	.2	Coffin Record	-	-
	.3	Masonry Record	-	-
	.4	Timber Record	-	-
Features				
Y3	.0	Feature Record	27	A4
	.1	Auger Record	-	-
Structures				
Y4		Structure Record	-	-
Site drawing				
Y5	.0	Legend	-	-
	.1	Plans	2	A4
	.2	Maps	-	-
	.3	Sections	10	A1/A4
Photographs				
Y6	.0	Black and white negatives	-	-
	.1	Colour negatives	68	35mm
	.2	Colour slides	-	6x4"
	.3	Colour enprints	68	-
	.4	Black and white prints	-	-
Finds				
Y7	.0	Finds Location Record	-	-
	.1	Artefact Record	-	-
Survey				
Y8	.0	Record of geophysical data files	-	-
	.1	Record of .RAW data file	-	-
	.2	Record of .FLD data file	-	-
	.3	Surface Reconnaissance Record	-	-

APPENDIX C SUMMARY OF CONTEXT AND FEATURE RECORDS

Intervention 1 Summary of contexts records

Context	Identity	Feature	Munsell	Description	Date
1000	overburden	-	various	mixed brick rubble overlain by compacted gravel in a black silt	modern
1001	make-up	1	various	6" quarry tiles of two different manufacturers, set with a trim of 8" quarry tiles	19th century
1002	make-up	2	various	brick wall footing	19th century
1003	make-up	3	various	8.5" quarry tile floor	19th century
1004	make-up	4	various	brick wall footing including large stone lintel with a square socket possibly for a doorway	19th century
1005	make-up	2	various	mixed make-up of wall footing consisting of sandstone and limestone blocks and brick fragments with reused chamfered plinth and decorative moulded stonework, heavy lime mortar bonding	19th century
1006	backfill	8	various	backfill of construction cut for wall footing F2 C1005 consisting of heavy mix of plaster, brick, tile, mortar and silty clay	19th century
1007	make-up	5	various	make-up of wall consisting of yellow sandstone blocks, crudely shaped and bonded with lime mortar	19th century
1008	make-up	6	various	brick and plaster make-up of wall, bricks are handmade, plaster rendered across entire elevation	19th century
1009	make-up	7	various	brick make-up of wall footing	19th century
1010	make-up	9	various	brick make-up of wall footing	19th century
1011	backfill	10	10yr 4/4	dark yellowish brown sand with lenses of very dark greyish brown silty clay, occasional gravel and mixed pebble, rare occurrence of cbm and brown glazed earthenware observed in section	post-medieval
1012	backfill	10	10yr 3/2	clay silt, dark greyish brown, inclusions of charcoal flecks, with rare stone roof tile fragments and mixed gravel	post-medieval
1013	backfill	11	10yr 3/2	silty clay, dark greyish brown, frequent inclusions of tipping stone roof tiles, occasional mortar and charcoal flecks, gravel and pebble; ceramic and animal bone recovered	medieval
1014	layer	-	various	silty clay, including large quantities of plaster, brick, mortar, tile and glass fragments	19th century
1015	layer	-	10yr 3/2	clay silt, dark greyish brown, frequent inclusions of mortar, cbm and clinker	19th century
1016	layer	-	10yr3/2	clay silt, dark greyish brown, very frequent mortar flecks, inclusions of cbm and glass fragments	19th century
1017	layer	-	10yr3/2	clay silt, dark greyish brown, inclusions of charcoal flecks and cbm fragments	19th century
1055	subsoil	-	10yr 4/4	a sterile sandy silt, dark yellowish brown with laminations of very dark greyish brown clay silt	-



Intervention 1 Summary of feature records

Feature	Identity	Contexts	Dimensions (m)	Profile
1	floor	1001	2.00 x 2.00	unseen
2	wall footing	1002, 1005	2.00 x 0.25	rectangular
3	floor	1003	2.00 x 2.40	rectangular
4	wall footing	1004	-	unseen
5	wall footing	1007	-	unseen
6	wall	1008	2.50 length visible	unseen
7	wall	1009	0.70 length	rectangular
8	construction cut	1006	1.20 width x 0.90 depth	U-shaped
9	wall	1010	-	rectangular
10	posthole	1011, 1012	1.20 width x 0.75 depth visible	unseen
11	pit	1013	1.20 width x 0.60 depth visible	unseen

Intervention 2 Summary of context records

Context	Identity	Feature	Munsell	Description	Date
1000	overburden	-	various	mixed brick rubble overlain by compacted gravel in a black silt	modern
1018	make-up	12	various	make-up of a York stone flagstone floor, varying sized pieces, all square or rectangular	19th century
1019	make-up	13	various	make-up of wall footing comprised of slop moulded bricks in fragments and complete (260mm x 120mm), stone fragments, roughly shaped, all bonded with lime mortar	19th century
1020	make-up	14	various	wall footing make-up comprised of limestone fragments, roughly shaped, bonded with lime mortar, infilling with cbm fragments	19th century
1021	make-up	15	various	make-up of footing with large sandstone blocks and smaller limestone fragments, gaps filled with cbm fragments; includes a single course of brickwork	19th century
1022	make-up	16	various	make-up of footing with limestone blocks, roughly shaped, measuring between 200 - 400 mm	19th century
1023	fill	-	10yr 2/1	<i>in-situ</i> burnt material consisting of black silt, inclusions of charcoal lumps and flecks and a burnt reddish silt	19th century
1024	make-up	17	various	make-up of wall footing comprised of limestone blocks and fragments of varying size, bonded with a lime mortar	19th century
1025	layer	-	various	limestone and brick rubble infill with mortar and silty clay inclusions throughout	19th century
1026	layer	-	various	limestone and brick rubble infill with mortar and silty clay inclusions throughout	19th century
1052	make-up	25	various	make-up of wall footing comprised of thin, slab-like sandstone blocks tipping, or set, at an angle	post-medieval
1053	layer	-	5yr 4/4	clay sand, reddish-brown, inclusions of mortar, charcoal and pebbles	post-medieval
1054	layer	-	2.5yr 3/2	silty clay, very dark greyish-brown, inclusions of cbm fragments and charcoal flecks; ceramic recovered	post-medieval

Intervention 2 Summary of feature records

Feature	Identity	Contexts	Dimensions (m)	Profile
12	floor	1018	2.50 x 0.70	rectangular
13	wall footing	1019	2.60 x 0.55	rectangular
14	wall footing	1020	2.20 visible	unseen
15	wall footing	1021	2.20 x 1.10	unseen
16	wall footing	1025	-	unseen
17	wall footing	1024	0.15 visible	unseen
25	wall footing	1052	1.50 x 0.55 visible	unseen
26	sondage	-	1.50 x 1.35	-

Intervention 3 Summary of context records

Context	Identity	Feature	Munsell	Description	Date
1027	topsoil	-	10yr 3/2	a humic dark greyish brown clay silt with occasional inclusions of mortar, cbm and fine gravel	modern
1028	layer	-	10yr 3/2	brick rubble layer, fragmentary and complete brick samples, within clay silt matrix, inclusions of mortar and concrete	modern
1029	layer	-	10yr 3/6	brick rubble layer, dark yellowish brown sand matrix with fragments of stone; modern ceramic observed in section	modern
1030	layer	-	10yr 3/2	clean, homogenous clay silt, dark greyish brown with flecks of charcoal and fine gravel inclusions	modern
1031	layer	-	10yr 3/2	clay silt matrix, dark greyish brown, with frequent limestone fragments and inclusions of charcoal, lime mortar and gravel	modern
1032	layer	-	10yr 3/2	clean, homogenous clay silt, dark greyish brown, occasional flecks of charcoal and fine gravel inclusions	modern
1033	layer	-	10yr 3/2	clay silt, dark greyish brown with frequent limestone and brick rubble, flecks of mortar and charcoal and gravel throughout	modern
1034	dump	-	10yr 4/3	clay, brown, rare inclusions of cbm fragments and gravel	modern

Intervention 4 Summary of context records

Context	Identity	Feature	Munsell	Description	Date
1035	topsoil	-	10yr 3/2	a humic dark greyish brown clay silt with occasional inclusions of mortar, cbm and fine gravel	modern
1036	made - ground	-	10yr 3/3	dark brown clay silt with large concrete slab and fragment inclusions	modern
1037	layer	-	10yr 3/2	clay silt, dark greyish brown, very mixed inclusions of limestone and cbm chippings, mortar flecks and gravel	modern
1038	backfill	18	10yr 3/2	backfill and disuse of brick built drain F18 comprised of a dark greyish brown silt and lime mortar mix	19th century
1039	make - up	18	various	make-up of brick built drain. Bricks measured 260mm x 130mm x 70mm of slop moulded type	19th century
1040	backfill	18	10yr 3/2	backfill of construction cut comprised of a dark greyish brown silt with occasional gravel inclusion	19th century



Context	Identity	Feature	Munsell	Description	Date
1041	make - up	19	various	make-up of wall footing comprised of limestone fragments and blocks bonded with clay	post-medieval
1042	backfill	20	10yr 3/2	clay silt, dark greyish brown, frequent inclusions of cbm fragments, some mortar, charcoal and gravel	post-medieval
1043	backfill	21	10yr 3/2	clay silt, dark greyish brown, occasional pockets of redeposited clay with charcoal flecking; ceramic recovered	post-medieval
1056	layer	-	10yr 4/2	sandy silt, dark greyish brown, inclusions of gravel and pebbles	post-medieval
1057	backfill	27	10yr 3/1	clay silt, dark grey, inclusions of gravel and pebbles	modern

Intervention 4 Summary of feature records

Feature	Identity	Contexts	Dimensions (m)	Profile
18	drain	1038, 1039, 1040	0.50 depth x 1.40 width	rectangular
19	wall footing	1041	0.90 width	unseen
20	?ditch	1042	2.30 width x 0.70 depth visible	unseen
21	ditch	1043	1.20 x 0.90 x 0.40 visible	unseen
27	service trench	1057	0.20 width x 0.45 depth	u-shaped

Intervention 5 Summary of context records

Context	Identity	Feature	Munsell	Description	Date
1044	topsoil	-	10yr 3/2	a humic dark greyish brown clay silt with occasional inclusions of mortar, cbm and fine gravel	modern
1045	overburden	-	10yr 4/2	clay silt, dark greyish brown, inclusions of frequent limestone chippings and fragments, some charcoal, cbm and gravel	19th century
1046	make-up	22	various	make-up of curvilinear wall footing comprised in the majority of angular and fragmented limestone cobbles with 3 worked blocks all in a clay silt bonding	late-medieval/ 16th century
1047	make-up	23	10yr 3/2	make-up of surface comprised of variable sized gravels and pebbles, set in a firm silty clay, larger pebbles define edge of surface, occasional use of cbm within make-up; animal bone and ceramic recovered from surface	late-medieval/ 16th century
1048	backfill	24	10yr 3/2	dark greyish brown silty sand with inclusions of charcoal flecks and gravel; rare animal bone and ceramic recovered	late-medieval/ 16th century
1049	layer	-	10yr 4/3	homogenous brown clay silt with inclusions of limestone chippings, charcoal flecks and gravel	late-medieval/ 16th century
1050	layer	22	10r 4/4	mixed clay silts of red, brownish yellow and brown lenses with inclusions of charcoal and gravel	late-medieval/ 16th century
1051	layer	-	10yr 4/3	same as C1049	late-medieval/ 16th century

Intervention 5 Summary of feature records

Feature	Identity	Contexts	Dimensions (m)	Profile
22	wall footing	1046, 1050	3.00 x 1.40 width visible	unseen
23	surface	1047	3.00 x 1.50 width visible	unseen

Feature	Identity	Contexts	Dimensions (m)	Profile
24	posthole	1048	0.40 x 0.24 x 0.22	U-shaped



APPENDIX D CERAMIC ASSESSMENT

Alan Vince

1.0 INTRODUCTION

Forty one sherds of pottery were recovered from archaeological evaluation trenches excavated by Field Archaeology Specialists at Hall Garth Farm, Birkin, near Selby in North Yorkshire (site code BHG'04). The pottery ranges in date from the late 11th to 13th centuries through to the 19th century. There was not, however, any pottery which could be reliably dated to the late 17th to mid 18th centuries, contemporary with the late 17th-century hall.

2.0 DESCRIPTION

2.1 MEDIEVAL POTTERY

Five sherds of medieval pottery were recovered. Of these, four were sherds of York Gritty ware, a wheelthrown whiteware with a coarse temper consisting mainly of fragments of sandstone with some ironstone. This ware dates to the late 11th through to the 13th centuries. Recent work on material from the A1 near Wetherby suggests that the ware may continue in use outside of York into at least the 14th century. Since these sherds were associated with a sherd of late medieval Humberware (HUM) they probably date to the later part of their date range.

2.2 EARLY POST-MEDIEVAL POTTERY

Twelve sherds of Humberware with a brown or purple external glaze were found. This glaze is produced by the reaction of a lead glaze with an iron-rich slip and appears in the 16th century. Although several of these sherds have the silty fabric typical of Humberwares from West Cowick and Holme-upon-Spalding Moor a number of sherds had a rounded quartz sand with an inclusionless matrix. This distinctive fabric may indicate the existence of a local Humberware industry, utilising outcrops of Mercian Mudstone and Triassic sands. One of these sherds was heavily overfired and had vitrified. This may have taken place in a fierce domestic fire, but it is also potential evidence for pottery production.

Several Humberware sherds with a standard silty fabric and post-medieval forms were found. These included a chamber pot with a wide, sharply-everted rim. They are likely to be of later 16th or 17th century date. There is no evidence that the late medieval Humberware production centres continued into this period and again a separate source is likely.

2.3 EARLY MODERN

Most of the pottery could be dated to the 19th century, although a few sherds might be of late 18th century date. However, the absence of Creamware or mid-late 18th-century finewares (white salt-glazed stoneware or tin-glazed wares) either indicates the poverty of the inhabitants of the cottages or that all the associated material is 19th rather than 18th century in date.

4.0 DISCUSSION

4.1 INTERVENTION 1

Context 1013 produced five sherds of pottery, the latest of which was late medieval in date (i.e. late 14th to 16th century). Three contexts (1006, 1015 and 1017) all produced early modern pottery, in two cases including definite 19th-century wares



and in one a fragment of transfer-printed ware cup of possible late 18th century date (1015), although even this sherd quite possibly dates to the 19th century.

4.2 INTERVENTION 2

A single sherd of 16th-century Humberware was found in context 1054.

4.3 INTERVENTION 3

Context 1032 produced a mixed assemblage of three sherds, two of which are Humberware and the third a sherd of a transfer-printed ware cup.

4.4 INTERVENTION 4

Context 1043 produced two sherds of pottery, one abraded York Gritty ware jar sherd and one sherd of probably 16th-century Humberware. Context 1037 produced 5 sherds of pottery, of which one small scrap is of 19th-century date and the remainder are larger fresh Humberwares sherds, probably of late 16th or 17th-century date. A single clay tobacco pipe bowl, datable to c.1660-80, was found in the same layer.

4.5 INTERVENTION 5

Context 1048 produced a single sherd of Humberware, of late medieval or 16th-century date. Context 1047 produced two sherds of Humberware, of 16th-century date. Context 1045 produced seven sherds of pottery of which the latest is of 19th-century date whilst the remainder are lead-glazed earthenwares, some with black glaze, and some with white slip, which might be of this date but could be earlier.

5.0 ASSESSMENT

The pottery indicates activity on the site in the medieval period, probably no later than the 14th century, perhaps much earlier. Following this, there is some doubt as to whether any of the Humberware sherds are late medieval rather than 16th century in date, and there is certainly activity on the site in the 16th century. The clay pipe and Humberware from context 1037 are closest in date to the ornamental gate posts and, assuming that the 19th-century sherd in this deposit is intrusive, this is the only assemblage which might belong to the late 17th/18th century but is more likely to be of mid 17th century date. Then follows a period in which no pottery was deposited on the site, lasting until either the late 18th or more likely the 19th century.

Most of the pottery is of types which are well-known and do not require further study. However, the sand-tempered Humberwares are unusual and may be evidence for pottery production on or close to the site in the 16th century. This could be investigated further by thin-section and chemical analysis.

APPENDIX 1

Int	C No	Cname	subfabric	Form	NoSh	NoV	Weight	Description	Condition
3	1032	HUM		JAR	2	1	112	cugl ext; plain gl int; thumbbed strip around neck?	
3	1032	TPW		CUP	1	1	4		
5	1048	HUM	fine matrix with rounded quartz sand	JUG	1	1	11	ext plain gl; applied strip with ring stamps; med?Pmed?	
4	1043	YG	some sstg >0.2mm; some rq; some rfe	JAR	1	1	6		abr
4	1043	HUM	fine matrix with rounded quartz sand	JUG	1	1	7	purple slip ext	
4	1037	HUM	silty	JAR	1	1	172	int plain gl	
4	1037	HUM	silty	CHP	1	1	99	int and ext gl; wide flanged rim; horiz. grooves on shoulder	
4	1037	HUM	silty	BOWL	1	1	22	int cugl	
4	1037	PIPECLAY		PIPE	1	1	12	heeled bowl c. 1660-80	
4	1037	HUM	silty	JUG/JAR	1	1	9		
4	1037	WHITE		-	1	1	3	cylindrical jar or tank?	
1	1017	PEAR		PLATE	2	1	32		
1	1017	STCO		PLATE	1	1	85	trailed slip band L18?	
1	1017	TPW		CUP	2	1	5	willow pattern	
1	1017	BLUE		JAR	2	1	26	moulded	
1	1017	PIPECLAY		PIPE	1	1	4	17th-18th bore diam	
1	1006	NCBW		CHP	3	1	135	industrial slipware; marbled slip loops between horiz dkbr slip bands	
1	1013	HUM		JAR	1	1	54		
1	1013	YG		JUG	1	1	40	narrow strap	
1	1013	YG		JAR	3	3	34		
1	1015	BL		BOWL	1	1	303	int bl gl	
1	1015	LHUM		DISH	1	1	40	int plain gl; small flange	
1	1015	TPW		PLATE	1	1	18		
5	1045	NCBW		TANK	1	1	6	white slip bands	
5	1045	PIPECLAY		PIPE	1	1	117	17th-18th bore diam	
5	1045	SLIP	silty	BOWL	1	1	30	white slip int; brown mottled gl	
5	1045	BL	red with rq and sst	BOWL	2	1	63	int bl gl	
5	1045	BL	cm white clay	POSS	1	1	23		
5	1045	HUM?	a rq	-	1	1	0	hollow ware	overfired
2	1054	HUM	fine matrix with rounded quartz sand	JUG	1	1	137	ext brown gl;r/h/join	abr
5	1047	HUM	fine matrix with rounded quartz sand	JAR/JAR	1	1	46	thumb impressions at b/h join	
5	1047	HUM	fine matrix with rounded quartz sand	JAR/JAR	1	1	31	plain gl dribbles with brown edges to glaze (over brown slip?)	



APPENDIX E BUILDING MATERIAL ASSESSMENT

Cecily Spall

1.0 INTRODUCTION

A small assemblage of ceramic and stone building material was submitted for assessment and full recording (31 fragments were individually recorded being 12.66kg). The assemblage was recovered during an archaeological evaluation undertaken Field Archaeology Specialists at Hall Garth Farm, Birkin, North Yorkshire.

2.0 ASSESSMENT PROCEDURE

The assemblage was recorded using a system based on that used by the Museum of London and was undertaken in accordance with the draft Minimum Standards for Recovery, Curation and Publication for Ceramic Building Material issued by the Archaeological Ceramic Building Materials Group (ACBMG 2002).

Each piece of building material was recorded individually and information about form, date, dimensions and weight were captured, alongside features of note such as stamps, glazes or imprints. Marks from manufacture such as tally marks or over- and under-firing were recorded; evidence for reuse was also noted such as mortar or sooting. A small area of the CBM was broken off to inspect a clean section of fabric which was viewed using a hand lens (x10 magnification). All fabrics are described according to Peacock (1977, 21-33). For the purposes of assessment no disposal strategy was implemented and the assemblage was retained in full.

All information captured was entered directly into a Microsoft Access 2002 database and forms the full catalogue (Appendix 1) and part of the digital archive.

3.0 ASSESSMENT

3.1 FABRIC

Four fabrics were present in the assemblage (allocated Fabric 1 to 4)

Fabric 1

Even orange coloured fabric with frequent rounded quartzite, grog and grog-voids; rare mica. Occurs in plain and peg roof tile, glazed roof tile and ridge tile.

Fabric 2

Purplish-red fabric with silty bands throughout, frequent quartzite, mica and grog. Occurs in single example of plain roof tile.

Fabric 3

Purplish-red fabric with occasional silty bands, quartz, quartzite and grog. Occurs in medieval brick.

Fabric 4

Purplish-red fabric with frequent silty bands, oolites, grog and quartzite. Occurs in slop-moulded brick.

3.2 MEDIEVAL MATERIAL

Plain and peg roof tile

Medieval plain and peg roof tile was present in the assemblage and is broadly dateable to the 13th to 16th century. A total of 22 fragments of plain roof tile were identified during assessment, and probably derive from peg tiles, rather than nib tile, particularly since a single fragment of peg tile was also recovered. A single fragment of plain ridge tile was also recovered. The tile had been re-used in the make-up of a cobble surface (F23) and several fragments were sooted.



Glazed plain roof tile

One fragment of glazed plain roof tile was recovered from C1037 (Intervention 4). The piece has an olive green glaze on the upper surface and a splashed purple glaze on the underside. Glazed roof tile is not common and is generally regarded as a high status building material.

Brick

One fragment of medieval brick was recovered from C1029 (Intervention 3). The fragment has a clear indented border, indicative of a medieval brick-making technique. The fragment is thin enough to be a fragment of wall tile used to infill between timber framing.

3.3 POST-MEDIEVAL MATERIAL

Brick

Two slop-moulded brick samples were recovered from C1029. The manufacturing technique is broadly dateable to the 17th to 20th century but the dimensions of the bricks are reasonably standard and they probably belong to the later part of the bracket. Slop-moulding involves dipping the mould in water before the clay 'walk' or 'clot' is thrown in, helping the brick to slip easily from the mould. This method of manufacture is associated with post-medieval brick manufacture, as is the use of a bent wood and wire bow to take the excess clay off the sanded side of the brick. Both bricks have a characteristic bow mark from when excess clay is cut from the brick while still in the mould. They often manifest themselves as bands of concentric grooves running down the upper surface of the brick.

Stone roof tile

Four stone roof tiles were recovered from a rubbish pit dated by pottery to the 16th century. Three tiles are of limestone and have a single peg hole drilled from both sides. A single example of yellow sandstone roof tile was also present. The fragment also has a single peg hole initially pecked out and then drilled from both sides. Stone roofing material was often an expensive option particularly when cheaper ceramic roof material was also available. Given that ceramic roof tile is also present in the assemblage, and therefore presumably available, they may indicate a building of some status at the site. It is surprising that the tiles were discarded in a pit filled with stone roof tiles since they lend themselves to easy reuse; all the tiles in the assemblage had intact peg holes and could presumably have been reused.

4.0 ASSESSMENT

The majority of the ceramic material assemblage is broadly dateable to the medieval period and includes typical roof forms and brick, although a late medieval date would not be controversial; the stone roof tile is dateable by pottery to the 16th century. The single fragment of glazed roof tile along with the stone roof tiles may indicate high status building at the site.

References

- ACBMG, 2002. *Minimum Standards for Recovery, Curation and Publication of Ceramic Building Material* (unpublished draft)
- Peacock, D.P.S. 1977. 'Ceramics in Roman and medieval archaeology', in D.P.S. Peacock (ed), *Pottery and early commerce*, pp:21-33

APPENDIX 1

Key: CNo = Context, FNo = Feature, EDate = earliest date, LDate = latest date, Fab = Fabric code, W=weight, L=length, B=breath, Th = thickness, Cor = corners present

CNo	FNo	EDate	LDate	Fab	Form	Cor	W(g)	L(mm)	B(mm)	Th(mm)	Mortar	Comments
1037	-	13	16	1	plain	0	36	0	0	16	-	olive green glaze on upper, purple glaze on lower
1043	21	13	16	1	plain	0	2	0	0	0	-	small abraded fragment
1047	23	13	16	1	plain	0	232	0	0	15	yes	sooted
1047	23	13	16	1	plain	1	120	0	0	14	yes	-
1047	23	13	16	1	plain	0	204	0	0	15	yes	-
1047	23	13	16	1	plain	0	92	0	0	13	yes	-
1047	23	13	16	1	plain	0	134	0	0	14	-	sooted
1047	23	13	16	1	plain	0	96	0	0	17	yes	-
1047	23	13	16	1	plain	0	46	0	0	16	-	sooted
1047	23	13	16	1	plain	0	70	0	0	15	-	sooted
1047	23	13	16	1	plain	0	68	0	0	13	-	-
1047	23	13	16	1	plain	0	102	0	0	15	yes	vestigial peg hole, undiagnostic shape
1047	23	13	16	1	plain	0	94	0	0	15	yes	fabric imprint
1047	23	13	16	1	plain	0	66	0	0	15	yes	sooted
1047	23	13	16	1	plain	0	110	0	0	14	yes	sooted
1047	23	13	16	1	plain	0	84	0	0	15	-	-
1047	23	13	16	1	plain	0	60	0	0	12	-	-
1047	23	12	16	1	ridge tile	0	66	0	0	14	yes	sooted
1047	23	13	16	1	plain	0	98	0	0	16	-	-
1047	23	13	16	1	plain	0	60	0	0	16	-	-
1047	23	13	16	1	plain	0	64	0	0	0	yes	abraded, grip mark
1047	23	13	16	1	plain	0	40	0	0	14	-	grip marks
1047	23	13	16	1	plain	0	34	0	0	16	-	-
1047	23	13	16	1	plain	0	22	0	0	13	-	-
1013	11	-	-	-	stone roof tile	0	22	0	0	16	-	limestone roof tile with single peg hole drilled from both sides
1013	11	-	-	-	stone roof tile	0	1060	0	0	20	yes	limestone roof tile with single peg hole drilled from both sides
1013	11	-	-	-	stone roof tile	1	1656	0	0	19	yes	limestone roof tile with single peg hole drilled from both sides
1013	11	-	-	-	stone roof tile	2	2020	0	230	26	yes	yellow sandstone roof tile with single peg hole pecked and then drilled from both sides
1029	-	14	16	3	brick	2	1330	0	135	43	yes	indented border, light sanding on base
1029	-	17	20	4	brick	4	1824	225	110	46	yes	slop-moulded, bow mark, tally mark
1029	-	17	20	4	brick	4	2002	230	110	49	yes	slop-moulded, bow mark, fine sanding on base

APPENDIX F ZOOARCHAEOLOGICAL ASSESSMENT

Stephen Rowland

Summary

An archaeological evaluation was undertaken at Hall Garth farm, Birkin, by Field Archaeology Specialists (FAS) Ltd in February 2004 and recovered a small assemblage of 29 hand-collected animal bones deriving from four contexts from three interventions. Bone was well-preserved and appeared to represent domestic waste, comprising cattle, pig and crab along with a piece of red deer antler. Caprovid and goose were likely to have been present among bones identified as medium mammal and bird. Material of late medieval date hinted at high status consumption.

1.0 INTRODUCTION

A total of five interventions were excavated, of which only Interventions 2, 4 and 5 produced animal bone. This derived from F21 C1043, a ditch backfill of late medieval/post medieval date; F24 C1048, a posthole backfill containing medieval pottery; C1045, material deriving from the overburden above, and cleaning of, a medieval surface; and C1054, a buried soil associated with post-medieval cottages.

1.1 METHODOLOGY

The faunal remains from each context were rapidly scanned and notes were made on the state of preservation ('excellent', 'good', 'fair' or 'poor'), angularity ('spiky', 'rounded' or 'battered'), taxon and elements present, along with any modifications and pathological lesions. Following the procedures of the Environmental Archaeology Unit (Dobney et al 1999), only mandibles, teeth, or limb bones with at least one articular or metaphyseal surface were identified to species, the rest being identified more generally as medium mammal (sheep or pig sized), large mammal (cow or horse sized), or bird.

2.0 ASSESSMENT

2.1 MEDIEVAL

Bone of medieval date was in a good and spiky state of preservation and was consistently brown in colour, suggesting that little in the way of deposit-mixing or post-depositional movement had occurred. Butchery was quite common, and appeared to have been conducted with a heavy chopping tool. Carnivore gnawing was also noted in a number of instances, suggesting that bones had been left scattered across the medieval surface by scavenging dogs. Posthole F24 C1048 contained only a single fragment of large mammal long bone while five out of 20 fragments from C1045 were identified to taxon, including cattle metapodials, a pig tusk, red deer antler and a crab claw. A measurable cattle metacarpal was very broad and may represent a more developed breed. The red deer antler had not been naturally shed and seemed to have been from a fairly young individual, having a small diameter and in all likelihood three tines. The chop marks into the antler did not appear to relate to craft-working. Bones identified as medium and large mammal mostly represented caprovid and cattle respectively and largely comprised long bone shaft fragments, particularly of the middle and upper limb (radius, tibia and femur). An exception was a metatarsal shaft fragment with the deep ventral groove typical of cervids, and could have belonged to a roe deer. Although too friable to recover, a number of oyster, cockle and mussel shells were noted during excavation of C1045.

2.2 LATE MEDIEVAL/EARLY POST-MEDIEVAL

Ditch backfill F21 C1043 contained single dark brown fragments of large and medium mammal long bone shafts in a good and spiky state of preservation.



2.3 POST-MEDIEVAL

Buried soil C1054 contained five fragments of well-preserved but slightly rounded and frequently gnawed brown bone. One cow humerus fragment could be identified to taxon, the rest as large or medium mammal, although the very large fragment of firculum is likely to have belonged to a large goose.

3.0 DISCUSSION

The amount of material from Hall Garth Farm, Birkin, is too small to be particularly informative about the occupation of the area in previous centuries. However, the medieval material hints at high status consumption, with good representation of high meat-bearing elements as well as evidence for the eating of red and roe deer, the hunting of which was an aristocratic privilege protected by the rights of warren. To maintain freshness, items such as crabs and shellfish have to be prepared while still alive, and their speedy transport to an inland site is likely to have been expensive. The high level of gnawing may suggest that these bones had been moved from their original context of deposition, perhaps a kitchen midden.

4.0 POTENTIAL FOR FURTHER ANALYSIS

Despite the presence of some interesting features, unless this material can be combined with further material from the site it has no potential for further analysis.

5.0 ARCHIVE

Electronic and paper records are stored by FAS. If the bone itself can be well-dated, it could be curated, if not its disposal should be considered.

Reference

Dobney, K., Jaques, S.D. and Johnstone, C. 1999. A protocol for recording vertebrate remains. *Reports from the Environmental Archaeology Unit 99/15*



Table 1 Summary of zooarchaeological data recorded from Birkin

Key: Int = Intervention, F=Feature, C=Context, Pr = Preservation, An = Angularity, (g) = weight, sh/g = caprovid, lm = large mammal, mm1 = medium mammal 1, cg = carnivore gnawed, fb = freshly broken, ch = chop marks, kn = cut marks, (M)= measurable.

Int	F	C	Feature type	Date	Pr	An	Contents	(g)
4	21	1043	Ditch backfill	L.med/p.med	g	s	mm1: tibia shaft; lm: lb shaft	32
5	24	1048	Posthole backfill	L.med/p.med	g	s	lm: lb frag.	12
5	-	1045	over- burden & cleaning of surface	L.med/p.med	g	s	cow: metacarpal (M), metatarsal; pig: tusk (male); red deer: antler (ch); mm1: tibia (cg, fb), 2 x radius (cg), femur, metatarsal (roe deer-like); lm: femur (fb), scapula (fb), radius/ulna (ch), tibia, 3xshaft, 4x rib (1 split transversely, 1 ch); crab claw	574
2	-	1054	buried soil	L.med/p.med	g	r	cow: hum (M, cg); lm: rib (fb), long bone shaft (cg); mm1: lb shaft; large bird: firiculum	310

