
Ladybridge Farm, near Thornborough.

Fieldwalking.



Site Code lbf0702

Report No: ADA07004

April 2007

AD ARCHAEOLOGY

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Report Details

SITE NAME: Ladybridge Farm

SITE CODE: lbf0702

COUNTY: North Yorkshire

DISTRICT: Hambleton

TOWNSHIP / PARISH: West Tanfield

NATIONAL GRID REFERENCE: 429330 480440

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PERIODS REPRESENTED: modern, post-medieval, ?medieval, ?roman, prehistoric

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1.0 Introduction & Acknowledgements

This document presents the interim results of an archaeological fieldwalking investigation at Ladybridge Farm, near Thornborough, North Yorkshire. This report relates to the first phase of this investigation, the second phase is likely to be undertaken in the late summer of 2007, after which a full report will be issued.

The fieldwork was carried out in April 2007, immediately following the ploughing of the southern half of the site. A total of 1,750 artefacts were recovered and three-dimensionally located. The vast majority of these artefacts proved to be of post-medieval or modern date, but an assemblage of 259 lithic artefacts (233 flint, 26 chert) was also collected. This lithic material appears to be confined to the higher areas of the site, predominantly the southwest corner. The post medieval and modern material is distributed widely across the site, suggesting its introduction through manuring.

The authors would like to thank the landowners, Mr A. Almack and Miss I Almack, for their patience and support and for allowing access to the site. Thanks also go to Tarmac Northern Ltd, especially Alan Coe, for their support of the project.

2.0 Site Location, Topography & Land Use

The site is located to the east of Nosterfield Quarry and approximately one kilometre to the north of Thornborough village (see Figure 1). It is bounded to the north by a watercourse, 'Ings Goit', to the west by the road to Carthorpe, to the south by the B6267, and to the east by a farm track. The area enclosed by these boundaries is approximately 44 hectares.

The underlying geology of the area is formed by fluvio-glacial gravels. The ground slopes gently from the southwest corner of the site (c.43m AOD) towards a small pasture field on the eastern boundary (c.41m AOD), and slopes further down in the north to approximately 40m AOD.

The topography has been previously modelled using survey data provided by Tarmac Northern Ltd (see Figure 2). A refined model of the southern part of the field has been generated from the data collected during this fieldwalking exercise (see Figure 3) and this will be integrated with the previous model following fieldwalking of the northern half of the field. For the purposes of this interim report the previous topographic model has been used in the artefact distribution figures.

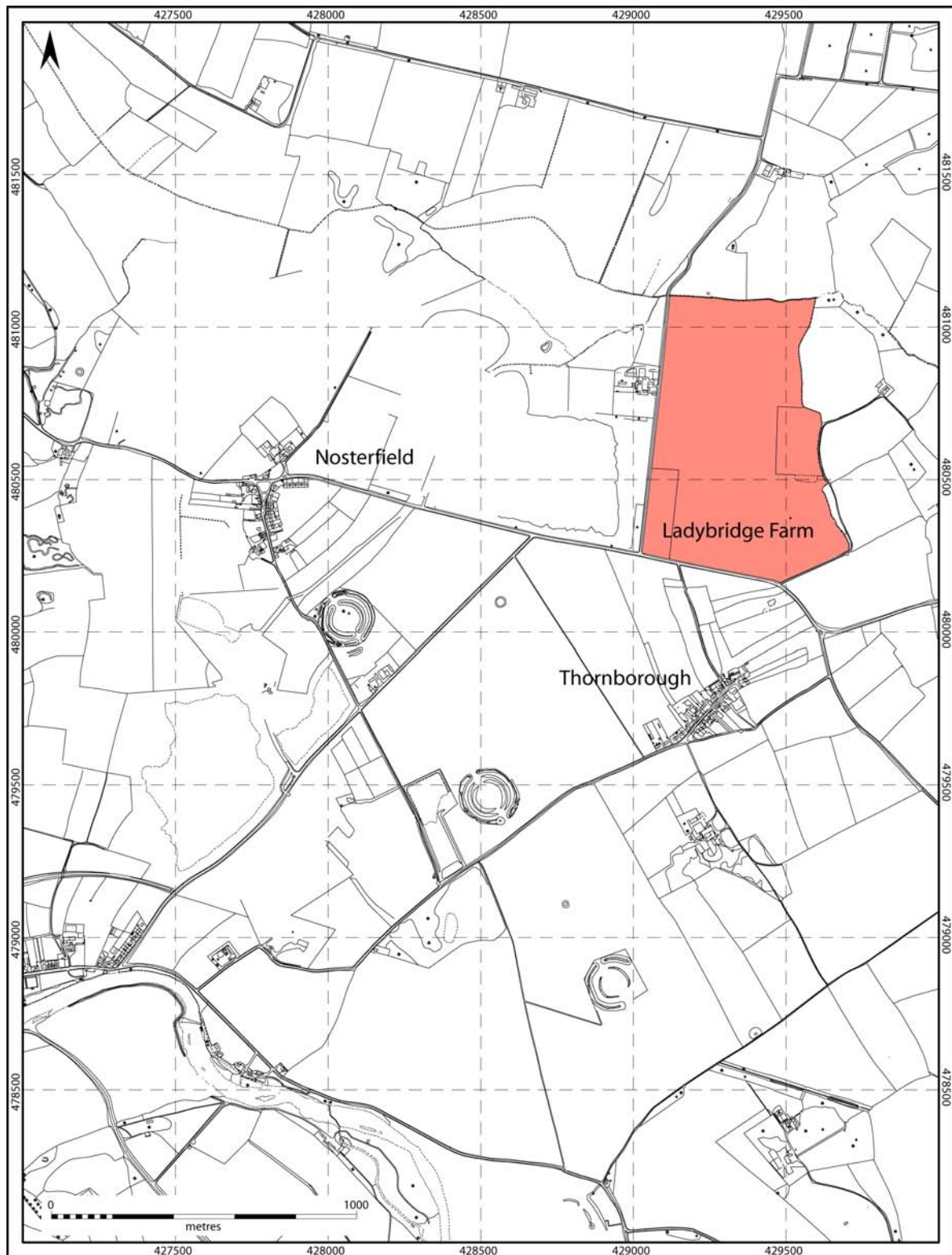


Figure 1. Site Location. NGR 429330 480440

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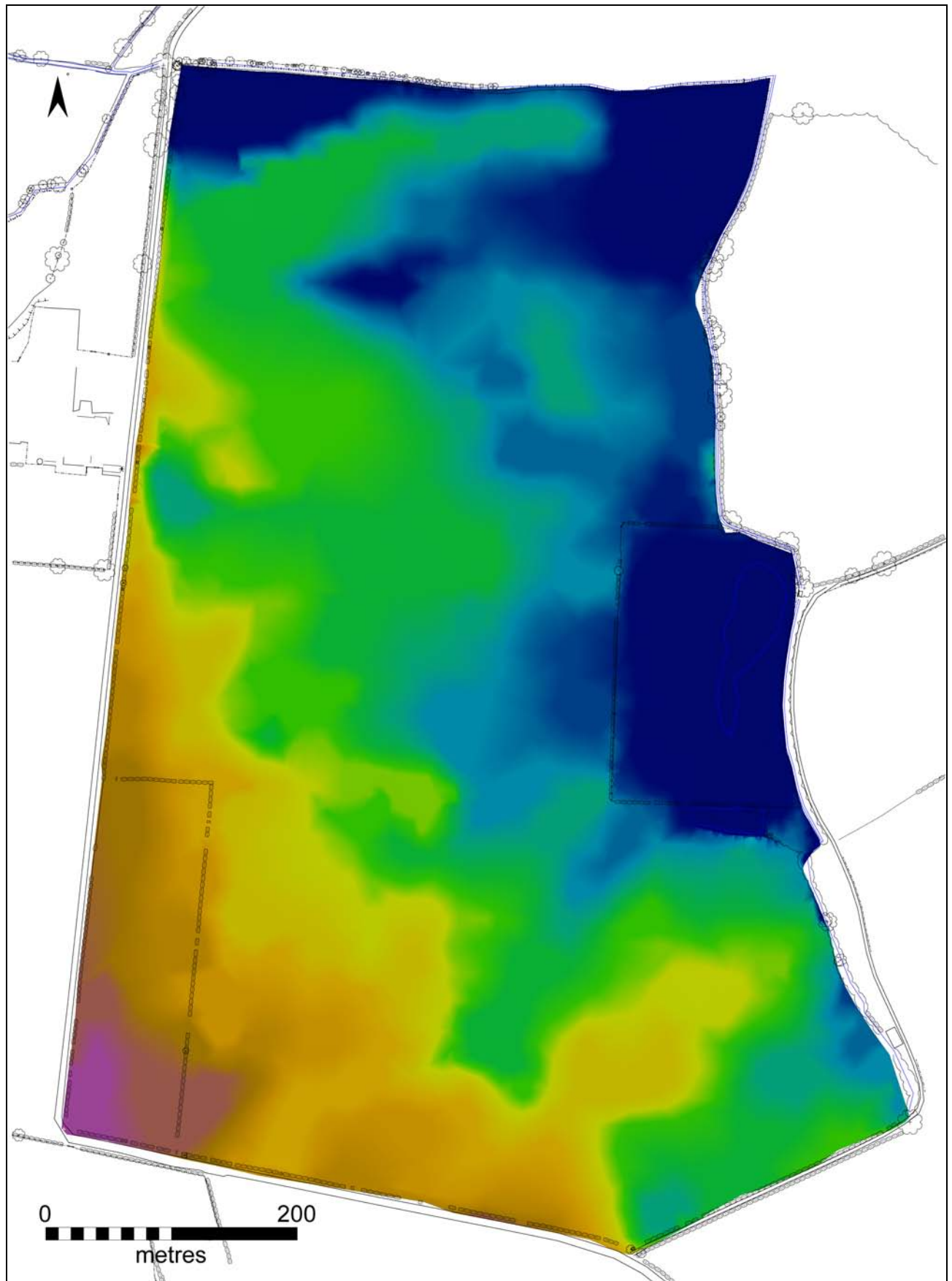


Figure 2. Topography, based on survey data provided by Tarmac Northern. Purple denotes highest ground, through brown, orange, yellow, green, cyan and finally blue for the lowest areas.

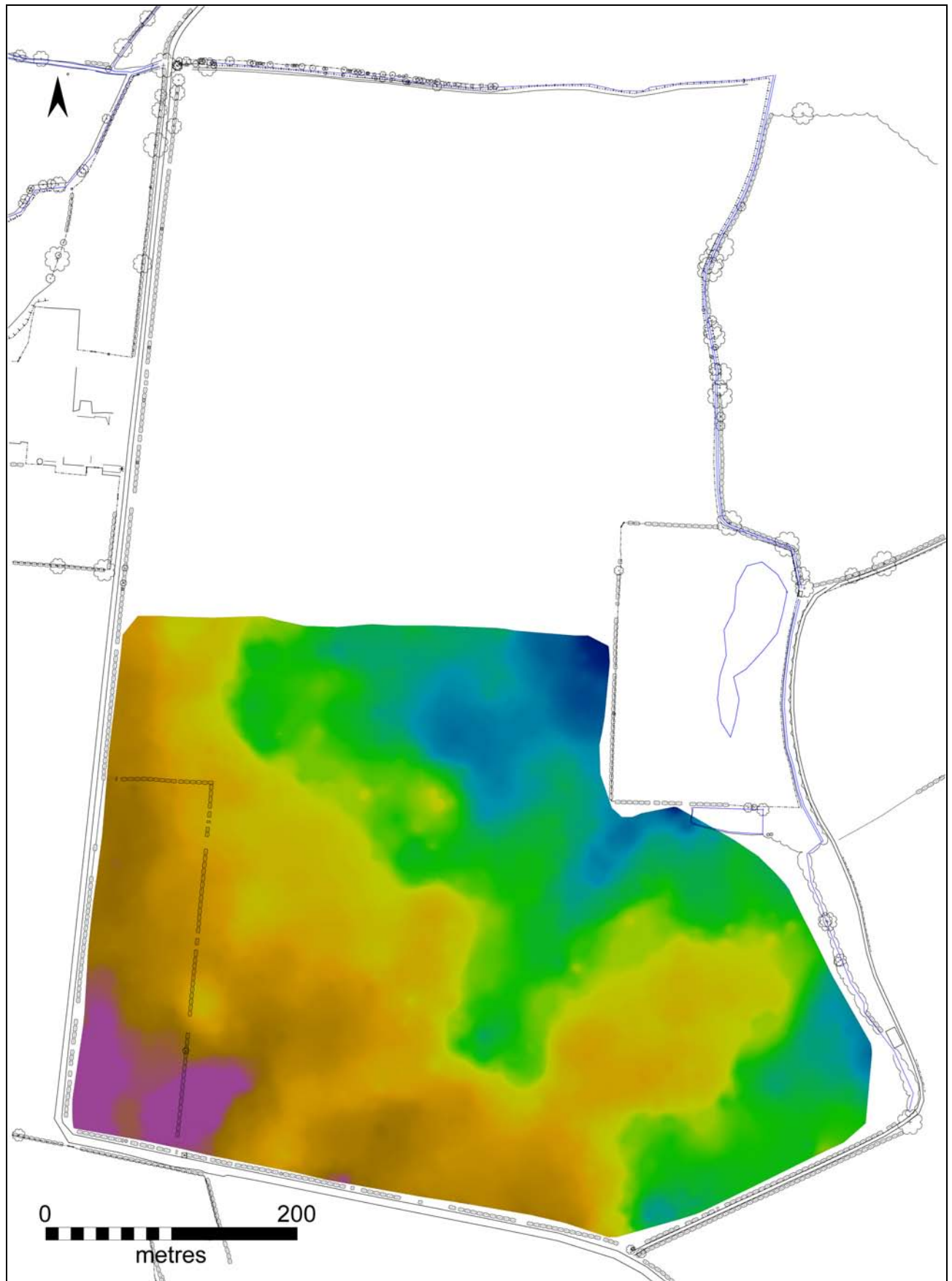


Figure 3. Revised topography of the southern area, based on data from the artefact locations. Purple denotes highest ground, through brown, orange, yellow, green, cyan and finally blue for the lowest areas.

3.0 Planning Background

Planning permission was granted for the extraction of gravel at Ladybridge Farm, Moor Lane, Nosterfield, North Yorkshire on the 16th January 2007. As a condition of the permission a programme of archaeological works will be implemented in mitigation of the development. The scope of these works is outlined in the mitigation strategy submitted with the planning application (Timms 2006). The initial phase of fieldwork required that the site be subject to a programme of total coverage fieldwalking.

4.0 Archaeological Background

4.1 Introduction

The site has previously been subject to extensive archaeological evaluation and investigation. In 2003 an archaeological evaluation comprising fieldwalking, geophysical survey, test pitting and machine trenching was undertaken by Field Archaeology Specialists (FAS 2005). In October 2005 a second phase of archaeological trenching was undertaken by On Site Archaeology in response to concerns raised by English Heritage and North Yorkshire County Council (OSA 2005). The results of this work identified a thin scatter of early prehistoric features located on marginally higher ground in the southwestern corner of Ladybridge Farm.

A topographic model created of the site suggested that the area to the northeast would have been marshland and unsuitable for either occupation, settlement or burial until the land was drained in the post-medieval period.

4.2 Previous Fieldwalking

In 1996 and 2003 the University of Newcastle undertook a programme of reconnaissance fieldwalking (Harding and Johnson 2004). The fieldwalking was undertaken in three separate fields which make up the Ladybridge site, covering a total of 44.4 hectares. In each field the fieldwalking was undertaken in a series of 15m transects which provided a coverage of 13.3% of the area. Only 24.2 hectares of Field 50 was fieldwalked which resulting in a total of 33.4 hectares of the potential 44.4 being investigated.

Material was recovered in stints and located using a total station theodolite. In total 78 pieces of flint were recovered of which 71 were worked. The worked lithics covered a broad date range and were generally located across the southern third of the Ladybridge site.

In 2003/4 a second phase of fieldwalking was undertaken by Field Archaeology Specialists as part of the archaeological evaluation of Ladybridge Farm (FAS 2005: 23-34). A total coverage technique was implemented and 100% of the site was fieldwalked (44.4ha). All visible finds were recovered and located using a total station theodolite.

A total of 1,460 finds were recovered during the fieldwalking programme. The majority of the finds were ceramic (625) or ceramic building material (545), with a further 290 finds, of which 215 were lithics, 73 were modern glass and the remaining 16 modern metalwork. Of the lithics recovered, 13 were natural pebbles and 202 were worked. The worked lithics showed a general distribution across the southwestern third of the site area and again covered a broad date range.

A direct correlation between the flint scatters and sub surface features was not recorded in either the test pitting or subsequent evaluation. The fieldwalking had identified a general area of activity spread across the southern part of the site.

5.0 Aims & Objectives

The purpose of the fieldwalking exercise is to provide a comparative data set to compliment the previous work and to recover additional information from the area which will be subject to further archaeological investigation in the area of extraction. It is anticipated that the resulting information will help to refine the characterisation of the area.

The survey data gathered during the course of the investigation will also enable the refining of the current topographic model of the site.

6.0 Methodology

The site was divided into fifty metre grid squares, and each individual square sub-divided into two metre wide traverses using ranging rods and tapes. Each traverse was then walked and all visible artefacts bagged and secured to the find spot with a nail. Each artefact was issued a unique finds number, and its location recorded using a total station theodolite using Ordnance Survey National Grid coordinates.

Following the fieldwork, all artefacts were processed and identified. Artefact information and the relevant Ordnance Survey grid coordinates for each artefact were entered into a database. A number of queries were then run on the data in order to extract the information used to generate the distribution plots in this report.

Ground conditions and visibility during the fieldwork were good, with bare exposed ground at the beginning of the survey, and minimal crop cover at the end. The dryness of the soil, however, resulted in reduced colour contrast between artefacts and the surrounding soil.

7.0 Results

7.1 Introduction

A total of 1,750 artefacts were recovered during the fieldwalking programme (see Figure 4). The vast majority of these are ceramic sherds (713) and ceramic building material (378). The remaining artefacts comprise animal bone (181), plastic (8), flint (233), chert (26), glass (112), metal (17), natural stone (33), clay tobacco pipe (46) and a further 3 miscellaneous finds.

7.2 Ceramics

With the exception of five unglazed sherds, which are possibly of medieval date, the ceramic assemblage is of post-medieval or modern date. The pottery assemblage comprises a mixture of transfer printed wares, glazed earthenwares, china and undiagnostic fragments.

The assemblage of ceramic objects consists of clay tobacco pipe (predominantly stem fragments) and a single porcelain figurine head.

The date and distribution of the ceramics suggests that the artefacts have been introduced as a result of manuring, and correspond well with the distribution encountered during the FAS fieldwalking investigation (see Figure 5).

7.3 Ceramic Building Material

The ceramic building material includes tile, brick, drainpipe, and land drain fragments, all of which are post-medieval or modern in date.

The distribution of cbm fragments, as found in the FAS investigation, reflects that of the pottery, again suggesting manuring as the primary source of material (see Figure 6). A cluster of cbm on the spur of higher land at the east of the field mirrors a similar cluster from the FAS investigation, while a broader spread at the northwest of the current investigation area does not seem to have been apparent during the FAS investigation.

7.4 Other finds

Apart from a possible hone stone and a possible tesserae fragment, the remaining non-lithic finds are all post-medieval or modern in date. The distributions of some classes of material are illustrated in Figures 7 – 9.

7.5 Lithics

The worked stone assemblage comprised 258 pieces of worked flint and chert. In addition one fragment of un-worked burnt flint was also recovered. The constituent elements of the worked stone assemblage are shown in Table 1.

Type	Total artefacts	Chert	Flint
Arrowheads	2		2
Blades	15		15
Chunks	7	3	4
Cores	18	5	13
Flakes	192	18	174
Scrapers	24		24
Totals	259	26	232

Table 1 Showing the type and quantity of worked stone artefacts recovered during fieldwalking.

The arrowheads include a possible petit tranchet derivative, which is broken along one lateral edge. The other is a barbed and tanged arrowhead, which has also suffered damage to one of the barbs. The transverse arrowhead can be ascribed a broad date spanning the late Neolithic while the barbed and tanged example has affinities with early Bronze Age contexts (Green 1980).

All the blades are made on flint. Six are broken. Of the six broken examples, one is patinated, one burnt and one shows evidence of utilisation; however, given the harsh soil conditions (nominally the high stone content) such evidence for use could quite easily have been edge damage occasioned by post-depositional processes. Of the nine complete blades four show signs of utilisation represented by micro-denticulation along one lateral edge. In a couple of instances this may have been caused by post-depositional processes, however, on two pieces the micro-denticulation is far too regular and extends completely along the edge of the pieces. One blade appears to have been burinated and the small size and shape of one complete blade suggests an early date for the artefact which can be assigned to the Mesolithic or early Neolithic.

The flint and chert chunks are on the whole very small in size, irregular in form and undiagnostic to any specific reduction strategy. In that respect it is difficult to assign them to any specific core type and they probably reflect the *ad hoc* removal of flakes with little or no formal platform creation or preparation, and no attempt to rejuvenate or maintain striking surfaces. One of the chert chunks has evidence for working in the form of flake scars and also has abrupt retouch on one edge indicating that the piece had been re-used as a tool at a later date.

The cores indicate the use of a number of different reduction technologies within the assemblage. Among the flint cores are four types that represent conventional approaches to core reduction, including one core worked from multiple platforms and three worked from a single platform. A small unidentified core which has been re-used as a hamerstone was also recovered. In addition to these are two cores associated with a rather different reduction technique involving the levallois method of reduction. The latter involves the reduction of cores from a plane of intersection, which leaves a characteristic pattern of flake scars on two principle debitage surfaces (Inizan et al 1992, 48). In addition to these two cores is a core fragment which also displayed characteristics associated with the levallois reduction technique. This method of stone working is characteristic of late Neolithic worked stone traditions. The other cores could belong to any phase of the Neolithic.

In addition to the levallois type core fragment six other core fragments that could not be assigned to any specific reduction technology are also present.

Only one of the chert cores can be assigned to a reduction sequence, this being an example worked from multiple platforms. The remaining two are unidentifiable to any specific reduction technique and although they display characteristic flake scarring it is possible that this was a result of post-depositional processes. Two unidentifiable core fragments are also present.

Of the 192 flakes just under 50% are broken, and in the majority of cases this is probably the result of post-depositional processes. The majority of the flakes represent debitage produced during the reduction of cores, including fourteen chips (flakes < 20 mm in length) representing the finer trimming and preparation of striking platforms. There are a small number of flakes that could be attributed to specific reduction strategies associated with the thinning and edge trimming of possible bifaces. The number of flakes associated with the maintenance of cores during working is also limited and includes one conventional rejuvenation flake and one probably associated with the rejuvenation of a levallois type core, although it could also be a flake removed from a biface but the large dimensions suggest otherwise. Utilised flakes include formal pieces such as an awl, a notched flake, a flake retouched as a knife and three bifacially flaked fragments. The latter group comprises a fragment from a projectile, a fragment from a scraper and part of a blade from a biface. Less formal utilised pieces include serrated edged and miscellaneous retouched flakes. Patination among the flakes is fairly limited and two of those that do appear to be undergoing re-cortification have been re-used. Finally seven of the flakes have been burnt.

The twenty-four scrapers are represented by a number of different forms. By far the most common are thumbnail scrapers (46%), which have early Bronze Age affinities. Other forms represented are discoidal, end, side and end, horseshoe and miscellaneous types. The majority of the scrapers show small irregular scarring on their objective ends indicating that they had seen heavy use. One scraper has been burnt after it had been produced while a further four are broken. Interestingly one of the thumbnail scrapers is made on a patinated flake, indicating the possible on site manufacture of tools from flint that might have already been of some age.



Plate 1. Artefact 1111 - possible rejuvenation flake



Plate 2. Artefact 40 - core reused as a hammerstone



Plate 3. Artefact 1479 - possible core fragment



Plate 4. Artefact 1004 - small single platform core



Plate 5. Artefact 1294 - broken edge trimming flake



Plate 6. Artefact 1683 - possible tortoise core

8.0 Discussion & Conclusions

The earliest evidence for occupation activity from the field walking area is represented by an assemblage of worked stone comprising both flint and chert artefacts. The flint assemblage shows a dispersed distribution in the southwest corner of the fieldwalking area. This distribution is similar to that identified during earlier phases of fieldwalking (FAS 2005) and was taken to represent occupation during the prehistoric period in that part of the site.

The presence of patinated pieces, which may represent some chronological distinction, and the slight evidence for stone working techniques that reflect Mesolithic and early Neolithic occupation in the area, suggest an earlier date to a small part of the assemblage. Nevertheless, the majority of the assemblage probably dates to the later Neolithic and earlier Bronze Age. The range of waste and formal tools represented in the assemblage indicates the working of stone through the use of distinctive reduction techniques that are broadly attributable to those periods (Durden 1995; Edmonds 1995).

With the exception of a small assemblage of possible medieval pottery sherds, the majority of the artefacts represent ceramic and ceramic building material of a late post-medieval/ early modern date. It is likely that this material along with the medieval pottery entered the archaeological record through manuring in the recent past.

9.0 Bibliography

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10.0 Archive

The animal bone, natural stone fragments and plastic artefacts have been recorded and subsequently discarded. The remaining archive is currently held by AD Archaeology, and will be retained until the northern part of the field has been investigated.

Following the completion of the northern area, a discard policy will be agreed with the relevant museum, and the remaining artefacts deposited with the museum on completion of full publication.

11.0 Appendix 1: Lithics Catalogue

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
0003	flint	waste	flake		broken flake	429042.185	480262.6622	43.3341
0013	flint	waste	flake		possible rejuvenation flake	429081.5994	480264.5529	42.6581
0015	flint	waste	flake			429083.4877	480274.1663	42.649
0018	flint	waste	flake			429071.0783	480273.6101	42.7371
0024	flint	waste	flake			429036.4045	480274.6688	43.0186
0026	flint	waste	flake		broken flake possible edge trimming	429047.0143	480300.2933	42.9769
0028	flint	waste	blade		broken blade	429058.602	480299.0322	43.041
0029	flint	waste	flake		broken flake	429064.5786	480299.0356	42.9445
0030	flint	waste	flake		broken burnt flake	429081.7482	480288.1302	42.7541
0032	flint	waste	flake			429067.6407	480311.6404	42.9058
0033	flint	waste	core		possible core fragment	429069.9783	480316.6727	42.8577
0035	flint	waste	flake		broken flake	429075.45	480314.6764	42.7763
0037	flint	waste	flake		broken flake	429075.8743	480308.826	42.835
0038	flint	utilised	flake		broken utilised flake	429086.1323	480320.5136	42.7251
0039	flint	waste	flake		broken flake	429079.8962	480319.2878	42.7135
0040	flint	waste	core		small unidentified core reused as a hammerstone	429075.1955	480320.5585	42.783
0041	flint	waste	flake		broken burnt flake	429077.0079	480323.2947	42.7953
0044	chert	waste	flake		possible broken flake	429061.3289	480325.7977	42.923
0046	flint	waste	flake			429060.1245	480330.1309	42.928
0048	flint	utilised	blade	serrated		429052.3075	480336.9826	42.7741
0049	flint	waste	flake		broken flake	429057.6764	480338.1512	42.8854
0050	flint	waste	flake		broken flake	429063.0933	480333.2074	42.9038
0053	flint	waste	flake		broken flake	429076.4315	480337.1043	42.7277
0055	flint	implement	scraper	thumbnail		429079.5576	480330.5871	42.7508
0056	chert	waste	core		possible chert core	429086.3429	480329.8709	42.7317
0057	flint	waste	flake		broken flake	429085.7208	480332.475	42.7081
0063	flint	waste	core		core fragment	429053.2716	480356.2999	42.7755
0065	flint	waste	flake		broken flake	429068.5665	480347.911	42.813
0066	chert	waste	core		possible chert core	429075.5207	480349.8467	42.6893
0067	flint	waste	flake	chip		429085.6331	480349.4804	42.5405
0068	flint	waste	flake			429085.3401	480352.527	42.5643
0070	flint	implement	scraper	end		429095.3997	480351.5568	42.4618
0071	flint	waste	flake		broken flake	429063.4404	480361.0853	42.7613
0072	chert	waste	flake			429063.9979	480361.2143	42.7481
0074	flint	waste	flake		broken flake	429066.504	480520.9958	42.5283
0076	flint	waste	flake		broken flake	429086.8824	480530.7429	42.6325
0077	flint	utilised	blade		broken utilised blade	429086.9614	480515.643	42.5823
0078	flint	waste	flake		broken flake	429115.1227	480529.7951	42.1925
0080	flint	waste	flake			429111.6447	480512.7681	42.2218
0084	flint	waste	core	single platform		429090.7558	480500.5231	42.562
0091	chert	waste	chunk			429054.5092	480442.9201	42.5044
0093	flint	waste	flake		broken flake	429054.6068	480411.1563	42.4702
0094	flint	waste	flake			429050.313	480406.6115	42.4578
0098	flint	utilised	blade	serrated		429064.073	480368.6936	42.7484

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
0099	flint	waste	chunk			429064.3978	480375.0227	42.7468
0100	flint	utilised	flake	serrated		429063.2582	480385.0769	42.6926
0102	flint	waste	flake		broken flake	429066.0473	480408.1114	42.5139
0104	flint	waste	flake		broken flake	429069.3286	480440.0384	42.6378
0106	flint	utilised	flake	notched		429070.4735	480453.9667	42.6016
0109	flint	waste	flake		broken flake	429072.037	480469.1147	42.6556
0110	chert	waste	core		possible core fragment	429079.6665	480489.6871	42.6285
0112	flint	waste	flake			429090.2153	480491.9821	42.5451
0113	chert	waste	flake		broken burnt flake	429089.4732	480486.0737	42.5329
0115	flint	waste	flake			429082.2416	480475.6936	42.6107
0117	flint	waste	blade			429093.5265	480488.424	42.4745
0119	flint	implement	scraper	side and end		429084.0308	480455.8423	42.5167
0121	flint	waste	flake		broken flake	429086.2625	480439.7141	42.4167
0129	flint	waste	flake		broken flake	429077.1367	480419.0547	42.4765
0148	flint	waste	flake	rejuvenation		429068.9336	480378.8218	42.7314
0149	flint	waste	flake			429067.4612	480378.4222	42.748
0151	flint	waste	flake			429075.3257	480369.0683	42.6057
0152	flint	waste	flake	chip		429077.2326	480378.9124	42.5824
0153	chert	waste	chunk			429073.8549	480382.1151	42.5853
0154	flint	utilised	flake		possible broken knife	429081.6976	480385.2686	42.4665
0155	flint	waste	blade		burnt broken blade	429085.3806	480379.2674	42.4272
0156	flint	waste	flake			429090.7285	480384.0631	42.3899
0159	flint	waste	flake		broken flake	429077.0722	480406.7214	42.4414
0163	flint	waste	flake		broken flake	429092.213	480401.711	42.4109
0165	flint	waste	flake		broken burnt flake	429088.2112	480406.7036	42.4303
0169	flint	waste	flake		broken flake	429097.9089	480417.6527	42.365
0170	chert	waste	flake			429104.4233	480431.0441	42.2716
0171	flint	waste	blade		broken blade	429067.8221	480537.805	42.5927
0172	flint	waste	flake			429065.3135	480542.1733	42.3959
0181	flint	waste	flake		broken flake	429079.9463	480606.403	42.3773
0187	flint	waste	flake		broken flake	429078.3022	480557.1839	42.4033
0197	flint	waste	flake		broken flake	429083.7479	480642.9809	42.1407
0200	flint	waste	flake			429092.0135	480663.1678	42.0606
0209	flint	utilised	flake	serrated		429090.1448	480628.7226	42.1494
0213	flint	waste	flake			429085.7274	480616.7141	42.3314
0232	flint	waste	flake	chip		429086.0022	480546.2114	42.3462
0237	flint	waste	flake		broken flake	429083.7953	480555.7663	42.4091
0238	flint	waste	flake		broken flake	429087.9117	480538.2812	42.429
0241	chert	waste	flake		broken flake	429089.8973	480547.7431	42.3368
0242	flint	waste	flake		broken flake	429091.6525	480550.5376	42.3449
0276	chert	waste	flake		broken burnt flake	429104.5032	480557.3396	42.1378
0299	flint	implement	scraper	thumbnail		429139.9142	480649.7424	41.6816
0339	flint	implement	scraper	thumbnail		429160.4989	480563.4273	41.6197
0351	chert	waste	flake		broken flake	429152.9891	480503.9082	41.7417
0355	flint	waste	flake	chip		429146.8807	480456.9519	42.1035
0357	flint	implement	scraper	thumbnail		429157.0498	480459.4619	42.041
0359	chert	waste	core		possible core fragment	429149.896	480435.1294	42.0481
0371	flint	waste	flake		broken flake	429143.9306	480360.7745	41.739
0381	flint	waste	flake		broken flake	429108.6774	480254.909	42.9045
0390	flint	waste	flake			429117.8239	480287.4133	42.8344
0392	flint	waste	flake			429095.8741	480302.021	42.6974

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
0395	flint	natural			burnt	429098.4589	480306.3724	42.7098
0397	flint	waste	flake	chip		429099.1492	480308.9791	42.6973
0399	flint	utilised	flake			429106.4111	480314.5312	42.7566
0400	flint	waste	flake		broken flake	429106.8926	480315.1138	42.7267
0401	flint	waste	flake		broken flake	429119.5516	480310.9064	42.7171
0402	chert	waste	flake		broken flake	429110.5053	480318.89	42.6692
0403	flint	waste	flake		broken flake	429109.2127	480322.1155	42.7011
0404	flint	waste	core		possible core fragment	429115.3645	480329.9684	42.6962
0407	flint	waste	flake			429097.2369	480328.7723	42.6238
0408	chert	waste	core	multi platform		429095.9651	480346.5521	42.5628
0412	flint	waste	flake		broken flake	429112.7026	480371.6811	42.2636
0423	flint	waste	flake		broken flake	429118.7443	480450.424	42.1673
0427	flint	waste	flake		broken flake	429118.9063	480465.6892	42.1505
0431	chert	waste	flake	rejuvenation		429132.2743	480494.68	41.9112
0433	flint	waste	flake			429133.5383	480503.5956	41.8341
0434	flint	waste	flake		broken burnt flake	429129.3863	480504.0074	41.91
0436	flint	implement	scraper	thumbnail		429129.3583	480531.4011	41.9491
0437	flint	waste	flake			429132.8741	480538.8772	41.8119
0439	flint	implement	scraper	end	broken end scraper	429131.1837	480560.5565	41.8007
0448	flint	waste	flake		reworked flake	429152.7741	480393.7623	42.2479
0449	flint	waste	flake		broken flake	429158.2288	480383.5916	42.1893
0452	flint	waste	flake		broken flake	429148.0975	480320.6766	42.5304
0460	chert	waste	flake			429144.4086	480239.0176	42.7302
0461	chert	waste	flake		broken flake	429145.7904	480241.1536	42.7138
0468	flint	waste	flake		broken flake	429176.4893	480256.1866	42.3434
0470	flint	waste	flake		patinated reused flake	429178.8242	480276.4871	42.531
0472	flint	waste	flake	chip		429181.7394	480279.0996	42.5362
0475	flint	implement	scraper	side	broken scraper	429166.0682	480298.1216	42.8867
0482	flint	waste	flake			429177.8224	480350.6145	42.382
0486	flint	utilised	blade			429168.0402	480390.8544	42.1005
0494	flint	implement	flake	awl		429173.5535	480405.0699	41.9102
0504	flint	utilised	flake		broken utilised flake	429159.6338	480403.3473	42.1326
0527	flint	implement	scraper	thumbnail		429161.8138	480445.2216	41.9145
0544	flint	waste	flake		broken flake	429204.9145	480512.6173	41.6343
0602	flint	utilised	blade	serrated	possible microlith	429113.1821	480455.388	42.1436
0604	flint	utilised	flake		broken flake	429172.9396	480505.4631	41.6957
0615	flint	waste	flake			429265.2818	480579.8484	41.1064
0624	flint	utilised	flake	bifacial	possible discoidal core fragment	429225.0186	480545.3449	41.4266
0638	flint	implement	arrowhead	barb and tang		429223.9903	480494.5095	41.6916
0641	flint	waste	blade		possibly burinated	429225.7111	480476.7811	41.7289
0643	flint	waste	flake			429218.105	480477.9196	41.7476
0645	flint	waste	core		core fragment	429217.8026	480459.8714	41.7538
0646	flint	waste	flake	chip		429213.39	480455.2784	41.8187
0651	flint	waste	flake			429247.1835	480402.4932	41.8591
0660	flint	utilised	blade	serrated	possible serrated edged blade	429235.8369	480386.7326	42.0191
0661	flint	implement	scraper	side and end		429242.8099	480371.8686	42.2106
0666	flint	implement	scraper	thumbnail		429239.7722	480339.7873	42.3503
0667	flint	implement	scraper	end		429239.2156	480327.198	42.3726
0688	flint	waste	core	discoidal	very small core, could be reused scraper as	429217.6089	480224.8774	42.2812

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
					possible abrupt retouch on one edge			
0706	flint	waste	flake		broken flake	429217.0041	480312.7398	42.2621
0712	flint	implement	scraper	side and end		429227.6109	480332.1078	42.3019
0716	flint	waste	flake			429231.69	480374.5967	42.0654
0719	flint	implement	scraper	horseshoe		429219.5349	480380.7647	41.9815
0725	flint	waste	core	fragment		429237.6951	480424.0993	41.8283
0727	flint	waste	flake			429208.8587	480393.8629	42.1384
0730	flint	waste	flake			429200.1708	480379.3694	42.2075
0735	flint	waste	chunk			429190.7894	480286.7185	42.4169
0752	flint	waste	flake			429253.4043	480217.8893	42.814
0756	flint	utilised	flake	miscellaneous retouch		429272.538	480224.0331	42.4937
0783	flint	waste	flake	chip		429253.944	480266.7024	42.2762
0784	flint	waste	flake		broken flake	429240.5589	480264.0664	42.2611
0792	flint	waste	flake		broken flake	429278.7737	480299.1212	41.8567
0794	flint	waste	flake		broken flake	429243.1922	480314.0555	42.2926
0797	flint	utilised	flake	miscellaneous retouch		429260.441	480332.7736	42.2393
0799	chert	waste	flake		broken flake	429258.7346	480325.4976	42.184
0801	flint	waste	flake			429260.323	480311.1166	42.0406
0805	flint	waste	flake		broken flake	429285.3681	480315.873	41.8913
0806	flint	waste	flake			429292.3405	480331.119	42.041
0807	flint	waste	flake		broken flake	429277.6949	480332.1216	42.0645
0809	flint	implement	scraper	thumbnail		429295.2174	480340.0327	41.9797
0810	flint	waste	flake	chip		429295.4203	480340.2219	41.9506
0812	flint	waste	flake			429270.3715	480358.1712	42.1415
0814	flint	waste	flake			429290.2157	480343.6065	41.9845
0823	flint	utilised	flake	miscellaneous retouch		429298.8136	480379.2529	41.9104
0824	flint	waste	flake		broken flake	429293.09	480380.2441	41.8339
0825	flint	implement	scraper	unidentified	broken scraper patinated	429300.955	480385.6025	41.8728
0828	flint	implement	scraper	horseshoe	burnt	429269.7604	480393.8778	41.6951
0873	flint	waste	flake		broken flake	429204.8785	480429.0487	41.7859
0963	flint	waste	flake			429220.5775	480410.3242	41.9153
0967	flint	waste	flake		broken flake	429359.5143	480487.2661	41.0917
0975	flint	waste	flake			429323.0633	480419.3856	41.8159
0976	flint	waste	flake		broken flake	429338.9168	480421.0157	41.5896
0989	flint	implement	scraper	unidentified	broken	429299.0278	480331.7749	41.9664
0993	flint	waste	flake		fragment	429302.8052	480293.649	41.9385
0995	flint	utilised	blade	miscellaneous retouch		429305.0692	480304.8288	41.8652
0996	flint	waste	flake		fragment	429304.0722	480306.3883	41.8698
0998	flint	waste	blade		patinated broken blade	429303.0356	480317.2831	41.8759
1004	flint	waste	core	single platform	small core	429074.0519	480380.634	42.587
1005	flint	waste	flake		broken flake	429289.5306	480269.5605	42.4407
1007	flint	waste	flake		fragment	429308.1307	480271.5653	42.4225
1008	flint	waste	flake		broken flake	429301.496	480259.3214	42.4798
1012	flint	waste	flake			429290.4869	480232.1337	42.4737
1015	flint	waste	flake		fragment	429282.9996	480221.9935	42.4607
1019	flint	waste	flake		broken flake	429309.3085	480217.4038	42.2124

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
1032	flint	waste	flake			429348.9456	480199.4604	42.3578
1034	flint	waste	flake		broken flake	429354.6164	480216.5593	42.2326
1035	flint	waste	chunk			429356.0042	480215.2129	42.2174
1036	flint	waste	flake		broken flake	429360.8329	480221.7433	42.1983
1037	chert	waste	flake		very irregular	429362.3854	480221.255	42.1955
1039	flint	waste	flake	chip		429372.0125	480230.8181	42.1305
1042	flint	waste	flake			429352.4912	480230.5468	42.1083
1045	flint	waste	flake		broken flake	429338.0552	480255.8246	42.1747
1050	flint	waste	flake		fragment	429365.5238	480262.5324	42.0477
1053	flint	waste	flake			429360.089	480271.7948	42.0858
1054	flint	waste	flake		fragment	429372.5925	480262.7206	41.984
1057	flint	waste	flake		fragment	429377.3794	480275.5476	41.8106
1060	chert	waste	flake		fragment	429375.9081	480280.0983	41.7559
1063	flint	waste	flake		broken flake	429350.4818	480277.6543	42.1774
1065	flint	waste	flake	chip		429346.0202	480306.3363	41.6173
1066	flint	implement	scraper	miscellaneous		429375.0324	480298.0846	41.6034
1080	chert	waste	flake			429358.1084	480350.4994	41.2533
1089	flint	waste	flake		broken	429373.837	480399.5708	41.3095
1111	flint	waste	flake		ventral face has a central ridge with flake scars running off the apex either side similar to working identified on cores worked from a plane of intersection, therefore could be rejuvenation flake from discoidal/tortoise core	429083.9628	480356.263	42.5145
1112	flint	waste	flake		broken flake	429326.5914	480434.2781	41.8097
1117	flint	waste	flake		broken flake	429213.7762	480373.7899	42.1043
1125	chert	utilised	chunk	miscellaneous retouch	chert chunk with some flake scars and abrupt retouch on one edge	429374.8156	480528.1072	40.6688
1136	flint	waste	flake		broken flake	429377.9345	480564.27	40.6276
1145	flint	waste	flake		patinated broken flake	429413.1497	480650.9327	40.4861
1217	chert	waste	flake		broken flake	429450.5455	480412.6057	41.2589
1230	flint	waste	flake		broken burnt flake	429427.8861	480361.1836	41.4259
1239	flint	implement	scraper	thumbnail		429431.2163	480339.5525	41.6923
1251	flint	waste	flake		broken flake	429409.9847	480303.8838	41.3713
1265	flint	waste	flake			429427.1386	480282.9963	41.8339
1269	flint	waste	flake		broken flake	429398.4399	480264.6155	41.8571
1281	flint	waste	flake		broken flake	429418.45	480215.4712	42.2457
1285	flint	waste	core	single platform	could be small tortoise	429411.1579	480230.1338	42.1984
1286	flint	waste	blade		broken blade	429408.5225	480227.033	42.2151
1288	flint	waste	flake		broken flake	429412.2434	480243.1234	42.1179
1289	flint	waste	flake			429416.3715	480240.7627	42.1257
1290	flint	waste	flake		broken flake	429408.6689	480255.7238	42.0287
1294	flint	waste	flake		broken edge trimming flake	429422.0002	480259.0644	41.9824
1295	flint	waste	flake			429422.2069	480255.3419	42.0461
1300	flint	waste	flake	chip		429427.4007	480246.9652	42.0373
1302	flint	utilised	flake	knife		429430.6006	480244.9604	41.9835
1304	flint	utilised	flake	miscellaneous retouch	could be part of arrowhead	429434.3427	480241.3437	41.9724

Artefact	Material	ID	Type	Class	Notes	Easting	Northing	Height
1306	flint	utilised	flake	miscellaneous retouch	could be broken miscellaneous scraper	429431.7923	480234.7378	42.07
1311	flint	waste	core	multi platform		429435.3668	480192.4945	42.2394
1324	flint	waste	flake			429439.9397	480205.7576	42.1081
1325	flint	waste	flake		broken flake	429434.9551	480208.7396	42.1626
1328	flint	waste	flake	chip		429454.3811	480218.4321	41.8221
1340	flint	waste	flake		broken flake	429463.0082	480259.8194	41.5983
1345	flint	waste	flake	chip		429439.5445	480261.012	41.7963
1349	flint	waste	flake		broken flake	429566.4558	480342.5842	41.485
1371	chert	waste	flake		broken flake	429523.1183	480220.9807	41.189
1391	flint	waste	flake		broken flake	429542.2164	480271.2792	41.4455
1398	flint	waste	flake		broken flake	429524.6862	480292.8604	41.7517
1399	flint	waste	blade		broken blade	429534.4587	480293.5905	41.6564
1425	flint	waste	flake			429532.7497	480413.0764	41.3782
1470	flint	implement	scraper	thumbnail		429508.6644	480417.7296	41.3817
1479	flint	waste	core	core fragment	probable core fragment with part of plane of intersection still visible, but reused, also could be part of bifacially flaked implement which has been reused	429508.3454	480391.4247	41.5553
1482	flint	waste	flake		broken flake	429515.1386	480382.2779	41.6906
1574	flint	waste	flake			429473.0673	480264.0986	41.5274
1579	flint	waste	flake		possible thinning flake, thin curving profile and multi directional flake scars on ventral face	429468.987	480267.8088	41.5901
1580	flint	implement	scraper	thumbnail		429461.4694	480272.0239	41.7334
1585	flint	waste	flake			429444.3956	480279.4004	41.8928
1588	flint	waste	flake		irregular broken flake probably from thermal action	429462.9853	480298.7109	41.8902
1683	flint	waste	core	tortoise	prob tortoise core has all typical characteristics plus main removal	429559.5319	480402.0487	41.5489
1685	flint	waste	flake			429560.8486	480362.3078	41.7082
1690	flint	waste	flake		fragment	429577.9808	480412.4762	41.4627
1712	flint	waste	flake			429614.7186	480407.7086	41.397
1715	flint	implement	scraper	discoidal		429608.6593	480384.7631	41.4222
1717	flint	waste	chunk		small probably worked flint chunk	429593.0837	480370.8855	41.5926
1742	flint	implement	arrowhead	petit tranchet	probable transverse arrowhead, petit tranchet derivative, broken on one edge	429634.8408	480240.5521	41.4051
1745	chert	waste	flake			429648.9632	480267.9675	41.2978

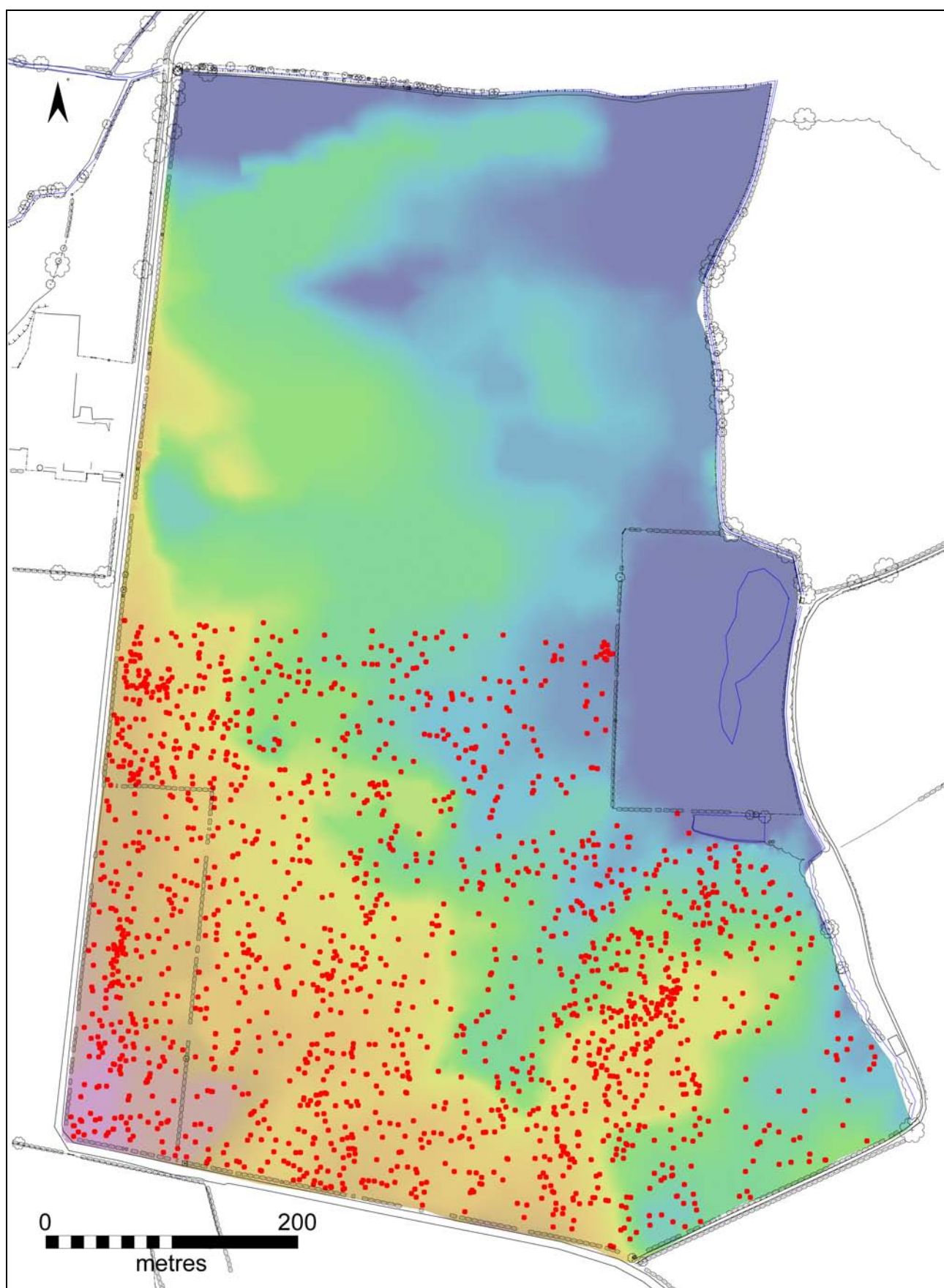


Figure 4. Distribution of all recovered artefacts

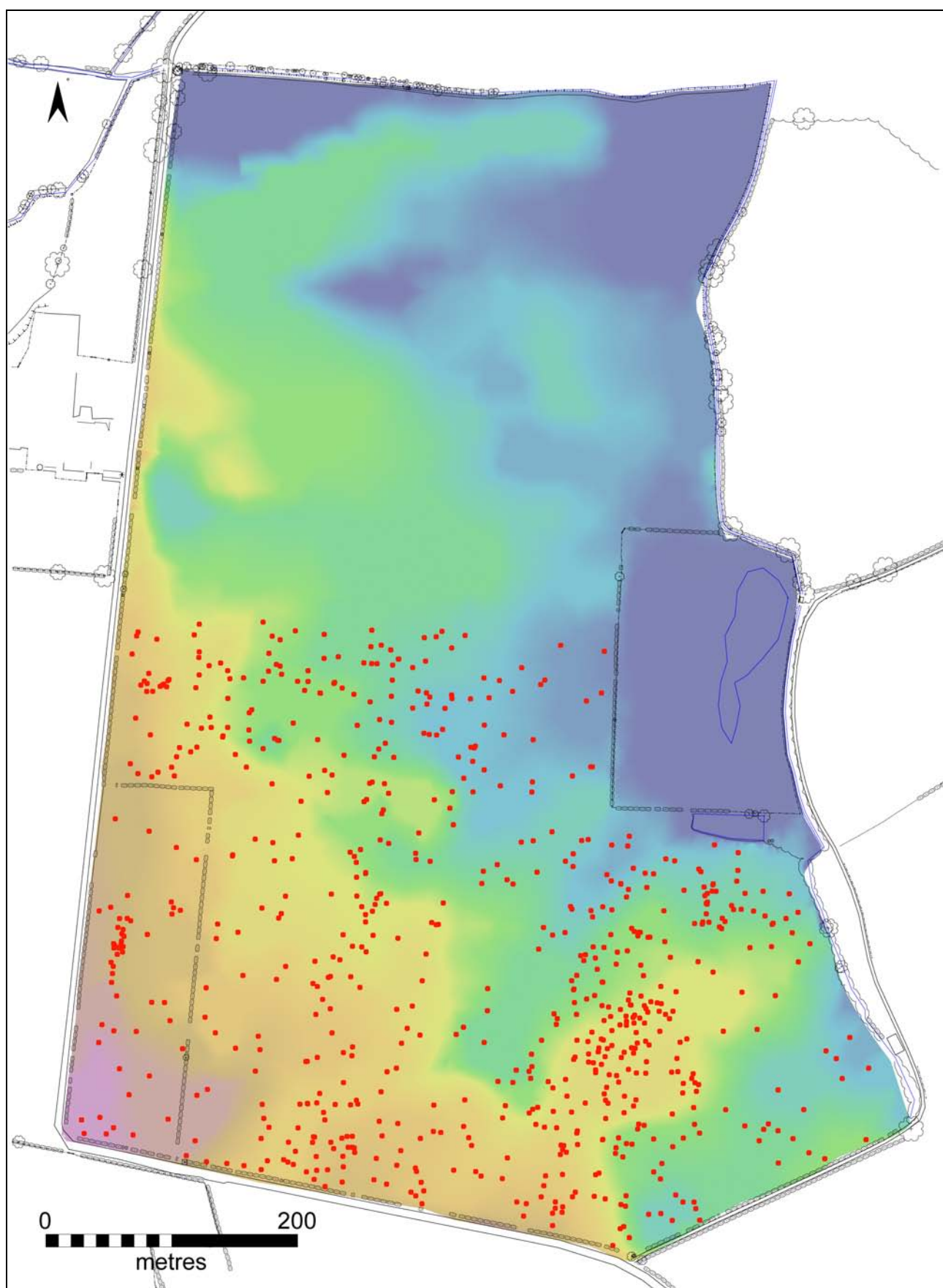


Figure 5. Distribution of pottery fragments

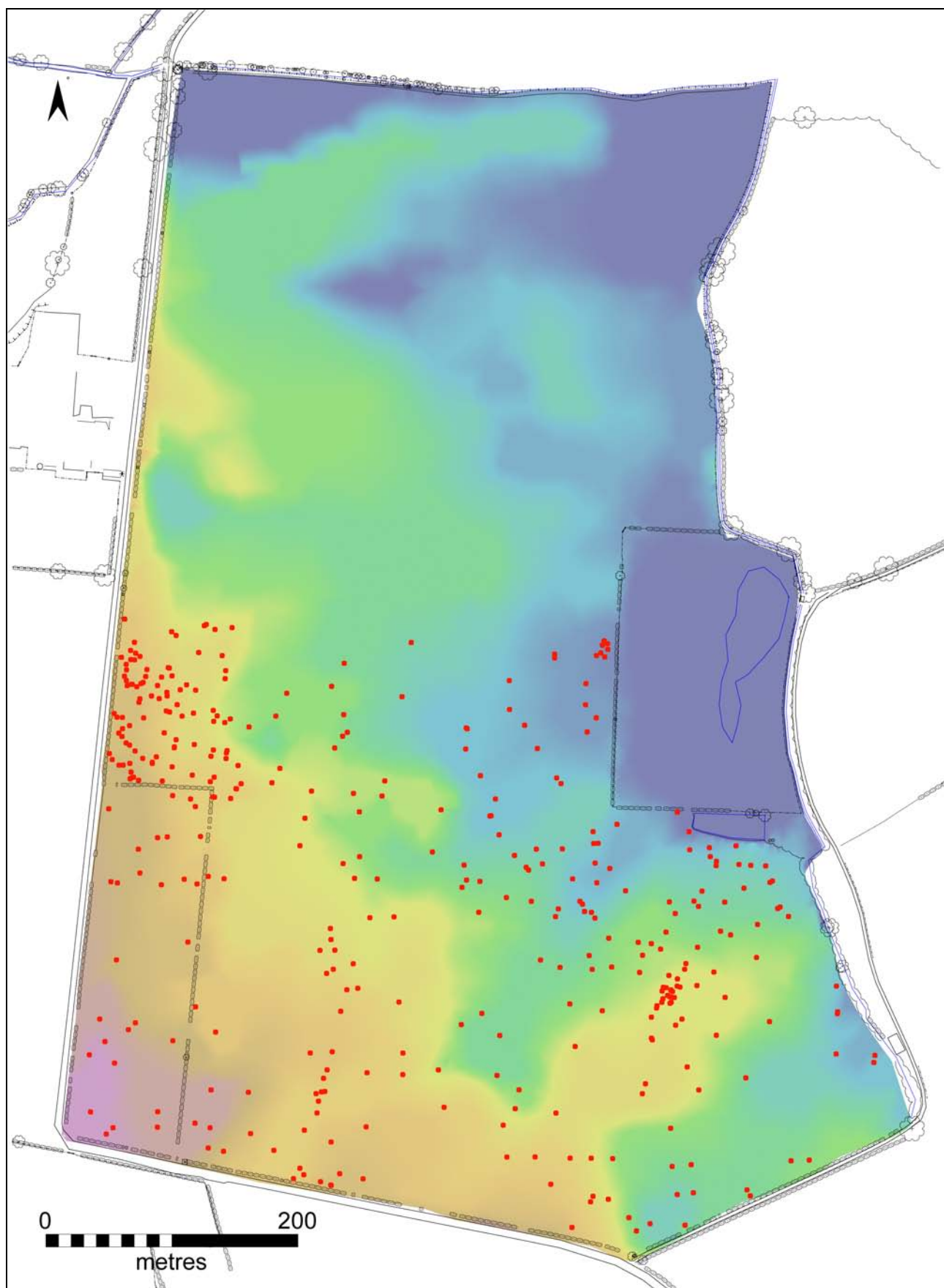


Figure 6. Distribution of ceramic building material

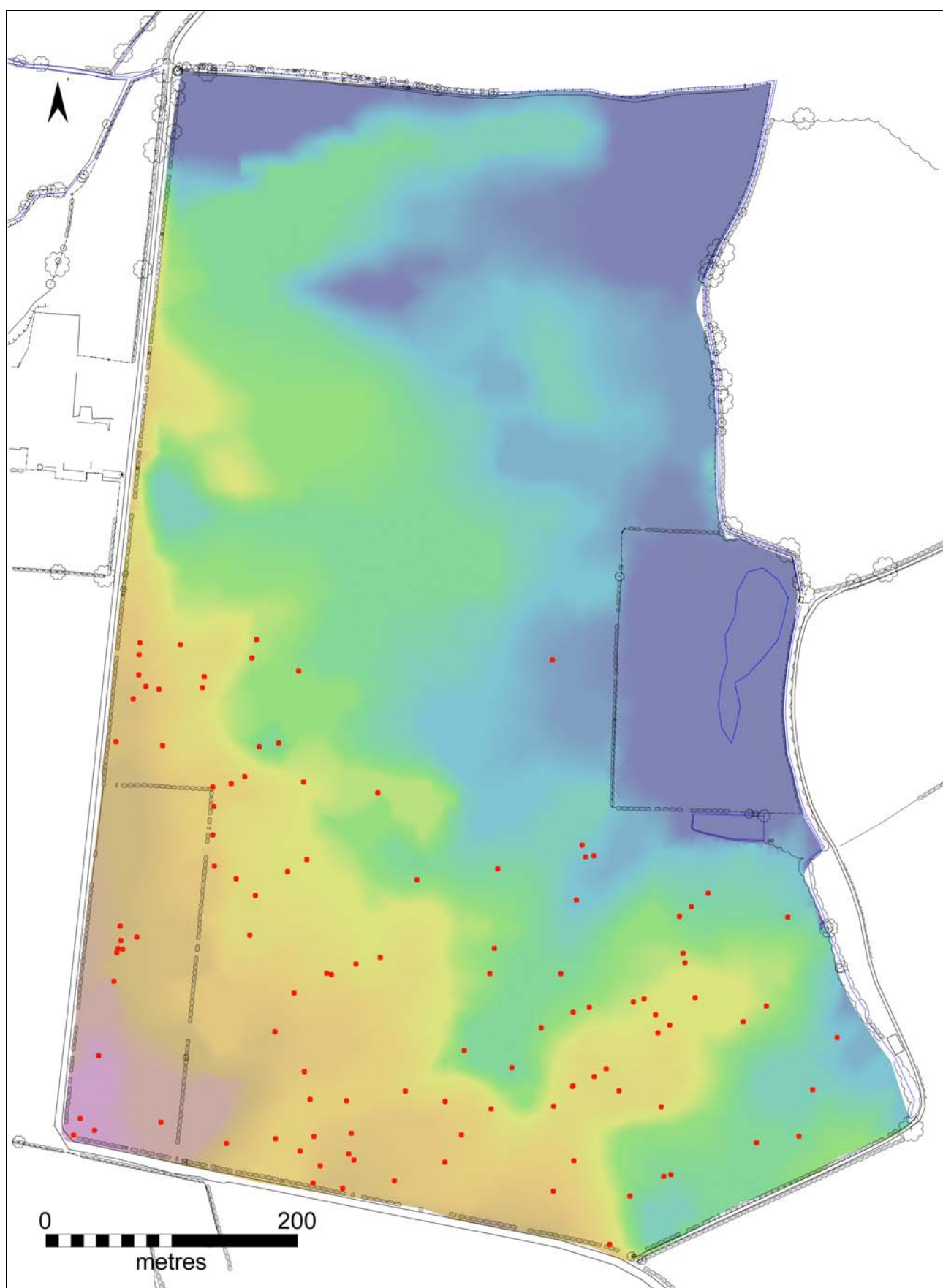


Figure 7. Distribution of glass fragments

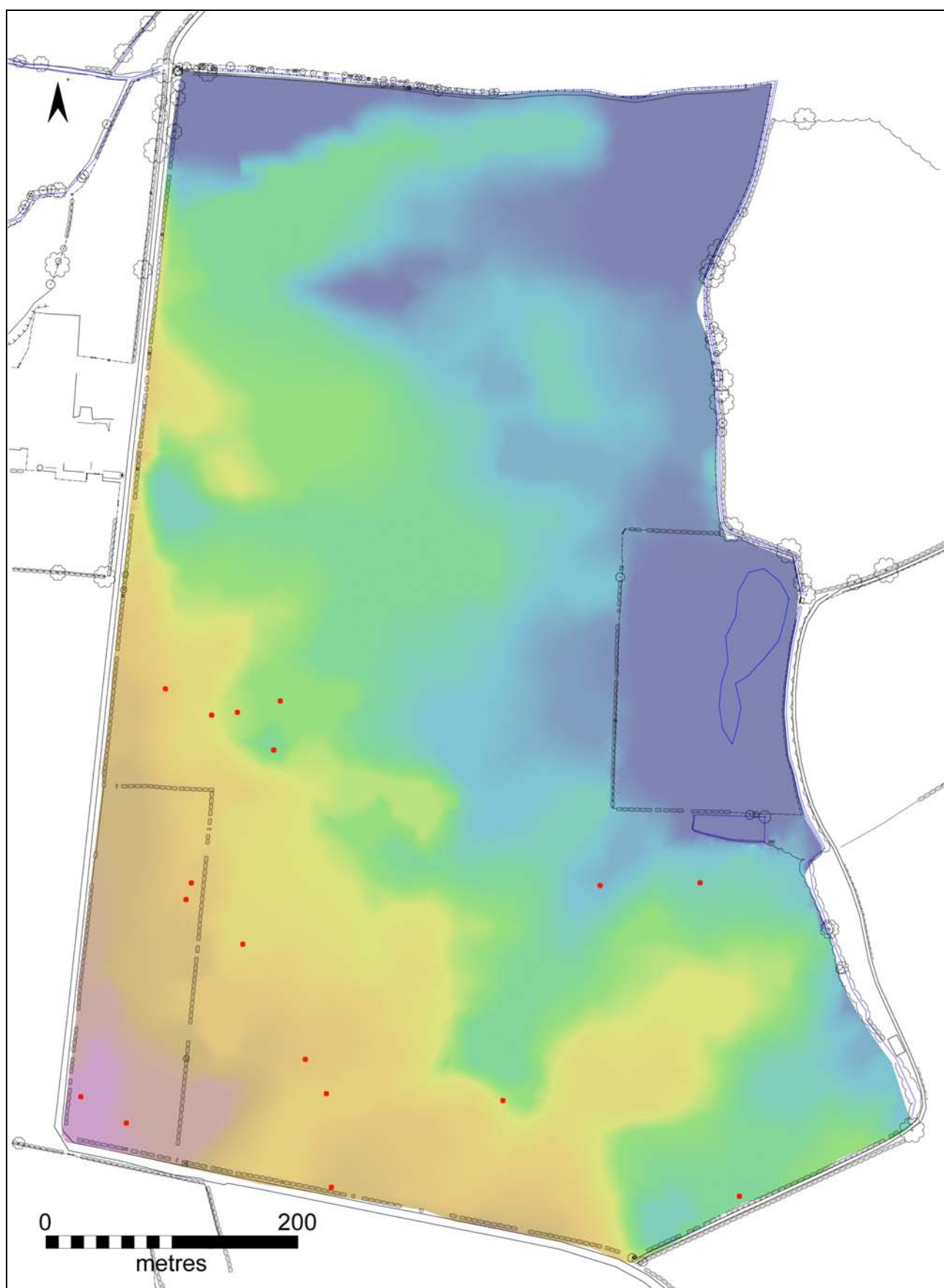


Figure 8. Distribution of metal artefacts

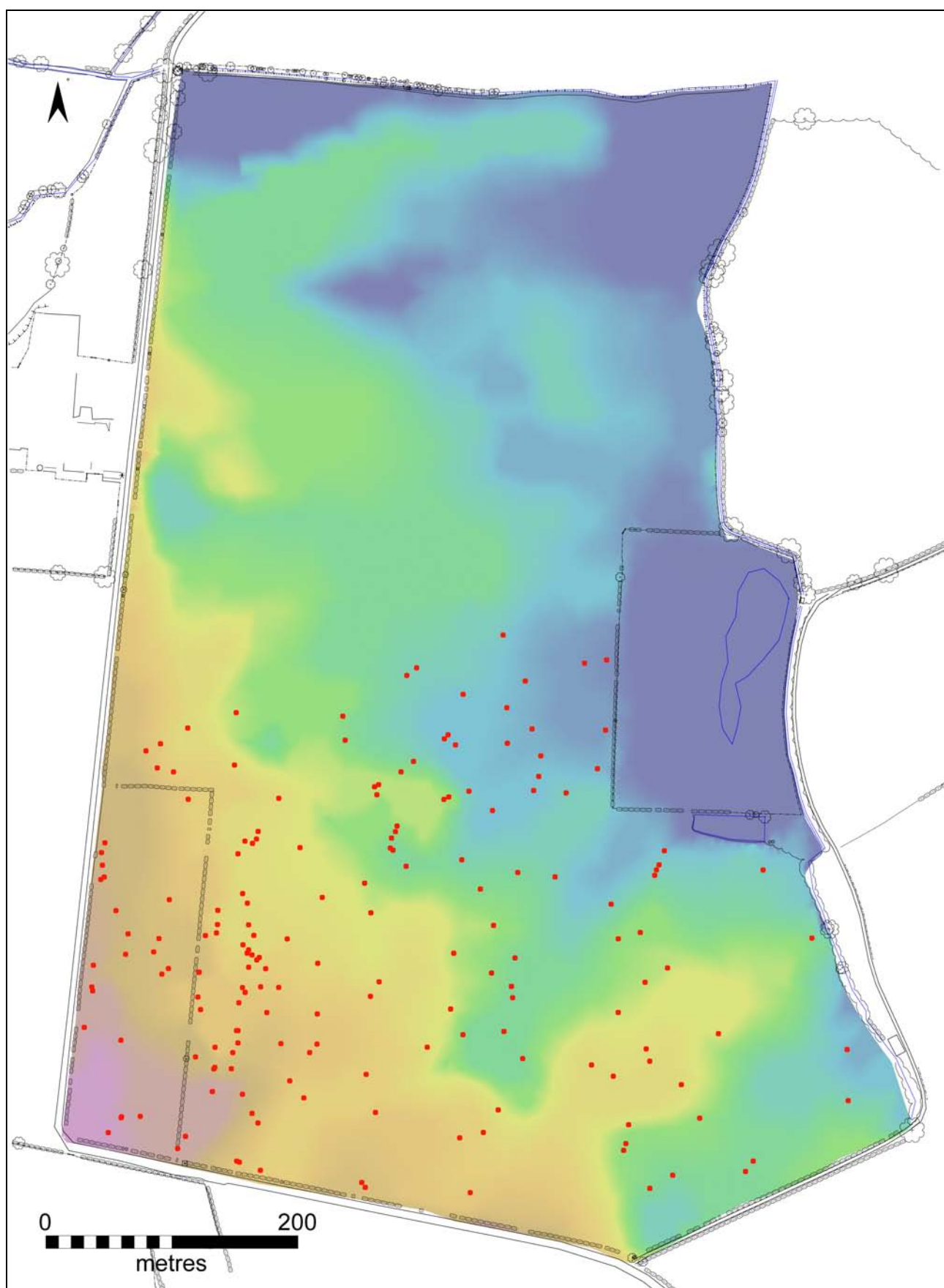


Figure 9. Distribution of animal bone

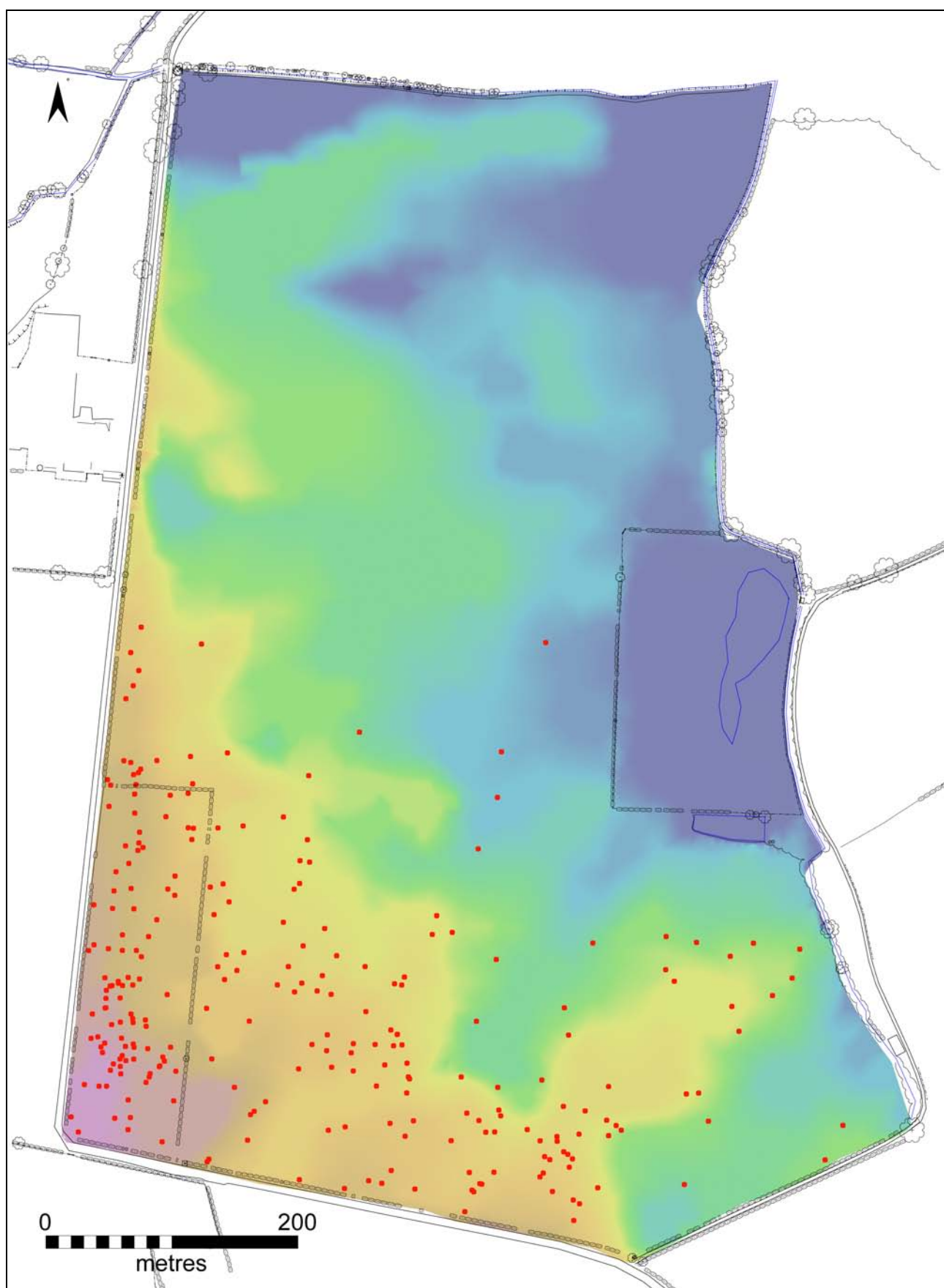


Figure 10. Distribution of lithic material

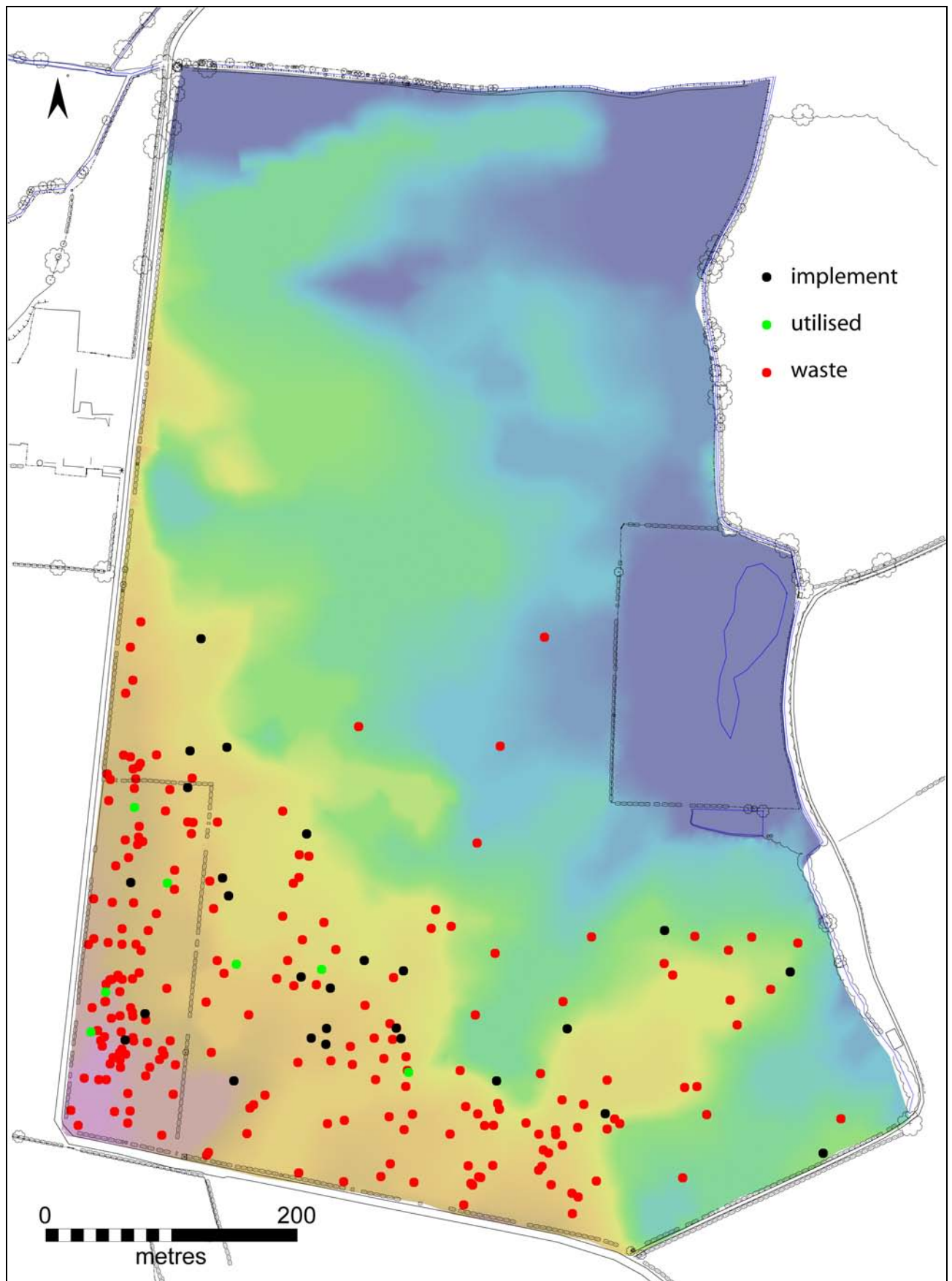


Figure 11. Distribution of lithic material by type (implement, utilised and waste)