THE
OXFORD ARCHAEOLOGICAL UNIT

Stourpaine Landfill Site,
Stourpaine, Dorset.

Archaeological Assessment

1990

STOURPAINE LANDFILL SITE, DORSET

ARCHAEOLOGICAL ASSESSMENT

INTRODUCTION

An archaeological assessment was conducted by the Oxford Archaeological Unit on a site proposed for landfill development at Down End Farm, Stourpaine, Dorset, Grid Ref. ST874094. The work was carried out between 10 September 1990 and 20 September 1990.

The site, which lies immediately west of the farm, covers about 11 hectares of chalk down, including the head of a dry valley, all within one field (Fig. 1). At the time it was under arable production.

The form of the assessment, under the specification proposed by the Planning Department of Dorset County Council, consisted of 2.0 x 2.0 m test pits on a 50 m grid over the whole field, together with a number of mechanically excavated trial trenches in areas of suggested archaeological activity.

THE ARCHAEOLOGICAL POTENTIAL

The site lies within a wider area of notable archaeological interest. The Iron Age and Roman fort of Hod Hill lies immediately across the valley to the north-west, and Hambledon Hill (Iron Age fort and Neolithic causewayed enclosure) a little further away. To the east an Iron Age enclosed settlement on Pimperne Down, about 1.5 km away, was partly excavated in 1960 - 63, and there are other enclosures in that parish (RCHM Dorset Vol. IV p 54).

Of immediate concern for the development is the presence of a ditched enclosure 'of Iron Age type' under Down End Farm itself. It is clearly visible in air photographs extending to the south and east of the farm, but how far it extends into the field in question is rather more conjectural. (NMR Accession number 2110, Frames 1167 - 1169.)

The ditched enclosure is roughly circular and is 8 acres in area, with traces of an inturned entrance on the south side, but lacking internal features (RCHM, Dorset, Vol. III Part 2, p 265).

There is also evidence of round barrows (probably of Bronze Age date) immediately east of the enclosure (information supplied by the Dorset County Archaeological Officer).

The information indicates the probability of Iron Age occupation and the possibility of earlier prehistoric activity at the eastern end of the field.

The 1:2500 OS map (1961 ed.) also shows a lynchet between Stourpaine and the proposed landfill site. As this area is now under the existing wash disposal site, this information could not be verified.

This might have been part of the pattern of 'Celtic fields' described as being 'all greatly disturbed ... over some 150 acres of East Stourpaine' (RCHM op. cit. p 341).

No lynchets were visible in the field under investigation.

TEST PITS

44 test pits 2.0 m x 2.0 m in size were excavated down to natural chalk, and all finds collected. They were spaced at 50 m intervals and aligned on the Ordnance Survey grid (Fig. 2). The purpose of this sampling procedure was to define probable areas of prehistoric activity within the field.

The test pits were excavated both by hand and by mechanical excavator using a 3 foot bucket - the latter was used in the deep colluvial deposits of the dry valley in particular. In order to standardise the recovery of finds, 25% (and in some areas 50%) of the soil was screened using a 10 mm mesh.

The remaining hand-sorted material, either 50% or 75% of the soil volume, fell into the categories of

a material excavated by hand

b material from machine spoil

Due to the rather inconsistent nature of this recovery process, which is also inevitably biased by the individual field worker, the total quantity of finds recovered does not give as faithful a representation of their distribution as the standard 25% sieved sample (see Figs. 3 and 4).

RESULTS

SOILS

The modern ploughsoil was characteristically 0.2 - 0.3 m deep, consisting of a grey-brown flinty clay loam. On the higher southern and western two-thirds of the field, the modern ploughsoil directly overlay natural chalk. Where the topsoil was particularly shallow, chalk lumps were frequently incorporated, occasionally amounting to 50% of the soil layer. This observation suggests rapid erosion of the down due to modern agricultural practice, and the probable truncation, or even obliteration, of shallow prehistoric features. In the remaining one-third of the field a reddish brown silty loam subsoil was encountered, which reached a maximum depth of a little over 1.0 m in the bottom of the dry valley. Flint artefacts were found throughout this subsoil.

Soil layers within this subsoil were recorded in the deepest ten test pits in the valley bottom, and the finds from them were assigned accordingly.

Generally speaking, the soils consisted of a friable reddish brown silty clay loam/silty clay loam with frequent angular flints and fine chalk grains distributed throughout, but to varying degrees. Chalk lumps and flint nodules were incorporated towards the base of the soil profile. This suggests that the colluvium is anthropogenic - the result of a long history of tillage on the down and perhaps within the dry valley itself. The only notable exception to this was in the test pit at 87150 - 09350, where a flinty horizon overlay a clean dark reddish brown clay silt. This may be evidence of an intact prehistoric buried soil beneath the colluvial buildup (see Bell, M G, 1983, 'Valley sediments as evidence of prehistoric landuse on the South Downs', Proc. Prehist. Soc. **49**, 122), a point which will be returned to later.

THE FINDS

The total distribution of struck flints (implements, cores and unretouched flakes), is shown in Figure 3, together with the distribution of burnt flint.

It can be seen that flints were found in every test pit, and burnt flint in most of them. A concentration was found in the dry valley, with a bias towards the upper part of the valley.

The pattern of flint distribution is refined in Figure 4, where only the sieved material from one cubic metre of soil is shown. The flints are also divided according to the natural stratigraphic unit (each unit or layer was generally between 0.2 m and 0.3 m thick). The average flint density per 1.0 m x 1.0 m x c 0.25 m of soil was around five.

The diagram shows that, while the deeper test pits do not contain a greater than average density of flints in their topsoils, the flints are distributed throughout their depth, and occasionally appear in unusually high densities lower down.

The distribution of burnt flint is comparable, perhaps showing an even more marked concentration in the dry valley. Burnt flint is normally associated with prehistoric/Romano-British domestic activity. Its occurrence well below the zone of modern agriculture indicates that it is not the result of stubble burning.

The distribution of pottery is noticeably concentrated in the dry valley, except for a collection of sherds from 87350 - 09350 which are clearly associated with the feature in that test pit (Fig. 5, Tr. I5, F 7) and date to the late Iron Age or Romano-British period. Although the rest of the pottery is very fragmented and rather undiagnostic, four sherds (from 87150, 09350 and 87100 and 09350) are almost certainly of the earlier prehistoric period (i.e. Bronze Age or early Iron Age). It is possible that the occupation indicated by these sherds is associated with at least some of the flintworking in this area.

There are also fragments of late Iron Age/Romano-British pottery in the dry valley. Its occurrence at depth, for instance in the lowest levels of pits 87050 - 09350 and 87150 - 09400, together with the recovery of a fragment of a ?Roman bronze finger-ring from the lowest layer in pit 87000 - 09350, indicates that the valley colluvium is the result of ploughing since around Roman times.

This conclusion is supported by the evidence of the soil profiles. The exception in pit 87150 - 09350 has already been noted, and hints at the patchy survival of a protected, or at least relatively undisturbed, earlier prehistoric land surface.

CHARACTERISTICS OF THE FLINTWORK

488 pieces of struck flint were recovered from the testpits, of which 30 (6%) were retouched pieces (such as scrapers, knives or piercers) and six were cores.

The flintwork was, almost without exception, of a rather crude nature. Flakes were produced in an ad hoc manner from unprepared or only roughly prepared cores, to serve as unstandardised implements.

This method of flintworking is characteristic of the later Neolithic and Bronze Age periods, although there are very few recognisable tool types, let alone diagnostic pieces of these periods.

However, one possible transverse arrowhead and a fragment of a pressure-flaked projectile point suggest a date range within the Neolithic and Bronze Age.

CONCLUSIONS FROM THE TEST PITS

The distribution of flintwork over almost all the field indicates a light but extensive occupation, probably spanning a long prehistoric period. The nature of the flintworking technology in general, and the character of the flint tools themselves, do not lend themselves to easy categorisation.

The locations of any prehistoric occupations are difficult to pinpoint, perhaps due largely to a long history of ploughing in this field, which would naturally result in the downslope accumulation of material such as struck and burnt flint and pottery. It is also possible that the patterns of prehistoric occupation have been rather complex.

Thus, the concentration of flintworking in the dry valley is not straightforward to interpret - whether it results from the hillslope accumulation of material derived from the higher ground, or from in situ occupation, albeit disturbed by ploughing since at least Roman times, or a combination of both.

TRIAL TRENCHES

Seven trial trenches were excavated by machine down to natural chalk in the eastern and southern parts of the field to assess the probability of surviving archaeological features.

TRENCH J (Figs 2 and 5)

Trench J was 58 m long and 2.0 m wide and placed so as to intercept the probable line of the enclosure ditch, as well as to discover whether there were any features within the enclosure.

The eastern end of the trench was located in a slight depression in the chalk. 0.3 m of ploughsoil directly overlay a clean dark brown silty loam, which turned out to be the upper fill of a pair of parallel ditches, F1 and F2, which the trench uncovered as far as their intersection with the deep enclosure ditch (F8).

Features 1 and 2 were similar to each other, being shallow, approximately U-shaped in cross-section, 0.65 - 0.75 m wide and 0.3 - 0.35 m deep. Their stratigraphic relationship to each other was not clear, but they both contained Romano-British pottery of the 1st or 2nd century.

Feature 1 cut a large ditch (F8), 2.5 m wide and 1.2 m deep with a V-shaped cross section. This is almost certainly a continuation of the enclosure ditch visible from the air. The pottery from the fill of this ditch was broadly similar to that from the two smaller ditches.

Within the enclosure, cutting F1, was a circular, vertically-sided pit (F7) about 1.4 m in diameter. It was excavated to a depth of 1.3 m without encountering the bottom, but the excavation was discontinued due to the difficulty of working in a confined space without extending the trench laterally. The function of this pit therefore remains unknown, but it is likely to have been for grain storage, or possibly a well.

Outside the enclosure was a series of much smaller gullies, all running approximately north-south across the trench. However, with the exposure of such short lengths, it is impossible to be sure that they are exactly parallel and contemporary in construction.

F6 was a comparatively wide and shallow gully (0.75 m x 0.15 m). The soil filling this feature suggested there might have been an internal (i.e. eastern) bank.

F3 and F4 appeared to be one feature on the surface, but excavation revealed a pair of shallow gullies, each 0.7 - 0.8 m wide, and 0.25 - 0.3 m deep.

Further west, F5 was a narrow V-shaped gully about 0.35 m wide and 0.2 m deep.

TRENCH I5

This trench was no more than a small extension of test pit I5 (87350 - 09350), confirming the presence of a large feature which is likely to be a continuation of the enclosure ditch F8 in Trench J. Late Iron Age/Romano-British sherds were recovered from the test pit, but the feature was not excavated.

TRENCH L

Trench L (total length 73 m, width 2.0 m) was located so as to define the extent of the pattern of gullies in Trench J.

Another pair of parallel gullies was found (F1), each about 0.5 m wide and 0.2 m deep. Again, they were running north-south, but no corresponding east-west extensions were encountered.

TRENCHES M and N

Trench M (length 43 m, width 2.0 m) and Trench N (length 25 m, width 2.0 m) were located so as to pick up any continuation of these gullies towards the northern side of the field. No archaeological features were discovered.

TRENCHES O & P

Trenches O (total length 46 m, width 2.0 m) and P (total length 33 m, width 2.0 m) were located to discover any features along the ridge to the west. None was found.

TRENCH K

Trench K sectioned a large shallow depression on the slope of the hill. On the ground this appeared as an elliptical hollow, about 15 m north-south by 20 m east-west, with very ill-defined edges.

The machine cut trench showed it to be a feature 11.15 m wide, with clear north and south edges cut through the chalk.

Excavation proceeded by hand in order to recover dating evidence. Although a number of struck flints were recovered from the upper layers, a gun cartridge and a piece of iron from a depth of around 1.5 m within redeposited chalk rubble demonstrate that the feature is modern. The excavation was discontinued.

No clue could be gained regarding the purpose of this feature, which is absent from the 1:2500 OS map.

It is worth noting that the disturbance caused by the excavation and backfilling of this feature is likely to have distorted the ploughzone archaeology in the vicinity.

CONCLUSIONS FROM THE TRIAL TRENCHES

The trial trenching not only confirmed the continuation of the late prehistoric enclosure from adjacent fields into this one, but also demonstrated previously unsuspected internal features and external gullies.

These gullies run north-south in Trenches J and L but their continuation towards the north is uncertain. Their absence in Trenches M and N suggests that they are not continuous across the field.

The features associated with the enclosure are Romano-British in date, but there may be late Iron Age antecedents, of which the outer gullies, though undated, may be a component.

The trenches in the south-west part of the field indicate that archaeological features, while not conclusively absent from this ridge, are unlikely to be dense.

CONCLUSION

The archaeological assessment has demonstrated a light but extensive spread of prehistoric occupation over the field proposed for landfill development, with an important late Iron Age/Romano-British settlement (c 0 - 200 AD) in the south-east corner.

The earlier occupation whose existence is indicated by the flintwork is not so easily definable in time or space.

The concentration of struck flints, burnt flint and occasional fragments of prehistoric pottery in the dry valley - particularly concentrated around 87100 to 87200 and 09350 to 09400 - may be the result of colluvial accumulation over a long period, perhaps initiated by ploughing in the late prehistoric/Roman period.

However, it is possible that there was an earlier prehistoric occupation in this area. Recent archaeological research into dry valleys, particularly on the South Downs, has emphasised the importance of such sites for occupation in the later Neolithic - Bronze Age period (2000 - 1000 BC). Only more detailed work can determine whether this particular site is of comparable significance.

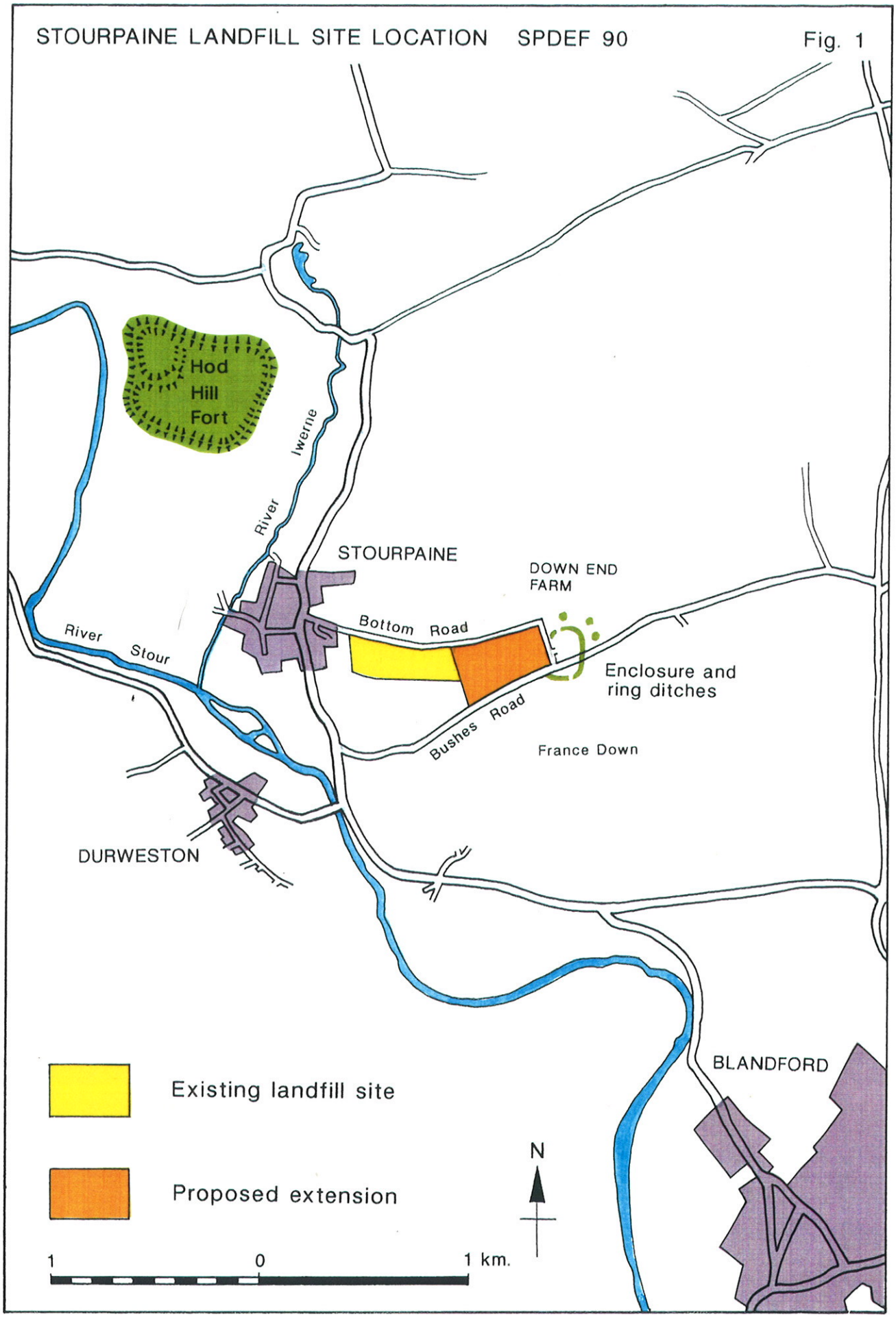
The flintwork, while not a particularly useful chronological indicator, is compatible with this date range.

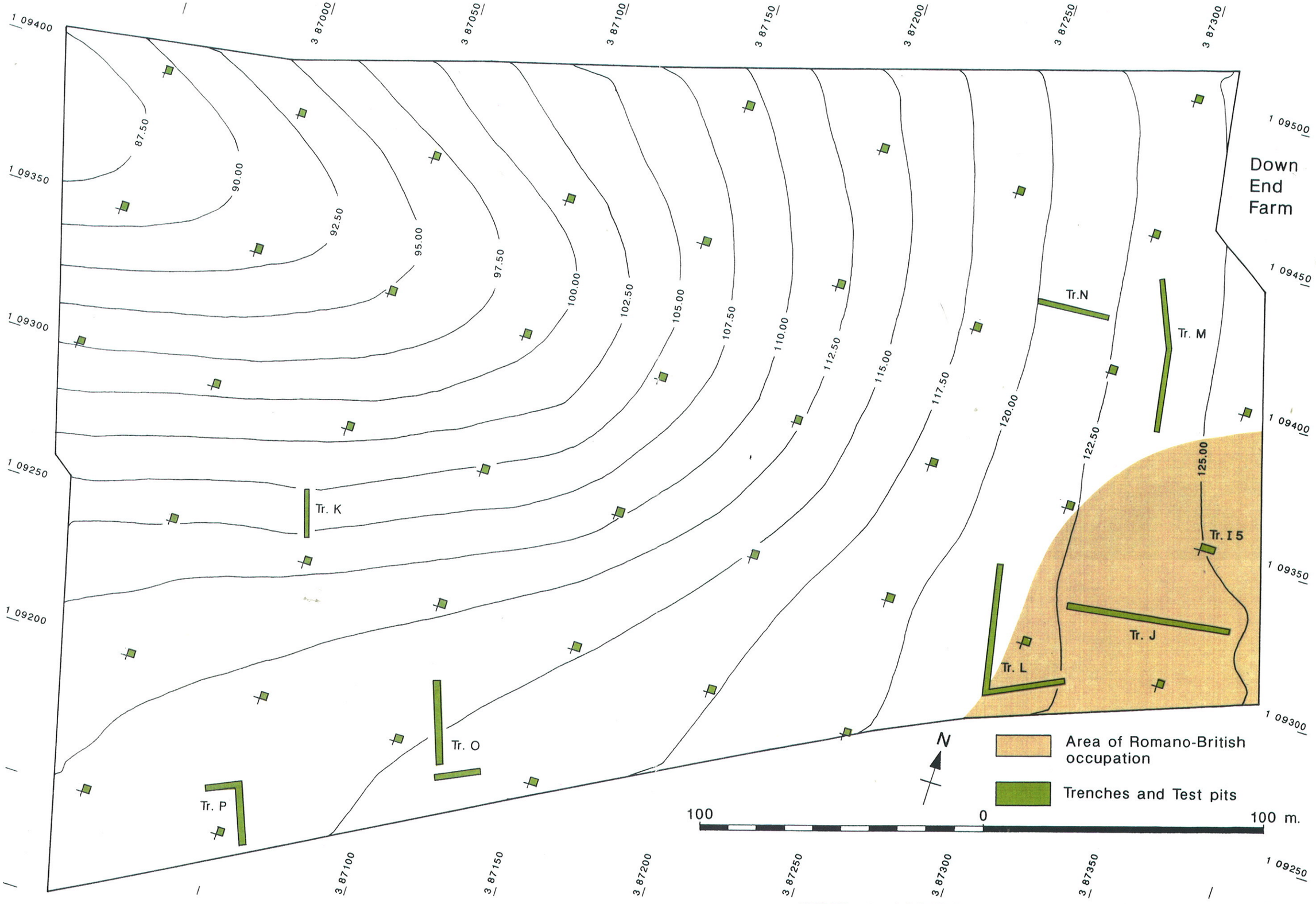
On the higher ground the light scatter of flints in the ploughsoil does not indicate specific areas of activity. The picture might be blurred by the redistribution of material through ploughing - a practice which might also have destroyed or severely truncated any shallow archaeological features.

Trial trenching has not revealed prehistoric features associated with the flintwork, although it is possible that the gullies in the south-east area of the field may predate the Romano-British enclosure. It can be said that if prehistoric features do exist elsewhere (e.g. small pits or pit groups) they are unlikely to be of great density.

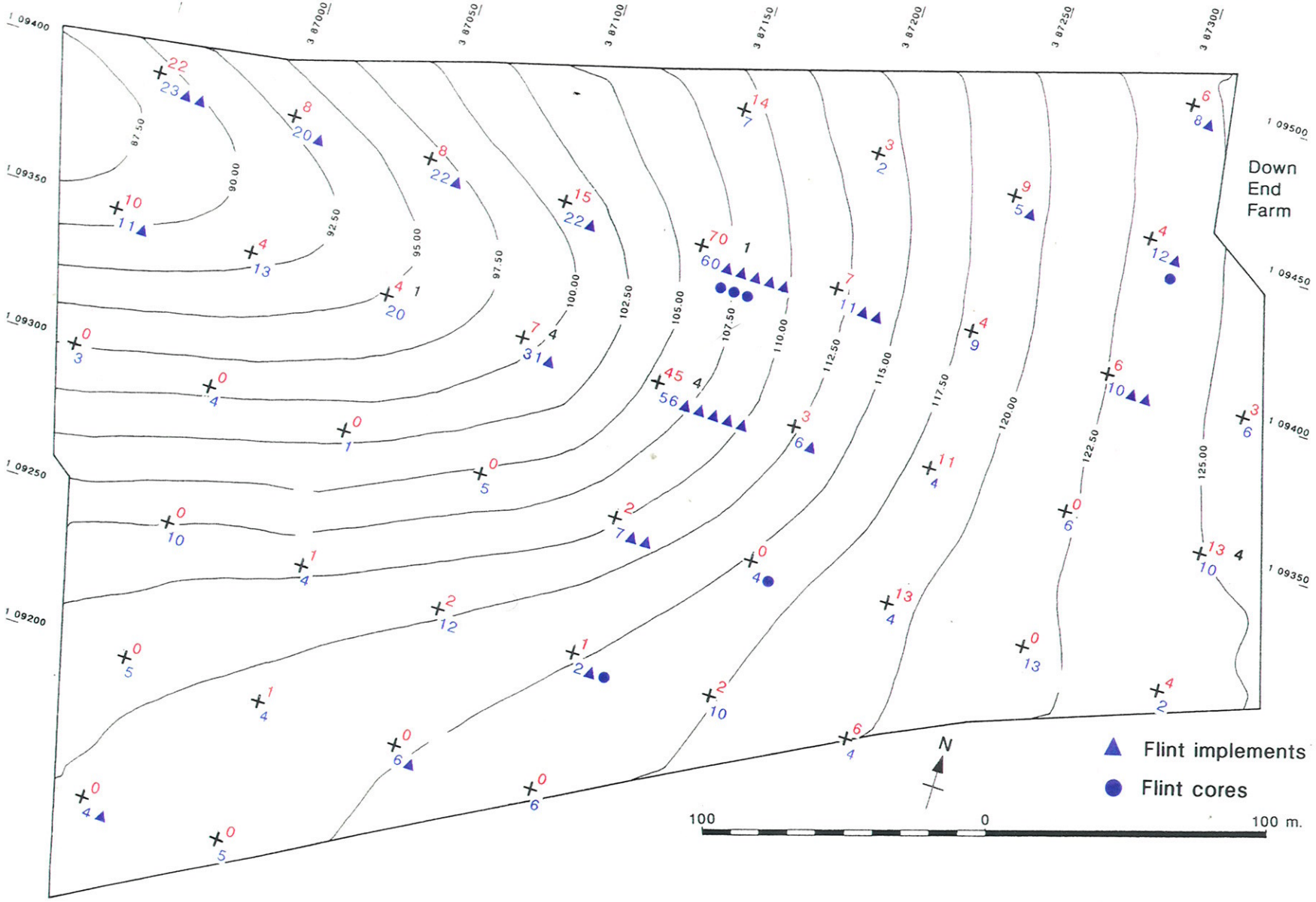
It can perhaps be noted parenthetically that early prehistoric features are not always associated with flintworking in this vicinity, and ring ditches (i.e. flattened round barrows) may be specifically located away from flintworking areas. Thus, areas of flintworking in the ploughsoil are not necessarily good guides to the location of archaeological features.

A Mudd
Oxford Archaeological Unit
September 1990

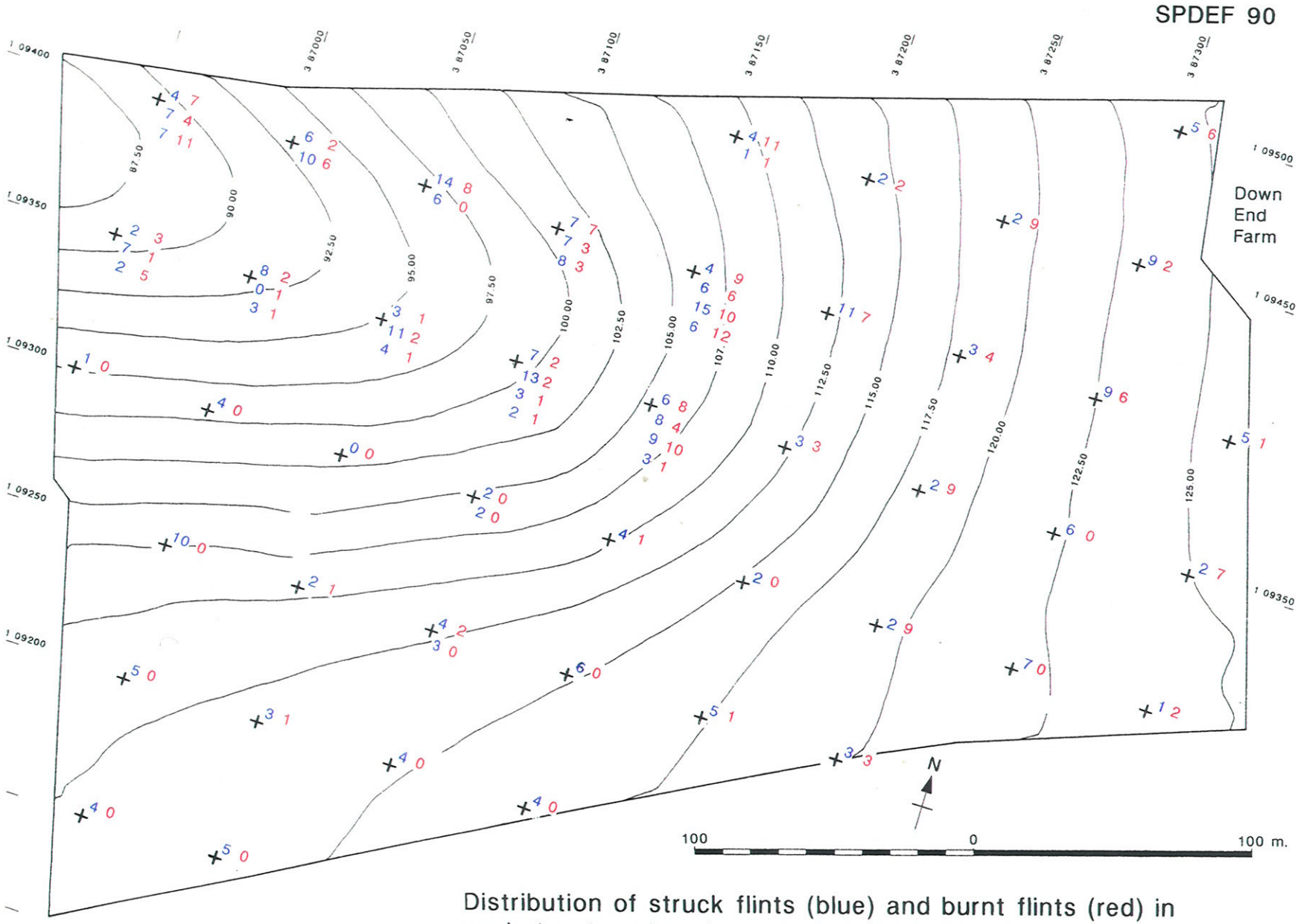

STOURPAINE LANDFILL SITE LOCATION SPDEF 90
Fig. 1
Hod Hill Fort
River Iwerne
STOURPAINE
DOWN END FARM
Bottom Road
River Stour
Enclosure and ring ditches
Bushes Road
France Down
DURWESTON
BLANDFORD
Existing landfill site
Proposed extension
N
1 0 1 km.



SPDEF 90 LOCATION OF TRENCHES AND TEST PITS Fig. 2



Total number of struck flint 12 Burnt flint 15 Prehistoric pottery 4 Fig. 3



Distribution of struck flints (blue) and burnt flints (red) in each 1 x 1m. sieved square Subdivided by depth

Fig. 4

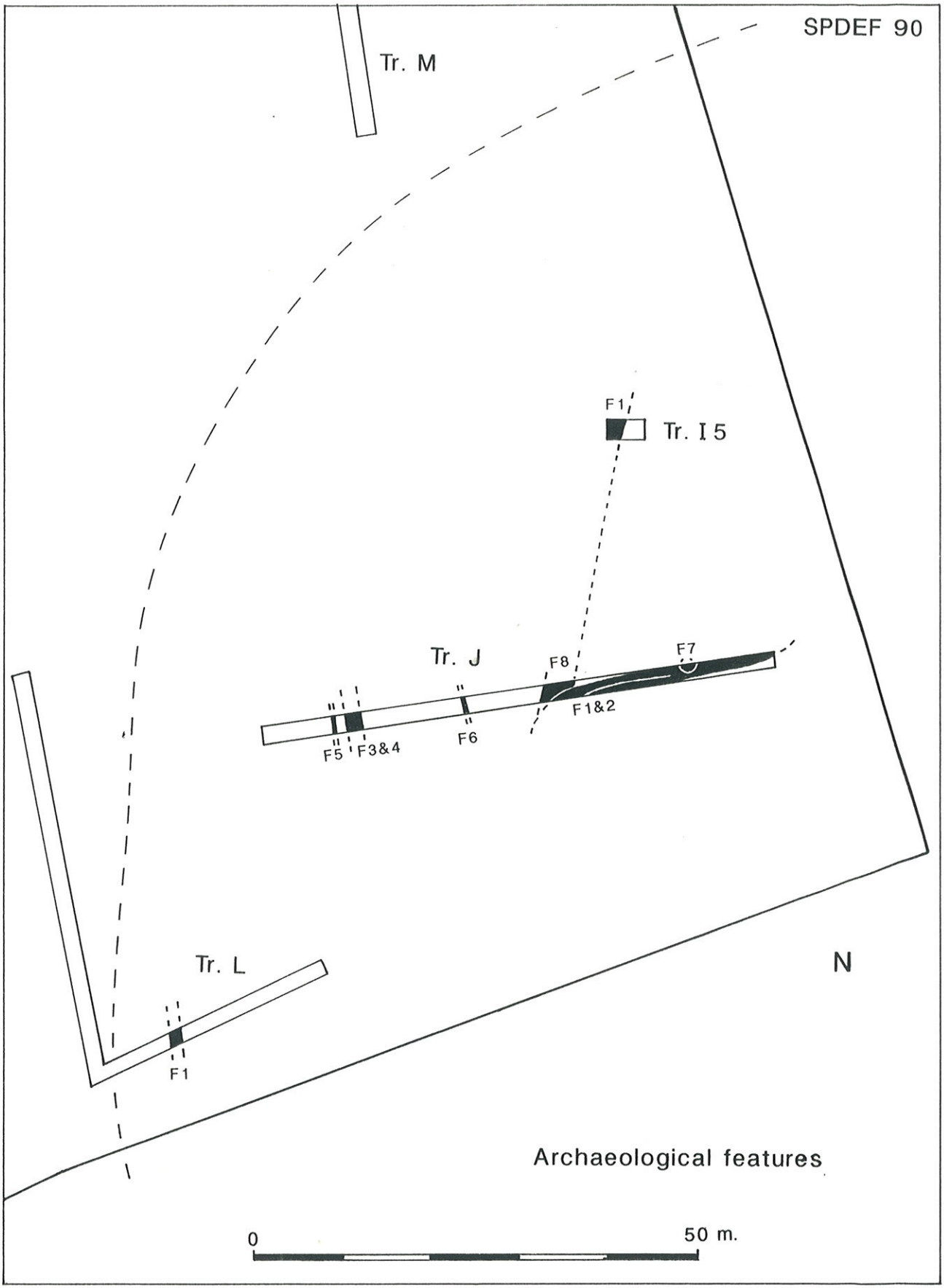

SPDEF 90
Tr. M
F1
Tr. I 5
Tr. J
F8
F7
F1&2
F5
F3&4
F6
Tr. L
F1
N
Archaeological features
0
50 m.

Fig. 5

The Oxford Archaeological Unit,
46,Hythe Bridge Street, Oxford. OX1 2EP
Telephone (0865) 243888 Fax (0865) 793496