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Flint deposition in the vicinity of the Dallington Neolithic Causewayed Enclosure, Northampton

by

Andy Chapman

Summary

A Late Bronze Age/Early Iron Age pit alignment at Dallington Gateway, Northampton, lay in close proximity to the known Dallington Neolithic causewayed enclosure. The fills of the pits in the pit alignment, and some other features, produced quantities of residual worked flint in excess of the quantity recovered from a pit alignment at Harlestone Quarry, a further kilometre distant from the causewayed enclosure. It is suggested that the presence of this flint concentration in the immediate vicinity of the causewayed enclosure defines a zone around the monument that was a focus for contemporary occupation probably during periods when people had travelled to the area to take part in activities centred on the enclosure, following the widespread interpretation of causewayed enclosures as regional centres for seasonal gatherings. A comparison is made to a possible comparable zone defined by flint scatters found at Northampton and Duston, perhaps focussed on a preferred area for occupation close to both the River Nene and the Briar Hill causewayed enclosure. There may also have been a similar zone around the Cardington causewayed enclosure, on the outskirts of Bedford.

Introduction

MOLA (Museum of London Archaeology) Northampton undertook archaeological mitigation work on a development site on land at Dallington Gateway, Harlestone Road, Northampton (NGR SP 7150 6335**,** Fig 1). The works were required as mitigation following geophysical survey (Masters 1998 and Butler *et al* 2012) and trial trench evaluation (Walker and Wolframm-Murray 2012) and as a condition on planning consent (DA/2012/0937) for residential development. The full results of that work were provided as a client report (Chinnock and Muldowney 2016), and are briefly summarised below.

This paper utilises the results of the excavations at Dallington Gateway and also those at the nearby Harlestone Quarry (Chapman *et al* 2017) to examine the distribution of scattered worked flint in the vicinity of the Dallington causewayed enclosure. The aim was to determine whether there were unusually high concentrations of flint within the immediate environs of the causewayed enclosure that might indicate the presence of a zone of either temporary occupation or even longer-term settlement around the enclosure. This follows the common interpretation that, among other things, causewayed enclosures probably acted as centres for seasonal gatherings (Oswald *et al* 2001, Whittle *et al* 2011 and Oswald 2011).

A comparison is made to the distribution of flint along the River Nene from Duston to Northampton, which may have been associated with the use of the Briar Hill causewayed enclosure on the southern slopes below Hunsbury Hill (Chapman 2018 and Chapman forthcoming), and also to flint distribution in the environs of the Cardington causewayed enclosure, Bedford (A Chapman and P Chapman 2017).

Acknowledgements

The discussion within this paper is built on the results of a series of surveys and excavations undertaken by Northamptonshire Archaeology and its successor, MOLA (Museum of London Archaeology) Northampton, with consideration of supporting and relevant material produced by other organisations: these works are all referenced in the text. However, particular thanks should go to Chris Chinnock and Mo Muldowney for the report on the excavations at Dallington Gateway and to John Walford for the geophysical survey of the Dallington causewayed enclosure. These have appeared only as client reports, although both are available as downloads through the Archaeology Data Service, Library of Unpublished Fieldwork Reports, as well as through the Northamptonshire, Historic Environment Record. The excavations at Harlestone Quarry were published in the previous issue of *Northamptonshire Archaeology*, **39**, 2017.

Location, topography and geology

Dallington Gateway is located on the north-western edge of Dallington, north-west of Northampton. The development area comprised two arable fields. To the west lies Harlestone Road and to the south the boundary is formed by Dallington Brook. The ground is highest close to the Harlestone Road, at *c.*96m aOD, and falls gradually to the south and east. Close to the Dallington Brook the ground lies at *c.*85m aOD.

The solid geology of the site consists of Northampton Sand Formation – sandstone, limestone and ironstone (http://mapapps.bgs.ac.uk). No superficial deposits have been recorded.

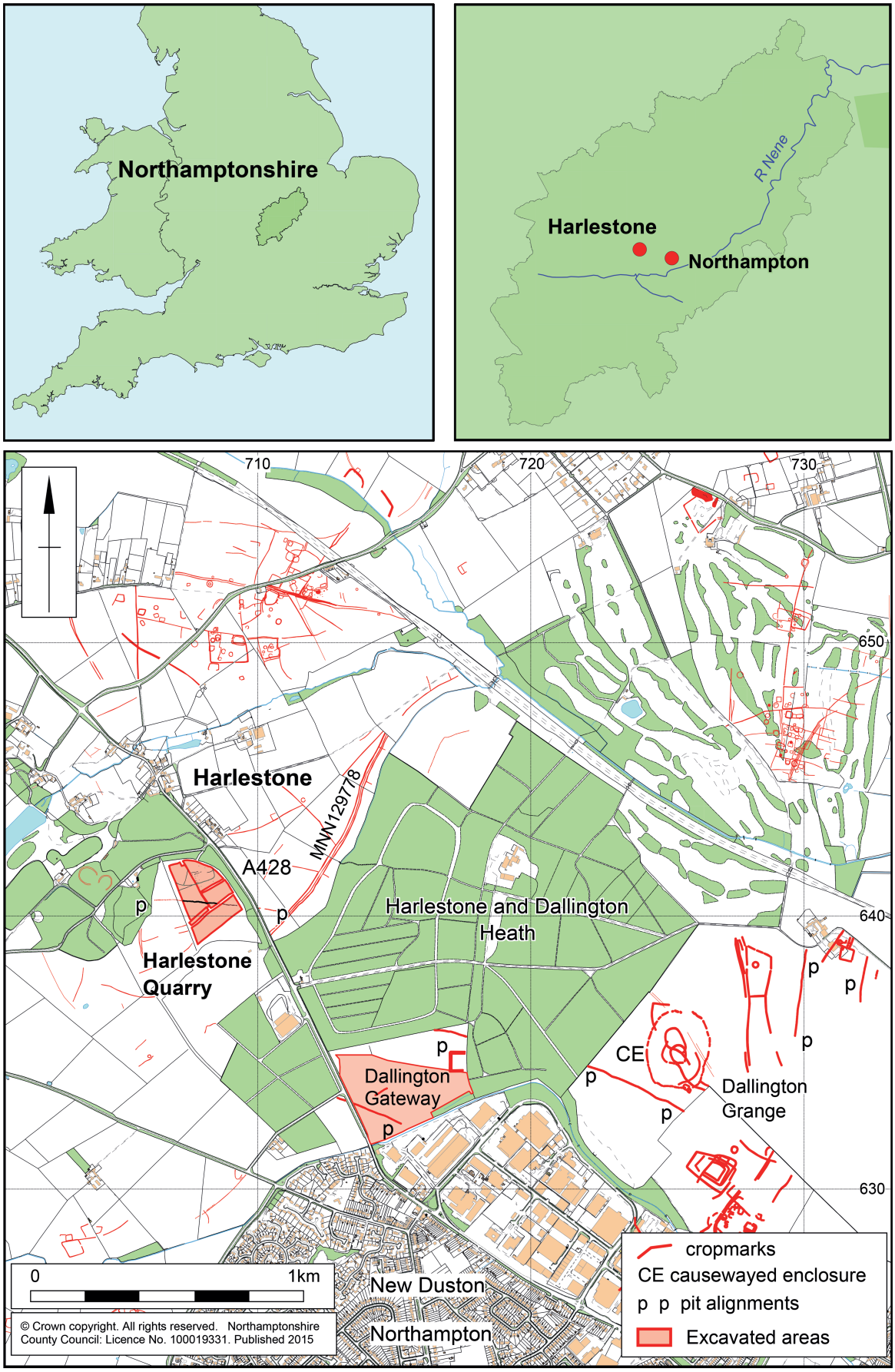

Fig 1: Site Location, showing Dallington and Harlestone (from Chapman *et al* 2017, fig1)

The Dallington causewayed enclosure

The Dallington causewayed enclosure was identified as a cropmark from aerial photography (RCHME 1985, 30–33 & fig 2 and Oswald *et al* 2001, 38 & fig 3.4), and has been subject to limited trial trenching (OAU 1991) and more recently geophysical survey (Walford 2014), with much of this area now liable to future development and the Dallington Gateway site already under new housing. There has also been trial trenching on the Iron Age and Roman complexes immediately to the south/south-east (NAU 1990) and the north-east (OAU 1991) of the causewayed enclosure.

The presence of a surface flint scatter and the variety of tools present, as well as the results of the limited trial trenching (OAU 1991), are all consistent with the interpretation of this site as a causewayed enclosure, although across the enclosure and the surrounding landscape there is also a dense palimpsest of later occupation, particularly Iron Age and Roman settlement (Fig 1).

The results of the geophysical survey were interpreted as follows (from Walford 2014, 3):

> 'There is a tolerably good correspondence between these anomalies and the previously recorded cropmarks, and the perimeter of the causewayed enclosure is discernible, although not especially distinct (Fig 2).
>
> The survey results demonstrate that the causewayed enclosure is sub-oval in plan, with a flattened side to the south (Fig 3). It has an internal area of *c*.5ha and measures *c*.270m north to south by 225m east to west, which is marginally smaller than the cropmark plot would suggest (Fig 4). A single circuit of ditch segments defines its perimeter. Only a few of these segments have produced clear magnetic anomalies, and it may be that these contain particular concentrations of burnt stone, ceramics, or other magnetic materials within their fills. The other segments have either produced very weak anomalies or remain undetected and, for this reason, the survey data does not provide a good basis for mapping the precise extents of the individual segments and their intervening causeways.
>
> Two adjacent ditch segments on the south-eastern part of the circuit have inwardly curved terminals, a feature which may mark the principal entrance (Oswald 2011, 3). Support for this suggestion comes from the fact that these ditch segments have produced some of the strongest anomalies on the circuit, and the magnetic enhancement of entranceways is a commonly recognised phenomenon on ditched enclosures in general.
>
> Within the enclosure the survey has detected a tangled set of weak curvilinear anomalies, representing ditches of unknown date. They appear to define parts of either two or three intersecting oval-shaped enclosures, but this is not certain as the anomalies are very disjointed and indistinct. No firm date or function can be attributed to the ditches. They do not convincingly represent a henge (*contra* Bamford 1985, 136) but neither do they resemble the generally rectilinear Iron Age to Roman enclosure ditches identified elsewhere in the vicinity of Dallington Grange.'

The central enclosure, *c*.50m diameter, has been interpreted previously as a possible Late Neolithic/Early Bronze Age henge monument set within the causewayed enclosure but, as noted above, the latest geophysical survey has thrown doubt on this interpretation, as a single distinct enclosure could not be detected from the other geophysical anomalies within the same area.

The Archaeology of Dallington Gateway

The archaeological remains consisted of enclosure ditches, a double posthole alignment, a pit alignment, five ditches, a pit and two postholes (Chinnock and Muldowney 2016) (Fig 5).

A Neolithic posthole

The earliest feature was a posthole in Area C, 0.2m in diameter by 0.15m deep, which is dated to the Late Neolithic by a small Grooved ware assemblage, see below.

A prehistoric post avenue

Parallel lines of postholes formed an avenue *c*.3m wide and at least 60m long, aligned near north-south (Fig 5, Area C). It is undated, but a Neolithic to Early Bronze Age date seems most likely. The postholes were sub-circular to circular and varied between 0.25–0.50m diameter and 0.10–0.25m deep. The fills were largely consistent; comprising friable, mid brown silty sand with rare small stone inclusions.

The width of the avenue ranged from 2.2–3.2m, with the spacing widest in the central part and narrower at either end. The spacing between the individual posts for each line varied; the eastern alignment was irregular and intermittent, as it survived. On the western line there was a surviving group of 20 consecutive posts spaced at an average of 2.33m apart.

Whilst the posthole avenue did not produce any dating evidence, similar avenues have been noted elsewhere in Northamptonshire. An avenue within the Raunds Area comprising segmented and irregular ditches and tree hollows, was radiocarbon dated to the Early Neolithic, 3860–3620 Cal BC (Harding and Healy 2007, 64–67).

The ditched enclosures

In Area B there were two enclosures and a single pit (Fig 5).

Sub-circular enclosure

The exposed extent of the sub-circular enclosure comprised a curvilinear ditch, *c.*25m in diameter, with an opening 2.1m wide to the north-west. The ditch was

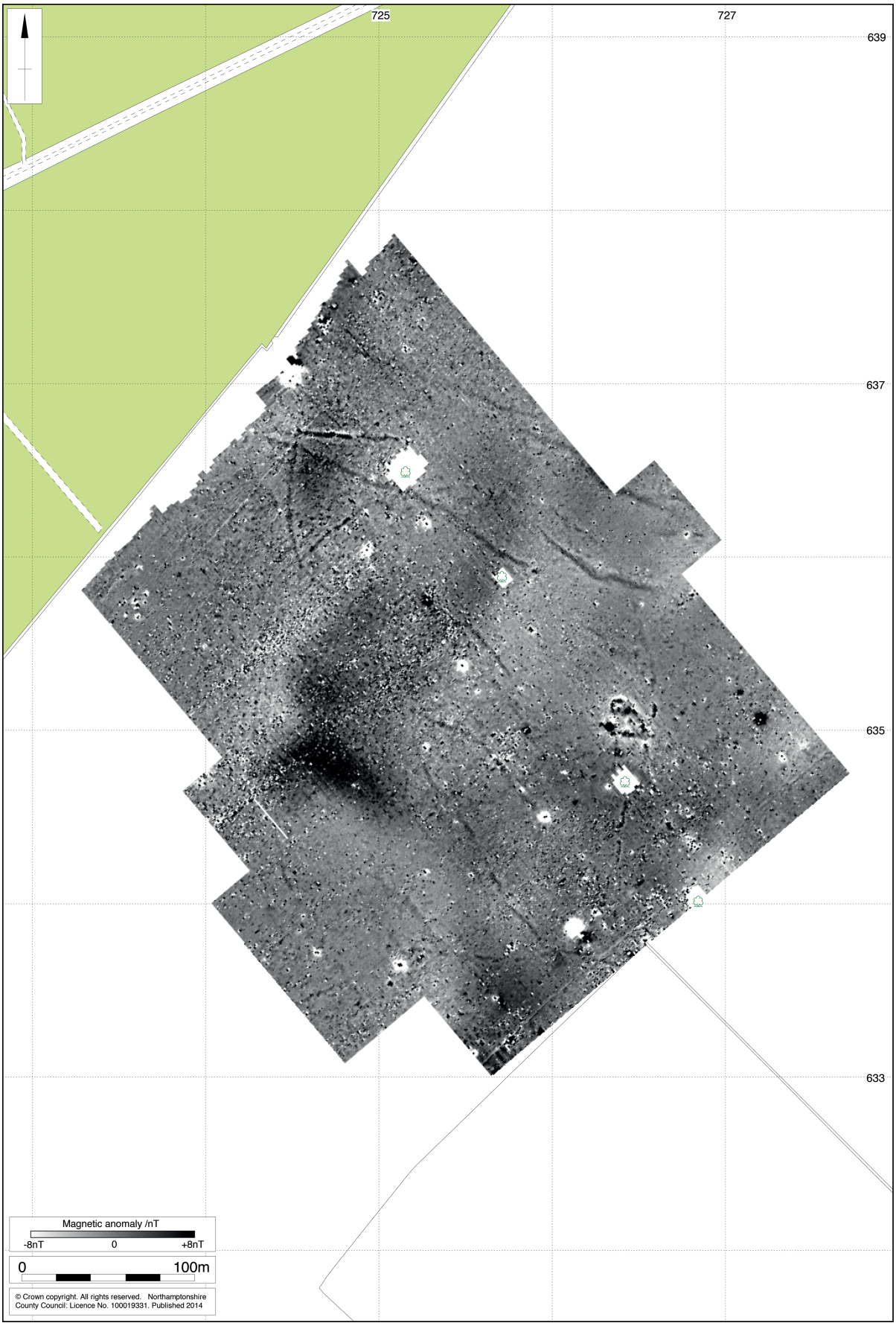

Fig 2: Magnetometer survey results, Dallington causewayed enclosure (after Walford 2014, fig 2)

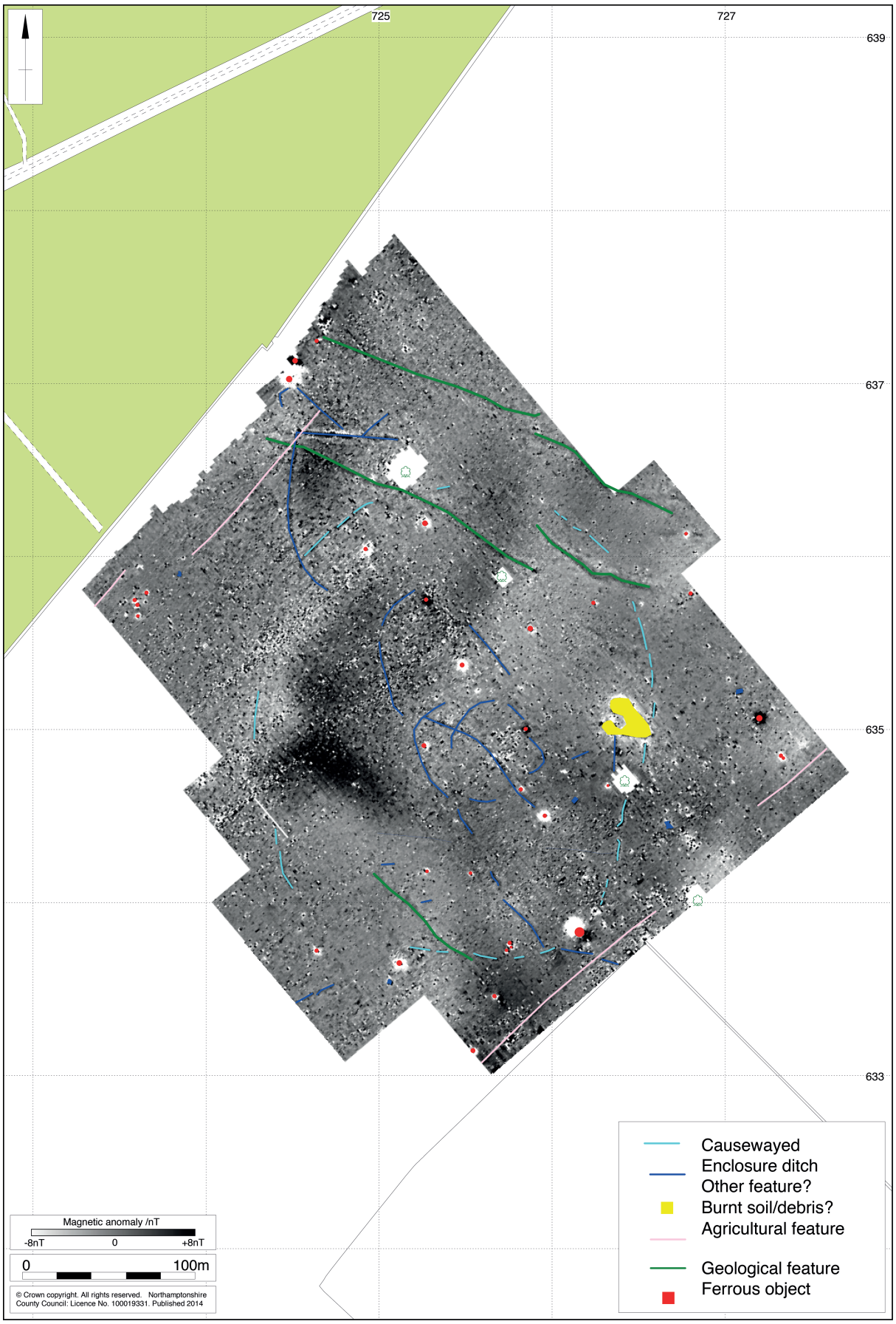

Fig 3: Magnetometer survey interpretation, Dallington causewayed enclosure (after Walford 2014, fig 3)

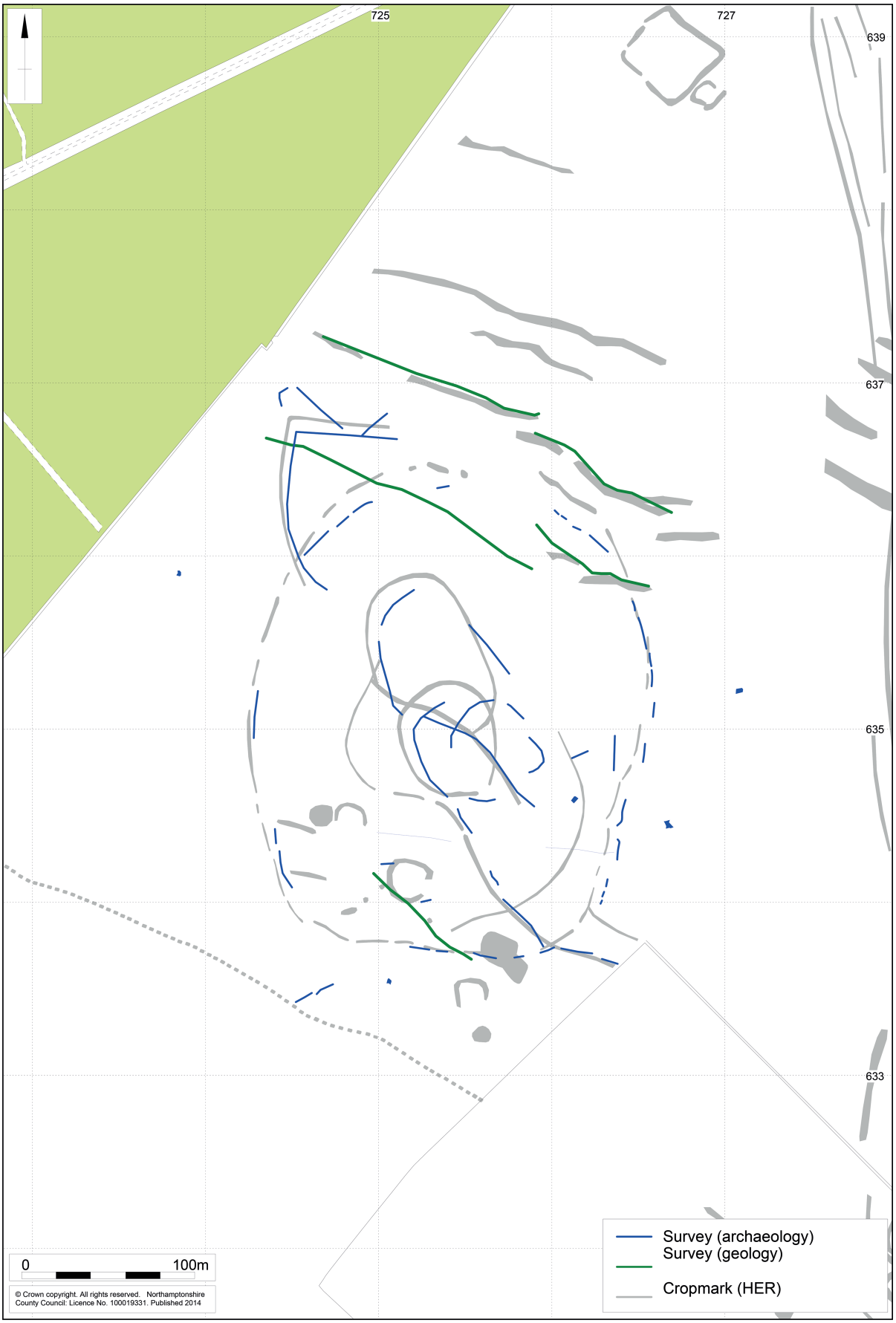

Fig 4: Comparison of survey results and cropmark plot, Dallington causewayed enclosure (after Walford 2014, fig 3)

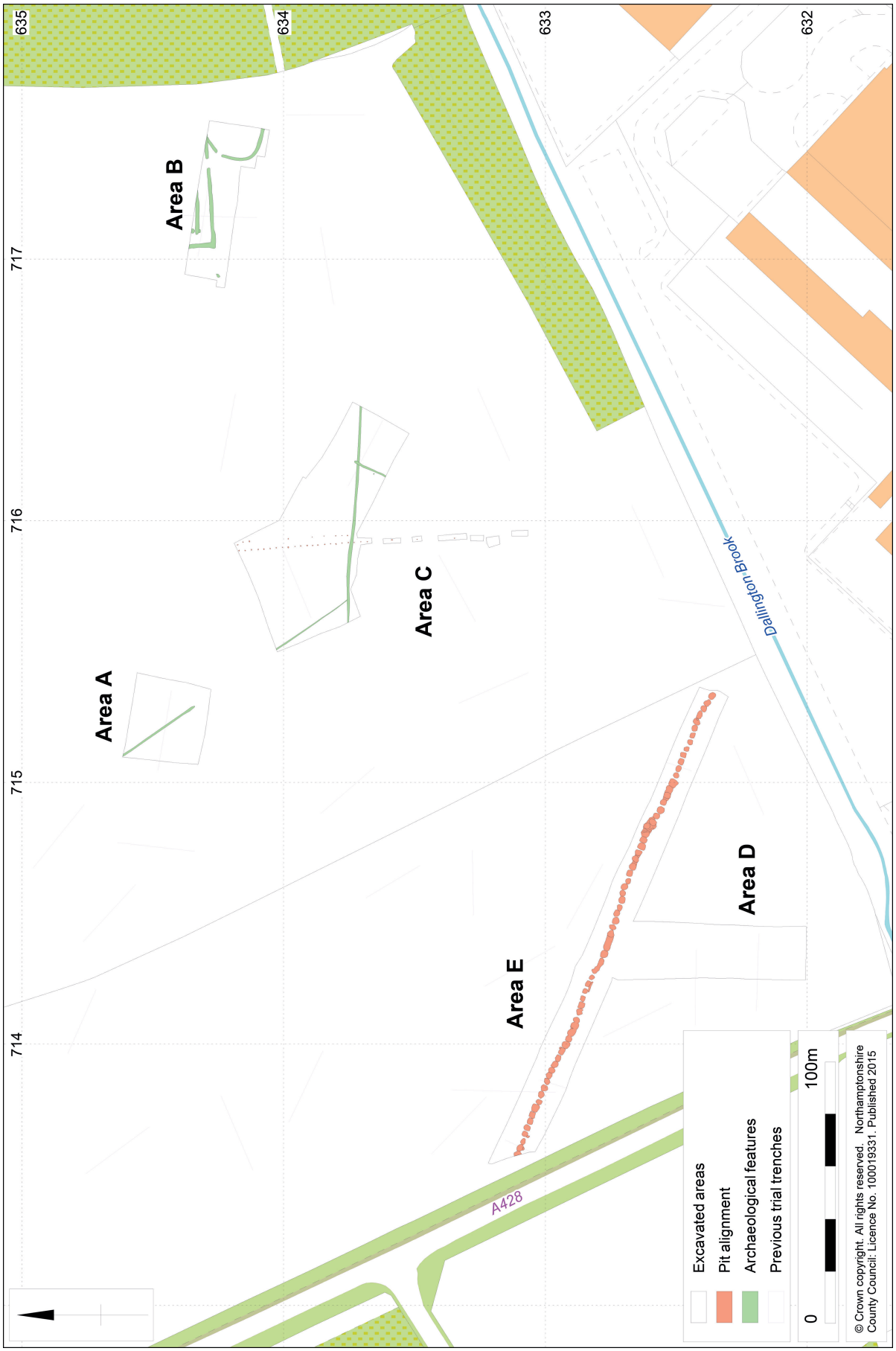

Fig 5: Dallington Gateway showing the excavated features in Areas A to E

1.00–1.50m wide, with a shallow irregular U-shaped profile with erosion of the upper edges. A single flint piercer was recovered from the upper fill of the southern terminal; no other material was found.

Double-ditched enclosure

This comprised an outer ditch with an entrance, 3.3m wide, on the southern arm, and a concentric inner ditch with separate western and southern arms that had adjacent terminals at the corner. The cropmark data suggests that the enclosure formed a square with paired entrances at the centre of the southern side. This indicates that the enclosure was *c.*60m square, and the inner enclosure was *c.*48m square, enclosing an area of *c.*0.23ha. The outer ditch was 1.28–1.74m wide and 0.42–0.46m deep with a wide U-shaped profile and concave base. The fills comprised naturally accumulated soils, mid grey-brown sandy silts with occasional ironstone and flint. A small group of flint tools and debitage of Early Bronze Age or earlier date was recovered from the fills of the outer ditch. No other dateable material was present in any of the excavated sections. At its easternmost point, this ditch cut the northern part of the sub- circular enclosure.

Boundary ditches and field systems

Linear ditches in Areas A and B, no more than 0.25m deep, were probably parts of field systems of the Middle to Late Bronze Age/Early Iron Age, although they were all undated.

The Iron Age pit alignment

A 193m-length of a pit alignment was examined, with all of the 71 pits investigated (Fig 5, Area E). The pits were generally steep-sided with eroded upper edges, indicating that they had silted slowly. The lower, un-eroded edges and the squared bases show that the original shape and form of the pits was rectangular even though the surface plans were often oval through erosion. In some places the closely-spaced pits became interlinked through erosion. The small pottery assemblage from the secondary fills of the pits is dated to the transition from Early to Middle Iron Age, perhaps the mid-5th to mid-4th centuries BC.

A straight line drawn along the alignment intersects the majority of the pits; there was a slight wavering to the north in the south-eastern part of the alignment that reflects the micro-topography of the ground as it slopes toward the south-east. The average spacing, centre to centre, was 2.80m. In comparison, the average spacing recorded for the pit alignment at Harlestone Quarry was 3.34m (Chapman *et al* 2017) and at Upton 3.00m (Walker and Maull 2010). With occasional exceptions the spacing remained remarkably consistent throughout the pit alignment. The average depth of the pits was 0.94m based on 66 pits where the full depth was observable, and was consistent throughout the alignment.

Fig 6: The Dallington Gateway pit alignment, looking north-west

Finds from Dallington Gateway

Neolithic pottery
by Andy Chapman

The fill of a posthole in Area C, not part of the posthole avenue, produced joining and non-joining sherds, weighing 31g, from a small jar, probably barrel-shaped with an upright or slightly in-turned rim. The fabric contains no obvious mineral inclusions and is dark grey with dark grey surfaces. The rim has an internal chamfer or bevel that is decorated with two rows of twisted cord decoration (Fig 7, left). Immediately below the rim the external surface is decorated with an oblique band, 13mm wide, of four parallel grooves. The individual flat-bottomed grooves are 2mm wide separated by ridges just over 1mm wide. The band of decoration extends to 30mm below the rim, where it gives way to a similar band running vertically (Fig 7, right). The bands were perhaps made with a four-pronged comb. Too little survives to be certain of the full decorative scheme, but potentially it would have comprised repeated oblique and vertical bands set at intervals around the vessel.

The internally bevelled rim with cord decoration, the bands of incised external decoration and the vessel form are all consistent with Grooved ware vessels of the Late Neolithic (Gibson and Woods 1997, 179–181). It could be broadly contemporary with the later use of the nearby causewayed enclosure.

Fig 7: Late Neolithic Grooved ware from posthole 74 showing internally bevelled rim with twisted cord decoration, left, and oblique and vertical bands of combed external decoration, right (Scale 10mm)

The flint assemblage
by Andy Chapman

A total of 87 flints have been studied (Table 1). Some obvious recently shattered flint pebbles were rejected, but it is still likely that the group of shattered pieces contains accidental shattering of both ancient and modern origin. A majority, 57 flints, were residual finds from the pits of the pit alignment. A further 13 flints, largely small flakes, possibly primary debitage, are from the double-ditched enclosure, which might suggest that this was of Bronze Age or earlier date. A further 17 flints came from other features or were unstratified.

Raw material

The raw material is dominated by vitreous translucent flint ether dark grey-black or pale grey-brown to light brown in colour. A proportion of the flints, including many of the larger pieces are in an opaque stony flint, varying from white, through light grey to grey in colour. The cortex is typically light brown. The high proportion of flakes that retain areas of cortex and the small size of the cores indicates that small flint nodules from the local gravels were the major source of raw material.

Cores and core rejuvenation flakes

The cores and core rejuvenation flakes (CRF) all come from small pebble cores, measuring up to 40mm long, some with surviving areas of cortex. There is a small blade core, worked from a single platform and another more irregular core in a stony flint, white to light grey, has been worked from platforms at either end, in succession, with irregular flakes removed. There is also a probable core tablet, struck across a core at right angles to remove a thin plate and establish a new striking platform. This is an early feature, suggesting a possible Late Mesolithic or Early Neolithic date for some of the assemblage.

Table 1: Quantification of all worked flint

Type	No.	%
Core	4	4.60
Core rejuvenation (CRF)	4	4.60
All core related flint	***8***	***9.20***
Flake	14	16.09
Flake (cortical)	25	28.74
All flakes	***39***	***44.83***
Blade	13	14.94
Blade (utilised)	7	8.05
All blades	***20***	***22.99***
Scraper (end)	2	2.30
Scraper (hollow)	1	1.15
Scraper (disc)	2	2.30
Piercer	1	1.15
Leaf arrowhead	2	2.30
Flint axe	1	1.15
Misc. retouch	3	3.45
All retouched	***12***	***13.80***
Shattered piece	8	9.20
Total	**87**	

Flakes and blades

The assemblage is dominated by flakes (39, 44.8%), many of which are irregular, squat and hard-hammer struck, probably dating to the Late Neolithic/Early Bronze Age. A majority of the flakes still retained areas of cortex, showing the small size of the flint nodules utilised as cores.

The 13 flints from the outer ditch of the double-ditched enclosure in Area B includes three small flakes in light brown flint, and four measuring only 11–13m long, the smallest flakes from the site. There is also a larger blade-like flake with edge damage from utilisation, a small blade (broken) and a fragment from a bladelet only 7mm wide, also in brown flint.

This appears to be a small group including some primary debitage possibly all from the same core, which must either have been deposited directly into the open ditch or were eroded in from a surface deposit or an earlier shallow feature disturbed by the ditch. If they had been deposited directly into the ditch, it would indicate a possible Early Neolithic date for the enclosure, because of the presence of three blades. It is suggested, below, that the preferential use of light coloured flint is characteristic of Early Neolithic assemblages. A smaller group from another part of the outer ditch system is very different as it includes a larger cortical flake, 57mm long, probably the first removal from a pebble core, and two cortical flakes, up to 33m long, both with blue-grey surface patination, although all three pieces are again in light brown flint.

The small assemblage of flint from the outer ditch of the double-ditched enclosure are in pale brown flint, as are a number of the blades and one of the two leaf-shaped arrowheads from other contexts, types that are characteristic of the Early Neolithic. It has been suggested previously for assemblages of residual flint at the Daventry International Rail Freight Terminal (Chapman 2015) that the Early Neolithic component showed a preference for using light brown flint. A flint assemblage from Chester Farm, beneath Irchester Roman Town, dominated by Late Mesolithic and Early Neolithic material, also contained a high proportion in pale-coloured flint (Chapman 2012). It is suggested, therefore, that at Dallington Gateway too, the occurrence of light brown flint may be indicative of an Early Neolithic element of the assemblage, although here there are too few demonstrable early tool types to confirm this correlation.

Although flakes dominate the assemblage, blades are quite common (20), at 23.0% of the assemblage. Of these, seven show irregular edge damage through use as cutting blades, but there are no serrated blades. The largest blade in vitreous flint is 37mm long (broken) by 21mm wide, but there is a larger example, 53mm long by 27mm wide in mottled grey-white stony flint, and also an exceptionally long example for Northamptonshire at 69mm long by 18mm wide (Fig 8, a). This piece is in opaque grey flint and has extensive irregular damage along the full length of both edges. The proportion of blades does suggest that there is a strong Early Neolithic component to the assemblage.

Tools

There are 12 recognised tools and pieces with miscellaneous retouch, making up 13.8% of the entire assemblage. This is a high proportion of the assemblage: for comparison, 298 flints associated with a Neolithic mortuary enclosure at Tansor included 34 tools, 11.4% of the assemblage (Chapman 1997, table 1), while at the Briar Hill causewayed enclosure classified tools and miscellaneous retouched pieces made up 16.6% of the assemblage, 567 out of 3367 flints (Bamford 1985, table 4).

There are two end scrapers, both formed on thick, ridged blades and both from pits in the pit alignment. Both

Fig 8: Worked flints: a) longest blade, pit 226 pit alignment; b) end scraper, pit 178 pit alignment; c) Hollow scraper, ditch terminal 196, Area B; d) Irregular flake retouched as piercer, fill of ditch 196 (Scales 10mm)

examples have asymmetrical profiles, with the thinner edge showing some edge damage, perhaps through use as a cutting blade (Fig 8, b). There are also two discoidal scrapers, which are characteristic of the Early Bronze Age. More unusual is a core rejuvenation flake that has been reworked to form a deep notch which is retouched to form a hollow scraper, from the curvilinear ditch in Area B (Fig 8, c). From the same ditch, there is an irregular piece of shattered flint, which has been retouched along two edges to create a point (Fig 8, d).

Leaf-shaped arrowheads

From the pit alignment there are two lead-shaped arrowheads. One (SF1) is in light brown translucent flint, 23mm long (broken) by 18mm wide, with the dorsal surface finely pressure-flaked, while the ventral surface has minimal marginal retouch (Fig 9, a). The other (SF51) is in dark grey-brown translucent flint, 26mm long (broken) by 19mm wide. The shape is more irregular, but perhaps partly as a result of later edge damage, and the pressure flaking on the dorsal side is less well executed. The ventral side again has retouch on the margins only (Fig 9, b). The leaf-shaped arrowhead is particularly iconic of causewayed enclosure sites, with 18 recovered from the causewayed enclosure at Briar Hill, Northampton (Bamford 1985, 76).

Flint axe

The butt end of a polished flint axe, in pale grey-brown opaque flint, also came from the pit alignment. The surviving fragment is up to 40mm long, 56mm wide and 31mm thick with an oval section (Fig 10). Polished flint and stone axes are another characteristic find at causewayed enclosures.

Fig 10: Butt end of polished flint axe (Scale 10mm)

Flint deposition around causewayed enclosures

The Dallington causewayed enclosure

The overall quantity of worked flint, recovered largely from the fills of pits in the pit alignment through secondary deposition from presumed surface scatter, is far more than would normally be expected from the average pit alignment. For instance, excavation of a Late Bronze Age/Early Iron Age ditched enclosure, scattered pits and a pit alignment at nearby Harlestone Quarry produced a total of only 18 residual flints during excavations in 2006, 2007, 2011 and 2014 across a total area of 4.1ha (Chapman *et al* 2015).

The quantity at Dallington Gateway must therefore reflect the presence of nearby activity spanning the Early Neolithic to Late Neolithic/Early Bronze Age. The group of related flints from the outer ditch of the rectangular double-ditched enclosure may be either a primary deposit in a contemporary feature or the result of secondary deposition from an earlier surface deposit or a small cut feature, similar to the small pit or posthole that contained Late Neolithic pottery, disturbed by erosion of the ditch sides. Unfortunately, there is no other dating evidence for this enclosure, but there are no obvious parallels for rectangular double-ditched enclosures of Neolithic or Bronze Age date. It is therefore unlikely that the double-ditched enclosure had provided a focus for localised activity in the Early Neolithic to Late Neolithic/Early Bronze Age.

a b

Fig 9: Leaf-shaped arrowheads, a) SF1 and b) SF51; dorsal sides (left), ventral sides (right) (Scale 10mm)

It is concluded, therefore, that it was the nearby presence to the east of a causewayed enclosure, and perhaps also the later addition of a henge, which provided the focal point for increased activity across the surrounding area from the Early Neolithic through the Late Neolithic/Early Bronze Age. This preferred area around the causewayed enclosure, where people may have been living temporarily during communal gatherings associated with the causewayed enclosure, had generated a significant increase in the deposition of flint across the Dallington Gateway site at a distance of 0.7–1.1km away. However, at Harlestone Quarry, 1.6–1.9km distant from the causewayed enclosure, there was no such effect, suggesting that at least here the increased density of temporary settlement extended outwards no more than *c.*1.5km from the causewayed enclosure itself.

The Briar Hill causewayed enclosure

During recent excavation in the outer bailey of Northampton Castle, examining deposits of late Saxon and medieval date, a total of 46 struck flints were recovered as residual finds in these later deposits (Chapman 2018 and forthcoming). The flints came from a wide range of contexts, often in small numbers. However, the pre-castle buried soil produced 16 flints, with 13 of these, over a quarter of the total (28.3%), from the only extensive area of the buried soil that was taken down by hand, using mattock and spade, while the rest of this deposit was removed by machine excavation. This indicates that if more of the buried soil had been removed by hand the quantity of recovered flint would have increased significantly.

The high percentage of blades within the assemblage, 15 (32.6%), some of which were probably serrated, indicates an early date for a proportion of the assemblage. While many of the blades are small, it is suggested that this derives from the small size of the likely raw material, flint nodules obtained from the local glacial gravels often exposed along the river margins. None of these small blades exhibit fine microlithic-style retouch, so it is suggested that an Early Neolithic date is most appropriate.

The assemblage from Northampton Station may be compared to other assemblages from the town. At Chalk Lane there was clear evidence of occupation during the Late Mesolithic, and other sites in the western part of the town have produced worked flint of the Early Neolithic and also the Late Neolithic/Early Bronze. There is also a large assemblage of flint, including Mesolithic material, from around Duston (RCHME 1985, 28–38). Together, they indicate quite intensive utilisation of this area of higher ground sloping down to the junction of the two branches of the River Nene and along the north of the bank of the western branch of the Nene as far west as Duston.

Part of the attraction to this area immediately north of the river may have been the nearby presence of the Briar Hill causewayed enclosure, lying to the south of the river, the south-western part of the modern extended town, on the slopes below Hunsbury Hill Iron Age hillfort (Bamford 1985). Briar Hill lies some 1.5–1.8km south-west of the site of Northampton Castle, and *c.*1.5km south-east of the quarried area of Roman Duston, the same area that produced quantities of worked flint. These distances correlate closely with what is seen around the Dallington causewayed enclosure, with Northampton Castle and Duston Roman town perhaps at either end of zone extending 2km along the north bank of the River Nene, all with views towards the Briar Hill causewayed enclosure, which may have been the preferred location for temporary settlement in association with seasonal activities focussed on the causewayed enclosure itself. In this case both the enclosure and the adjacent river may have provided joint attractions.

The Cardington causewayed enclosure, Bedford

Excavations at Cambridge Road, on the southern side of Bedford, in 2004–5 uncovered a small group of Bronze Age monuments located on a ridge of river terrace gravels lying between a southerly loop of the River Great Ouse and Elstow Brook, with the brook joining the Great Ouse some 4km to the east (Chapman and Chapman 2018).

The Cardington causewayed enclosure lies 1.5–2.1km to the east of Cambridge Road, on the opposite side of the Elstow Brook, straddling the 25m contour and therefore lying slightly lower than the Bronze Age monuments at Cambridge Road. As with other causewayed enclosures, it is likely to have been constructed in the Early Neolithic, but respect and usage on and around the monument probably continued through the Neolithic and at least into the Early Bronze Age.

A Neolithic presence at the Cambridge Road site was denoted by the recovery of a small Langdale polished stone axe, a flake from a flint axe and also by the high proportion of blades in the flint assemblage, including serrated blades that are particularly characteristic of the Early Neolithic, all of which occurred as residual finds in features of later dates. A total of 391 flints were recovered, with 76 blades forming 19.4% of the assemblage.

It was also notable that few Neolithic flints been deposited in the ditches of the Bronze Age monuments, and there was also little diagnostic Bronze Age flint from the Bronze Age features. The recovered flint largely came from features of Iron Age and later date on the eastern part of the site, away from the Bronze Age monuments to west, suggesting that they were from a surface scatter that was not directly related to the Bronze Age monuments

The conclusion was that the surface deposition of both Neolithic and Bronze Age flint, which apparently decreased towards the west, where the Bronze Age monuments stood, may reflect the presence, 1.5–2.1km to the east, of the Cardington causewayed enclosure. The surface scatter may therefore have defined the western-most extent of the area within which people gathered in unusually large numbers around the causewayed enclosure, perhaps at the seasonal gatherings presumed to have taken place at these enclosures, and while doing so deposited flints across the ground surface.

Conclusion

The deposition of quantities of flint into the pits of the pit alignment at Dallington Gateway, Northampton, presumably as secondary deposition from surface scatters and perhaps occasionally the truncation of small pits, has been contrasted with an absence of comparable deposition at the Harlestone Quarry pit alignment, both of which were extensively excavated. It is suggested that the defining factor was the nearby presence of the Dallington causewayed enclosure to Dallington Gateway, with the flint indicative of a higher density of activity in the environs of the causewayed enclosure, extending for perhaps as much as 1.5km from the enclosure itself, and forming a surrounding zone probably comprising temporary settlement during seasonal gatherings at the causewayed enclosure.

Supporting evidence has been cited for comparable zones of flint deposition along the north bank of the River Nene, at Northampton and Duston, related to use of the Briar Hill causewayed enclosure on the slopes to the south of the river, and also to the west of the Cardington causewayed enclosure, near Bedford. It is these two instances which indicate that increased flint deposition could extend as far as 1.5–2.0km from the focal causewayed enclosure, although the exact distance is likely to be influenced by topography, and would perhaps favour and extend further when there was a combination of causewayed enclosure and nearby river course.

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