Shifting the boundaries: a Bronze Age boundary ditch at the former Royal Sun Alliance Sports Ground, Raynes Park

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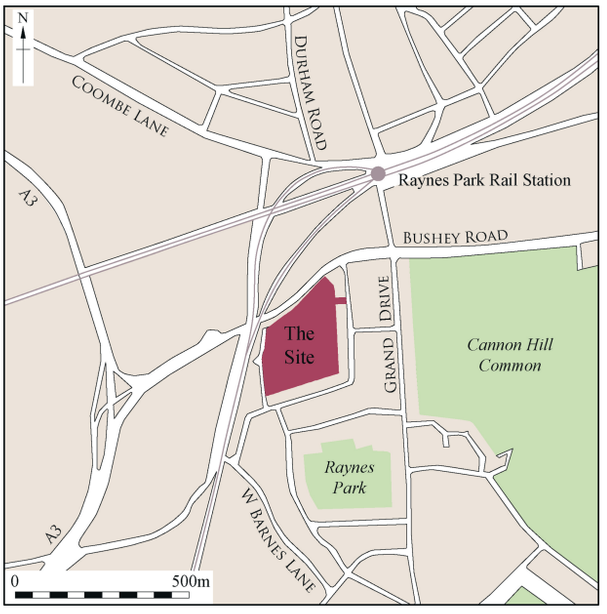

Fig. 1: site location

Raynes Park has, for some considerable time, had 'drainage issues'. It has been documented that in the early 19th century, Edward Rayne himself (the local farmer and landowner after whom Raynes Park and a variety of local landmarks were named) had to employ a considerable labour force to 'throw' water off his heavy clay fields and to dig ditches and land drains.[1] Indeed localised flooding frequently occurred in the 20th century and beyond.

The substantial clay deposits in Raynes Park and the impact their presence has on local drainage during bouts of inclement weather was witnessed first hand during the excavation of a Late Bronze Age site at the former Sun Alliance Sports Ground (Fig. 1) during the miserable winter of 2009. One had to wonder, given the archaeological team's struggle in these conditions even with the 'luxury' of wellington boots, waterproof clothing and a warm site cabin to retreat to, just how people in the Bronze Age managed to do anything on this land, indeed how they possibly could have succeeded in putting it to any agricultural use. Nonetheless, despite all the odds, it would appear that they did just that. It was an encouraging thought, if nothing else, that across the millennia this land was still challenging us today and indeed, as will be demonstrated, the notion of continuity from the Bronze Age to the present does not stop there.

The archaeological investigations were undertaken by Pre-Construct Archaeology in three stages, the first in January 2008, the second between the 14th January and the 3rd April 2009, then finally between the 16th August and the 3rd September 2010 (Fig. 2). During the course of the works a Bronze Age boundary ditch was encountered (Fig. 3) with cultural material suggesting settlement activity in the immediate vicinity, indications of animal husbandry and strong hints that this prehistoric land boundary had continued to function as such right through to the present day.

Geology, topography and history

Despite the British Geological Survey denoting the site to be largely on Kempton Park Gravel, the archaeological investigations revealed it to be mainly underlain by London Clay; Kempton Park Gravel is barely evident. The site itself is situated on a generally flat area of land that slopes gently up from the north to the south-east.

To the south-east, the property forms a low rise known as Cannon Hill, and located some 800m to the west is Beverley Brook, a tributary flowing north into the River Thames. This, in turn, is fed by Pyl Brook that flows in a north-westerly direction, passing the site *c.* 300m to the south-west, to join Beverley Brook at a point to the west.

In an evaluation on Grand Drive, to the south-east, deposits of alluvial clay were found together with fragments of later Neolithic/Bronze Age pottery, burnt flint and flint flakes.[2] No features indicative of occupation were found and it is therefore likely that the artefacts were carried to the location from a nearby habitation site (possibly to the south-west) by water action.

More significantly, there were indications of Middle Bronze Age farming activity at the former Kings College Sports Ground (KCG89), located to the west, with evidence of a field system at nearby Merton and Mitcham apparently associated with contemporary metal artefact deposition.[3] The major Roman Road known commonly as Stane Street and connecting London with Chichester, runs approximately 2.5km to the east.

Early Late Bronze Age: carving up the land

It has been proposed that the creation of linear boundaries and field systems was a revolutionary event during the early to mid-Bronze Age, with such earthworks forming new boundaries to movement and effecting new perceptions of space upon those who inhabited the land.[4] The ditch observed here is likely to represent what can be described as a 'nodal linear'. Such linears are known to continue along the same general alignment for some distance and radiate outwards from a central point defining several blocks of land[5] and are often associated with early hill-top enclosures or settlements.[6]

The northwest-southeast ditch, first spotted during the initial evaluation in

2008, presents us with such a feature. Fifty-five metres of it were exposed during the following year's excavation, with an additional portion picked up in a 2010 evaluation trench 30 meters to the south and continuing on the same alignment (Fig. 3). This gives the ditch a known length of approximately 85m, although it clearly continued in both north-west and south-east directions.

The ditch measured approximately 2.5m in width and between 0.5 and 0.8m in depth (Fig. 4), although its profile changed somewhat throughout its course. For the most part, however, the western edge sloped sharply with a more gradual incline on its eastern side. The changing profile could represent evidence of re-cutting when the ditch was cleaned out, a practice well accepted to have been undertaken by farmers in a working landscape such as this.[7] Given this site's propensity to flooding it is likely that the ditch would have silted up quite frequently during its lifetime.

The primary fill varied subtly in nature along the course of the ditch, most likely a product of the downhill movement of deposits as the feature silted up. This fill was largely devoid of cultural material, aside from some fragments of burnt flint and animal bone of indeterminate cattle type. The upper fills contained more notable finds including numerous fragments of sandy coarse flint-tempered pottery datable to the mid-late Bronze Age and in particular the rim of a post-Deverel-Rimbury shouldered jar and a perforated plate or slab fragment the like of which has not been seen in this area before. In addition to the large amounts of burnt flint and worked flint débitage that was retrieved (predominately from the uppermost fill), a cattle mandible (one which appeared to be from an animal of about 2 years of age), a highly fragmented sheep/goat horncore and the metapodial shaft of a large animal, probably a red deer, were also recovered.

The volume of pottery and flint recovered from the upper fills of the ditch suggests that a settlement was located very close by, most probably to the south/south-east where the land rises away from the lower wetlands to the north. The quantities of burnt flint present within the fills likely result from

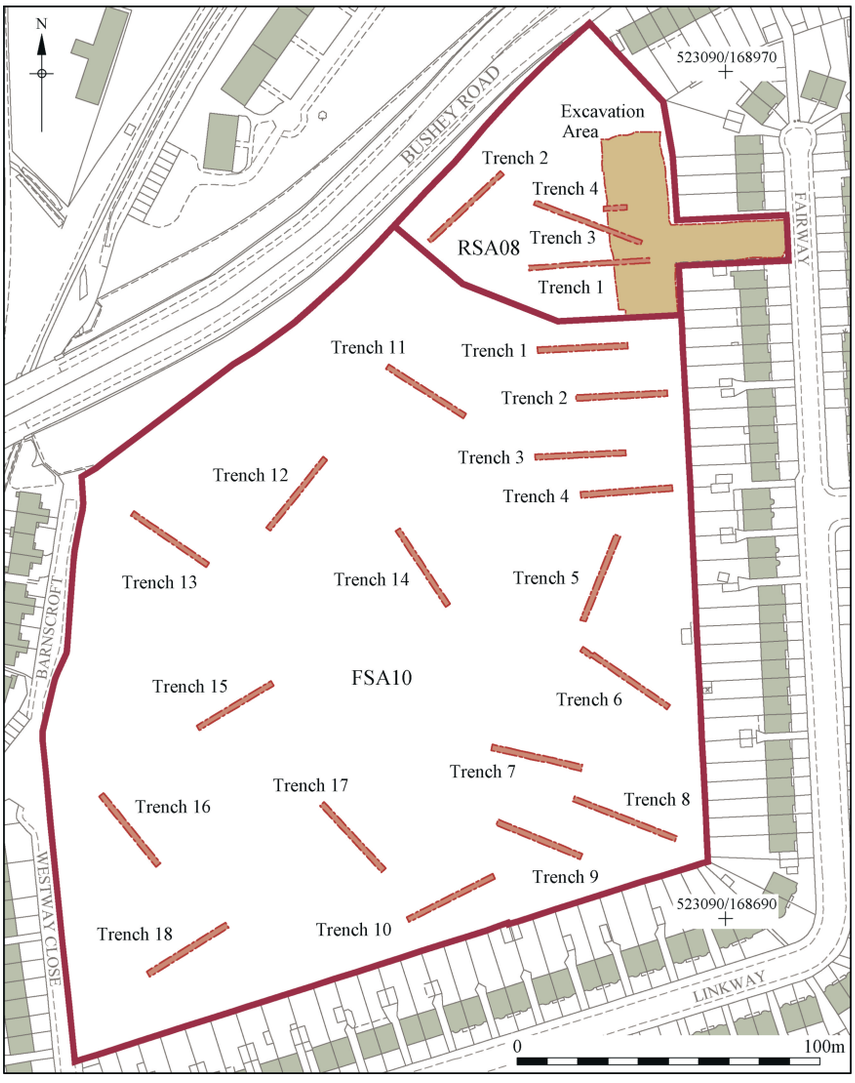

Fig. 2: trench locations

cooking hearths or other such domestic activities.[8] The struck flint assemblage contains pieces in a good condition and the presence of refittable pieces indicates that they were deposited into the ditch shortly after their creation and while it was infilling. This indicates that flint-working and tool use took place close to the open ditch, and that the ditch was later used as a dump for the waste from these activities.[9]

Late Bronze Age: pastoral activity

It is widely accepted that the demarcation of tracts of land such as seen here indicate an increase in the importance of pastoralism[10] and although one may wonder why on earth anyone would want to engage with land as prone to heavy flooding as this clearly is, it is worth remembering that there is likely to have been an element of seasonality to the use of many Late Bronze Age landscapes. So whilst this particular plot may have been waterlogged during the winter months (as it is today) it could have proven desirable for summer grazing.[11] Features characteristic of evidence for the presence of livestock on these lands were observed during the excavation.

Two livestock enclosures, or 'holding pens', were encountered adjacent to the ditch, one to the west and one slightly further north and to the east (Fig. 5). The structure to the west comprised a series of seven large postholes which formed a crescent shape, approximately 4m in diameter, with an opening to the north. A gully-like feature was observed within the shape of the structure cut from the same level and running from the south out of the postulated 'entrance'. The gully was likely formed for drainage purposes and the fill of this and the postholes contained some pieces of struck flint débitage.

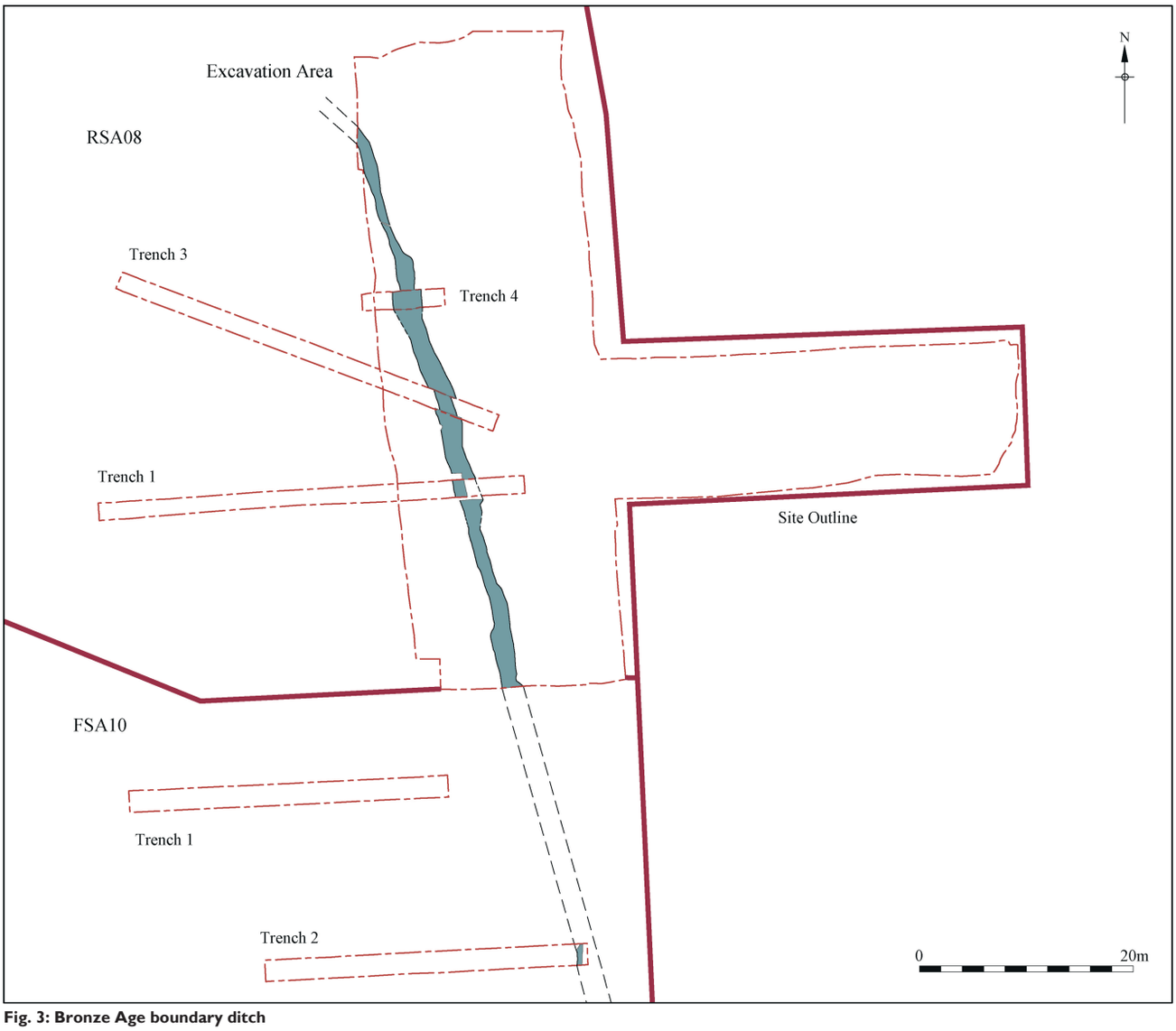

Fig. 3: Bronze Age boundary ditch

The second structure, located approximately 12½m due north-east and on the opposite side of the ditch, is of a similar crescent-like shape, 5m in diameter. It comprises six large postholes, and a large pit-like feature which was enclosed within the line of postholes, with two further small postholes observed immediately west.

The size of the postholes suggests the 'holding pens' were fairly substantial structures, as would indeed be necessary to safely and efficiently hold livestock. Sheep-handling pens for the Bronze Age have been recognised on other sites across Britain, notably in Dartmoor, albeit there of stone construction.

Late Bronze Age to present day: a continuous boundary

It appeared from evidence of tree root activity that after the ditch silted up, its line may have formed an early hedgerow or tree line. Not only were hedgerows accompanying linear boundaries more reliably stock proof than ditches alone,[12] it has also been recognised that it is archaeologically difficult to demonstrate their ancient existence,[13] and as such the evidence detailed here may be the best that can be expected.

Although at least two tree boles were positively identified truncating the upper fill of the ditch, more tantalising is the prospect that this early land boundary shifted gradually over the course of the following four thousand odd years by a mere 15m and with only a minor change in trajectory (Fig. 6). The modern-day hedge/fence line bounding the rear of the properties that face onto Fairway lies directly on top of a tree line shown on the 1867 OS map (Fig. 7), which by that time was already clearly a remnant of an older land boundary. Evidence of this tree line was observed below ground in the form of heavy root disturbance and on some occasions the presence of tree stumps and tree roots. The line of the root disturbance ran the entire length of the area of excavation (Fig. 6).

Linking this later tree line with the Bronze Age ditch is an area of tree-related activity located directly between the two land boundaries (Fig. 6). This series of large irregular/linear features (interpreted as visible remains of a hedgerow) and tree boles contained little datable cultural material, although what was recovered post-dated the Bronze Age period, attesting to later activity in the surrounding area, albeit washed in from afar. Finds recovered from these features included fragments of Romano-British pottery, a small quantity of abraded Roman tile (including an *imbrex* fragment) and

Fig. 4: section through Bronze Age boundary ditch

fragments of coarse unglazed roofing peg-tile of medieval date.

It is conceivable, therefore, that the present-day hedgerow, which formed a boundary between private residences and the former Royal Sun Alliance sports ground, is a natural successor to the boundary originally established by the farmers of the Late Bronze Age. The change of alignment of the field boundaries is likely to have occurred in order to respect the east-west trajectory of the old road linking Merton and Kingston a short distance to the north (that in itself is an offshoot of the Roman Stane Street to the east).

Discussion

The 'nodal linear' encountered at the former Royal Sun Alliance Sports Ground is from a time when practices were changing and when settlement hierarchy was beginning to emerge. The fields created by such land boundaries formed economic barriers also, keeping things in, or keeping things out, but also forming social boundaries relating to notions of land ownership by groups or individuals.[14] However, as much as the construction of linear boundaries could invoke a sense of competition, they could also have been co-operative ventures,[15] particularly if centred around a settlement or community, as seems to be the case here.

Either way, divisions of some sort would have been practical or very much a requirement in helping to prevent conflicts between or within different farming communities.[16] It has been noted that the creation of small territories or farming units such as this divide up lands in the same way that tithings did in the medieval period.[17] Either way, it seems fair to say that the interpretation of this ditch as a land boundary and not, say, a settlement enclosure, seems well supported by the archaeological evidence as much as by topographical considerations. As already suggested, the location of the likely settlement is believed to be some distance to the south and east of the site, ironically in the vicinity of the 20th-century housing development; a further example of continuity of land use from Bronze Age to present day.

Further evidence that the land immediately adjacent to the ditch was being used for pastoral purposes can be seen in the livestock enclosures. Animal husbandry began to become a more specialised practice during the Late Bronze Age, for with increased quantities of grain available it became less vital for farmers at this time to keep animals as insurance for the risk of famine.[18] Also increases in arable cultivation would have required increasingly secure enclosures for the sheep and cattle to prevent them straying and grazing the crops being cultivated.

The construction of permanent field enclosures for livestock is additionally thought to demonstrate a response to pressures of intensification, with the obvious fact that animals only need to be kept in specific fields or enclosed spaces when their population reaches a

Fig. 5: livestock pens along boundary ditch

Fig. 6: Bronze Age boundary ditch and subsequent hedge and tree lines

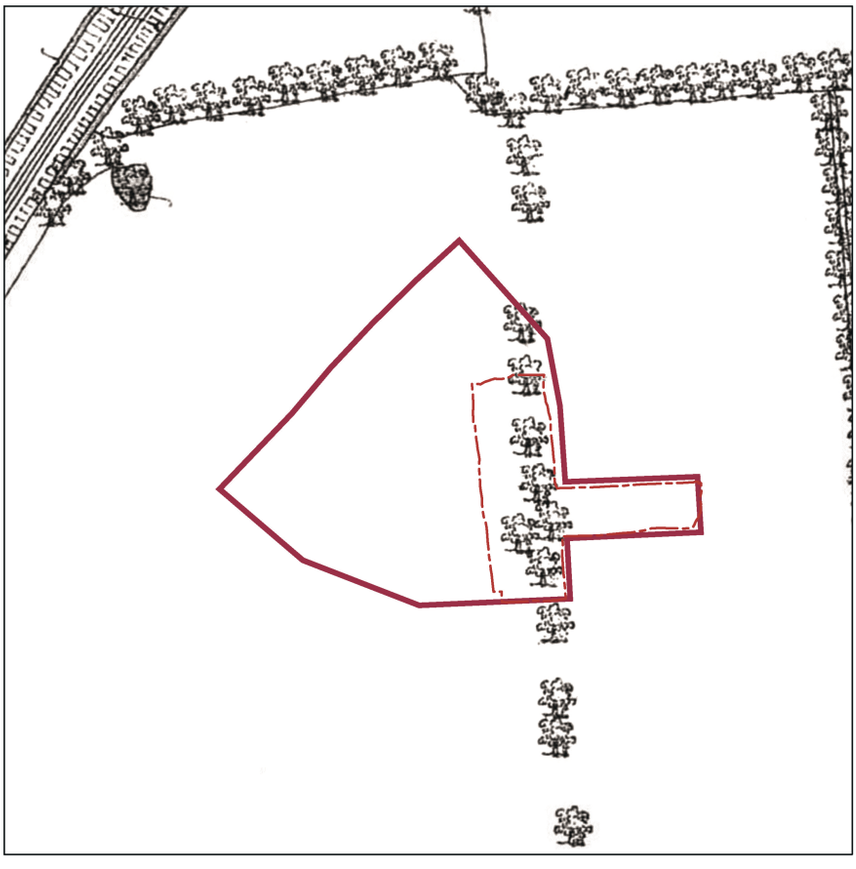

Fig. 7: The 1867 OS map with the then tree line boundary and site outline

point where existing grazing land is under strain.[19] It has been suggested that the type of herding practised in the Late Bronze Age involved herds and flocks being moved around a specific area of land over the course of a year. It is possible that whilst being moved flocks were segregated between age, class and sex. In addition to this, animals being milked would require shelter and provision of fodder in winter.[20] With the above considerations in mind, holding pens or enclosures as encountered on the site detailed here would have been a requirement at the very least.

Over time, however, it appears that the use of this particular area of land for intensive pastoral activity declined after the Bronze Age. Joanna Brück has spoken of the ritual of abandonment evidenced at sites such Broom Quarry, Bedfordshire and others in Kent and Essex, where evidence was seen of the deliberate destruction of the household's inventory of pottery at the end of its life. Such deposits have been said to include a high proportion of fine, decorated jars and bowls, hinting at a final ritual act before abandonment.[21] Considering the type and quantity of pottery recovered from the ditch at Raynes Park, it is possible to draw parallels with this theory and stipulate that it too may have been deposited when the localised settlement was abandoned. Indeed it is well documented that the fields along the Wandle floodplain were abandoned during the Late Bronze Age with the social focus shifting towards Carshalton at the head of the valley.[22] It would appear, however, that the boundary itself (if not the cultivation of the surrounding lands) may have continued in some form, albeit shifting over time, whether organically or by design is open to conjecture. It has been noted that the continued cleaning out of organic/silty build-up within boundary ditches would involve said material being thrown up alongside the feature.[23] The resulting material would be an ideal growing medium, packed full of seeds and pieces of root which would quickly sprout into new plants.[24] It is entirely possible that this formed the basis of the intermediate tree line/hedgerow that appeared before the later, post-medieval period tree line that

Archaeology for everyone at FOBA 2012

Many hundreds of Londoners took part in archaeological activities over the 16-day Festival of British Archaeology (FOBA) held during July in the run up to the Olympics. On offer from Enfield to Bexley, Ealing to Barking were community digs, open excavations, visits to rarely open sites, family fun days, lectures and courses. Reports from museums, local societies and heritage bodies funding the events indicated that although fewer events took place than last year, interest remained high.

London Archaeologist committee members joined others at Museum of London for a weekend of ceramic inspired activities for all ages. Our popular pottery puzzles, pot rubbing and design challenge attracted over 200 visitors, many working their way through everything going.

Feedback was strong, with one family commenting that 'it has made history more "hands on" than just looking at things.' Five year old Robin told us, 'I liked making the pots with tape. And the pot rubbing. The thing that I mostly collect is pots. Thank you for a fun time!'.

For the past five years, LA committee members have enjoyed making archaeology more accessible – so much so that next year we'd like to involve more people, and perhaps go for a second venue. Whether you're an individual or represent an organisation, if you'd be interested in taking part in a weekend event with us in 2013, contact the Secretary via the LA website: www.londonarchaeologist.org.uk.

was present on the 19th-century OS maps was grown.

Continuity within the landscape, as witnessed at Raynes Park, is nothing unusual. It is widely accepted that the linear boundaries established in the Late Bronze Age can be associated with the Iron Age hill forts that are so often established close by.[25] Conversely, it is often noted that said boundaries were established on lands occupied in earlier times, and indeed flint débitage datable to the Mesolithic and Neolithic period were recovered residually from natural features adjacent to the Late Bronze Age ditch. However, whichever way it is considered, with the development of new housing on the former Royal Sun Alliance Sports Ground, one thing is certain; continued occupation of this land is assured. Let's just hope they've done something about the drainage.

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Iain Bright currently works as a supervisor for Pre-Construct Archaeology. He has extensive experience in running projects from all periods across London and has special interests in prehistory and medieval archaeology.

1. E.M. Jowett *Raynes Park with West Barnes and Cannon Hill – A Social History* (1987) Merton Historical Society.
2. C. Maloney 'Fieldwork Round-up 1997' *London Archaeol* **8** supp. 3 (1998) 93.
3. D. Yates 'Bronze Age agricultural intensification in the Thames Valley and Estuary' in J. Brück (ed) *Bronze Age Landscapes: Tradition and Transformation* (2001) 68.
4. D. Field 'Place and memory in Bronze Age Wessex' in J. Brück (ed) *Bronze Age Landscapes: Tradition and Transformation* (2001) 57–8.
5. English Heritage 'Monument Class Description: Linear Boundaries (Prehistoric)' in *Monuments Protection Programme* (1990). EH website: www.eng-h.gov.uk/mpp/mcd/linb.htm.
6. B. Cunliffe *Iron Age Communities in Britain* (2005) 589.
7. F. Pryor *Farmers in Prehistoric Britain* (2006) 70.
8. B. Bishop 'Lithics Assessment' in *Assessment of an Archaeological Investigation at the Former Royal Sun Alliance Sports Ground, Raynes Park, London Borough of Merton* (2009) Unpub Report, Pre-Construct Archaeology 50.
9. *Ibid.*, 47.
10. J. Brück 'Late Bronze Age settlement in southern Britain' in C. Haselgrove & R. Pope (eds) *The Earlier Iron Age in Britain and the near Continent* (2007) 31.
11. *Ibid.*, 32.
12. *Op cit* fn 3, 86.
13. *Ibid.*, 70–1.
14. *Op cit* fn 3, 60.
15. *Ibid.*, 61.
16. *Op cit* fn 7, 69.
17. *Op cit* fn 3, 61.
18. D. Serjeantson 'Intensification of animal husbandry in the Late Bronze Age? The contribution of sheep and pigs' in C. Haselgrove & R. Pope (eds) *The Earlier Iron Age in Britain and the near Continent* (2007) 80.
19. *Op cit* fn 3, 66.
20. *Ibid.*, 89.
21. J. Brück 'Late Bronze Age settlement in southern Britain' in C. Haselgrove & R. Pope (eds) *The Earlier Iron Age in Britain and the near Continent* (2007) 30.
22. *Op cit* fn 3, 68.
23. *Op cit* fn 6, 421.
24. *Op cit* fn 7, 70.
25. *Op cit* fn 3, 24; *op cit* fn 4, 61; *op cit* fn 6, 422.