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AN EXCAVATION ACROSS THE POTLOCK CURSUS, 1994

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(Trent & Peak Archaeological Trust, University Park, Nottingham)

with contributions from R. Gale on the charcoal

(Folly Cottage, Chute Cadley, Andover, Hampshire)

D. Garton on the flintwork

(Trent & Peak Archaeological Trust, University Park, Nottingham)

A. Monckton and L. Moffett on the charred plant-macrofossils

(Department of Archaeology, University of Birmingham)

and D.F. Williams on the petrology of the pottery

(Department of Archaeology, University of Southampton)

TRENT & PEAK

ARCHAEOLOGICAL TRUST

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INTRODUCTION

The cropmark-complex at Potlock, situated to the south-west of Derby on a gravel-terrace in the Trent Valley, was the subject of preliminary fieldwork during 1987-90, including both trial-trenching and a range of survey-procedures, designed primarily to chart the course of the Neolithic cursus beyond the *c.*550m length recognized from cropmarks, but also to characterize its straight and parallel ditches together with those forming various neighbouring features, all of which had been identified first via air-photography. Not the least of the achievements of 1987-90 was to demonstrate that the cursus was all of a mile, probably more, in length (Fig. 2). In 1994, an opportunity arose to renew excavation at this site, focussing attention upon one portion of the cursus and a nearby ditched enclosure. This made it possible, for the first time, to open a swathe across the entire width of the cursus, though resources were insufficient for a similarly-full treatment to be afforded the enclosure, which was sampled on a much smaller scale. These excavations were necessitated by the intention of the Highways Agency to construct an open drain across the gravel-terrace and the adjacent flood-plain, in order to conduct storm-water from the proposed Derby Southern Bypass into the River Trent (the new road itself was to run *c.*800m to the north of this cropmark-complex - Fig. 1), and were entirely funded by the Highways Agency. Following archaeological excavation in the late summer and autumn of 1994, the construction-works were carried out here in 1995, when a further episode of archaeological fieldwork involved salvage-recording of the sides of the

machine-cut storm-water drain. This resulted in the recording of further details, providing a useful supplement to the records made in 1994. All of the archaeological fieldwork at Potlock in 1994-5 was conducted by the writers, working on behalf of the Trent & Peak Archaeological Trust (T&PAT).

This report summarizes the new evidence from the cursus, and it may be stated at the outset that the results achieved in 1994-5 are broadly complementary to those of 1987-90, thereby ensuring that the earlier results are enhanced. This is a monument that will repay further attention, not least in that certain aspects of the results presented here - notably, the evidence for its date of construction, and the partial plan of an entrance through one of its ditches - have shown that it can make a contribution to appreciation of the phenomenon of the cursus at large.

Extent of 1994-5 Threat to Cursus

The swathe of ground required by the Highways Agency for construction of the new drain was 25m wide. Where this cut through the cropmark-complex, it ran roughly north-south, following the gently-sinuous line of Frizams Lane, and using the hedge along the western boundary of that road as its eastern limit - hence, the shaded strip in Fig. 2 represents the area threatened with destruction archaeologically. The drain itself was to occupy only the eastern *c.*10m width of this swathe (broken line in Fig. 2), while the remainder was to be used as a working-easement during the construction-works. It was expected that ploughsoil would be stripped from the full 25m width at the commencement of those works, so that all archaeological excavation had to be completed beforehand; in the event, the dry spring and summer of 1995 made it unnecessary for the contractors to remove any topsoil alongside the new drain, and all construction-traffic travelled over its surface, with the result that those parts of the shaded area in Fig. 2 which were not excavated in advance *may* have suffered no more damage archaeologically than will have been inflicted by some degree of compaction from the weight of the vehicles.

It will be evident from Fig. 2 that the threatened swathe crossed the cursus in a part where the features revealed by cropmarks are less dense than over much of the ground nearby to the west. Indeed, only three archaeological features had been recorded there on air-photographs: the northern and southern ditches forming the primary evidence for the cursus, and a far slighter,

meandering ditch that lies between the cursus-ditches (hereinafter called the 'intermediate ditch'). Fortunately, the swathe crossed each ditch on an alignment that was more-or-less perpendicular to their own. On air-photographs, the southern and intermediate ditches can be seen to cross the full width of the swathe, whereas the northern ditch appears to stop some way short of the western boundary of Frizams Lane, leaving a featureless gap or 8-9m (Figs 2-4). Before excavation, this apparent termination of the northern ditch seemed as likely to be an incidental effect of a change in the direction of modern ploughing against the edge of the field, or merely of the proximity of the hedge and road-metalling, upon the cropmark-capacity of the ground as any prehistoric feature of the cursus, even though the cropmark formed by this ditch evidently reached right up to the hedge in an equivalent position to the east of the road; excavation eventually confirmed that the western cropmark did reflect a genuine ditch-terminal (see p. xx). It is therefore worthy of note that this situation is reversed in the cropmarks of the southern ditch (Figs 2-4), where that to the east of the road appears to end several metres from the roadside hedge, while that to the west extends up to its hedge (as it was proven to do by the 1994 excavation - see p. xx); consequently, it is not impossible that Frizams Lane partially masks a causeway through the southern ditch too, though this would be slightly offset from that in the northern ditch (*i.e.* in terms of the alignment of the cursus). This possible coincidence of the modern road (which probably separated furlongs in the Middle Ages) with a possible routeway through the cursus is itself intriguing, though one would be hard-pressed to suppose any causal connection between them.

The eventual extent of archaeological excavation within this length of the threatened swathe was determined by a combination of factors relating to the archaeological features that could be anticipated from the cropmarks and to certain practicalities of the work to be conducted. Since the adjacent area of the field crossed by the swathe through the cursus was under cultivation and out of bounds under the terms of the project, it was evident that some part of the swathe itself would be needed for the storage of spoil. Given that it seemed advisable to keep open the option to excavate all or any part of the threatened portion of the line of each cursus-ditch (especially as the northern ditch here offered the prospect of a ditch-terminal, suggestive of an entrance, as described above, while the southern ditch here had already been sampled by trench opened in 1988, with interesting results, as explained below), it was reluctantly concluded that part of the area between the ditches would have to

be forfeited. It was considered better to position the spoil-heap along the eastern part of the swathe than in the central or western parts, not only from practical considerations, such as movement around the excavation and a desire to dump spoil down-wind, but also from knowledge of both earlier archaeological activity here and the pattern of medieval cultivation. A narrow trench had been excavated alongside the eastern boundary of this field in 1969 (Wheeler 1970), and it was evident that the full length of that trench lay along the eastern edge of the 1994 swathe. On the other hand, the first medieval furrow to the west of, and parallel with, Frizams Lane was known from the evidence of cropmarks to be centred at 15-17m west of the roadside-hedge, and it seemed preferable that this should run along the centre of the excavation than along the western side of it (as would have been the case had it been chosen to pile spoil along the western part of the swathe). It was also decided that the excavation should extend for some distance outside the cursus-ditches, though the scope for this was less to the south than the north because of the proximity of another modern road (the A5132, which runs roughly west-east, just above the scarp forming the northern edge of the flood-plain); in the event, excavation came to within 1.5m of the southern roadside-hedge. To the north of the northern ditch, the excavation was again of more restricted width, this time in order to exclude the furrow as well as to accommodate spoil. With the additional constraints imposed by the available time and resources, it was thus settled that the outline of the area opened archaeologically should be as outlined in Figs 2 and 5. This, almost consolidated, area totalled *c.*2200m², and measured 133m overall from the northern to the southern end. Where it lay between the cursus-ditches and to south of the southern ditch, it was 17m across; widening to more than 24m over the northern ditch, and 22.5m over the southern ditch; and narrowing to 9m in the northernmost 33m.

1994 EXCAVATION ACROSS CURSUS

1994 EXCAVATION

Progress and Procedure

There were several separate elements to the programme of fieldwork in 1994, each involving excavation of one form or another: test-pitting, sieving of ploughsoil, trial-trenching of ditches, machine-stripping, and selective dissection of archaeological features. The methodology of each of the first four of these procedures is outlined in this section of the report, preparatory to more detailed descriptions of particular pits, ditches and related features.

In devising the strategy for the fieldwork, it was reasoned that a significant proportion of artefacts relating to both the period of the cursus and all other episodes of human activity on this site, would be held in the modern ploughsoil, for it could be anticipated that ploughsoil lay directly upon the truncated surface of the terrace-deposits as well as that of any archaeological features cut into them. This seemed likely to apply particularly to objects manufactured in stone, which are more durable than most other groups of artefact, and many of which could be of direct relevance to the cursus. Accordingly, the 1994 fieldwork began with the excavation of test-pits over the area between the cursus-ditches and extending for some distance beyond them in either direction. This was considered to be the most effective means of studying the superficial distribution of artefacts within the threatened area, having the potential to provide an essential complement to the subsequent search for archaeological features, especially if distinct clusters of artefacts should be uncovered.

The disposition of the sixty-two test-pits, each 1x1m, is shown in Fig. 5. Initially, fifty-one were set out at regular intervals on a grid, forming three lines of seventeen, spaced at 8m centres both west-east and south-north, except that the west-east lines to either side of each cursus-ditch were at 10m centres so as to ensure that no test-pit came down on to the fill of either ditch, or, indeed, in their immediate vicinity, where some vestige of a bank might have survived. Each test-pit was excavated manually down through the ploughsoil to the top of the underlying deposits, from which an arbitrary spit of 0.05m thickness was then removed. Since the anticipated stone artefacts might be expected to include small items, sieving of all spoil from all test-pits was considered a necessity, and a 7mm mesh was used. This procedure will

also have ensured a reasonably reliable and consistent recovery-rate of artefacts. In general, the density of artefacts recovered by this means was not high, though three of the test-pits in the eastern row, each lying between the cursus-ditches, proved more productive of flintwork than the average, yielding six, four and four pieces. Further test-pits were excavated in a similar fashion around these three, but, in each case, the recorded density of artefacts was lower. Consequently, it was resolved to use a machine to strip the remainder of the ploughsoil from most of the area selected for excavation, thus avoiding the time-consuming need to open wider areas by hand, as might well have been deemed appropriate had more of the test-pits been more productive.

Before machine-stripping could begin over the area of the cursus, two further pieces of preliminary work were undertaken, both intended primarily to seek evidence for the positions of any banks built with material upcast during the prehistoric ditch-digging. Since this monument has been ploughed for centuries, there is every possibility that all remains of such banks will have been dispersed into the ploughsoil. One possible means of detecting any residue of bank-material incorporated in the ploughsoil forming the present cover is the 'sieving for soil-marks' technique developed on the gravels elsewhere (Bradley 1984), and this is a kind of work which can be undertaken intermittently, and is therefore easily accommodated in a project of this scale, with a work-force of around ten individuals. Samples, each of approximately 15 litres, were dug from the ploughsoil at 1m intervals along lines of 20m length, each line crossing, and extending to either side of, one or other of the three linear ditches known from the cropmarks to traverse the area under investigation; and, in each case, paired lines of samples, 1m apart, were examined, as a check on the reliability of any patterns that might emerge. Two pairs of lines were centred upon each of the cursus-ditches, one pair to either side of the medieval furrow depicted in Fig. 5; four pairs crossed the more enigmatic intermediate ditch, two beyond the furrow and two overlying it. All 320 samples were passed through a sieve of 7mm mesh, always in suitably-dry conditions, and the quantities of coarser material retained by the sieve were measured (to the nearest 0.5 litre), in the expectation (or, at least, the hope) that variations in the concentration of pebbles might reflect the former position(s) of bank(s) arising from the ditches (which seemed likely to have been cut through beds of gravel for some part of their depth, with the result that their upcast should have been more pebbly than most soil above the

terrace-deposits, the character of which is explained below). No consistent or intelligible patterns of variation were recorded, and hence no interpretable evidence for any banks.

Additionally, a series of trenches was opened manually down to the surface of the terrace-deposits, each crossing, and extending beyond, one or other of the three ditches. Seven such trenches were excavated, one across the southern ditch and three each across the intermediate and northern ditches, all 1m wide and laid out to link already-completed test-pits, with the result that those crossing the cursus-ditches measured 11m in length, and those crossing the intermediate ditch measured 9m, including the test-pits. The positions of these trenches can be discerned from the 'alignment of section' lines in Fig. 5. Part of their purpose was to expose soil-sections which, it was hoped, might betray the positions of any surviving bank-material to either side of each ditch; but, again, no relevant evidence was forthcoming from any trench, for a uniform blanket of modern ploughsoil overlay both the ditch-fill and the adjacent terrace-deposits without intervening deposits, except that the central of the three trenches across the intermediate and northern ditches cut through the medieval ploughsoil in the furrow, itself lying directly beneath the modern ploughsoil. Several of these sections are illustrated in Figs 7, 8 and 10.

A second purpose of these preliminary trenches was to examine sections of the ditches, thus to gain a preview of what lay in store following extensive stripping of the topsoil. This revealed that the southern ditch of the cursus, averaging 2.5-3.0m in width at the top and penetrating 0.8-1.0m deep from the base of the modern ploughsoil into the terrace-deposits, was rather larger than the northern one, which averaged about 2.0m wide at the top, and was only 0.60-0.65m deep below the ploughsoil. Both were of blunt-V profile, with steeply-sloping sides and a flat bottom, which was 1.2-1.4m wide in the southern ditch, little more than 0.5-0.6m in the northern one. These trenches also went some way to resolve the question posed by the cropmarks in respect of the northern cursus-ditch (see p. xx), for it was found to exist only in the western and central trenches, implying the reality of the break seen in the air-photographs. Consequently, it was determined to excavate as much as possible of the available length of this ditch and to explore fully the area where it was broken, as described on pp. xx-xx.

The two preliminary trenches cut through the northern ditch of the cursus typically showed it to contain a leached, grey silt towards the bottom, becoming browner and less dense towards the top (Fig. 10; and see p. xx). To some extent, this was true also of the southern ditch, which, crucially, had been shown in 1988 to contain a blackened layer not far above the ditch-bottom, and that cutting was located near the east side of the threatened swathe (see above). The layer in question was apparently rich in charred organic material, and appeared to have suffered little disturbance, making it potentially suitable as a source of both information relating to economy and environment at the time of the cursus and material for radiocarbon-dating. In contrast, the 1m-wide trench through the same ditch where it lay against the western limit of the 1994 swathe revealed no trace of any charred deposit, but it did show that the fill of the ditch there, though not its profile, had been disturbed to some depth, apparently by burrowing animals (Fig. 7; and see p. xx). Superficial signs of similar disturbances within the fill of the furrow where it overlay this ditch discouraged the opening of a central trench across it (*i.e.* like those across the other ditches); while rapid re-emptying of the 1988 ditch-cutting, also 1m wide, made it unnecessary to excavate a fresh trench thereabouts at this stage of the project. Given the need to prioritize among the various options for excavation that might be pursued within the available time and money, it was clear that the preliminary indications favoured the eastern part of the swathe as the focus of the 1994 excavation in respect of the southern cursus-ditch, and this was be put into effect by extending the 1988 cutting eastwards, as described on pp. xx-xx. No further work was conducted on the southern ditch in the western part of the swathe.

The three preliminary trenches crossing the intermediate ditch showed it to be far smaller than the other two ditches, at less than 0.5m wide and barely 0.4m deep (Fig. 8), and therefore perhaps better termed a 'gully'. Indeed, it seems amazing that this should have been capable of producing a cropmark on such a gravel-terrace. Little further excavation was undertaken on this feature, as described on p. xx.

With the preliminary investigations completed, machine-stripping could begin. This was undertaken with a JCB armed with a toothless, 4'-wide bucket on the back-actor, which, in the hands of a capable operator, produced an even surface. Since time was of the essence, and given that the test-pits and preliminary trenches had demonstrated the necessity to remove a small thickness

from the surface of the terrace-deposits before archaeological features cut into it could be identified with confidence, it was reluctantly concluded that a thin skim of the terrace-deposits, and inevitably therefore of any features, would have to be machined away with the modern ploughsoil. The skim was kept to the minimum commensurate with exposing a reasonably fresh and undisturbed surface, which was generally no more than 0.05m deep into the terrace-deposits, often less. This arbitrary surface was progressively and meticulously scraped clean by trowel as the machine-stripping advanced northwards; it was found that six-eight people could keep pace with the machine without deterioration in the quality of the trowelling, provided that the machine moved all spoil to the heap and that no dumper was employed to speed the process of machining. Variations in the make-up of the deposits were recorded simultaneously, because it soon became evident that the boundaries between deposits could be dulled by even the slightest shower of rain. All artefacts recovered during trowelling were recorded two-dimensionally to an accuracy of a centimetre (except where an object came from ploughsoil, when an accuracy of a metre was considered adequate), it being reasoned that little benefit would accrue from recording the level at which individual items were found within this upper zone of the deposits on this site, because it is more or less flat and because it is clear from excavations on similar sites that artefacts can migrate down through this part of the soil-profile (*e.g.* Guilbert forthcoming).

Besides the three ditches, the extensive stripping and intensive cleaning revealed few archaeological features. A broad band of earlier ploughsoil filled the medieval furrow to which reference has already been made. This ran most of the length of the excavation (Fig. 5), obscuring a portion of each ditch (including the terminal of the northern one), and having removed the upper fill and profile of each to a variable extent. A 1m-wide cutting was made across it against the southern limit of excavation, and a 19m length of it was emptied where it crossed the line of the northern cursus-ditch. The principal purpose of the latter was to ensure that the full 13.7m stretch of the prehistoric ditch was uncovered, together with the surviving portions of any adjacent features; the recording of the form and fill of the furrow was therefore an incidental by-product, which is not of direct relevance to this report, and it will therefore suffice to remark that both portions of the furrow excavated in 1994 were consistently of broadly-flaring profile with narrow rounded base, penetrating to a maximum of *c.*0.40m below the bottom of modern ploughsoil and widening to as much as 7-8m at the surviving surface of

the terrace-deposits, for these details are pertinent to the excavation, and the illustration here, of the northern ditch (see p. xx).

Despite the care taken over cleaning of the machine-stripped surface, no convincing archaeological features were recorded in the blocks of ground separating the cursus-ditches and the intermediate ditch where these lay beyond the range of the furrow. This gave little incentive to empty more of the furrow, even though it was recognized that isolated prehistoric features may have lain in its path, partly preserved. At any rate, it was felt that this should be considered a low priority in comparison with the positive results arising from excavation of the cursus-ditches themselves. Disregarding a series of six gullies or slots and a possible posthole treated in conjunction with the northern ditch on pp. xx-xx, just two pits came to light, both outside the area defined by the cursus-ditches: one lay close to the south of the southern ditch, the other *c.*17m north of the northern one, and they are described on pp. xx and xx respectively.

The composition of the terrace-deposits at Potlock is variable, and, in the area of the 1994 excavation, a general cover of interbedded silty sands and gravels was pock-marked sporadically with amorphous patches of fine and soft silt and clay. These patches appeared so clean and homogeneous as to be probably of natural origin, and were readily distinguishable from all the archaeological features mentioned above. They occurred most commonly in the part of the 1994 excavation that lay to the north of the northern cursus-ditch, where examples were tested by excavation. This confirmed that some contrasted starkly with the coarser terrace-deposits, which they appeared to undercut in places, while others appeared to be interleaved with the coarser deposits, leaving little room for doubt that they were natural phenomena, effectively part of the make-up of the terrace. Consequently, they are excluded from the illustrations published here, and are given no further consideration in this report.

Southern Cursus-Ditch

Southern Cursus-Ditch

As explained on p. xx, the 1988 investigation of the southern cursus-ditch in a 1m-wide cutting lay towards the eastern side of the swathe of the site that came under threat in 1994, and this was re-opened early in the 1994 fieldwork, at which point it was supplemented with an additional 1m-wide cutting against the western edge of the swathe. Except where interrupted by the medieval furrow, the uppermost fill of this ditch could subsequently be seen, if only imprecisely and best viewed from a distance, to traverse the intervening 16m of the swathe, once this had been stripped by machine; and there is no reason to doubt that the two preliminary cuttings crossed the same ditch (Figs 5-7). The chief difference between the sections revealed by them lay in a deposit of blackened, or charred, materials low in the ditch in the eastern cutting, and absent from the western one. It was this difference more than anything else, and particularly the expectation of dating and environmental/economic data which seemed certain to be offered by the well-stratified and undisturbed blackened deposit (the only deposit of this nature so far encountered in excavations at Potlock), that fixed the subsequent strategy for the excavation of the southern cursus-ditch in 1994. Given that the 'blackened deposit' was more strongly represented in the eastern than in the western side of the 1988 cutting, it was decided to extend it eastwards, but in stages, in order that the programme of fieldwork might be modified, and the resources put to better use, should the blackened deposit peter out in that direction. In the event, that deposit was found to continue eastwards as far as it was possible to excavate within the confines of the threatened swathe (Figs 5 and 6), being seen at its strongest in the easternmost section, under the hedge forming the eastern boundary of the field or, as it can alternatively be put, the western side of Frizams Lane (meaning that some portion of this blackened deposit lies intact under the Lane, passing farther east for an unknown distance, and possibly reaching up to an entrance-causeway, as mooted on p. xx).
Accordingly, an unbroken 4.5m length of the ditch was eventually excavated here in 1994, but as four separate blocks transverse to the line of the ditch, starting by excavating the second (C) and fourth (E) blocks eastwards from the contiguous 1.0m-cutting of 1988 (A - all letters of blocks as encircled in Fig. 6, plan). Thus, a series of six vertical cross-sections could all be viewed at one time, lying at 1.0m intervals, except that the block second from the east (D) was 1.5m wide (Fig. 6, where sections a-a' and b-b' are those of 1988, c-c' to f-f' are of 1994). For convenience here, some sections are shown in Fig. 6

as a mirror-image of those recorded on site, in order that all may be orientated with the northern side of the ditch (*i.e.* the interior of the cursus) to the left. One of the four 1994 sections (*i.e.* that situated farthest east) is reproduced at a larger scale, and therefore in greater detail, in Fig. 7, together with the section of this ditch at the westernmost limit of the threatened swathe.

One more point to be explained by way of introduction concerns the nature of the terrace-deposits in this part of the site and the impact which this had upon the manner of excavation of this ditch (therefore necessitating some measure of anticipation of the description of the ditch-fill). The terrace-deposits were here topped by a particularly sandy form of the silt/clay overburden, in the upper *c.*0.40m of which there was very little gravel, with the result that the closely comparable fill of the upper part of the ditch could be distinguished only vaguely from the undisturbed ground on either side (hence the indefinite outline of the upper parts of its scarps in all the section-drawings in Figs 6 and 7). This made it necessary to excavate the upper portion of the ditch in arbitrary, horizontal spits of *c.*0.10m thickness, each spit extending some distance beyond the edges of the ditch, thus box-sectioning the terrace-deposits until such depth as they took on a firmer, more gravelly, character, making them more readily distinguishable from the ditch-fill. Thereafter, it was possible to excavate stratigraphically, eventually uncovering the blackened deposit and, after a three-dimensional record of its surface had been produced, collecting that deposit more or less in its entirety for subsequent wet-sieving (p. xx), in search of charred organic remains that might be not only be identified (pp. xx and xx) but also subjected to radiocarbon-dating (see p. xx). With the blackened deposit removed, the silt separating it from the basal profile of the ditch could in turn be excavated.

The overall shape and dimensions of the southern cursus-ditch did not vary greatly throughout the composite 5.5m length excavated in 1988 and 1994, needing little further description beyond that already given and that embodied in Fig. 6. A suggestion of a recut might be inferred on the basis of a gentle ridge in the centre of the ditch-bottom in the western part of this length, where crossed by the 1988 cutting, but this found no support in the stratification of the ditch-fill. It can only be supposed that this slight eminence was merely a localized aberration which, together with other variations in the ditch-bottom, exemplifies the potential danger of placing too

great an emphasis upon points of detail recorded in any such restricted cutting across any part of an earthwork.

The stratification revealed by the closely-spaced set of six sections was also consistent in general. The initial deposit was a sandy silt containing very few pebbles. This had attained no great thickness before the blackened deposit was introduced, reaching 0.20-0.28m over some parts of the ditch-bottom, particularly in the basal angles, along much of the 5.5m length; but this was by no means uniform, with little more than 0.10m below the blackened deposit in section c-c' and an average of only 0.05-0.10m in f-f', in both of which it thickened to 0.20-0.25m in the southern angle. This primary silt was generally grey, varying sporadically from silver-grey to yellowy/orangey-grey, its colorations apparently dependent upon the fickleness of the leaching which it had evidently undergone since deposition. Otherwise, there was little apparent variation within it, and any slight distinctions in texture, as in colour, may have betrayed the post-depositional processes as much as any original stratification. This is the kind of deposit that accumulates rapidly in a freshly-cut ditch penetrating such sands and gravels, especially where beds of gravel are relatively sparse, as in this particular patch of the terrace at Potlock. A large proportion of this material can be presumed to have washed out of the upper parts of the ditch-scarps, thereby smothering their lower parts, along with the ditch-bottom, before they could become degraded by erosion. Hence, the profile sealed beneath this initial silt should provide a fair representation of the form of the ditch as cut in prehistory, with scarps that sloped more or less evenly for the most part, rounded basal angles, and a flattish bottom with localized undulations (as noted above). It is unfortunate that the difficulty of defining the upper parts of the scarps, to which attention has already been drawn, has made it difficult to determine the height to which the original profile was preserved here. Equally, it is impossible to know the exact extent to which the lips of this stretch of this ditch had eroded back in the form of a weathering-cone.

The distinctive blackened deposit, consisting of a silty sand that had become heavily stained by charring, formed a remarkably discrete and continuous layer of uniform appearance throughout the 5.5m excavated in 1988 and 1994, each recorded section including a sharplyly-defined patch of blackness (hatched in Fig. 6). Over much of its recorded area, the blackened layer varied up to 0.12m in thickness, being rarely less than 0.05m except where tapering towards

the edges. It sat upon the initial silt, in places covering a large proportion of its surface, and presenting a stark contrast with it. The general lack of disturbance to the blackened deposit was manifest, as there was no evident admixture of other materials and, equally important, no trace of its blackness in the deposits above or below, or in any others round about, though some well-defined animal-burrows were cut through it in the western part of this length (labelled * in Fig. 6, a-a', b-b' and c-c'). It appeared in the ground to contain plentiful fragments of charcoal and other, more minute, charred plant-macrofossils, but the experience of 1988 had suggested that this appearance was somewhat deceptive, for flotation had been surprisingly unproductive, albeit with results of considerable interest (p. xx). It is for this combination of reasons - *i.e.* actual scarcity of identifiable plant-remains and their potential value - that it was decided in 1994 to retain as much as possible of the blackened material for subsequent processing and analysis; this resulted in the bagging of 240 litres of the deposit, after the upper surface had been pared away to ward against any possibility of contamination from the immediately adjacent deposits, as well as discarding the lowermost few millimetres for the same reason. As the ditch was excavated, so the blackened layer was sampled, in contiguous, transverse blocks, or units; and it was recognized that one potential repercussion of this strategy might be the detection of variations in the constitution of the deposit along the length of the ditch, though perhaps only crudely. As it turned out, some variation of this sort did become apparent from study of the various charred materials recovered by flotation, though it is not easy to deduce any particular significance from it. Thus, Rowena Gale has shown that the charcoal includes a mixture of species of varying maturity, with the largest number of fragments (56-75%) attributable to alder in three sampling-units, two of which (B and D) also have a substantial proportion (19-36%) of oak, which predominates (81%) in the fourth unit (E), while a sprinkling of blackthorn and hawthorn-type occurs in each (p. xx, Table 1). Angela Monckton and Lisa Moffett have identified a range of seeds among the other plant-remains, indicative of a variety of habitats in the vicinity of the site, including, *inter alia*, wild fruits from scrubby land, grasses of more open land, cereals of cultivation, and weeds of disturbed ground (pp. xx and xx, Table 2). Given that none of the sampling-units proved to be monoxylous, it is perhaps regrettable in retrospect that each transverse block of the blackened layer was not subdivided for sampling along the mid-line of the ditch, thus to allow for the possibility of recognizing variations in its make-up across the width of the ditch, because

such lateral differences, had they emerged, might have helped to clarify whence this deposit entered the ditch (see below).

Two possible explanations of the blackened deposit come to mind: that it represented burning *in situ* or that it comprised a collection of already-burnt materials deposited in the ditch, and deposited there shortly after being burnt if its apparently unadulterated condition is any guide. The latter seems the more likely from the appearance of the deposits, for there was no obvious sign of scorching on the underlying surface. However, there has been considerable post-depositional alteration of the silts in the cursus-ditches at Potlock (p.xx), and the overall greyness of the basal silt in this stretch of the southern ditch shows that it had clearly been affected by this, as described above. Whether the leaching and iron-panning represented by the colorations in the ditch-fill and in the adjacent terrace-deposits could have masked the effects of scorching upon this silt is unclear (and, in consultation on site, Matthew Canti, of the Ancient Monuments Laboratory, English Heritage, could suggest no simple means of resolving this issue). On balance, it seems preferable to conclude that the blackened material was deposited after the burning, for this at least demands no special pleading. Its disposition over the surface of the earlier silt (which is to say, the contemporary floor of the ditch), as illustrated by the plan and close-set sections in Fig. 6, is rather confusing: in some parts it lay largely at its centre (espcially at the west end, as in section a-a', but also at c-c' and f-f'), in some it spread some way up the northern slope in such a fashion as possibly to suggest that it entered the ditch from that side (especially at b-b' and f-f'), while in others there was a clear bias to the southern slope, implying that it was introduced from that direction (especially at d-d' and e-e', where it was somewhat diminished relative to areas to west and east). At no point was it clearly piled up against either side of the ditch; rather, it tended to be spread at a fairly regular thickness, perhaps suggesting that it was levelled off after being deposited there, which would, of course, distort the evidence of its disposition in terms of any deductions regarding the direction of its entry.

The significance of this blackened deposit for understanding of the character of the cursus remains obscure, and contrasting interpretations seem equally feasible. At the one extreme, whether burnt where it lay or elsewhere, it might be viewed as a careful collection of materials that had come to be regarded as 'special' in some sense, perhaps representing some ceremony vital

to the functioning of the cursus, and thus in keeping with the general perception of these monuments in some kind of ethereal light (in which case, the plant-remains identified within the blackened deposit cannot necessarily be considered typical of the contemporary scene). At the other extreme, it might be seen as a dump of burnt refuse, dispatched quite casually into the convenient hollow of the ditch, perhaps merely the dregs of a nearby bonfire, which might itself represent nothing more profound than some localized clearance of vegetation. In the latter case, it might be deliberated whether this simply signifies the lack of respect in which the monument was perhaps held by some section of the contemporary population, or whether it expresses the reduced circumstances of the monument in the eyes of all elements of society after what would arguably have been a suprisingly short life (*i.e.* considering the small quantity of silt that had gathered in the ditch by this stage). These are issues which may be pondered but which there really seems little hope of resolving (*cf.* p. xx).

A further fact merits a mention at this point, since it introduces another possibility for consideration. In addition to the charred remains of plants, wet-sieving of the blackened deposit produced four small fragments of calcined bone, all from block D (Fig. 6, plan). None is larger than 11mm, and detailed deductions are therefore problematic, but Susan Ensor has suggested that the two largest are 'possibly human', while the others are 'too small for any form of identification to be made'. Given that almost all of the excavated portion of the blackened deposit has been sieved and that more bone should therefore have been recovered if it were there (while sub-sampling of the residues also yielded no more - see p. xx), it may seem improbable that such small amounts of bone would have been anything more than an accidental inclusion; but the possibility that this deposit emanated from a funeral pyre, from which the cremation had been very largely removed before the remnants were put into the ditch, cannot be entirely ruled out, and might be compatible with either of the general options outlined above, *i.e.* ceremonial placement or casual disposal.

Whatever the source of the blackened deposit, an explanation of the next deposit to enter the ditch seems reasonably easy to reach, at least to a certain level of understanding. It comprised a layer of gravelly material (*i.e.* a silty sand with plentiful pebbles mixed throughout), and directly overlay the blackened layer, but itself lacked any sign of charred organic materials or scorching. Its uniformly coarse composition, and to some extent

its disposition, suggest that this body of material did not accumulate gradually, but rather that it had been dumped, presumably in order to cover the blackened deposit, and this it achieved over all bar the southernmost part in the eastern half of the excavated stretch (stippled in Fig. 6 sections). Again, it appeared to have been spread out after deposited, though more so in some sections (especially a-a', where it might alternatively be argued that it came from two direction) than in others (especially f-f'). If the blackened layer did result from burning *in situ*, then the material heaped upon it may have been intended to smother the fire. On the other hand, if the blackened layer comprised material burnt elsewhere, be it a 'placed deposit' or a 'dump' spread over the contemporary ditch-floor, then the gravelly dump perhaps served merely to prevent the ashes from blowing about. In the ceremonial scenario considered above, this burying of the fire, or even of its cold residue, might have been seen as a deeply-symbolic act, perhaps designed to preserve the end-product of some momentous event, possibly a funeral. In contrast, the more prosaic possibility presented by a simple bonfire could conjure up a scene of the hurried concealment of tell-tale evidence, especially if the firing or dumping of rubbish here really did smack of disrespect. Sadly, again, the available evidence provides no way to distinguish archaeologically between such contrary images.

One further possible implication of the gravelly dump overlying the blackened deposit deserves an airing. Its composition was just what might be expected of material dug out of the sand-and-gravel terrace and subsequently dirtied by mixing with a certain amount of topsoil. On the face of it, this could have come from digging a hole either into the side of the ditch (though, if so, no evidence was found of it) or into the ground nearby (assuming that such a hole would have yielded relatively little in the way of humic topsoil as compared with sand and gravel, and that it lay beyond the limits of the excavation). However, it could equally well have come secondarily from a heap of such spoil; in which case, the most obvious source would surely have been a bank relating to the cursus, recently thrown up from digging the ditch, and into which it was now thrown down. If so, the fact that any lateral bias in the recorded disposition of this material tends to show that much of it was shot into the ditch from the north side might be taken to suggest that this cursus had an internal bank, at least at this point along its southern flank. It is freely admitted that such tenuous evidence is quite capable of misinterpretation, but in the context of this monument, where reliable evidence

for the positions of any banks in the arrangement of the earthworks is wanting, presumed ploughed out, and where our efforts to recover relevant data have met with no success (see p. xx), this is perhaps the kind of meagre and circumstantial clue that must be entertained.

Following the arrival of the gravelly dump, this part of the southern cursus-ditch appears to have had a relatively uneventful history, represented by an undistinguished mass of relatively soft, sandy silt with few and scattered pebbles. Reddish-brown towards the base and grading imperceptibly upwards to become yellowish-brown towards the top (where it was not easy to differentiate from the terrace-deposits to either side, as explained above), it showed little other variation through its thickness of up to 0.85m, until the abrupt change marking the base of the modern dark-brown, loamy ploughsoil (here sloping gently down from the east, from *c.*41.57m to *c.*41.50m above Ordnance Datum over the 5.5m excavated length of ditch, and thence scarcely at all, to lie between 41.45-41.50m against the western limit of the threatened swathe). This seems to amount to a slow accumulation, in effect a resumption of the silting-process that had been interrupted by the introduction of the blackened deposit and the gravelly dump, and which now apparently continued uninterrupted until the ditch had become entirely filled, doubtless after a considerable period had elapsed. However, it is difficult here, as elsewhere, to comprehend quite how this could happen, since it is assumed that most earthworks would stabilize and develop a cover of vegetation before becoming entirely flattened by the normal processes of erosion. Complete infilling would seem to require the hand of man in some guise, commonly through cultivation of the land; but it might be expected that such a sudden change in the treatment of an earthwork would be represented by some recognizable change in the nature of the ditch-fill. It can but be presumed here that subsequent mixing, perhaps by roots and faunal activity (as seen more dramatically in the narrower cutting at the western edge of the 1994 swathe - see below) of broadly-comparable deposits has disguised any such stratification, while some depth of truncation of the ditch by modern ploughing may have removed some of the evidence. It could be that post-depositional alteration of the soils by leaching of iron has also contributed to the blandness of these middle and upper deposits, probably causing the red tinge of the material in the midst of the ditch-fill; but it is of interest to note that there was relatively restricted evidence for such alteration to this part of the southern cursus-ditch, where the distinctive greyness, seen in the other cutting of the southern ditch and throughout the

excavated length of the northern ditch (see below and p. xx), was absent from every deposit but the thin basal silt. Maybe the unusual character of the blackened layer and gravelly dump overlapping it (unique in the context of all cuttings yet made across the ditches of this cursus) had somehow influenced the normal processes of leaching.

Finally, a localized feature of two of the ditch-sections in this eastern part of the threatened swathe should be mentioned (Fig. 6, d-d' and f-f'). In both cases, the gravelly dump is seen to have ended steeply at the northern side; and, in one (d-d'), there was a tenuous change in the overlying fill on an upward projection of this line, with the soil above and to the north appearing subtly greyer. It seems possible that an intrusion of some form, perhaps 0.45-0.50m in depth below the base of modern ploughsoil and with northern limit roughly coinciding with the northern side of the ditch, had broken through the edge of the gravelly dump here. If single and linear, it could not be traced in the intervening ditch-section (e-e'), though, anyway, the dump appears to have extended less far to the north at that point. Neither could its line be detected in the trowelled surface of the ditch-fill between d-d' and e-e', or indeed farther west (though it must be wondered whether the 'animal-disturbances' to the northern part of the gravelly dump in section c-c' could have disguised a similar phenomenon there). The extent and significance of this apparent intrusion are therefore hard to assess, and it can only be observed that it was probably cut when the cursus-ditch was either totally full or had come close to that state. If this really was a linear gully of some form, then it should not go unremarked that just such a feature, but rather better defined, was similarly related spatially to the northern ditch of the cursus (see p. xx), in that each coincided with the inner edge of the respective cursus-ditch. Although the character and date of that gully or slot is also far from certain, the analogue, if valid, would add some weight to the proposition that the cursus was still evident as an earthwork at the time when these features were created, for whatever purpose, on its alignment.

In addition to the sampling for charred plant-remains noted above, it was determined that an attempt should be made to retrieve pollen from deposits low in the southern cursus-ditch, straddling and including the blackened layer, which could be especially valuable in view of the radiocarbon-dates that it was intended to measure from the charred materials. Accordingly, a column of soil

measuring 0.50m in height was cut from the easternmost section (Fig. 6, f-f'), but this proved to be virtually barren of pollen (see p. xx).

The cutting through the southern ditch against the western side of the threatened swathe (Figs 5 and 7, g-g'), never extended beyond its initial 1m width (p. xx, where some details of its shape and fill have already been given), demands less detailed consideration. In profile, it was rather asymmetrical, with the junction of the southern scarp and the floor being more sharply defined than that at the foot of the northern scarp. In this respect, both faces of the cutting were consistent, but there seems no reason to suppose that this was anything more than a localized peculiarity, much like the ridging of the ditch-bottom and other inconsistencies of profile recorded farther east (see above). Similarly, the bottom in this western cutting also undulated gently, so that its profile in the eastern face (illustrated only in archive) was less flat than that just 1.0m distant, as seen in Fig. 7. The stratification, or at least the coloration, revealed by this cutting was dominated by the leached greyness of the soils in the lower 0.30-0.34m of the fill, which lacked the important blackened deposit of the length excavated at 16.0-21.5m to the east. Details of the disposition of materials within this lower fill matter little in this instance, and it can suffice to state that occasional thin spills of coarser sand were identifiable among the mass of dense, fine silts and sandy silts, all hardened sporadically by panning; it seems reasonable to conclude that this material had accumulated progressively and had gained most of its character, as seen, from post-depositional weathering. The upper fill, a 0.40-0.50m thickness separating the top of the grey silts from the base of the modern ploughsoil, was essentially a softer and browner, in places orangish-brown, sandy silt, but this was disfigured by numerous loamy patches, each of them looser and darker than the surrounding material, and some containing coarser sand and gravel. This blotchy appearance was also surely caused post-depositionally, but more recently than the discolorations affecting the lower fill, and it must be suspected that it resulted from the burrowing-activities of animals, which had not penetrated the firmer, lower fill to any great extent, but had disrupted the interface of grey and brown fills sufficiently to induce some doubt over the degree of its original flatness or otherwise (*cf.* p. xx). Since the sole artefact from this western cutting is an indeterminate and abraded scrap of pottery, found within a few centimetres of the base of ploughsoil, these disturbances appear not to have corrupted anything vital in the recorded information.

Other artefacts recovered in 1994 from the southern cursus-ditch were too few, too undiagnostic, and/or too liable to be either residual or introduced secondarily for any great value to be attached to them in terms of dating for this ditch specifically. They include just two more small potsherds, found *c*.0.6m apart in block D (Fig. 6, plan), low in the sandy silt overlying the gravelly dump, and which could easily be parts of the same pot (p. xx). The five items of flintwork include a spall and a blade-like flake found among the residues from wet-sieving of the blackened deposit, a flake from below the blackened deposit, and another flake from close to the northern side of the ditch, where it may have lain within the relatively late 'intrusion' described above.

On the other hand, a radiocarbon-date obtained from a sample of juvenile oak charcoal contained within the blackened layer is obviously of considerable importance not only for dating this ditch but also for appreciation of the Potlock cursus and its place in prehistory. Consequently, the archaeological context of the dated material merits a further comment at this stage, lest too simplistic an interpretation be glibly imposed upon it. Given the character of the sample dated, comprising young wood securely stratified not far above the bottom of the ditch and separated from it by a meagre thickness of silt that can have taken little time to accumulate, it may seem fair to declare that it should provide a date close to that of the digging of the ditch and, hence, perhaps also to that of the foundation of the monument in general. Yet there is a need for caution even in such apparently clear-cut circumstances, for, leaving aside the apparently-localized ridge in the floor of the ditch at the western end of this excavated length, previously perceived as a hint of a recut (see above), it must be acknowledged that any ditch *could* have been recut, or cleaned out, repeatedly without leaving any archaeological evidence, provided each fresh episode of work resulted in an enlargement, no matter how slight, all around the ditch-profile - indeed, it need only be the final cutting of the ditch which achieved such an enlargement for evidence of *all* previous cuts to be eradicated. It could even be argued that such a circumstance seems peculiarly possible in the case of a ditch dug into such a terrace of sands and gravels as that at Potlock, for the effort of cutting away undisturbed terrace-deposits surrounding a pre existing ditch will generally be significantly less than in one penetrating some solid geological stratum. This imponderable apart, the radiocarbon-date from the southern ditch, centring at *c*.2900 BC (p. xx), should give a reasonable estimate of the date of the cursus, meaning that,

in the present state of knowledge, Potlock was among the latest of the British cursuses to be built (p. xx).

Intermediate Ditch

Intermediate Ditch

Understanding of the slight ditch, or gully (p. xx), known to meander along the 550m stretch of the cursus where the full width of the monument is recorded on the air-photographs (p. xx), was not significantly improved by the 1994 excavation, with the result that its nature and date remain uncertain. This feature was not easy to detect at the surface of the terrace-deposits across the 1994 excavation, with the result that its exact outline between the three 1m-wide cuttings made across it in the preliminary trenches (p. xx) cannot be shown in Fig. 5 (where it is dotted), even beyond the medieval furrow (p. xx). Similarly, in the sections along the sides of those trenches, there was considerable difficulty in defining the profile of the gully other than where it penetrated a bed of coarser sand and/or gravel underthe upper silty-sand zone of the terrace-deposits, and the level at which the coarser material was reached varied greatly here, as in other parts of the site (p. xx). Hence, the section-drawing selected to illustrate this report (Fig. 8) shows a southern side that appears to peter out at about half the height of the feature, though the northern side is clearer because it happens to have been marked by a line of pebbles, evidently lying upon the slope of the gully, which was not otherwise distinguishable even when box-sectioned together with the adjacent terrace-deposits.

The illustrated section of this gully was the best defined of all the six recorded in 1994. Lying at 1.0m east from the western limit of excavation, it showed the feature to be of V-profile with widely-splayed sides above a sharply-pointed base at only *c*.0.40m below the base of modern ploughsoil. Even allowing for a little loss to the plough, this gully surely cannot have stood open for long before becoming filled through erosion. In combination with its apparently-uniform fill of silty sand containing few and scattered pebbles, suggestive of a progressively-accumulated fill, its profile surely demonstrates that this was an open gully rather than any kind of foundation-trench (*cf.* p. xx). The fill was orangish-brown towards the top, becoming greyish-brown with depth; such colorations seem likely to result from post-depositional weathering (*cf.* p. xx). In section at the opposite side of this, the western, of the preliminary trenches, it was rather blunter in profile, and its southern side became hopelessly confused with an ill-defined, silt-filled, pit-like feature that extended only partway across the intervening 1m and was probably of natural origin (*cf.* p.xx).

Other recorded sections of this gully are not reproduced here because each was rendered incomplete or unsatisfactory by some other feature of the site (a drawing of each is in the archive - p. xx). In short, those in the central preliminary trench had been truncated by the medieval furrow, itself 0.17-0.22m deep below modern ploughsoil at this point; since the gully was shallower here than to the west (perhaps also the east), only 0.08-0.10m at its base had survived, showing it to have a similar silty fill to that described above, but a rather asymmetrical basal profile, steeper towards the south. Those in the trench against the eastern limit of excavation were again problematic because the gully encountered a complex of natural features filled with fine silts and clays that could not be distinguished from the fill of the gully with any measure of certainty (probably because post-depositional discoloration had made its silty fill merge with theirs); such signs of its profile as could be deciphered appeared to show that it attained a depth of c.0.70m here, again probably with steeper southern than northern side.

None of these cuttings through the intermediate ditch produced any artefacts, nor any material that might be suitable for radiocarbon-dating.

Northern Cursus-Ditch and Related Features

Northern Cursus-Ditch and Related Features

As explained on p. xx, excavation of the northern cursus-ditch in 1994 was more extensive than that of the southern, taking in all bar a 1.0m-wide baulk of the 13.7m length (CHECK) that lay within the threatened swathe of the site, and thereby including a terminal of the ditch (Fig. 5). Excavation here also included that expanse of the causeway of uncut terrace-deposits which fell between the ditch-terminal and the eastern limit of the swathe, extending right up to the hedge along the western side of Frizams Lane, and thereby demonstrating the causeway to be at least 10.8m in length (Figs 5 and 9, the former showing that the causeway may total anything up to *c.*19m, for the ditch resumes as a cropmark beyond the hedge on the far side of Frizams Lane, beneath which the matching ditch-terminal must lie). A series of archaeological features - four gullies, a slot and a possible posthole - were recorded in, or close by, the area of the causeway, and another linear feature was cut into the southern lip of the cursus-ditch; descriptions of all these appear in this section of the report, following that of the northern ditch and some details of objects found in it.

The northern ditch was excavated initially in two cuttings, each 1.0m in width (p. xx). Once the ploughsoils, modern and medieval, had been stripped from the intervening areas, excavation of the ditch was resumed as a series of contiguous 1m-wide, transverse blocks. The recorded form of, and stratification within, the excavated stretch of this ditch is illustrated in Fig. 10 by a series of nine cross sections (i-i' to r-r') and a longitudinal section (s-s') of the *c.*2.5m stretch leading up to the terminal. It is convenient here to depict some sections as a mirror-image of that recorded on site, in order that all cross sections may be viewed with the southern side of the ditch (*i.e.* the interior of the cursus) to the right, matching the orientation of the section-drawings of the southern ditch (p. xx; Figs 6 and 7).

In the western part of the excavated area, the upper fill of this ditch, like the adjacent terrace-deposits, was directly overlain by modern ploughsoil, probably having been truncated by it to some extent that is not easy to calculate precisely (but see below). However, a medieval furrow intervened between them over the *c.*7m stretch of the ditch leading up to, and including, the terminal (sections p-p' to s-s'). A 19m length of the furrow was emptied

in order to reveal those portions of the ditch and some of the other features which it concealed (p. xx). Being broad and open in cross profile, the furrow had arbitrarily removed *c.*0.40m from both terrace-deposits and archaeological features along its central north-south axis, but a diminishing amount progressively west and east from that line. Hence, only a few centimetres more than the 'normal' reduction by modern ploughing had been sliced away from the top of the cursus-ditch at the point where it terminated, and the furrow shallowed eastwards to peter out at little more than 1m beyond the terminal, at least at the surviving level of the surface of the terrace-deposits (here around 41.25-41.30m above Ordnance Datum). The furrow had therefore made no significant impact upon the causeway or any of the features cut into it.

Throughout the recorded *c.*12.75m length of the base of this ditch, it maintained a reasonable level, between 40.60m OD at the western end and 40.77m at *c.*12.0m farther east, where it reached a gentle peak, before deepening slightly to *c.*41.70m at the foot of the terminal-slope (see below). This gave it a depth-range of *c.*0.58-0.68m below the base of modern ploughsoil, with the marginally-deepest part lying immediately alongside the western limit of excavation (Fig. 10, i-i'). Typically, its scarps are shown by the well-preserved and well-defined lower parts to have sloped steeply and fairly evenly down to rounded angles on either side a flattish base, *c.*0.6-0.8m across. Seen in the ground, the overall impression was of a ditch cut to a reasonably-consistent cross profile, but the angle of the lower scarps actually varied considerably, with a range of *c.*27-53° from the horizontal for the southern, and 25-53° for the northern, as witnessed by the section-drawings. On account of the furrow, the shape of the upper part of the profile, and hence the full width of the ditch, could be judged only over the western 7m or so; and, even beyond the furrow, an extra difficulty came in the shape of a gully that coincided with the southern edge of the ditch for some distance (see below). In places, this ditch exceeded 2m wide at the surviving top. There was little scope for the survival of any flaring cone, caused by weathering back at the lips, because it will be clear from what has been said above that evidence for this must have been largely restricted to the northern side over the western 7m length, and even there it was not consistent. In fact, a weathering-cone was obvious to the north only in the section at the western limit and those at 1m, 2m and 7m east from it (*i.e.* i-i', j-j', k-k' and n-n'); though some possible evidence for a cone did survive below the furrow on the northern side, but not the southern, at 8m east (p-p'). It might have been expected that one would

show also at the southern lip in the westernmost portion, for the later gully appears to have barely intruded upon the ditch-scarp there (section i-i').

In the stretch at c.3-6m from the western limit of excavation, the cross profile of the ditch was somewhat different from the 'standard' described above, as shown especially by the section at 4m east (l-l'); for it was there that the ditch ran into a band of coarse sand and gravel that had become hardened throughout by iron-pan (quite natural to the make-up of the terrace). This must have made it tougher to dig out that the surrounding material, though it is difficult to imagine that it was impossibly so, especially when compared with the digging of ditches into some solid geology, as was often required of monument-builders elsewhere in that age. Anyhow, the Potlock ditch-diggers evidently did not care to remove more of this hard band than was strictly necessary, with the result that a bulge was left in the northern side of the ditch, while the southern side, where the more tenacious deposits were not confronted, was cut through without deflection. Hence, the ditch acquired a more V-shaped profile in this part, with the base narrowing to no more than 0.2m at the most extreme point, but with no shallowing of the bottom. The distinct break in the northern slope of the ditch at 5m east (section m-m'), coinciding with this change in the terrace-deposits, with less-solidified sand/gravel overlying the hardened band, may have been caused as much by the comparative ease with which the upper part yielded to the ditch-diggers as to subsequent erosion. Several implications may be read into this localized variation in the form of the ditch: firstly, it would seem that the panning which created the problem must already have been well developed by the Neolithic; secondly, it may be that the monument-builders tended to regard the ditch as little more than a conveniently-sited quarry, whose profile could be varied as appropriate, and which ran alongside the site of their real goal, *viz.* the construction of some particular form of bank, all evidence for which has since been razed; and, thirdly, it appears that the digging of a ditch with tolerably-consistent base-level was more important to the monument-builders than a fully-consistent profile. This was the only such patch of relatively cohesive deposits encountered by the excavated length of the northern ditch, or any other part of either cursus-ditch excavated so far, and its form was otherwise unaffected by any slighter variations in the nature of the terrace-deposits. This short, atypical stretch also explains one of two curiosities in the outline of this length of ditch, because it made an indentation in the northern side, part of which coincided with the unexcavated baulk lying between

4m and 5m from the western limit (Fig. 9). The other curiosity was an effect of the encroachment of the furrow (explained above), for, although the longitudinal axis of the northern ditch was generally straight here, like the cursus overall, the excavation-plan (Fig. 9) gives an impression of a general narrowing of the ditch over the eastern *c.*5m leading up to the terminal, coupled with a constriction centred at a little under 3m from its eastern extremity; in reality, this was caused by the variable medieval truncation of the ditch (as explained above and further noted below).

The terminal at the eastern end of this excavated length was a simple, rounded butt. It sloped up steadily at *c.*36°, until the angle shallowed markedly towards the top in a rather irregular cone, where its intersection with the 'sinuous slot' was undefinable (see below, and note that the sizable pebble lying more or less at the point of intersection in Fig. 10, **s-s'** was firmly embedded in the undisturbed terrace-deposits, and was itself undisturbed since deposited there fluvio-glacially. The slight deepening of the ditch-bottom as the terminal was approached from the west coincided with a slight expansion of the bottom, though not in the sense that it actually became wider than it was over much of the excavated stretch; rather, the expansion in the base near the terminal merely reinstated its 'normal' width, for the bottom had narrowed to *c.*0.4m, just as it had shallowed slightly (see above), over a 1.0-1.5m length, centred at *c.*1.6m from the foot of the terminal (*i.e.* *c.*2.4m from the top of the terminal). It is not known whether the top of the ditch also narrowed before expanding in a similar fashion, because, as already described, the medieval furrow had stripped away that information; and it is most unfortunate that the recorded constriction in the top of the ditch, marking the deepest portion of the furrow, virtually coincided with the prehistoric constriction in the bottom, for this can make the excavation-plan (Fig. 9) appear somewhat misleading to the unaware.

There was no evidence of recutting in either the peripheral profile or the fill of this stretch of the northern ditch (though, for reasons discussed on p. xx in respect of the southern ditch, this does not necessarily mean that recutting can be discounted unequivocally). The layering of its fill was apparently simple and consistent, with three distinct deposits identifiable throughout the excavated length. The lowest was a thin layer of comparatively dense, yellowish-grey, clayey silt, containing a relatively high number of pebbles in places; this was intermittent, spreading across the ditch-bottom in

some parts (*e.g.* sections p-p' and q-q') and extending over the lower part of the southern scarp in others (*e.g.* i-i', j-j', k-k' and m-m'), but was nowhere confined to the northern scarp. The middle deposit was generally the thickest, comprising firm, grey, sandy silt, with few and scattered pebbles; there was sign of any lines of sedimentation within it, but this is no great surprise as it is assumed that the colouring of this zone of the ditch-fill arises out of leaching after deposition, which will doubtless have masked any such detail as well as changing the colour (p. xx). The interface of the lower and middle deposits was not always easy to define, and this blurring may also have been due largely to post-depositional weathering. The upper deposit was the least dense, comprising a browner and sandier silt, rather coarser than the distinctly grey silt below it, and with rather more pebbles scattered throughout; it included occasional, small, discrete mottles of grey silt, evidently brought up from below by localized animal-disturbance, which was otherwise undetectable except as infrequent depressions in the top of the grey layer, notably in sections i-i', j-j', p-p' and q-q' (Fig. 10) and where a very few individual burrows could be seen to have penetrated into the grey silt (*e.g.* in section n-n'). Fragments of charcoal and other flecks of charred plant-remains were bespattered unevenly through the upper, brown silt, in some parts detectable only upon close inspection, in others quite obvious (see below), but none were noticed in the greyer, lower deposits. Despite the localized evidence for disturbance noted above, the interface of the grey and brown deposits was generally well defined, and was marked in places by a slight concentration of pebbles (*e.g.* Fig. 10, j-j', n-n' and p-p'). Two possible interpretations of the latter detail deserve consideration: perhaps these pebbles represented a 'stand-still horizon' in the accumulation of the fill, during which the ditch lay open at this level for sufficiently long that such a number of pebbles could congregate, though, if so, this horizon was not further indicated by any distinguishable characteristics of the soil-matrix, leaving it quite unclear how long such a hiatus might have lasted; or perhaps they gathered there through the activity of worms (scarce as these are at Potlock nowadays) in sorting the overlying brown layer at some stage after its deposition (*e.g.* Atkinson 1957, 221-4; Limbrey 1975, 30), though, if so, it might be expected both that fewer pebbles would have remained in the overlying brown silt and that the potsherds (see below) and larger fragments of charcoal therein would also have migrated downwards to the same horizon, which they had not done.

If the interpretation of the greyness of the lower c.0.30-0.50m of this ditch-fill as evidence of leaching holds good, then there are reasons to suppose that this post-depositional alteration has given emphasis to a stratification that already existed (much as in the southern ditch in the 1994 excavation - p. xx), rather than disguising it, as has been inferred in some other instances (Guilbert 1999, ..). Although such weathering could perhaps have been responsible for some minor changes in the density and texture, as well as the coloration, of the soils, it can hardly have caused the accumulation of pebbles at the base of the brown silt, and it would seem odd for such alteration of the soil to coincide with a pebble-horizon that resulted from either stand-still or worm-sorting. Moreover, the top of the greyness did not conform to a horizontal in several of the 1994 sections, coming closest to doing so in i-i', k-k', q-q' and r-r', but was often seen to be dished (especially in sections l-l', n-n' and p-p'), much as might be expected of the cross profile of a ditch-fill at such a stage in the gradual infilling which is presumed to have produced the whole of the recorded fill of the northern ditch.

Sampling of the fill of the northern ditch, just as in the southern, took two forms in 1994, one intended to lead to the retrieval of charred plant-remains via flotation, the other with the object of recovering pollen, even though previous attempts at the latter had met with little success at Potlock (*ibid.*, ..). For palynology, a column of soil, 0.28m in height, was cut from the grey silt in the section located 1.0m east from the western limit of excavation (Fig. 10, j-j'); it was subsequently learnt that no pollen was present in this deposit (see p. xx). Sampling for flotation involved the bagging of 22 litres of the most charcoal-laden part of the upper, brown silt, this being located in the two contiguous transverse blocks of the ditch-fill between 7m and 9m east from the western limit of excavation (for the purposes of this sampling, the western and eastern of these blocks are termed 'F' and 'G' respectively - see Tables 1 and 2), where the content of charred fragments appeared more obvious and dense in the ground than it did in the remaining 10.7m of the excavated length of this deposit; though this is not to imply that there was none in the remainder of the layer, which extended through the entire excavated length of the ditch, consistently stratified at a relatively-high level (in retrospect [*cf.* p. xx], it may have been advisable to have sampled the brown silt more extensively, not least because this is the deposit that yielded sherds of Beaker, more than half of them from the same 2m stretch as the samples that were collected, while others occurred at around 5.5m from the

western limit [*i.e.* 2-3m west from the sampled blocks] - see below). Angela Monckton has identified odd cereal grains and nutshells together with the seeds of various weeds characteristic of disturbed ground, possibly also some of open grassland, among the charred plant-macrofossils recovered from this deposit (p. xx, Table 2); while Rowena Gale's examination of the charcoal has shown that oak predominates, with some alder, and single fragments of blackthorn and hawthorn-type, possibly also one of willow or poplar (p. xx, Table 1).

Artefacts recovered from the 1994 excavation of the northern ditch include both flintwork and pottery, but nothing else (unless thirteen fire-cracked pebbles are considered to be artefacts - one found within the grey silt at 0.08m above the ditch-bottom and the others within the brown silt). The ten items of flintwork include five tools, all found towards the top of the upper, brown silt, and each regarded by Daryl Garton as a possible Late-Neolithic piece (p. xx; Fig. 15.DPR,DPP,DPM,DPQ,DLG). Nevertheless, finds of Mesolithic material from earlier excavations across the same ditch stand as a firm reminder that it can contain residual items (*ibid.*, ..); and it must be reckoned that flintwork, being mostly small and durable, is particularly prone to re-deposition without obvious alteration. Yet the fact that three of these tools (two edge-retouched flake-knives and an end-and-side scraper) lay within a short length of the ditch (DPR, DPP and DPM, respectively at 6.63m, 6.69m and 6.76m from the western limit of excavation), and none farther than 1.77m apart across the ditch, must at least give pause to consider whether these lay where first deposited (the other two tools were at 5.93m and 0.20m from the western limit). The thirty potsherds include a variety, most of which are separable into groups typologically, just as they are stratigraphically. The earlier group, from the grey silt, is exclusively Peterborough Ware; the later, from the brown silt, is a mixture of forms of Beaker plus a few indeterminate scraps. Since it is appreciated that the stratified contexts of these groups of pottery, and especially the earlier one, are of considerable significance to the Potlock cursus and its relations with the Neolithic world of its creation, and are therefore vital to the value of the 1994 excavation, the distribution of each deserves detailed explanation.

The six sherds of Peterborough Ware, probably all from a single pot (p. xx), were each recorded precisely *in situ*, being observed as they were uncovered, so that their find-spots could be measured three-dimensionally before they were lifted (*i.e.* not dislodged during digging, as is often the case in excavating a

ditch, with the inevitable result that the recorded find-spot may be accurate only to a few centimetres), and it can therefore be declared unequivocally that they were all securely enveloped in the grey silt. They lay within a small area, centrally within the ditch, close to 10m east from the western limit of excavation. Five are rim-sherds, and the farthest apart of these were 0.28m distant, while the three that can be joined (Fig. 14.DQJ,DQI,DQK) fell within a space of 0.16m; and all five were within a 0.06m range in terms of absolute level (40.84-40.90m OD), placing them within 0.09-0.15m of the ditch-bottom, as that was recorded directly beneath their respective find-spots. However, their spread across the ditch conformed to a gentle slope, which could well have been the surface of the ditch-fill at the time these sherds entered the ditch, implying that they may all have done so at much the same moment, itself otherwise unmarked in an apparently uninterrupted period of silt-accumulation (though the post-depositional alteration of the fill, as discussed above, *could* have concealed other slight changes at this horizon). The sixth sherd, identifiable with the others solely by its matching fabric (p. xx), lay 0.32m from the nearest of the rim-sherds, 0.51m from the furthest, and was embedded 0.07m deeper within the grey silt than the deepest of those others, with the result that it was only 0.04m above the ditch-bottom, and probably entered the ditch at a rather earlier stage than them. Given that the depth of silt separating each of the Peterborough sherds from the floor of the ditch is likely to have accumulated in a matter of a few years on such a site, where ditch-scarps cut through terrace-deposits are liable to have weathered rapidly, the stratified context of these sherds can be regarded as tantamount to indicating that they reached their final resting-places not long after the digging (or, at least, the final digging - p. xx) of this ditch. This conclusion must be tempered by recalling (p. xx) that the ditch was marginally shallower here than to west or east, so that the silt *may* have begun to accumulate just a little later at this spot than at most; though, in the general context of prehistoric archaeology, any such delay can be considered negligible).

In view of the small number and size of these Peterborough sherds, and given the importance that might be attached to them (p. xx), it is necessary also to explain something of their condition, for the potential peril of residuality must be confronted in such circumstances. Of the available sherds, the three conjoining pieces clearly hold the key to this issue, and, where intact and unimpeded by iron-pan (p. xx), each appears largely unweathered and unabraded,

with breaks sharp enough to allow reassembly, surfaces firm, and the finely-incised decoration pristine, suggesting that they had not long been broken before finding their way into the ditch, for such sherds would surely have eroded easily had they been either subjected to subsequent mistreatment or exposed at the surface for any length of time (a single frost would seem enough effectively to destroy them, showing that the silting of the ditch must have covered them rapidly). It should be evident from their illustration that a large part of the outer face of one (shown to the left in Fig. 14) has broken off (along a lamination in the fabric), whereas the equivalent portion of the face of the abutting sherd is preserved; and it can be asserted that this loss occurred before the sherd in question was deposited where found, for its damaged face was lowermost, and it was lifted carefully, revealing no trace of the missing face, while small patches of iron-pan have formed on the break. Since there are no grounds for suggesting that the deposition of these sherds here was anything but a case of casual disposal, it remains equally possible that they derive from either a recently_smashed pot or a single, larger, residual sherd that was freshly broken into pieces shortly before reaching the ditch. It might even be argued that the provenance of the solitary non-rim sherd, deeper in the ditch fill, attests the probability that fragments of this vessel reached the ditch on more than one occasion, thereby perhaps heightening the possibility that they were already of some age by that time. Consequently, it is necessary to maintain an open mind regarding the relative ages of these sherds of Peterborough Ware and the northern cursus-ditch.

The nineteen sherds believed to be Beaker (p. xx) were also stratified unambiguously, each in the upper brown silt. Again, they lay within a restricted area of the ditch-fill, or rather two restricted areas, both of which were separate from that occupied by the sherds of Peterborough Ware (the nearest of the latter was 1.21m east from the most easterly fragment of Beaker), which it should be recalled also lay lower stratigraphically. A western group was situated between 5m and 6m east from the western limit of excavation, and an eastern group between 7m and 9m east. Two basic varieties of Beaker are recognizable, principally by their surface treatment, in one case corrugated and in the other decorated with incised and impressed lines and hatching; and each group within the ditch included fragments of each variety. In the western group, scattered across 0.77m of the central part of the ditch-fill but only 0.11m along its length, three pieces of corrugated Beaker (including a fragment of base - Fig. 14.DQC) lay at 41.09-41.13m OD, while that

with incised decoration (Fig. 14.DQE) was at 41.08m; placing them all within 0.03-0.07m above the base of the brown silt. In the eastern group, also scattered across the ditch (1.20m) and more scattered along it (1.25m), six pieces of the corrugated type (including a rim-sherd - Fig. 14.DLU) lay at 41.13-41.17m OD, while the eight with incised/impressed decoration whose locations were recorded (Fig. 14.DLS,DLX,DPU,DPV; plus another [EDW] retrieved from the residue of wet-sieving, so not as precisely located) were at 41.05-41.15m; placing them all within 0.04-0.16m above the base of the brown silt. Two sherds of corrugated Beaker found 0.32m apart, and at the same level, in the eastern group can be joined, and are shown thus in Fig. 14 (DLT and DLV). All bar one of the sherds of decorated Beaker from the eastern group are sufficiently alike in their vesicular fabric as to seem possibly to derive from a single vessel, despite the diversity in their decoration (p. xx), while the ninth of these is in a more easily weathered fabric and may not belong; but, in any case, their mingling there with pieces from at least one corrugated pot would make it no surprise for there to be more than one of the incised/impressed kind in this deposit.

It is not easy to imagine how long it might have taken for the overall depth of silt separating these sherds of Beaker from the ditch-floor (minimum of 0.38m) to have accumulated, and the possibility that the brown silt represents a renewed period of silting, following a spell of stability and consequent upon fresh erosion round about, has already been considered. If there was a hiatus of unknown duration in the processes of infilling, the change in the pottery, from Peterborough to Beaker, may be significant, but there are too few sherds for this change to be considered as adequately documented anyway. It can only be observed further that the largely unweathered and unabraded condition of most of the Beaker sherds, combined with the fact they are more numerous and more scattered than those of Peterborough Ware in the excavated length of the ditch, does tend to suggest that they may be broadly contemporary with the development of the brown silt, rather than being all residual (*cf.* p. xx).

The area of the causeway bounded at the west by the ditch-terminal and passing under the eastern limit of excavation for an unknown distance (see above) accommodated several features, each shallower than the cursus ditch and each perhaps forming some element of an entrance into, or exit from, the cursus (Fig. 9). These include three short lengths of broad and shallow gully, one so short in relation to its width as probably to have earned the epithet 'pit',

end of the adjacent trio of gullies). The sinuous slot would thus belong with a relatively late stage of the entrance, after at least the northern of the group of three gullies had fully silted (which may not have required many years), and perhaps when the weathering-back of the ditch-terminal was well advanced, with the result that the close proximity of their ends would be all the more striking (otherwise it must be assumed that their disposition was in some measure coincidental). If the concept of a passage-way in the earlier stage is valid, then it is evident that this was blocked by the later arrangement, which may therefore have involved a considerable revision in the organization of the entrance, with the slanting line of the conjectured fence bedded in the sinuous slot perhaps intended to tighten control over access and/or egress to and from the confines of the cursus, especially if it operated in tandem with the northernmost gully, for these two were separated by only 1.7m. Inevitably, a good deal of uncertainty has already entered into these suggestions, and alternatives are not hard to find. Thus, for example, the northernmost gully could have functioned in relation to the set of three, maybe after (or, rather, before!) the fashion of a Roman *tutulus*; or the portion of it that fell within this excavation could be but a fraction of a far more extensive linear feature which, on such a gravel-terrace, known to house a palimpsest of archaeological features, may bear no relation to the cursus. Similarly, no matter how suggestive a position it may occupy, the attribution of a single posthole to a particular phase of activity can rarely be convincing, especially when truncated, regardless of whether its fundamental interpretation be adjudged possible or certain. It must also be acknowledged that the sinuous slot could have been constructed considerably later than the cursus, and this need not impair any observations made above, for the ditch-end may have remained visible as a relatively-shallow superficial feature long after the ditch was cut, and maybe well after the cursus was abandoned. These difficulties can only be excerbated by the absence of artefacts (not one came from any of these features on and around the causeway), and there is no means of gauging the duration of any of the suspected structural episodes. Consequently, it would be unduly adventurous to take interpretation beyond this point (though some further comments and a possible analogue are ventured in the concluding discussion - p. xx).

Before these six features are described individually, a further component of the excavation-plans should be noticed, for a backfilled trench averaging *c.*1m width, had been excavated mechanically in 1969 (Wheeler 1970), cutting down

into the terrace-deposits and running parallel to the western side of Frizams Lane, crossing the area of the 1994 excavation. It had removed a slice through both the northernmost gully of the entrance-complex and the sinuous slot near its north-eastern terminal, and had missed the eastern end of the longest of the other gullies by a few centimetres (Figs 5 and 9). The entire length of this trench which lay within the area of the 1994 excavation were re-emptied in order that the sides and floor might be cleaned and examined; and this gave considerable confidence that no further archaeological features had been cut by it there (unless, of course, removed wholly). This re-recording of the 1969 trench was to have significant repercussions for the previously received understanding of this cursus, but these will best be explored in describing the salvage-recording of 1995, which served to amplify this aspect of the results (p. xx; and see Guilbert 1996/7).

The three west-east 'gullies', apparently opposing the ditch-terminal, were sufficiently alike to enable their description together (Fig. 9). In each case, the fill comprised brown sandy silt, with a reddish tinge in places, and with little gravel component, so that it contrasted well with the more orange, more variable, and generally more coarse, silty sand and gravel of the terrace-deposits hereabouts. Although a little darker, this fill was not unlike that in the upper part of the cursus-ditch, but no sign of charred organic fragments could be seen. Although the northern of the three was considerably longer, at *c*.5.3m, than the other two, at *c*.3.0m and *c*.1.9m, it was little or no deeper at *c*.0.40m below the base of modern ploughsoil, as compared with *c*.0.40m and *c*.0.35m for the middle and southern gullies respectively. In each case, the gradient of the sides varied from steep to gentle; and the bottom of the larger one was rather undulating, whereas the others were flatter. In overall outline, each can reasonably be described as banana-shaped, and it remains unclear whether this was purposeful or whether the digging of the gullies lacked precision. If the latter is true, it may be that these gullies served more as a source of material for some superficial construction than as a carefully-contrived and functional element of the entrance-way in their own right, and it is as well to bear this in mind in considering the form that this might have taken.

The length of the northernmost 'gully' projecting into the excavation from the east had been cut through by the 1969 trench, removing *c*.1.1m from it and, at first sight, leaving the two parts to look in the excavation-plan of 1994

(Fig. 9) as though they did not belong together, because offset curiously. However, the form and fill of the two parts were so similar as to suggest that they were once connected, and it can be suggested that the degree of misalignment implicit in the recorded lines would not be out of keeping with the irregular shape of the northern of the trio of gullies described in the previous paragraph, perhaps reinforcing the possibility that all four gullies were of a piece. But none of this can deny the possibility that the two parts of the northernmost gully were really quite separate features, neither of which crossed the 1969 trench. Both parts, including the actual terminal, were relatively steep and narrow towards the base, and splayed out at 0.10-0.15m above the bottom, to give the wide, open profile, or weathering-cone, that is often the end-product of erosion upon a formerly-narrower feature that had been left open to the elements. Its base was fairly level, penetrating to *c.*0.38m below the base of ploughsoil on either side of the old trench. Its fill of sandy silty with occasional and scattered pebbles was much like that of the other three gullies, though richer brown in hue. It was well defined in the ground, again creating a good contrast with the coarser terrace-deposits.

The 'sinuous slot' running obliquely to the others was also rent in two by the 1969 trench, but their good alignment, as well as consistent form and fill, give no cause to doubt that the two parts belong together in this instance (Fig. 9). In profile, this slot was consistently U-shaped, with sides sloping steeply and evenly to the top and with bottom variably rounded or flattened. It varied a little in width, averaging *c.*0.45-0.65m, along its length; and it was cut consistently *c.*0.30-0.40m deep into the terrace-deposits. Its apparently-uniform fill of sandy silt was noticeably paler than that of any of the four gullies described above, and again no charred materials were noted at any point in the excavated *c.*11m length. Much of it was excavated in plan, with a view to the possibility of recording variations in its fill that might have indicated the former positions of timbers bedded within it, but none were found; and the scattered disposition of the pebbles within its fill, more sparse in some lengths than others, but nowhere plentiful, gave no reason to suppose that they had been used as packing around timberwork. As expressed above, it is solely the proportions of the empty slot that seem suggestive of a foundation-function, and it can but be supposed that any timbers projecting from it, and assumed vertical, were chocked into place with wooden packers, which would presumably have decayed at a comparable rate to the uprights, allowing soil to infiltrate all parts of the slot at a similar rate, and

leaving little prospect for any differentiation between posts and packers to be preserved archaeologically. The alternative is to regard this feature as having been an open gully, though this might be expected to have given it a weathering-cone. If it was left open, and of such a size that would surely mean it could not have remained so for any great length of time, and this must make it even more difficult to imagine any purpose in its creation. (For a further comment upon its interpretation, see p. xx.)

The 'possible posthole' requires little description as there is little to tell. It had been truncated by the furrow, leaving a feature of no more than 0.10m deep, with flat base and of oval outline measuring c.0.75x0.50m (Fig. 9). Its fill of brown, sandy silt contrasted starkly with the terrace-deposits, which were more than usually gravelly hereabouts, but gave away nothing of its former function. In truth, it could as easily have been the base of a pit as a posthole, though the reasoning employed above in respect of the sinuous slot at least allows of the possibility that it held some form of timberwork.

One other linear feature was recorded in the immediate vicinity of the northern cursus-ditch, and has so far been mentioned only in passing. In its proportions, this was more comparable to the sinuous slot than to any of the gullies, and it too therefore deserves consideration as a foundation-slot, though again the nature of its fill could provide no confirmation of this possibility. It lay parallel to, and overlapped, the southern edge of the ditch for some 7.5m, taking away its lip but removing little previously-undisturbed ground beyond it (Fig. 9), with the result that its northern side lay within the fill of the ditch (see sections i-i' to n-n' in Fig. 10). Its own uniform fill of brown, sandy silt with few and scattered pebbles was clearly cut through the contrasting, grey, middle part of the ditch-fill, but was not distinguishable at any point from the comparable upper part. Consequently, there can be no certainty that the ditch was entirely filled by the time this gully/slot was made. In other words, it is not inconceivable that this feature was of asymmetrical height in cross-profile (higher to the south), perhaps being dug into the ditch at a time when the latter was not filled to capacity. If so, this might help to explain how it was that this feature appears to have followed the edge of the ditch. The alternative possibility is that the ditch was full, and therefore invisible at the ground-surface, when the gully/slot was created, and that its fill had merged with that in the upper part of the ditch; in which case, the fact that its line

matched that of the ditch-lip may be mere coincidence, and this may seem an acceptable explanation anyway, since the gully/slot did begin to diverge from the ditch towards the eastern limit of its recorded length. The former option would seem to offer the better chance that this feature was prehistoric (it yielded no artefacts), and perhaps even of broadly similar date to the Beaker-bearing upper layer in the ditch-fill; in which case, it would be of interest to remark that the brownness of its fill extended right to the bottom (at which level there was only the meagrest tinge of grey), even where it was seen at its deepest (*c.*0.35m below the base of ploughsoil towards the western end of the excavated length), where it penetrated some 0.15-0.20m below the level to which the fill of the cursus-ditch had turned grey, for this might imply that the leaching actually happened not too long after the age of the cursus. The second option obviously opens the possibility that this gully/slot belongs to some date later than the deposition of the Beaker sherds, and the comparative lack of greyness of its fill might then be the more expected. This linear feature was recorded to a little over 8m eastwards from the western limit of excavation, becoming progressively shallower eastwards. Beyond this point, it became lost to the furrow because, having shallowed to less than 0.20m at 7m east (Fig. 10, n-n'), this feature was less deep than the deepest strip of the medieval ploughing (see p. xx). Despite a particular search, no sign of an equivalent gully/slot could be located in the eastern slope of the base of the furrow, nor beyond it to the east. It can only be assumed either that it terminated a little short of the point where, or even at much the same distance east as, the north cursus-ditch had earlier done (which may seem a telling relationship), and within the part of the furrow deep enough to have erased its own terminal, or that it turned south or north and, coincidentally again, ran for an unknown distance within the central track of the furrow. Too many ambiguities surround this feature for it to achieve any further reckoning in this report, though a possible analogue in respect of the southern cursus-ditch, alas equally undatable, is noted on p. xx.

Pits Beyond Cursus-Ditches

Pits Beyond Cursus-Ditches

It has been explained above that careful cleaning of the arbitrary, machine-stripped excavation-surface revealed few features having any potential for an association with the cursus, other than those in the vicinity of the terminal in the northern ditch. Besides those already described, only two undoubted archaeological features were recorded, each being a well-defined pit lying beyond the limits of the cursus, one to the south and one to the north. Each had a distinctive character, quite unlike the other; the southern proved to be enigmatic and requires less description than the northern, which contained quantities of fire-affected materials plus sherds of a Collared Urn.

The southern pit was roughly circular in outline, measuring *c.*1.28x1.25m as recorded at the surviving surface of the terrace-deposits, and essentially bowl-shaped, though unevenly stepped, in profile, penetrating up to *c.*0.25m below the base of modern ploughsoil (Figs 5 and 12 - the illustrated profile depicts the stepping at its most accentuated, giving the pit a more pointed appearance than was so overall). The fill was half-sectioned, removing each half in arbitrary spits of 0.05m thickness. It was a uniformly soft, brown, sandy silt, readily differentiated from the firmer and orangish-brown terrace-deposits, but containing no intelligible clue to its function or date. The comparative ease with which this pit could be defined even at this high level in relation to the terrace-deposits was in marked contrast with the adjacent ditch of the cursus (p. xx), and, on these grounds alone, it must be suspected that the pit was considerably younger than the ditch. The fill was virtually stonefree, and this made the presence of a piece of fine-grained sandstone, measuring roughly 0.20x0.10x0.07m and lying near the foot of the western slope, all the more noticeable. This stone is of a weathered character quite appropriate to an origin in the natural deposits at Potlock, though its size sets it apart from most, but not all, seen in this field during fieldwork. It shows no sign of having been modified by either artifice or use, and, if it was selected to be positioned deliberately where found, no purpose for this can be suggested.

The northern pit was an irregular oval in outline, measuring up to 1.17x0.85m as recorded, and also essentially bowl-shaped, though with an undulating floor, in which a gentle ridge separated a slightly smaller and shallower north-eastern hollow from the main base situated towards the south-

west, the latter penetrating the terrace-deposits by up to c.0.26m below the base of modern ploughsoil (Figs 5, 12 and 13). The lowest part of this basin was offset towards the north-west, so that the pit appeared somewhat asymmetrical in the recorded section (Fig. 12), which, fortuitously (because its line was set out before anything bar the surface outline of the pit was known), crossed the deepest point. Since the terrace-deposits were firm and clayey here, the outline of the pit could be distinguished with unusual clarity, even after the removal of no more than a couple of centimetres from the arbitrary surface directly beneath the ploughsoil. Consequently, the shape and size of this pit could be recorded with greater precision and reliability than any other archaeological feature so far encountered at Potlock. The fill gave no reason to believe that any of the irregularities in the form of the pit resulted from recutting, and there is equally no reason to suppose that the shape was purposeful rather than careless. It contained a considerable collection of fragmentary fire-cracked pebbles, mostly quartzite, which had been broken into angular fragments of fairly-regular size, though it is unclear whether this had been done deliberately or was merely an incidental consequence of exposing them to intense heat. These formed a layer, averaging 0.07-0.10m in thickness and covering most of the basal surface (*i.e.* including the sloping sides) of the pit; only at the north-west was this cover discontinuous. Although the pebbles had evidently been deposited directly on to that surface, it showed no sign of having been burnt itself. Moreover, joining fragments of pebble rarely occurred together. It is therefore evident not only that they had become thoroughly heat-fractured before entering the pit but that, by then, enough time had elapsed for them to cool sufficiently to make no mark upon the clay of the pit's basal surface. The reasonably even thickness of the pebble-layer further suggests that it had been deposited there with intent, rather than being dumped casually into a redundant pit that had been made shortly before for some separate purpose. The pebbles sat in a dark-brown, silty matrix, flecked throughout with fragments of charred organic materials. Similar, though slightly less dark, greyish-brown silt with a liberal sprinkling of black flecks and localized patches of iron-panning occupied the upper part of the pit, smothering the heat-affected pebbles, and itself containing relatively few and scattered pebbles, some fractured and some not. It seems likely that this silt had accumulated first among the pebbles and then above them in a continuous episode of gradual infilling.

Following machine-stripping, a thin scrape was trowelled from the northern pit and surrounding terrace-deposits (p. xx), together removing no more than 0.02m hereabouts. Thereafter, this pit was half-sectioned, excavating the north-eastern half first, by emptying the fill in four arbitrary spits, the first of 0.05m thickness, the second (unit H) of 0.02m, the third (I) of 0.04m, and the fourth (J - started at a stage where the sides were shelving inwards and it appeared that the pit would soon bottom out) of up to 0.14m, extending down to the pit-floor. The stratigraphy thus revealed was sufficiently clear to allow the south-western half to be excavated stratigraphically, removing the upper silt (K) to uncover the surface of the pebble-layer, which was itself finally removed in two quadrants (later combined as L). This method of excavation effectively determined the division of the pit for the purposes of sampling (and the bracketed letters in the two preceding sentences are the notation of the 'sampling-units' in Tables 1 and 2 - *cf.* p. xx); for it was decided that virtually the entire soil-component of the fill should be retained for wet-sieving, in order that the charred materials might be extracted by flotation, both for their intrinsic interest and as a potential source of material for radiocarbon-dating. Thus 121 litres of soil were amassed, excluding only the uppermost 0.05m in the north-eastern half, rather less in the south-western half, for fear of contamination, in view of the nearness of the modern ploughsoil and obvious signs that the top of the pit-fill had been lightly scored by the plough (and these upper portions were sorted for artefacts before being discarded).

Rowena Gale's study of the charcoal recovered in this way from the northern pit has shown it to comprise a mixture of species, alder being the most common, followed by oak, with a little blackthorn and ash (p. xx, Table 1). Since little juvenile material could be recognized among this charcoal, it was eventually decided to forgo the temptation to date it by radiocarbon (*cf.* p. xx). Among the small number of other identifiable plant-remains, Angela Monckton has observed that cereal grains and a sloe-stone may reflect some of the foods prepared or consumed at Potlock at this time (p. xx, Table 2). These charred plant-macrofossils came mostly from the upper silt in the south-western half of the pit, but there is no apparent reason to read any significance into this, especially as any such bias is less strongly represented in the recorded distribution of the charcoal (but see below).

Wet-sieving was also productive inasmuch as it yielded twenty of the twenty-five fragments of calcined bone from the northern pit. Inevitably, this means that the exact distribution of bone within the pit is not recorded; but it is possible to say that it was scattered through the fill (as might be expected of such an accumulated silt), that 80% occurred in the south-western half (matching the general distribution of charred plant-remains [see above] and potsherds [below]), that almost all were in the silt overlying the pebbles, and that none was found during careful cleaning of the pit-base following the removal of all the pebbles. It is unfortunate that examination of these bone-fragments (by Susan Ensor) has indicated that most are 'too small for any form of identification to be made' (which explains why most were retrieved by flotation), though four are thought to be 'possibly human' and two to be 'probably animal of some kind'. Nevertheless, the presence of this highly-fragmented bone contributes to the notion that some of the materials which found their way into this pit may represent a disturbed cremation, and there will be more to say of this below.

The northern pit also contained both flintwork and potsherds. One small flint flake came from sorting through the residue resulting from wet-sieving of the upper silt, while thirteen calcined chips of what may once have been a rod or fabricator (p. xx) were scattered widely through the silt, complementing the evidence for burning represented by the range of other items in this pit. Nineteen sherds of pottery came from the pit-fill, while a case can be made for attributing two further sherds to it, even though found outside its recorded ambit. Fourteen of the nineteen appear sufficiently alike to be regarded as pieces of the same pot, identifiable as a small Collared Urn bearing twisted-cord decoration (p. xx). One of five decorated sherds believed to belong to this urn, the second largest of them all at *c.*30mm, is a fragment of rim in unabraded condition (Fig. 14.DSP), and this was found stratified beneath the layer of fractured pebbles, lying on the bottom of the pit, close to the centre and the lowest point, with its decorated face upwards; this position *could* have been fortuitous, but it *could* equally well have been intentional, as discussed on p. xx. Two of the other decorated pieces, including another from the rim and an indeterminate body-sherd (Fig. 14.EDY,DOZ), came from the upper silt, the former being found in the residue of wet-sieving, the latter close to the north-western edge of the pit. And two more cord-impressed body-sherds that appear likely to derive from this vessel were found at or just below the interface of terrace-deposits with the modern ploughsoil, one at 0.03m beyond

the western lip of the pit (Fig. 14.DPA), the other fully 0.50m east of its eastern edge (Fig. 14.DPB). As no other potsherds were recovered from within several metres of this pit, it may be that the latter two were dragged to their find-spots by the plough, highlighting the possibility that others had been removed from the pit in a similar fashion, eventually perhaps to succumb to the elements, or to machine-stripping. This is a firm reminder that, in common with all archaeological features in this field, and probably all others, at Potlock, some depth has been lost to erosion since prehistory (*cf.* Guilbert 1999, ..). The four decorated fragments of this urn found in the upper silt and outside the pit are more eroded than the rim-sherd found below the pebble-layer (the only one on which precise details are visible within the recesses of the twisted-cord impressions), and, although this may be due in some measure in several cases to relatively recent weathering (and, in that of rim-sherd EDY, to the inevitable attrition suffered during the process of wet-sieving, especially as this was done twice - p. xx), it remains possible that some weathering of these sherds occurred in antiquity, and such differential erosion need not necessarily imply that the pot became broken long before the sherds found their way into this pit, for different parts of a complete vessel could easily weather differently during use. The eleven sherds that lack cord-impressions but are, none the less, thought to be pieces of the same urn are mostly smaller than those displaying some decoration; these were found scattered through the silt, all in the south-western half of the pit, though a comprehensive and precise distribution-plan cannot be achieved as four of them were retrieved from the residues of wet-sieving. Similarly, the five sherds that cannot be assigned to the Collared Urn, all indeterminate scraps (p. xx), all came from various residues, in three cases these derived from the north-eastern half.

In addition to the materials mentioned so far, numerous fragments of fire-reddened but poorly-fired and friable clay were scattered throughout the silt, among and above the pebble-layer. No fragment exceeds 30mm across; all are pinkish or orangish brown, of no definable form, and with little indication of surfaces. Since none demonstrates the full thickness, it is not possible to determine their origin, whether from some vessel or structure, or simply clay that became heat-affected along with the pebbles; but it must be said that they are not unlike the sherds of Collared Urn in colour, and it is perhaps not out of the question for them to be derived from that vessel if it was unevenly mixed and/or fired (*cf.* p. xx).

It might be concluded that, somewhere close at hand, the Collared Urn was smashed shortly before, or at the time of, digging the northern pit; that a single rim-sherd found its way into the bottom, or perhaps was laid to rest there, before the pit was lined with heat-fractured pebbles; that the pit was then left, beginning to gather silt, with other pieces of the urn weathering nearby on the ground-surface, possibly interspersed with the remains of some other object of fire-hardened clay, a burnt and fragmented rod/fabricator, a few cracked pebbles, fragments of calcined bone, wood-charcoal, and other charred plant-remains; and that some proportion of this cocktail of materials entered the pit intermittently as the silt accumulated. To judge from the overall density of these items across the pit-fill, it may well be that most of the debris had been abandoned around the south-western side of the pit, or perhaps it was carefully arranged there - from the evidence to hand, there is no way to distinguish between such fundamental alternatives. Of all these elements, it may be that the comminuted bone has most to tell of the activities taking place here at that time, for one obvious possibility, albeit unprovable, is that these several remains represent the final rites of a cremation-ceremony; and the association with a Collared Urn, particularly in the suggestively-focal location of the unweathered rim-sherd, can only serve to enforce this option. If, however, it be preferred to view the recorded ensemble as entirely adventitious, then the disturbance of a nearby cremation in a Collared Urn could be invoked as an alternative explanation of the pit's contents, with the result that the pottery *could* have been considerably earlier than the pit.

Finally, it is worthy of note that, besides those from the northern pit and the few from the southern cursus-ditch (see p. xx), only two fragments of calcined bone came from the 1994 excavation (again, too fragmentary for identification), that both were found in modern ploughsoil where this was excavated by hand in the preliminary test-pits (p. xx), and that the relevant test-pits lay at either end of the row of three situated fourth from, and including, the northernmost row (Fig. 5) - in other words, both lay at c.20m north of the northern cursus-ditch, and therefore only *c*.3m farther north of it than the pit under discussion here. Although it would be foolish to attempt to read much into such scraps of evidence, it can at least be observed that the absence of similar scraps from any of the other sixty test-pits, all excavated in an equally thorough manner (p. xx), adds a little weight to the possibility that other cremations once existed in this zone of the site, and perhaps only

there (at least within the excavated area), situated beyond the bounds of the monument as defined by the earthwork, where their remains had become disturbed by ploughing.

1995 SALVAGE-RECORDING

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Following completion of the excavation in 1994, a period of several months elapsed before construction-work on the storm-water drain began. Once the drain had been excavated by machine in May 1995 (undertaken by contractors without archaeological supervision, due to a failure on the part of the contractors to notify T&PAT of their work-programme), its sides, cut through the terrace-deposits at a slope of .....

THIS SECTION OF TEXT TO BE DRAFTED ONCE FUNDING AVAILABLE FOR PX RE 1995 FIELDWORK ON STORM-WATER DRAIN - MOST SIGNIFICANT ASPECT RE CURSUS IS CONFIRMATION OF EXTENT OF 1969 TRENCH & DEMONSTRATION THAT FEATURES RECORDED THEN AS DITCHES OF CURSUS WERE MISINTERPRETED, JUSTIFYING THE DECISION TO RE-NAME THE CURSUS (cf. GUILBERT 1996/7).

SAMPLES

Given the nature of the site, combined with the experience of it developed during the 1987-90 fieldwork and the inevitable need to be cost-effective, it was determined in 1994 that there could be no strategy of random sampling for environmental/economic data, nor even extensive sampling of all deposits in selected archaeological features, but rather that judgements would have to be made about which contexts seemed least likely to be contaminated in any way, and which parts of these most likely to be both productive and datable, at least in broad terms.

The extent and purposes of the soil-sampling that was eventually undertaken in 1994 have been explained in describing the three features that contained the chosen contexts: namely, the southern cursus-ditch (p. xx), the northern cursus-ditch (p. xx), and the pit to north of the cursus (p. xx). For the recovery of pollen, a column was cut from a standing section of each ditch, collected into a metal box, and removed to the laboratory for analysis (by James Greig, University of Birmingham). For the retrieval of charred plant-remains via flotation, samples were taken from all three features, not as cohesive masses, but in bulk, loose into plastic bags, without breaking up all lumps of soil for fear of damaging the delicate remains of plants, and therefore with a less-rigorous search for artefacts than was generally the case. When post-excavation work commenced, high hopes were pinned upon these samples, especially the bulked ones, and particularly those from the 'blackened deposit' in the southern ditch, which arguably related to an early stage in the life of the monument (but see p. xx). It seemed likely that there was considerable potential not only for radiocarbon-dating but also for the recovery of inter-related information bearing upon the setting of the site in the Late Neolithic and Early Bronze Age, in a region where such data is scarce. In the event, the flotation proved more productive than the palynological analysis, and the latter may be described summarily: from each column, a series of sub-samples of about 0.01m³ was prepared for counting, but these were found to be barren of pollen except for odd grains, such as Lactuceae, in uncountable quantities in the southern ditch (*cf.* pp. xx and xx; a full account is in archive - see p. xx). Hence, the remainder of this section of the report can be devoted to further particulars of the bulked samples and their treatment prior to the submission of the consequential charred materials to specialists

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