NINE LADIES, STANTON MOOR: SURFACE SURVEY AND EXPLORATORY EXCAVATIONS IN RESPONSE TO EROSION, 1988–2000

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SUMMARY

It has long been recognized that, in such a place as the gritstone plateau of Stanton Moor, no archaeological monument can be considered entirely safe from damage, for, as Pitt-Rivers remarked of Nine Ladies in 1883, 'on a lonely moor remote from habitation no . . . protection would suffice if visitors were determined to do damage, in spite of the penalties prescribed'. More than a century on, a programme of repeated, intensive, metrical survey of progressive erosion within and around this much-visited and much-loved, but much-abused, stone-circle was to demonstrate a significant loss from certain patches of the ground-surface, as quantified over the period 1988–1997. This in turn led to further survey and eventually to selective excavations, undertaken in 2000. The principal purpose of excavating within the stone-circle and alongside its allegedly related outlier, the King Stone, was to assess the extent to which modern disturbance is affecting surviving anthropogenic deposits of ancient origin. Subsequent repairs to the monument cannot be regarded as a final solution to its problems, and it seems that continued vigilance through active management will ever be necessary.

INTRODUCTION

The stone-circle and nearby King Stone,[1] which together form the Nine Ladies monument, lie towards the northern end of the 'rocky and uncultivated waste' that is the elevated Stanton Moor plateau, situated to the south of the confluence of the rivers Derwent and Wye.[2] Although much of the plateau is today heather-covered, with scattered birch and pine, Nine Ladies sits within an area where the vegetation is dominated by fescue grasses. The stone-circle, set back by over 100m from the steep escarpment that forms the eastern side of the plateau, stands between 297m and 298m OD, while the outlying monolith, located at 33–34m west-south-west from the nearest point on the circle, is at about 300.5m (Fig. 1). Until recent decades, most people would doubtless have regarded this as a remote location, but lately this monument has become one of the most frequented of 'prehistoric' monuments within the Peak District National Park and for some distance beyond.[3] The progressive problems of erosion that are bound to follow hard on the heels of such popularity, affecting both stone-circle and outlier, will surely be familiar to all who take an interest in the welfare of such places, for it is partly on account of such issues that this place has come to attract considerable coverage in local and national media, just as that very notoriety gave cause for the fieldwork described below.

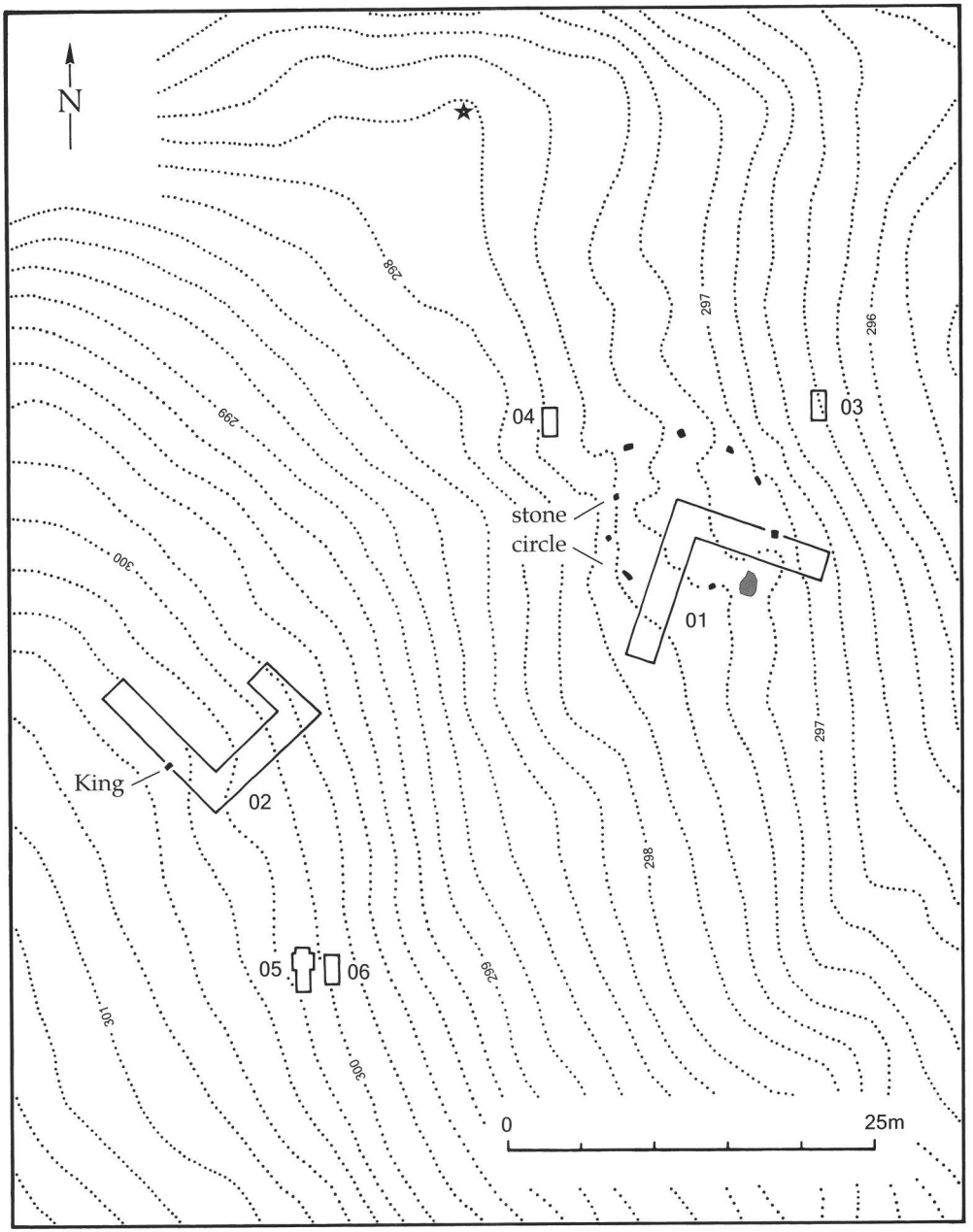

Fig. 1: Nine Ladies: simplified surface contours at 0.20m vertical interval (numbered in metres above Ordnance Datum), as recorded in November 2000 and, for areas at greatest distance from stones, in 2002; showing location of trenches 01–06 in relation to stone-circle (orthostats solid, recumbent slab shaded) and outlying King Stone, and with location of only other monument known to lie within this 83 × 65m area, a small cairn, marked by a star; scale 1:500.

In fact, the impact of erosion at Nine Ladies was first brought forcibly to attention in the volume of this journal issued in 1980, when a local archaeologist, J.P. Heathcote, reported upon the illicit uncovering of a recumbent slab of stone, apparently adding a tenth (which he called 4a) to the nine of the circle that still stand.[4] What is perhaps less well known is that such problems had long been of concern at this site, for it was in 1883 that A.H.L.F. Pitt-Rivers, first Inspector of Ancient Monuments and arguably the first true field-archaeologist to set foot on Stanton Moor, made the tellingly prescient remark quoted in the opening 'summary' of the present paper, acknowledging that no measures could be expected to ensure the archaeological integrity of such a moorland monument.[5] Although Pitt-Rivers was probably referring more particularly to wilful damage inflicted upon certain of the standing stones than to general erosion of the ground around them (Guilbert 2001, 193), it might be felt that Heathcote's revelation of an additional stone serves merely to show just how little had changed regarding such matters over the best part of a century. Even so, there are good reasons to believe that the erosion of Nine Ladies worsened during the final quarter of the 20th century, and, as outlined briefly by Barnatt and Smith (1991, 32–3), these circumstances occasioned a programme of archaeological fieldwork. It is our down-to-earth purpose here to describe that fieldwork, thereby illustrating the increasing problem of erosion that led to the perceived need, first, to quantify its rate of progress and, then, to assess its impact, all before measures were taken to arrest the deterioration and the indignity suffered by this vulnerable and venerable monument.

The core of this paper comprises reports upon a series of seven detailed, surface surveys, undertaken at irregular intervals over the period 1988–97, culminating in a more penetrating evaluation in the form of several small-scale, targeted excavations which, together with a further episode of surface survey, took place during 2000. In essence, the principal aims of those excavations were to determine whether precious stratified deposits of prehistoric material lay at risk of imminent disturbance from progressive erosion and to attempt to establish whether such damage had already occurred. All of this work was conducted by one or other of the authors.[6]

By way of further introduction, it will be apposite to review some of the more useful records made of the monument at various times over the two centuries preceding our fieldwork, for these should be of assistance not only in appreciating the causes of the observed decline in the condition of the monument but also in understanding decisions taken in formulating the fieldwork and in interpreting various aspects of the results, particularly of the excavations. Some of the earlier records comprise solely written comment, often brief and seldom usefully substantiated, while others are all the more useful for being supplemented with drawings or photographs, and it is those illustrations that attract most attention here.

USEFUL RECORDS AND OBSERVATIONS OF 18th–20th CENTURIES

The general form of the monument as it appeared towards the end of the 20th century — *i.e.* its ground-surface as well as the shape and size of its standing stones — should be clear enough from our ground-plans, Figs 1, 8 and 9, and stone-profiles, Figs 11–12, viewed together with Plates 1, 6 and 7, and it is against this backdrop that earlier records must be assessed. The following comments — dealing first with the orthostats

of the circle and their layout, then with recumbent slab 4a, possible features within the circle, its topographical setting, the apparent embankment of its perimeter and the former encircling wall, and finally with the King Stone — are not necessarily intended to be comprehensive, but rather are meant to draw attention to those aspects of the monument that seem most germane to the objectives and results of the surveys and excavations of 1988–2000.

Circle of orthostats 1–9

In the latest, authoritative account of Nine Ladies, Barnatt has remarked (1990, 77) that much of this 'site has been in virtually its present state since first recorded by Rooke in 1782', and it certainly seems likely that the standing-stones of the circle have changed little in their general appearance over the past two centuries or so. This much seems attested by comparison of their present form with that of some antiquarian records.

First, it will be relevant to recap on the form and attitude of the nine standing-stones as seen on the ground today. All comprise medium-grained Namurian sandstone, apparently showing them to belong to the Ashover Grit of the hill (or 'sandstone of the country', to use Pitt-Rivers's words). They vary considerably in size and shape (Fig. 11), some being blocks of squarish cross-section (stones 1, 2, 4, 7 and 8), while others are oblong slabs with long axis aligned upon the circumference of the circle (especially 3 and 6, also 5). In the ground-plan, stone 9 may appear to belong to the latter category, but, on the ground, it presents a different character from all others — *viz.* a squat, flat-topped block standing barely 0.40m above the adjacent ground-surface (all heights stated here are as measured in 1988). Only stone 7 is now as short as 9, thus contrasting particularly with stones 3, 5 and 6 (at approximately 0.85m, 0.70m and 0.80m high respectively), while 8 could have been even taller when, or if, it stood upright, as over 0.90m of it is now exposed to view, but this is inclined at such a perilous angle (leaning at fully 45° towards the centre of the circle) as to reach no more than 0.70m above ground-surface. Others which lean much less, and in varying directions, are stones 5 and 6 (both towards the centre), less obviously 3 (along the circumference), 4 (away from the centre), 7 (towards the centre) and 9 (towards the centre), while 1 and 2 stand more-or-less upright.

Turning to antiquarian representations, it should first be acknowledged that, being somewhat impressionistic, Hayman Rooke's several illustrations of the 1780s (Fig. 2) are of limited practical use in the present context beyond the simplest demonstration that there were then, as now, nine orthostats in the circle (further comment on Rooke is best reserved for discussion in relation to features within the circle). In contrast, the drawing published less than half a century later by Stephen Glover (1829, 282 – reproduced here as Fig. 3) has a more realistic air, its overall direction of view being identifiable because the distinct shape of several stones remains readily recognizable today — note especially the vertical crack in stone 3, the asymmetrical top of 6, the relatively stubby form of 7, the inward incline of 8 and, above all, the blockish form of 9. Yet it is evident that Glover, or his illustrator (whoever that may have been), did not depict all individual stones as viewed from the same spot; instead, he created a pastiche in which each stone is shown as though seen from a direction best suited to its distinguishing peculiarities (compare, for example, the excellent photograph

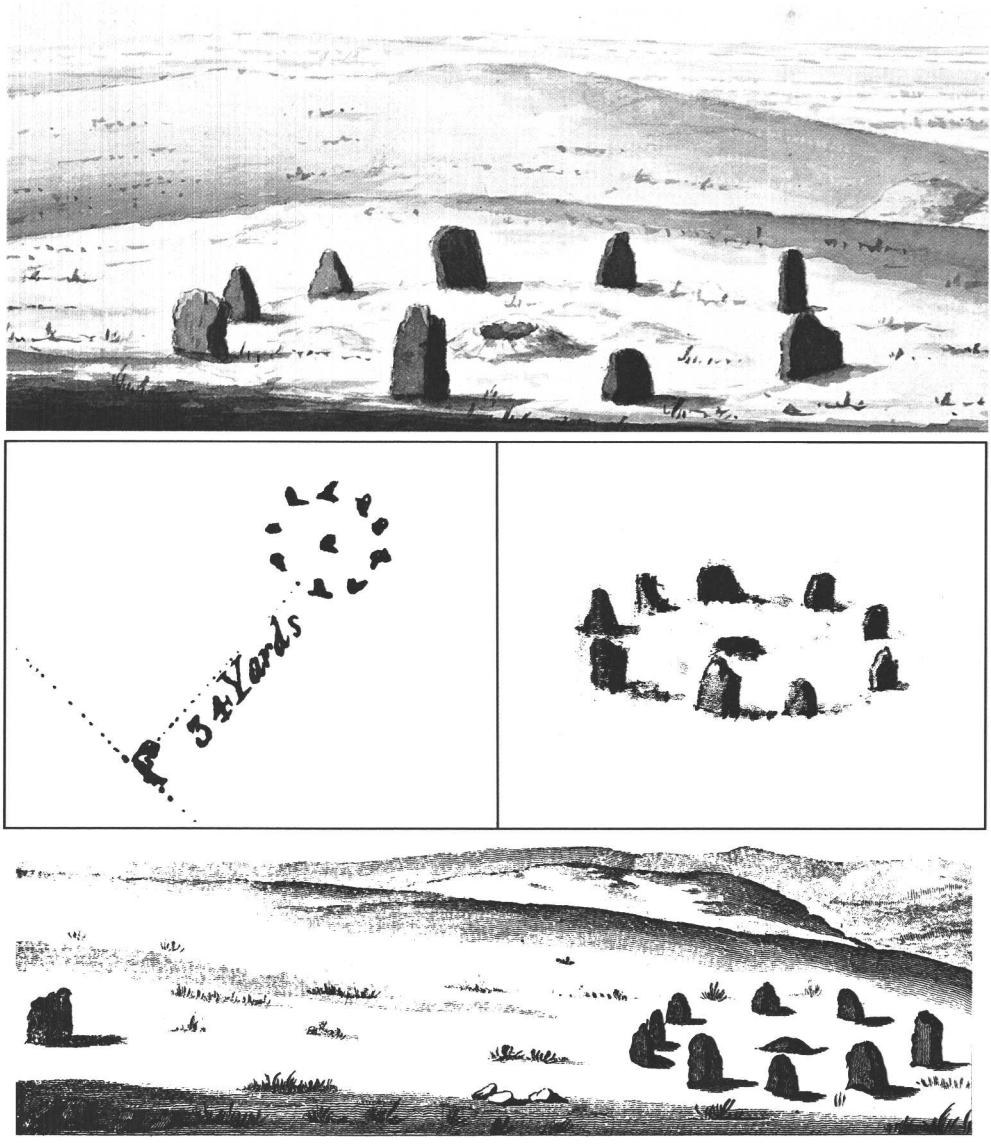

Fig. 2: Nine Ladies: Rooke's impressions and plan: at mid-right, pen with ink-wash sketch from one of his notebooks (entitled 'Druidical remains on Stanton & Hartle Moor . . . in the Peake of Derbyshire, drawings taken in 1780', being part of the 'Bagshawe Collection' at Sheffield City Museum, formerly 'archive collection 41897/5' at Sheffield City Libraries), therein annotated, in Rooke's hand, 'a Druidical Temple on Stanton Moor, called ye Nine Ladies and at 34 yards W of ye Temple stands a single stone 3 feet out of ye grass, diameter of ye circle 11 yards', here reproduced at *c.*125% as compared with original *(reproduced by permission of Museums Sheffield)*; across top, sepia-watercolour view of 1782 or shortly before *(reproduced by permission of Derby Museum & Art Gallery, accession no. 2002-98/46)*; at mid-left, thumb-nail plan, as engraved for publication in Rooke 1793, pl. XXXIV (*cf.* similar published in Pegge 1787, pl. 1), here reproduced at *c.*200% as compared with original; across bottom, engraving published in Rooke 1782, pl. XV.7.

Fig. 3: Nine Ladies: view published in Glover 1829, looking east-south-east towards stone 4 from between stones 8 and 9.

published by Radley [1966, pl. I.A], taken from much the same overall viewpoint as that adopted by Glover).

At first sight, the view published by Thomas Bateman (1848, 112 – reproduced here as Fig. 5) also exudes realism and, with the King Stone shown at an appropriate distance from the circle, it seems that a southerly direction of view can be affirmed. However, closer acquaintance with the circle-stones therein leads initially to confusion, and then to a revelation, as confirmed through comparison of that engraving with the hitherto-unpublished watercolour that is so obviously its companion (Fig. 4). Sufficient of the orthostats are individually recognizable (especially leaning 8 and squat 9), as is their disposition around the circle, for it to become plain that the engraving has previously been printed, presumably erroneously, as a mirror-image version of the reality and of the watercolour. Even with that issue resolved (as in Fig. 5), it is apparent that the shape of each stone, as well as the inclination of some, differs subtly between watercolour and engraving, all being made to look rather more rugged in the latter, so testifying to a discomfiting fickleness of artistic licence, and inevitably discouraging any thought of treating either as a trustworthy source on matters of contemporary detail.[7] Moreover, the surrounding landscape has been embellished for publication, with the addition of distant hills, the omission of trees in the middle distance, and the substitution of a coniferous for a broad-leaved tree in the foreground. Doubtless, it is the perceived charm and the obvious convenience of what may be termed the 'Bateman view', *i.e.* the engraving, that has led to its reproduction in several published works, sometimes gratuitously and always it seems without critical inspection, for nobody has hitherto betrayed any suspicion of the reversal of the 1848 image.[8]

Perhaps more promising in the present context is Llewellynn Jewitt's view of the stone-circle (1870, fig. 68; repeated in 1884, fig. 12; and reproduced here as Fig. 6), and it is of some interest that this incorporates an element which *may* show the monument to have once been more complex than has generally been appreciated — *viz.* Jewitt's view has the distinction of depicting ten orthostats, despite the nine that he outlined, and disposed rather inaccurately, in the plain and simple plan of the circle published in the same places.[9] The mysterious extra stone, situated between 8 and 9, is the

smallest shown by Jewitt, while the relative sizes and shapes, as well as the disposition, of the other nine seem sufficiently true to life there (note especially the bulging outer face of stone 4, the pronounced lean of 8, and the flat top of 9) to merit some faith in its fidelity, seeming to suggest that the tenth stone may represent more than a mere liberty in support of Jewitt's expressed opinion that 'this circle ... has formerly consisted of a larger number of stones' (1870, 73–4; 1884, 26).

What is more, it may be that useful corroboration of Jewitt's tenth stone is to be found in Pitt-Rivers's record of the circle-stones, made on the occasion of his visit to the site in 1883. Pitt-Rivers sketched and annotated a 'small stone' (upside down towards top left of his plan, reproduced as Fig. 7), situated outside the circle and at little distance from stone 9, and therefore positioned quite suitably for the viewpoint chosen by Jewitt some years before. Apart from the King Stone (or 'the detached stone' as he termed it), this 'small stone' is the only supernumerary one remarked by Pitt-Rivers, meaning that it evidently seemed to him worthy of notice, perhaps because it was then the sole visible stone besides the nine to be seen on the site of the circle, or perhaps because it was the most prominent.[10] No such stone exists on the ground today, and neither does any photograph known to these writers, nor any written record subsequent to Pitt-Rivers, offer further confirmation of its former existence. However, it deserves notice that, from the first of our surveys reported below (*i.e.* that of 1988), a distinct hollow has been reflected among surface spot-heights recorded in an appropriate position, at *c.*1.2m outside an approximate best-fit circle through the orthostats (represented by small ring of 297.65m contour centred at 2.4m south-west of stone 9 and 2.2m north-west of stone 8 in Fig. 8); and its outline is clearly distinguishable among the hachures drafted in 2000 (Fig. 9), when its possible significance had yet to be appreciated. Whether this little hollow, measuring up to 0.45m across by less than 0.10m deep, should be equated with Jewitt's extra stone can never be ascertained, but it has to be considered a good possibility, even though it may seem somewhat surprising that it should have remained well-defined following the rough treatment endured by this place in 1987 (page 24; while observation in 2009 has shown that the 'little hollow' has become backfilled since 2000, presumably during the repair-work described in note 33).

Aside from that tantalizing point of detail, Pitt-Rivers's plan of 1883 is most useful for its scrawled annotations. Helpfully for us, he recorded a height for most stones, thereby showing that they generally differed little in this respect from the more detailed record made of them more than a century later (Fig. 11). Pitt-Rivers indicated 'magnetic' north on his plan, and he noted that one stone is 'marked ‡', so allowing it to be identified as our stone 4 (Pl. 1, upper right), and hence making it possible to discern what he recorded of other stones. Thus, stone 3 was 'largest' (*i.e.* tallest, at '2..10' [presumably meaning 2 feet 10 inches], much as measured in 1988); stone 8 was 'sloping inwards' (as today – Fig. 11), and stone 9 was '2..3 long and fallen' (comparing closely to its present *c.*0.70m length [Fig. 11], though there seems no good reason to regard it as having been dislodged — rather, given its stumpy character, decapitated might be more appropriate — *cf.* Barnatt 1990, 77, assuming his 'stump' to mean stone 9).[11] The ‡ symbol has another value for this appraisal, because it is carved into a well-weathered scar atop stone 4, showing not only that the apparent damage represented by that scar was done before the symbol was carved more than

Fig. 4: Nine Ladies: watercolour of 'The Nine Ladies upon Stanton Moor 1847', taken from *Illustrations of Antiquity* (a bound volume of sketches of various monuments in the 'Bateman Collection' at Sheffield City Museum), being a companion to the view published by Bateman in 1848 (Fig. 5), looking north-west towards stone 9 from between stones 4 and 5, with King Stone situated to left of tree; at half size of original, which has only pale blue-grey wash except that each of the orthostats is given emphasis by yellow colouring on its right-hand, *i.e.* north-eastern, side. *Print supplied by National Monuments Record, and reproduced by permission of Museums Sheffield.*

126 years ago but also that this orthostat can have suffered little by way of general erosion since then. Even so, assuming Nine Ladies to be a genuinely prehistoric monument, the interval under discussion is relatively short, and it remains impossible to assess how close to their original condition the standing-stones are now.

However, it is certain that several of the stones have been defaced in one way or another in recent times. Besides the afore-mentioned carving on stone 4 and those on the King Stone (page 22), there is a hollow in the top of stone 3 (extra line in Fig. 11), which may or may not be of natural origin, though, to judge from deposits of wax seen within it on several occasions during the 1980s–90s, it has evidently found a use in some of the latter-day rituals to which this monument has reputedly been exposed.[12] Much of the south-west side, and parts of the north-west and south-east, of stone 2 are known to have been crudely flaked and scraped away in the 1980s (Pl. 1, upper left), as was an area around the north-west corner of stone 4 in 1992 (Pl. 1, upper right), while smaller scars appeared on the west face of 4 and the south face of 5 in 1991. Inspection

Fig. 5: Nine Ladies: engraving of 'The Nine Ladies upon Stanton Moor', taken from Bateman 1848, 112, and clearly related to the 1847 watercolour reproduced as Fig. 4, confirming that this engraving has hitherto been published in mirror-image, being here presented properly, *i.e.* as a north-westerly view, for the first time in its 162-year existence.

of those three stones in 2009 has shown that the damage to 2 and 4 remains obvious, though contrasting less with the remainder of the stone's surface than it did two decades ago, while that to 5 is now scarcely detectable, even with the benefit of hindsight. Of course, it is bound to be unclear whether similar acts of vandalism have been perpetrated upon these or other circle-stones in the more distant past, its effects eventually becoming nullified by those of natural weathering but nevertheless meaning that original surfaces would have been lost forever. Another photograph (Pl. 1, lower left)

Fig. 6: Nine Ladies: view published in Jewitt 1870, looking north-north-west towards stone 9 from behind stone 5.

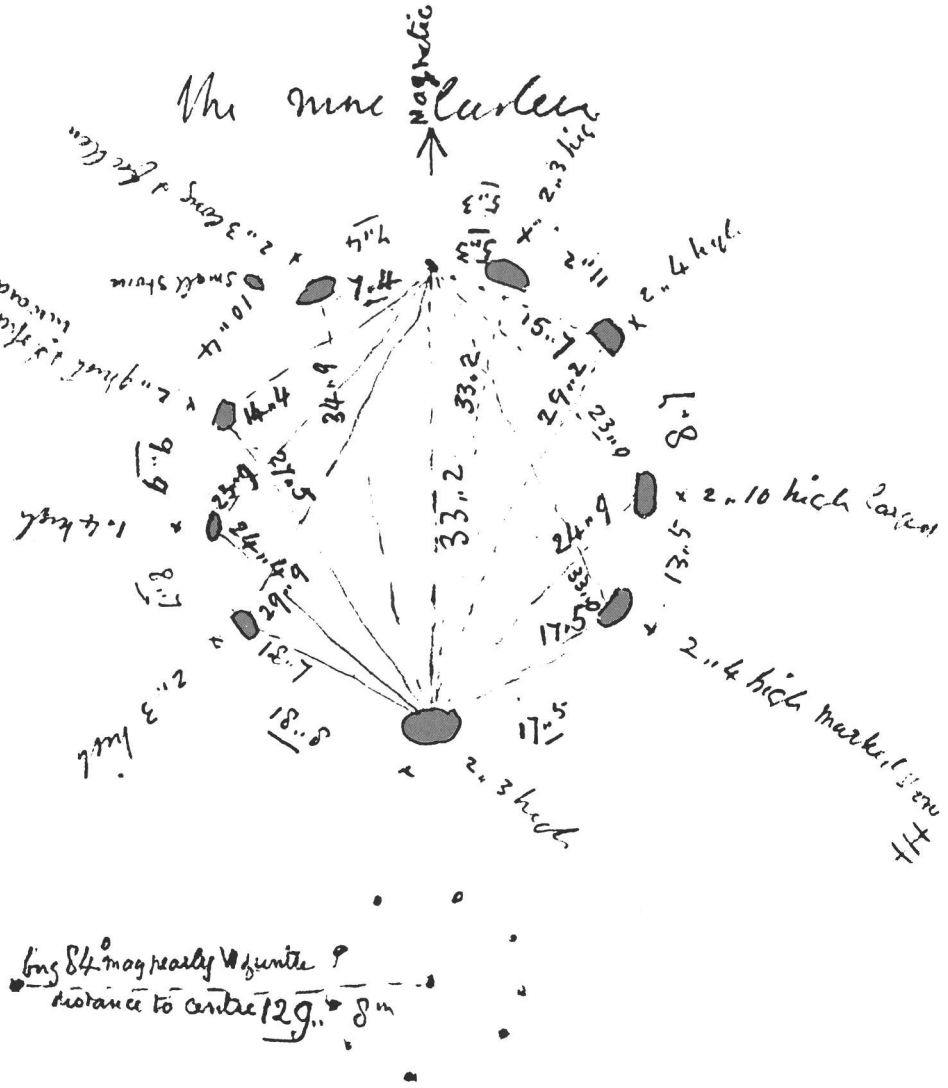

Fig. 7: Nine Ladies: sketch-plan of 'The Nine Ladies', as adumbrated on site by Pitt-Rivers on 31 August 1883; reproduced from a photocopy supplied by The National Archive, here at approximately 135% relative to the original in Pitt-Rivers's notebook, which is not true to scale, though various dimensions are among annotations, including 'magnetic' north (at top), thus allowing the lowermost stone to be identified as that now numbered 5; shading has been added to the ten stones merely to improve clarity. Pitt-Rivers included smaller-scale sketch at foot simply to record bearing and distance to King Stone.

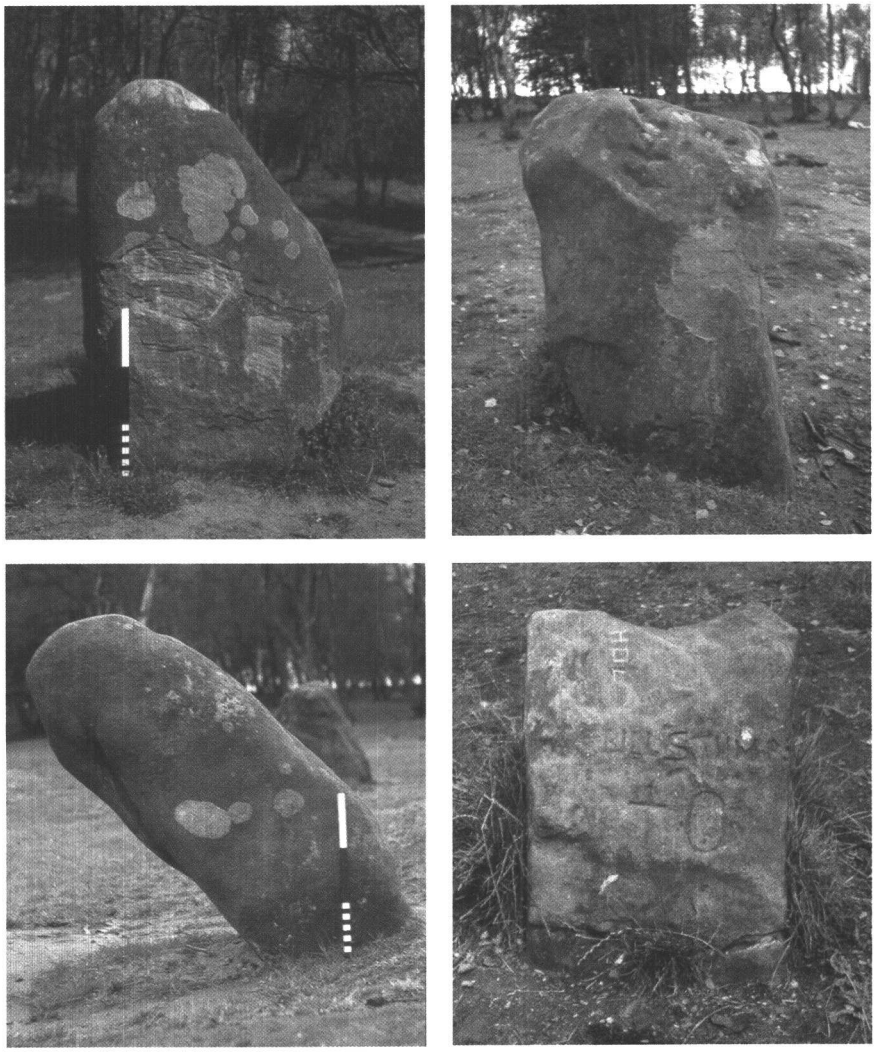

Plate 1: Nine Ladies: four orthostats, damaged in various ways at various times: upper left is south-west face of stone 2 in May 1988, showing deliberate and recent scratching away of much of its surface (scale 30cm); upper right is north face of stone 4 in November 1992, showing recent damage to surface much like that to stone 2, and with ‡ carving on older scar atop stone, as noted by Pitt-Rivers in 1883 (middle cross-bar of ‡ measures *c.*87mm); lower left is north face of stone 8 in May 1988, with loose soil at foot of stone, beneath overhang, where subsoil has been brought to surface through deliberate disturbance (scale 30cm); lower right is north-west face of King Stone in September 1994, showing recent graffiti, HOL, above and at right-angles to 19th-century BILL STUMPS above † 0 (Guilbert 2001), and with fracture close to foot of stone, resulting from wilful damage in June 1990 when an existing crack was opened up (cross-bar of † measures *c.*75mm).

exemplifies a different form of damage, just as irrevocable, caused by somebody digging into the ground immediately alongside the foot of an orthostat, for reasons that can only be guessed. Such disturbance has doubtless occurred from time to time on other parts of this site, but who can say exactly where or how often?

Some have attempted to read a distinct pattern into the disposition of the standing-stones. Although it may now seem contrived, Barnatt's perception of 'perfection' and geometrical balance in this circle (or, rather, 'modified egg' — in reality, a rather irregularly-disposed setting approximating to a circle and varying in diameter from *c.*10.3m to *c.*10.8m, depending upon where the measurement is taken; and see note 9) has provided the most detailed exposition, leading him to propose 'two missing stones', one more-or-less central to each of the 4–5 and 5–6 interspaces (1978, 141, fig. 72). In fairness, it should be noted that Barnatt's attitude to the laying out of stone-circles has changed radically since the 1970s (as summarized in his 1990, 27–9), for he now concludes that many were 'built "by eye" to appear circular, and that . . . intellectualized perfection was unimportant', while recognizing that 'smaller rings in the Peak District [doubtless including Nine Ladies] are relatively casually built', and that 'geometric designs previously put forward for them are likely to be spurious'. None the less, in pursuit of an evenness of spacing around the circumference, he has continued to believe that 'originally there were probably eleven stones' in the Nine Ladies circle (1986, 78; 1990, 77), and others have followed suit (Turbutt 1999, 129; Hey 2008, 31). In fact, some had previously been thinking along similar lines, conjecturing more vaguely that, because of what they perceived to be irregularities in layout, this circle will once have comprised more than nine orthostats (as first suggested by Jewitt 1870, 74 [see above]; *cf.* Lewis 1903, 136; Heathcote 1934, 11). Plausible as these notions might have seemed, and much as some measure of support can appear to have emerged with the unearthing of a tenth apparent circle-stone, 4a, in the 1970s (page 3),[13] one outcome of the excavation of trench 01 in 2000 has been to cast doubt upon at least the more precise of the predictions made by others (page 38).

Recumbent slab 4a

Apart from the nine orthostats, slab 4a is now the only prominent stone in the area of the circle. It comprises gritstone that is considerably coarser than any of the orthostats, especially in its pebbly, upturned face (though such rock may well be available from Namurian beds at no great distance from the circle). Lying more-or-less flat on the line of the 'embankment' (explained on pages 16–22 and 39) between stones 4 and 5, it has been taken for a fallen orthostat, having supposedly once stood upright where its northern tip now lies, so forming an integral element of the monument (Heathcote 1980; *cf.* Barnatt 1990, 77). If this interpretation were correct, stone 4a would not only have been suitably positioned near the inner toe of the 'embankment' but would also have stood nicely equidistant, at *c.*2.8m, from its nearest neighbours. But the considerable variation in spacing of other stones around the circle (even ignoring those flanking stone 5, the orthostats stand *c.*2.8–3.8m between centres, as measured at present ground-level) does not make this a very compelling argument in favour of interpreting 4a as a fallen 'lady'. Moreover, it is arguable that the widest gaps in the nine-stone setting — 5.5m and 5.8m to either side of stone 5 — lend that arrangement a certain measure of symmetry, which the inclusion of 4a would disrupt. It was for this reason

that Heathcote followed Barnatt in hypothesizing another lost orthostat between 5 and 6, even indicating it on his plan as '5a' (1980, fig. 1), thereby restoring some symmetry. As it happens, further wear on the ground-surface during the 1980s was to expose the top of a piece of sandstone in exactly the right spot, virtually bisecting the 5–6 gap, seemingly firmly embedded, presumed to be of greater size than the 0.15–0.18m then visible at the ground-surface, and conceivably the stump of an eleventh 'lady'. If so, the full range of spacing of uprights around the original circle would have been *c.*2.8–3.8m centre-to-centre (for it may seem improbable that it included yet more stones, as this could only increase the problem of irregularity unless there were many more of them). As reported on page 38, however, that optimistic interpretation of the small stone revealed in the 1980s was seen to be ill founded when, in 2000, trench 01 encompassed that spot, showing the relevant stone to be no more than 0.18m across and 0.09m in thickness (arrowed in Fig. 13; and note that trench 01 encountered nothing else indicative of the former existence of an orthostat between stones 5 and 6). It might even be argued that this negative outcome upholds other factors in calling into question others' inclination to regard 4a as a former orthostat.[14]

Within the circle

One possibility, unprovable but anyway deserving of consideration, would be to suppose stone 4a to have been a relatively recent addition to the circle, conceivably dragged to its present location from some point within the precinct. For speculation of this sort to be regarded as any better than guesswork, it is necessary to review the antiquarian evidence in search of possible clues. At least it seems safe to assert that such an action is unlikely to have occurred since the days of Pitt-Rivers, whose 1883 notebook records merely that the circle 'has been opened in the centre', or Jewitt, who was unequivocal in his observation that 'in the centre are the remains of a rifled sepulchral mound' (1870, 74; 1884, 26 — though this is not evident from either his plan or his view — Fig. 6), while Glover had earlier made no reference to, nor depiction of, anything within the circle, his view making the central area appear more-or-less flat and featureless (Fig. 3).

On the other hand, Rooke's 18th-century records call for closer attention in this context, even though his several portrayals of the stone-circle (Fig. 2) can lead to more than one interpretation. First, it should be said that it is not possible to be totally confident of the direction of view in each of Rooke's illustrations — to judge from the relation of circle to King Stone, his most accessible view of the site, because published as an engraving in 1782, ought to be looking north-west, roughly from outside stone 4 towards 9; but the shapes of individual orthostats cannot there be matched closely to their present appearance. On the other hand, their shapes in both the sketch of 1780 and the watercolour of 1782 or earlier seem to offer enough information to suggest that stones 8 and 7 are in the foreground, looking across the circle towards 3 and 4. Rooke tells how 'there appears to have been one [*i.e.* stone] in the centre' (1782, 112), and his plan published in 1793 surely shows an orthostat there, looking just like the nine forming the encircling setting, each with shadow for emphasis (and this can also be said of a similar plan, not the same one, drawn by Rooke in 1784 and published by Pegge – 1787, pl. I).[15] In contrast, the 1782 engraving appears to show a small, central mound, rounded but sufficiently pronounced to be given a shadow as strong as those

accompanying each circle-stone there. On the other hand, his 1780 sketch (possibly the source for all Rooke's other illustrations of Nine Ladies) seems rather to depict a disturbed patch in the central position, appearing as a hollow with low rim of spoil (more obvious in the original than in Fig. 2 here), while the watercolour (with orthostats more nearly as seen in the 1780 sketch than in the 1782 engraving) seems to show this central feature in more exaggerated form, again complete with shadow. Such a crater-like feature is suggestive of quite recent disturbance, perhaps appropriate to the past tense in Rooke's 1782 script quoted above, and hence implying that the suspected central stone had been removed by the time he saw the site. The problem is that the very variation in these several illustrations bespeaks some degree of unreliability, suggestive of the kind of idealistic representation that is to be expected of Rooke's era, so that it remains questionable whether any of his impressions should be afforded full credence at this remove (and, if so, which). Given that the apparent crater creates a more mundane image than a standing-stone, it may be felt that the former is the less likely to have sprung from Rooke's imagination, while the latter could well be his fanciful extrapolation from the disturbance that he actually witnessed on the ground. At any rate, it seems that there had been antiquarian diggings in the vicinity of Nine Ladies before Rooke's arrival on the scene, for he commented that one of several cairns 'near it ... had been opened a few years ago, and much rummaged' in search of artefacts (1782, 112–13). So the hollow-with-spoil drawn by Rooke may be thought more likely to have resulted from some inquisitive antiquary's speculative delving for relics (if not fruitful, then maybe not reported to, or by, Rooke) than from the removal of a standing-stone; and, to get to the point of this convoluted discourse, this might be taken to rule it out as a source for stone 4a, unless the opening of that hollow uncovered a cist whose capstone was pulled aside in getting at its contents. Then again, it might reasonably be argued that, if he was prepared to record something so unexciting as a hollow and its spoil, Rooke might be expected to have included also the displaced capstone, always assuming this to have remained visible in his day and to have lain where 4a lies today (while that slab might easily have been hidden among thick vegetation in the time of Glover and Bateman [page 18], gradually developing a cover of soil and, eventually, turf). The uncertainties are multiplying and there would seem little benefit in pursuing this line of thought beyond the simple deduction that it remains perfectly feasible for our stone 4a to have been Rooke's inferred central stone.[16]

Whatever its goal — be it removal of orthostat, exploration of cist, or simply speculative digging at the superficially-featureless heart of the monument — the central hollow-with-spoil portrayed by Rooke would seem as fitting a basis for Jewitt's assessment of the remnants to be seen there some 90 years later as for the appearance of the site two centuries on, with well-rounded hollow and adjacent bump (described below). The latter seems insufficient to justify use of any of the terms that generally imply some more substantial structure — 'mound' or 'barrow' or 'cairn' — but which have so often been posited by those writing of this central feature in the 20th century. After Rooke, the authority cited most frequently for such an internal feature is Bateman, though he did not mention it in print, leaving secondary sources to take their inspiration from his graphic view (Fig. 5), which, as explained above, must be treated with caution. The 'Bateman view' has sometimes been held to depict a broader, flatter mound than that in Rooke 1782, practically filling the central area of the stone-circle; but it has to be

acknowledged that this may be nothing more than an impression created by the method of, or maybe licence in, the shading (*cf.* Barnatt 1990, 77), being perhaps intended rather to give emphasis to the low peripheral bank (though this too was not remarked by Bateman – page 18). At the turn of the century, Ward (1900, 30; 1905, 183) noted 'some traces of a slight mound', whereas Lewis (1903, 136) could 'not find any remains of the barrow, though the ground inside the circle is very irregular', while Andrew (1907, 82) chose to exaggerate the concept by declaring that 'in 1848 there was a cone of stones in the centre, but this has been destroyed', presumably in an ill-judged reference to the Bateman view. As the 20th century progressed, Heathcote (1934, 11) wrote of 'a small cairn in the centre which is now somewhat scattered', Thomas (1960, 71) saw 'a small mound' there, whereas Bartlett (1960, 26) believed there were 'remains of a small cairn', which for Thompson (1963, 18) had been there 'until recent times', while Radley (1966, 14) saw a 'mound . . . now disturbed and much reduced', Bramwell (1973, 74) thought 'the central cairn . . . seems to have been removed entirely',[17] and Barnatt's comments have ranged from 'mound. . . badly disturbed by diggings . . . circular and offset' (1978, 137–9, fig. 71) to 'low rim of a mutilated cairn' (1990, 77). Little purpose would be served by rehearsing more of the many published opinions along much the same lines, for it should already be clear enough that there has been confusion or, at the very least, imprecision as to what physical remains really have survived as the decades have unfolded, save a common inference of a small and damaged central bump. In this and other respects, photographs can be expected to offer the most objective source, and it is therefore useful to adduce again the first and best of the photographs of the stone-circle to have been published hitherto (taken in 1965 — Radley 1966, pl. I.A), which thus provides something of a bench-mark in the study of Nine Ladies, not least in showing the central area to have been largely turf-covered, with low and flat humps flanking a central hollow, and with the position of stone 4a appearing to have been particularly densely covered in tussocky turf.

Topographic setting

The contour-lines of Fig. 1 show how the monument was built upon sloping ground of easterly to north-easterly aspect, with gradient averaging about 1 in 12 overall, though rather steeper around the stone-circle than around the King Stone. The latter stands close to a gentle break in slope, marking a rounded shoulder in the hillside, with the higher ground to its south-west averaging about 1 in 20. Fig. 1 also reveals that a more prominent, and more nearly level, location exists on the top of a rounded promontory centred at *c.*30m to north-west of the circle, overlooking a broad hollow, or valley, within the plateau to its north. Of course, it would be simplistic to imagine that that promontory could have been available to the circle-builders had they chosen to make use of it, for who can tell what other constraints, physical or conceptual and all unknowable to us, might have influenced the choice of position for this or any other of the numerous monuments on Stanton Moor? It can only be observed that the one anthropogenic structure known to have occupied any part of the promontory is what appears to be a small cairn, quite undatable as matters stand, situated at a similar elevation to the stone-circle (star in Fig. 1).

One thing that does seem clear even from the wiggling of the simplified lines in Fig. 1, and all the more so among the detail recorded at the greater scale of Fig. 8, is that the

site selected for the stone-circle has been modified. Essentially, it appears that the ground surrounded by the circle of stones is cut into the gradient, not to any great depth, but sufficient to mean that that arena became closer to level than it would have been in the natural state (perhaps sloping by about 1 in 20, as compared with 1 in 14 alongside the circle). As now seen, there are many localized contortions of the contours within the *c.* 80m^2 thus enclosed, and these may well owe more to various kinds of post-medieval and modern disturbance than to any constructional features relating to the presumed prehistoric monument. Nevertheless, it remains valid to draw attention to the general, overall, impression of a levelled interior, as reflected particularly in the bunching among the 297.45–297.75m contour-lines around the western side, adjacent to stones 6–9, but also in the complementary widening in the spacing of the 297.00–297.10m lines at the equivalent position around the east, to either side of stone 3 (though it is acknowledged that this appearance could have become exaggerated by any accumulation of hill-wash over the lower part, as by related reduction through erosion of the higher part).[18]

Perimeter bank and wall

It would be easy to fall in with others' assumptions that loose material generated in levelling the enclosed area would have been cast up around its perimeter, for it is commonplace in the recent archaeological literature to find Nine Ladies classified among 'embanked stone-circles', meaning one in which the orthostats appear to stand upon or within or close to the inner foot of the low ridge of a roughly circular earthwork, or peripheral 'embankment', here apparently averaging 12–13m in diameter crest-to-crest (*e.g.* Burl 1976, 291; Burgess 1980, 317; Barnatt 1990, 77; Lynch 1993, 138–45 — page 140 of the last-named mistakenly calling this site 'Nine Maidens'). Although it would have to be imagined that any such 'bank' has become degraded through erosion down the years, its crest remains most evident around and to south of stone 4 (northerly bulge in contour-lines 297.10–297.30m in Fig. 8) and adjacent to stones 8 and 9 (bulge in lines 297.40–297.70m, where doubtless partly due to the proximity of the steepest portion of the inner scarp, which, as remarked above, may result more from cutting into the ground to its east than from building it up to the west); and its outer scarp looks most marked around the eastern, *i.e.* downslope, half of the circle (bunching among 296.60–297.25m lines). In these most prominent stretches, the apparent 'bank' may attain a height of 0.20m or more above the general level, but it is difficult to be certain, especially in light of the excavation-results presented below.

If some previous accounts are to be given credit (*e.g.* Andrew 1907, 82; Thompson 1963, 17), the 'bank', or 'vallum', may have been more pronounced in the quite recent past. Until very recently, however, commentators may have experienced even greater difficulty in judging its size than is now the case, because, for more than a century, the monument was tightly circumscribed by a wall of mortared stone, measuring 16–17m in diameter, and said to have been erected 'for its better preservation' (Kains-Jackson 1880, 14; and *cf.* Burl 1976, 291, complaining that the monument was 'trapped meaninglessly inside an ugly stone wall' making it 'difficult to appreciate' the bank). These Victorian walls — for separate walls were built to encompass stone-circle and King Stone (Plates 2–4; and see Radley 1966, pl. I.A; Anthony 1985, 18) — make their first recorded appearance in the 1st edition Ordnance Survey 1:2500 mapping (sheet

Plate 2: Nine Ladies: J.J. Parker's view of stone-circle, looking east towards gap between stones 3 and 4 from outside stile over 19th-century encircling wall, *i.e.* situated between stones 7 and 8; photograph taken on 20 January 1949. *Copyright J. Eccles.*

Derbyshire 29/5, surveyed in 1877, published in 1879) and, for decades, they must have been as familiar a feature of Stanton Moor as the orthostats themselves. Following their increasing state of disrepair in the early 1980s (Pl. 5), both walls were removed in 1985 (Pl. 6). The legacy of the wall surrounding the stone-circle continues to influence perception of the monument, for its residual hollow (termed 'wall-trench' below) almost resembles a slight ditch curving with the outer toe of the 'embankment' (*i.e.* its outer edge is marked by an outer ring of hachures in Fig. 9, at some 2.6–4.0m outside the orthostats); and, throughout the period of our close familiarity with the site (*i.e.* since the 1988 commencement of the programme of surveys reported below), this has certainly served to accentuate the impression of an outer bank-scarp, creating a noticeable clustering or indentation in the recorded contour-lines around all bar a short stretch in the south-western quadrant (Fig. 8).

These circumstances mean that an obvious interest attaches to records made before the erection of the walls because, at first sight, there must be a chance that the apparent 'embankment' of the stone-circle is formed, at least partially, from material thrown inwards by those opening a foundation-trench for the wall (just as such upcast, but thrown outwards, might have contributed to the 'ring-bank' observed in the 1980s to encompass the King Stone — page 23). None of Rooke's 'impressionistic' illustrations of the 1780s-90s, nor Glover's apparently 'more realistic' view of 1829, offer any tangible evidence of a perimeter-bank, though it is undeniable that such an

Plate 3: Nine Ladies: Aubrey Burl's view of stone-circle, looking north-east towards gap between stones 2 and 3 from behind stone 6; photograph probably taken in March 1969. *Copyright A. Burl.*

earthwork could be lurking among the long grass in the 'Glover view', perhaps intentionally left to do so because ill-understood and hence considered unnecessary or inconvenient to depict. On the other hand, the 'Bateman view' has sometimes been taken to portray an embankment (*e.g.* Ward 1905, 183; Radley 1966, 14), and it has already been noticed that one reading of the manner in which that drawing was shaded could be taken to imply that Bateman sought to exaggerate this very feature — in truth, however, it remains open to question whether the latter impression may also be created, in some measure, by the thickness of vegetation there shown to occupy the spaces between the stones (less so in the 1847 watercolour than in the 1848 engraving — Figs 5 and 4). Neither did any of those three antiquaries mention a bank, and it was Jewitt (1870, 73–4; 1884, 26) who first observed that 'this circle . . . is formed of a circular mound of earth, on which the upright stones are placed', also outlining it in his plan and illustrating it unambiguously in his view (Fig. 6, which even includes relatively low stretches of bank between stones 4–5 and 5–6, much as seen on the ground in the 1980s-90s). It would obviously be beneficial to know exactly when the walls were constructed, thus to learn whether that enclosing the stone-circle was already in place some ten years before the Ordnance Survey mapped it — *i.e.* by 26 October 1867, when it is known that Jewitt went sketching at Nine Ladies (as related by Goss 1889, 227). Even though details noted on page 7 may be taken to imply that the Jewitt view is quite true to life in other respects, it seems entirely conceivable that, had it existed at the time, he would have chosen to omit the wall from his drawing (in

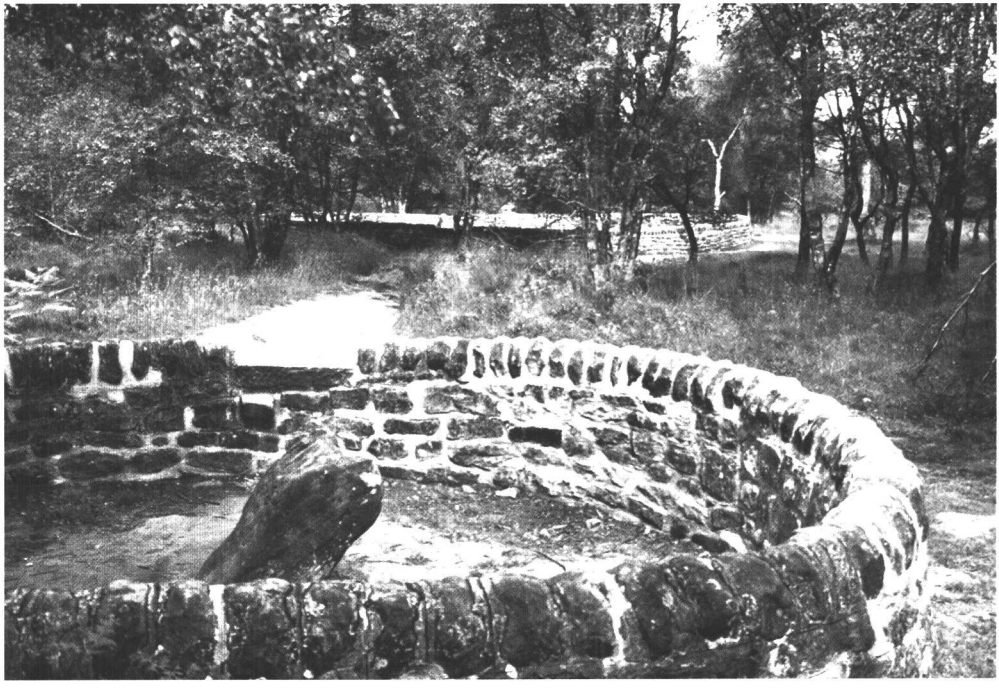

Plate 4: Nine Ladies: Aubrey Burl's view of King Stone, looking north-east towards stone-circle and its encompassing wall; photograph probably taken in August 1973. *Copyright A. Burl.*

fact, his low perspective on the circle would otherwise have been impossible to achieve). On the other hand, it may be doubted that Jewitt would have illustrated the bank had he known it to be a modern feature of the site.[19]

In 1883, with the walls undoubtedly in position (see note 24), Pitt-Rivers was able to observe 'a slight rise on the south and west' of the stone-circle (though his accompanying plan shows nothing of it), and, at the turn of the century, Ward noted 'an annular bank in which are set nine upright stones' (1900, 30). While it would be tedious to recite each of the many 20th-century references to an 'embankment', attention may be drawn concisely to certain aspects of it that are pertinent to the fieldwork described below. First, there has been considerable variety in the terminology employed in describing the composition of the bank, ranging from 'earth' (Thomas 1960, 71; Thompson 1963, 17; Radley 1966, 14), through 'earth and stone' (Heathcote 1934, 11; Bartlett 1960, 26; Bramwell 1973, 73), or 'stone' (Lewis 1971, 26), to 'rubble' (Burl 1976, 291; Vine 1982, 76), though no writer can have seen sufficient of it to justify any firm conclusion in the matter, at least until Barnatt was able to state that 'the bank is bare of vegetation over much of its circuit, revealing that it is made up of both earth and stone' (1996, 44 — though it should be obvious enough that such superficial exposure could provide little useful archaeological information). This erosion of the bank received no mention before the mid 20th century, being perhaps first implied by Radley's 'now disturbed and much reduced in size' (1966, 14 — though his pl. I.A

Plate 5: Nine Ladies: Sean Karley's view of stone-circle, looking south-east towards recumbent 4a from between stones 8 and 9, with remains of recent fireplace alongside hollow at centre of circle, and vandalized stretch of wall beyond figures; photograph taken in March 1983. *Copyright S. Karley.*

Plate 6: Nine Ladies: view of stone-circle, looking north-east towards stone 3 from behind stone 7, with remains of recent fireplace within hollow at centre of circle, and with areas of ground bare of vegetation showing pale; photograph taken in April 1988. *Copyright G. Guilbert.*

suggests that erosion had yet to take serious hold, rather seeming to show turf-covered ground with patches of heather or bilberry, like Plates 3 and 10 here, taken four years later), and this impression was to be emphasized both by Hart (1985, 86 — 'much disfigured by erosion') and repeatedly by Barnatt (1978, 137; 1986, 78; 1989, 370; 1990, 77 — 'badly denuded and only partially traceable').

The low relief of the bank, coupled with its increasing disturbance and its obscuration by the later wall, has also led to difficulty in identifying gaps that may bear interpretation as points of entry to the precinct of the stone-circle. Barnatt's words continue to sum up this situation — 'the bank is poorly preserved and it is uncertain if there were originally entrances or not' (1986, 78; *cf.* 1989, 370; 1990, 77) — though he had previously contended that 'two gaps were possibly entrances' (1978, 137, fig. 71), situated at north-east and south-west, just as others had done before him (Andrew 1907, 82; Burl 1976, 291 — the latter actually giving their locations as north-west and south-east, despite the plan in his fig. 48.b). On the ground, neither 'gap' looks convincingly original, although the present writers can vouch only for the period since the mid 1980s, when the lowest stretch of encircling ridge has indeed lain at the south-west, between stones 5 and 6, while a curving re-entrant in the 296.85–297.00m contour-lines of the outer slope of the bank, to north-east of stones 2 and 3 (Fig. 8), may well be indicative of wear on the ground-surface adjacent to the point where, until 1980 or so, visitors gained access to the monument via a stile built into the encircling wall (Thompson 1963, 18; stile seen to cross farthest arc of wall in Pl. 3, at far left in Pl. 5, and most clearly in Pl. 10; see also Radley 1966, behind left-hand

ranging-pole in pl. I.A; Anthony 1985, 18, top right of photo).[20] The position of a second stile, between stones 7 and 8 (foreground of Pl. 2, and amid snow at lower left of Pl. 3), is less obviously reflected in the recently-recorded contours.

Another attempt to elucidate the form of the 'embankment' came with a suggestion that the 'downslope arc of the ring bank of the stone circle' might have been heightened at some secondary stage, presumptively post-medieval or modern, in order to retain a pond for the benefit of stock grazing the moor, with subsidiary inference that 'a gully dug ... through the bank to the north seems to result from draining it off' (Everson 1989, 20).[21] There can be no denying that, following episodes of prolonged rainfall in the 1980–90s, we have known surface water to gather and lie within the lowest part of the area surrounded by the stone-circle (as defined by a strong line of hachures to west of stone 4 in Fig. 9, and reflected in the 297.05–297.20m contour-lines in Fig. 8); but it seems entirely possible that this is an incidental, rather than intentional, outcome of the conformation of the monument. Besides, presuming the northern 'gully' to refer to a well-defined straight hollow, of 1.2–1.5m width, extending northwards of stone 2 (as hachured in Fig. 9),[22] it seems improbable that this can have been intended to drain the alleged pond, because it runs more-or-less horizontally and does not actually pass 'through the bank', rather extending south only as far as the encircling wall-trench (the 296.80m contour in Fig. 8 betrays the relationship). Anyhow, a far shorter cutting made eastwards, adjacent to stone 4, could have accomplished the imagined objective with less effort and to greater effect than any northward channel. In short, the idea that a pond has been constructed here, and that it carries any implication for the size of the 'embankment', must be regarded as far from proven.[23] As for the northern 'gully', its interpretation remains uncertain, though hollowing along a footpath approaching the stone-circle from the north might provide a viable explanation, albeit such a path would not have led directly to the known location of the north-eastern stile over the former wall.[24]

King Stone

Some preliminary observations regarding the King Stone are appropriate here (further details on page 51). This comprises another oblong slab of sandstone (actually grit-stone, but less coarse than 4a), split at an angle to the bedding (which is visible in Pl. 13, extending from top left to bottom right of the slab), its long axis aligned south-west to north-east, and therefore more-or-less radially relative to the stone-circle (*cf.* Barnatt 1986, 78; 1990, 77). It leans heavily towards the south-east, by close to 40° from vertical, standing no more than 0.57m above the adjacent ground-surface (*i.e.* as recorded in 1988 — Fig. 12). In 1883, Pitt-Rivers recorded that it stood '2..8 high' (taken to mean 2 feet 8 inches, *i.e.* 0.81m), but it seems unlikely to have lost 0.24m in height over the ensuing period of 105 years, because its top edge carries an old carving (a simple †) and there are grounds for believing this to have been executed at some point between 1836 and 1883, or even earlier, along with some other graffiti on its north-western face (Guilbert 2001; and see Pl. 1, lower right) — hence Pitt-Rivers's observation that the King Stone was then, as now, 'sloping over' permits a presumption that he, like others subsequently (Andrew 1907, 82; Thompson 1963, 18), measured on the slope, which would have given much the same result in 1988.[25]

Ever since the King Stone was included in the first known illustration and description of Nine Ladies (Fig. 2), it has generally been regarded as a dependant of the stone-circle. In truth, however, there can be no certainty of any close association between the circle and its supposed 'outlier', this being one of 'only a handful of likely outliers found in England', with purpose that remains far from clear (Barnatt 1989, 37–8, 116; *cf.* Burl 2000, 118–19). But this has done nothing to allay speculation arising from mere juxtaposition, such as the supposition that this isolated orthostat 'may have been part of an avenue or alignment such as one sees with the Dartmoor circle' (Heathcote 1934, 11), or the suggestion that it 'appears to be aligned on the circle' (Hey 2008, 31), whereas Burl found himself wondering 'what use there was for an outlying stone . . . in line with no astronomical event' (1995, 11). The RCHME's hachured survey of 1985–6 (see note 21) drew attention to a complex of low earthworks that had not previously been observed, in the form of 'a ring bank . . . around the King Stone . . . ovoid in plan-form and measuring 12–14.5m in diameter', its long axis aligned north-west/south-east, with the orthostat positioned towards the north-west end (Everson 1989, 23, fig. 2.2) — but these features, together with an encircling hollow left by removal of the Victorian wall of *c.*4.8m diameter,[26] were no longer evident when our recording began in 1988, having been smothered in spoil and topsoil in 1987 (for their better protection — page 24), leaving the ground surrounding the King Stone virtually devoid of vegetation and appearing quite featureless (and let it be noted that partial excavation in 2000 did nothing to corroborate the claim of a 'ring bank' — page 52). Most recently, Barnatt (1999, 59; 2000, fig. 19) has even pondered upon the possibility that the lonely King Stone may be the sole survivor of a separate 'stone circle or ringcairn', perhaps one of five formerly in evidence on Stanton Moor; but a limited excavation alongside the King Stone in 2000 provided no firm footing for this, nor for any further comment regarding its role. In truth, for now, it is hard to better Samuel Pegge, who, in discussing aspects of these very 'Druidical monuments' on Stanton Moor, felt that 'all conjectures on this subject must be so vague and uncertain that it is best to leave every one at liberty to form their own notions' (1787, 60).

PROBLEMS AND REACTIONS OF LATE 20th CENTURY

Two principal factors have contributed to the unfortunate recent history of erosion that has afflicted Nine Ladies, both arising essentially from the same cause — *viz.* the easy and open access enjoyed by all upon this tract of moorland — and each factor has already received some attention here. Most insidious has been the steady wear and tear caused by the countless casual visitors to Stanton Moor, and especially to Nine Ladies, as its inherent attraction and its educational possibilities have become ever more widely publicized. Once the vegetation-cover has become broken on a given patch of ground on this site, there is little chance of recovery, because foot-traffic is so frequent and so focused. Consequently, the impact of erosion becomes gradually more apparent and, inevitably it seems, more widespread, until a point is reached where radical action must be taken if it is to be brought under control. More sporadic problems, and more traumatic injuries, have resulted from repeated use of the monument, sometimes coupled with gratuitous abuse, by those who have adopted, and who seem intent upon adapting, the place for their own pleasures and/or ceremonies. These activities have

regularly involved the lighting of fires on and around the monument, so leaving areas of scorched vegetation or, worse, patches of bared earth mingled with ash and charcoal, often located within the hollow central to the circle,[27] but occurring anywhere round about, occasionally even close to the foot of one or other of the orthostats (most damagingly immediately under the leaning King Stone — page 31). Particular incidents and depredations need not be chronicled at this stage (though some will emerge below), and it may suffice to state what had become obvious by the early 1980s — *viz.* that the combined effects of a seemingly ceaseless succession of feet passing over its surface and of more intermittent and inappropriate activities was not only giving Nine Ladies a worn and shabby appearance but also running a risk that one result, and the most serious one in the present context, would be irreparable damage to its archaeological potential.[28]

It was in reaction to these intractable circumstances that a succession of events was set in train in the 1980s by English Heritage (hereinafter EH, who, in one guise or another, had been protectors of Nine Ladies since its inclusion in the 'schedule' attached to the 'Ancient Monuments Protection Act, 1882', or rather since the land-owner's 'consent' was received in 1883 for the state to be constituted its 'guardians' — Chippindale 1983, 37). The first step came in 1985 with the removal of the pair of unloved Victorian walls (pages 16–22), aiming to mitigate the air of dilapidation and neglect to which they were making a significant contribution (Pl. 5). Inevitably, this process left further scars on the ground surrounding both the circle of stones and the King Stone, and this in turn led to a decision to attempt some cosmetic repairs, the intention being to spread some thickness of topsoil and grass-seed over various patches of bare ground — unfortunately, EH's instructions were misconstrued by the non-archaeological contractor engaged to undertake the task, with the result that quarry-waste was dumped over much of the monument in 1987. That material was removed shortly afterwards (under archaeological supervision, by the hands of a team organized through Peak District National Park Authority, hereinafter PDNPA), so that the original objective could be accomplished, and the resultant spoil was then spread over the eroding footpath between circle and King Stone and, curiously, around the King Stone itself.

During the interval between wall-demolition and cosmetic repair, the obvious need of archaeological recording here was addressed by RCHME (see note 21). Following the unfortunate incident of 1987, and given a recognition that erosion was likely to remain a live issue at Nine Ladies for some time to come, EH determined to implement a programme of detailed monitoring, with a view to producing quantifiable records; and it was at that stage, in 1988, that Trent & Peak Archaeological Trust became involved with this site, being commissioned to conduct closely-controlled metrical survey within and immediately around the monument, as next explained.

MONITORING BY SURVEY IN 1988–1997 AND 2000

When our project began in 1988, numerous surveys of this stone-circle were widely available in published sources (several of them mentioned above), each having served the purpose of its authors in illustrating what they considered to be the salient features of the monument. However, those whose surveys attempt to represent anything more

than merely a ground-plan of the circle-stones share what, in the present context, can only be regarded as a shortcoming, because they depict only slopes perceived to be artificial, generally showing them selectively, and therefore subjectively, by way of hachuring. Employed correctly — *i.e.* with each hachure of a length appropriate to that of the portion of slope it represents, and with spacing varied in due proportion to subtle changes in the steepness of that slope — this graphical technique can be well suited to the presentation of an interpretive impression of the form of a monument or any other undulating surface (and this is the aim of Fig. 9 here, prepared immediately ahead of the excavations in 2000, as a complement to the contour-plot in Fig. 8 — page 33). But hachuring is quite unsuited either to demonstrating variations in surface height across a monument or to serve as a basis for the precise recording of subsequent modifications to its surface form. As a management/conservation tool, the relative objectivity (in as much as all slopes of whatever origin are depicted with equal emphasis) and the quantitative, three-dimensional nature of spot-heights, as well as the contour-lines which can be constructed from them, are bound to make them superior to hachures. If recorded systematically and repetitively at exactly the same locations, surface spot-heights can be used to good effect in close monitoring of a monument's condition over time, allowing any changes in the pattern of erosion to be pinpointed and quantified both horizontally and vertically through comparison of successive sets of heights. This point was well appreciated over a century ago by Gray in preparing his excellent ground-plan, with 6-inch contours, of one of the Peak's greatest monuments, the henge at Arbor Low, stating that 'carefully contoured plans of ancient earthworks will be found to be of great importance to future explorers, for the contours will afford reliable evidence of the shape of earthworks when the plans were made, and will record any subsequent mutilations that may intervene' (1903, 464, 496, pl. XXXVIII); but this form of record has seldom been emulated in this region.[29] So, recognizing the potential value of the method for isolating those portions of Nine Ladies that were suffering undue loss to erosion, it was agreed by EH that several sets of spot-heights should be recorded over a period of years, intending that these should cover an area around the King Stone besides that over and immediately around the stone-circle, and acknowledging that, as a prelude to some kind of mitigation-strategy, this could make an interesting, if potentially somewhat depressing, case-study in the degradation of a monument at the hands and feet of visitors.

Although no exact interval between the episodes of recording was prescribed at the start, it was proposed informally that a fresh record should be made as close as possible to the same month in each year for at least five successive years, because it was felt that such regularity should make comparison of the separate sets of spot-heights more purposeful, by allowing certain variables to be excluded from consideration, so simplifying calculations of any increase/decrease in the rate of erosion (which was, of course, the prime goal of the intended programme of recording). However, for a variety of reasons, both practical and administrative, that ideal programme was not achieved, and seven spot-height surveys were undertaken of the area covering the circle during a period of nine and a half years — in May 1988, January 1990, November 1990, November 1991, November 1992, August 1994 and November 1997. In contrast, it soon became clear that repetition of the complementary survey around the King Stone would serve little purpose because the ground-surface thereabouts had been

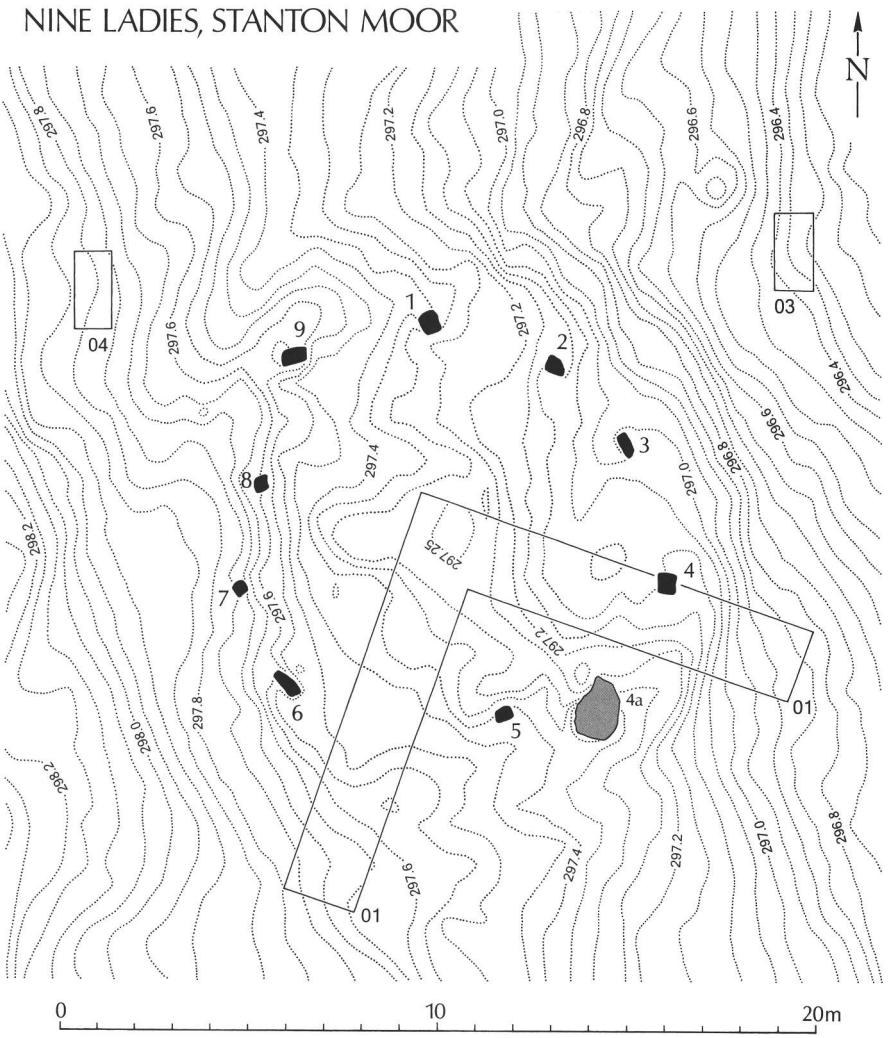

Fig. 8: Nine Ladies: surface contours at 0.05m vertical interval (numbered in metres above Ordnance Datum) in relation to ground-plan of stones of circle (uprights 1–9 solid, recumbent slab 4a shaded), as recorded in November 2000, immediately before opening of trenches 01, 03 and 04 (outlined); scale 1:200.

extensively masked by the debris dumped in 1987 (explained above), so becoming relatively flat and apparently lacking in archaeological interest, at least superficially.[30] The lengthy time-lag separating the sixth and seventh surveys of the circle occurred because EH's intention to take stock of the results in the autumn of 1994 became deferred until 1997, at which time it was decided to commission a further survey in order to ensure that the data to be assessed was up-to-date and therefore able to provide a sound basis for a review of practical options for additional action in the cause of conservation. As reported below, that assessment eventually led to a decision to

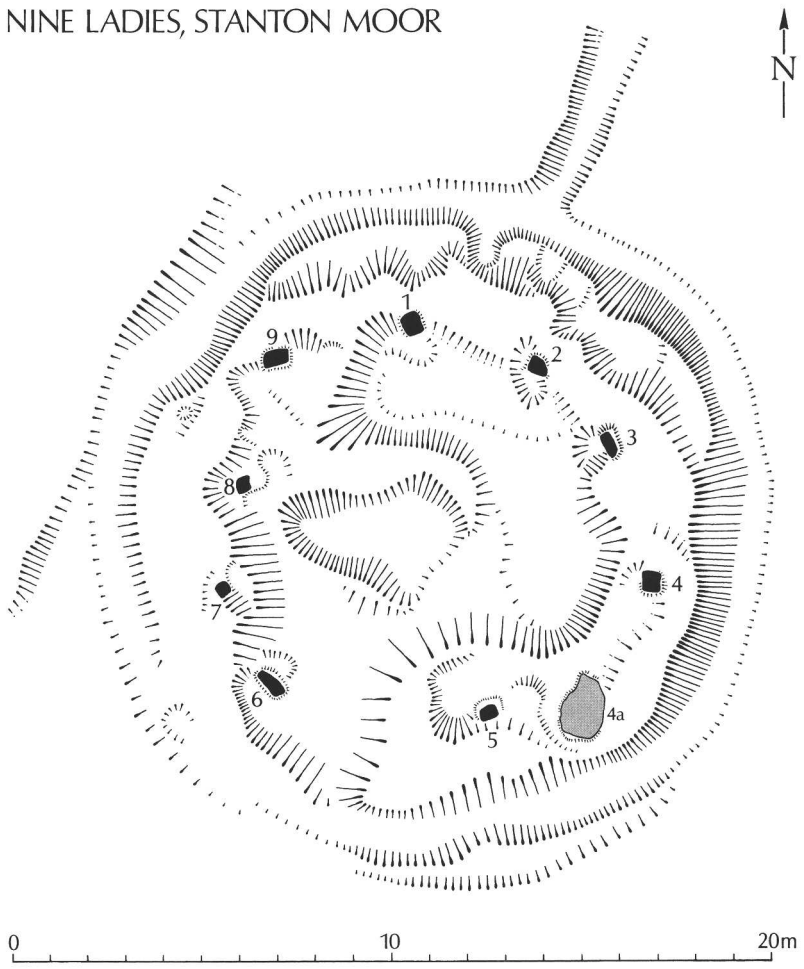

Fig. 9: Nine Ladies: hachured undulations within and around stones of circle (shown as in Fig. 8), as recorded in November 2000, before opening of trench 01 (outlined in Fig. 8); scale 1:200.

conduct further fieldwork (repeating the survey once more as well as opening several excavations) in 2000, in anticipation of a programme of repair-work.

At the commencement of the initial spot-height survey, a 25m square was set out around the stone-circle using theodolite and tape-measure. Eight steel-pins, each 50cm in length, were driven in flush with the ground-surface to mark the corners of the square and the mid-point of each of its sides (to be relocated for subsequent surveys; and most of them should still be in place today, though it is known that at least one was dug out by persons unknown in the 1990s). Similarly, four pins were inserted at the corners of a 10m square centred upon the King Stone. Each square was orientated as near as possible on the cardinal points through use of an optical-reading compass (allowing 6° of variation for magnetic north). To the great benefit of the project, two

of the RCHME personnel who had been responsible for the 1985–6 survey (namely, Paul Everson and Stewart Ainsworth; see note 21) then visited the site with electro-magnetic, distance-measuring equipment (EDM) in order to inter-relate our local grid with their traverse network, which is itself inter-related with the National Grid, thereby allowing co-ordinates to be calculated for each of our twelve survey-pins (and those NGRs are recorded in archive-reports — see note 6). Local bench-marks related to Ordnance Datum (OD) were also established on site, as derived from a bench-mark at 323.23m on an Ordnance-Survey triangulation-pillar situated some 750m to the south-west of Nine Ladies, so that all recorded spot-heights in each of the series of surveys are referenced to OD (as are those in the excavations).

In each survey of the circle area, spot-heights were read at 0.50m intersections of the local horizontal grid, supplemented with spots positioned as appropriate to record slight breaks in slope that passed between those grid-intersections, normally coinciding with the edges of the deepest parts of patches of ground where recent erosion was plain to see, especially in the vicinity of the individual circle-stones. There is considerable variation in the number of spot-heights recorded in the successive surveys, though this did not affect the intensity or consistency of cover in what were considered to be the most crucial parts of the site. Thus, the 1988 survey covered the entire 25m square (2753 spots in all), while it was decided by EH that each of the six surveys of 1990–97 should be limited to a core-area where the continuing effects of erosion were most apparent and most worrying, meaning essentially to the 'embankment' of the circle and the area enclosed by it. One factor which undeniably influenced that decision was cost, because it was realized that restricting coverage would make it possible for two people to achieve the task on site in a single day using an automatic level and manual recording (this being the method used from the start of the project and, despite the ready availability of speedier procedures with EDM and data-logger in the later years, it was considered desirable to maintain consistency in instrumentation throughout the series of surveys leading up to the assessment of results at the close of 1997).[31] In fact, each survey did extend to some distance beyond the bank, varying in accordance with various factors, not least the time available on the day, so that the total of spots recorded on the six occasions ranges from 519 to 928.

It was recognized at the outset that, even if recorded consecutively by the same people using the same instrument, any two sets of spot-heights read at the same grid-intersections over a sloping and irregularly undulating site like Nine Ladies would be unlikely to produce identical results at all points. It seemed inevitable that small irregularities in the ground-surface could mean that the slightest variation either in the surveyed position of individual spots or in the positioning of the levelling staff would be liable to result in discrepant readings; and the fact that an appreciable proportion of the spot-heights recorded in the second survey actually proved to be a little *higher* than their counterparts in the first was taken as sufficient testimony to this observation (since it was judged to be extremely unlikely that many, if any, of those particular spots had really been heightened on the ground). Consequently, in assessing the results, it has seemed reasonable to ignore differences of 0.01–0.02m between successive heights read at what purported to be precisely the same spot; besides, it seemed improbable that any localized lowering of such a small magnitude would be regarded as sufficient to justify any remedial measures. Throughout the course of the programme of survey,

it was any clustering of readings revealing a lowering of 0.03m or more as compared with their immediate predecessors, as well as those locations where reductions of even greater order accumulated over a period of years (some as much as 0.12m over the 114 months), that gave the principal cause for concern in the context of this project. It was repeatedly observed and recorded that most of these areas of greatest and continuing erosion were concentrated close to the circle of stones, with a noticeable deepening of well-defined hollows alongside most of the individual orthostats and distributed patchily along the top of the 'embankment', especially south from stone 9 and between stones 4 and 5, where the recumbent 4a became progressively more exposed as the years wore on and the soil around it wore down.

The ultimate intention was to quantify variations within each set of spot-heights as compared with the equivalent readings in earlier sets and, following the completion of each fresh survey, this was done provisionally through manual mapping. Eventually, all seven sets of gridded spot-heights (but not the supplementary, off-grid, readings) were input to computer-file in order that a full range of comparisons between sets might be assessed graphically. It would be tedious to recount full details of the ebb and flow of erosion over the years 1988–97 (they are included in the archive-reports — note 6), and it will suffice here to highlight the most significant of the comparisons by way of Fig. 10, using the first and seventh sets of spots to chart height-variations from May 1988 to November 1997 across the core-area of intensive repeated recording. It is the colorations in this diagram that encapsulate, and quantify, most emphatically the progressive problem of surface erosion at Nine Ladies, with the densest reddening representing the patches under severest threat — in short, analysis of the mass of recorded data left no room for doubt that the deterioration of this monument was continuing, perhaps even accelerating, over the period of study.

Besides the three-dimensional record provided by the spot-heights, areas of localized intense erosion (caused by the digging of holes and the lighting of fires) were outlined, and attempts were made to define those parts of the monument where general wear was having a significant visual impact, in the sense that their sparse vegetation, or total lack of it, was giving the place a bare and neglected appearance. The extent of this wear was not easy to record objectively without becoming more time-consuming than resources permitted, for it was not only patchy but mostly defined imprecisely on the ground, with many gradations of sparseness evident in the grass-cover. Moreover, its apparent limits varied year by year, as much as 38% of the ground within and immediately around the circle being recorded as 'worn' on one occasion, while grass encroached to reduce that proportion to little more than 30% on others, always located predominantly around the perimeter, above all in the south-east quadrant, but also over and adjacent to the central hollow.

In addition, although erosion of the ground-surface was seen as the most important issue, at least in the short term, it was evident in 1988 that the stones which give this monument its most obvious and enduring identity had themselves been subject to abuse by some who have frequented the site over recent years. Accordingly, a record was made of the condition, form and current disposition of each of the orthostats, comprising photographs (two of which are reproduced here in illustration of damage — Pl. 1; and see page 8) as well as the cross profiles to which reference has already been made (Figs 11–12).[32]

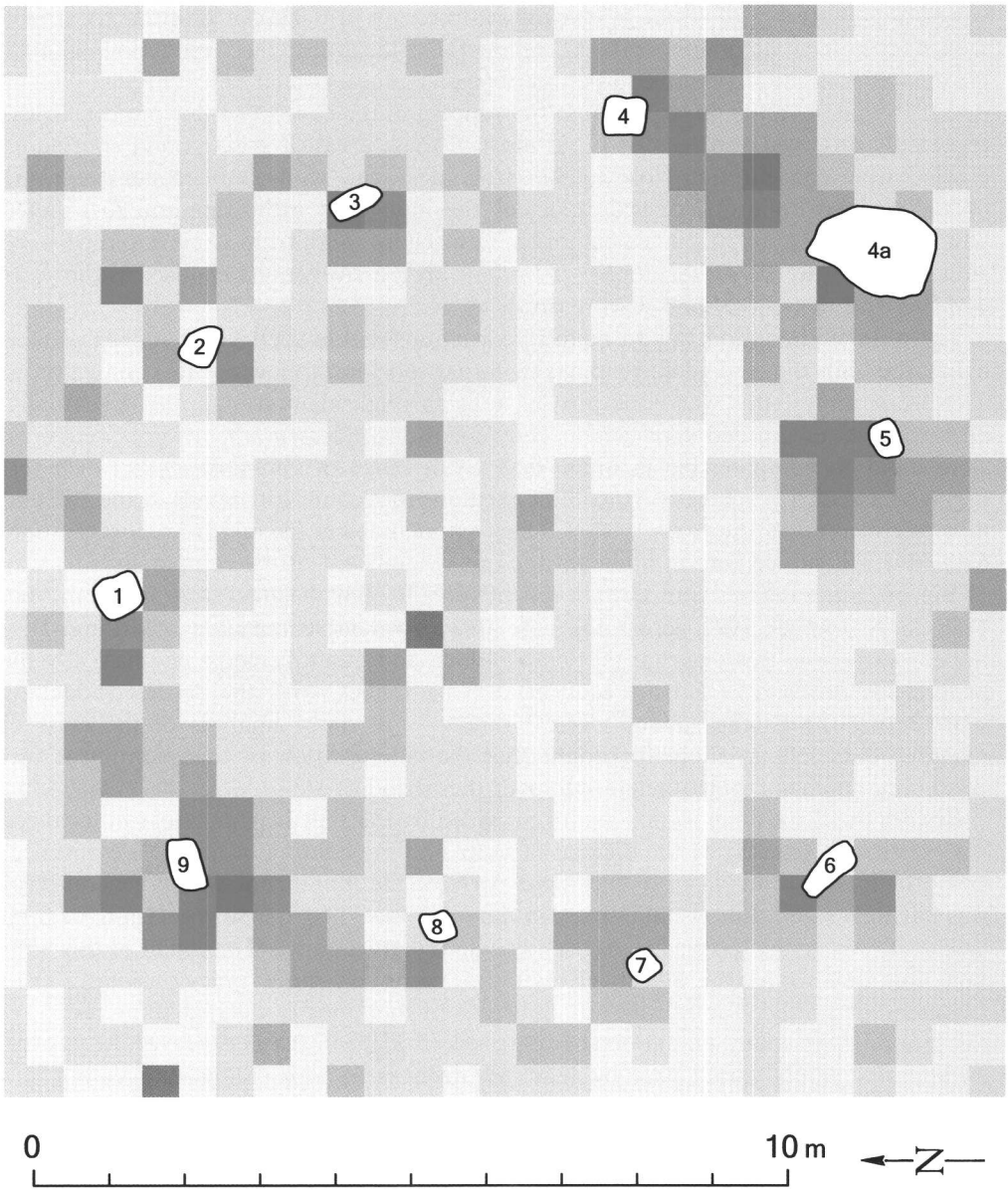

Fig. 10: Nine Ladies: progressive erosion during 1988–97 within a 14.5 × 13.3m area over and around stone-circle, with each 0.5m square coloured according to gradations of net loss (red) or gain (blue) over period of 114 months, each grade being equivalent to 0.02m, with patches of ground that had suffered greatest reduction, 0.12m, represented by most intense red (while greatest heightening, 0.08m, is most intense blue, partly due to introduction of topsoil over damaged patches); scale 1:100. (NB, for practical reasons, north is here aligned perpendicular to all other plans in this paper.)

Much of the recorded deterioration was clearly an unintended consequence of the plentiful visitors, whose observed tendency is to walk around the perimeter of the circle, casually touching the stones and often sitting upon certain of them (favourites for this being 8 and 9), there to contemplate the place, usually facing the centre of the circle when so doing, and frequently scuffing their feet in those already well-worn hollows. As observed on pages 8–12, however, some of the erosion obviously resulted from needless damage, especially through repeated fire-lighting, evidence for which was often to be seen scattered about the circle, particularly within the hollow at its centre (see below), but also immediately around the hapless King Stone. In fact, the King Stone suffered disproportionately over the period under review. This was due partly to fires, as when, in June 1988, the lower half of its south-eastern face became reddened and flaky through scorching, an event witnessed by GG when visiting the site shortly after the extinguishing of a fire situated directly beneath its overhang, leaving the stone still exuding heat. But its indignities also involved outright vandalism, as when, during revelries at midsummer in 1990, the King Stone was broken off close to ground-level (opening an old crack — Pl. 1, lower right), reputedly when a vehicle was driven into it (though no impact-scar was to be seen at any higher point on the stone), and it remained propped in place by other stones over the ensuing decade (until a permanent repair was effected at the time of the excavations in 2000 — page 47).

As remarked above, the centre of the circle has lately been occupied by a distinct hollow, measuring up to *c.*4.5 × 2.5m, and this has frequently served as a fireplace for those who resort to Nine Ladies for their own 'sacred' events and to leave their mark (as, for example, in Plates 5 and 6). Other burnt patches show that that hollow has not been alone in undergoing such treatment (*e.g.* Pl. 7), and there has undoubtedly been a tendency for the hearths to move from place to place, though it is true that the central hollow has been something of a focus for these activities, causing it to change shape slightly, though without significant deepening, on several occasions during the nine years, doubtless due to minor earth-movement in relation to 'camp-fires'. This is a complicating factor in any attempt to assess the form of the monument, because a marked ridge curving around the north and east sides of the hollow (evident in the Fig. 9 hachures, and reflected in the 297.2–297.4m contour-lines in Fig. 8), coupled with the denser than average scatter of small stones that has sometimes been revealed at the surface in this area, may be a remnant of what was once perhaps a significant structural feature of the monument (pages 13–15). None the less, it must be borne in mind that, in the form recorded recently, both the ridge and the related stones could have resulted partly from 20th-century meddling, with upcast from delving into the pre-existing hollow and newly-introduced hearth-material each perhaps making a contribution. In fact, despite the extent of surface erosion both there and in other parts of the monument, surprisingly few stones seem to have become exposed over recent decades and, if nothing more, this may at least be taken to suggest that most of the stones seen in the central area had been purposely gathered there for one reason or another.

The predicament of Nine Ladies as it stood when the seven sets of spot-heights and ancillary records were assessed late in 1997 was summarized in Guilbert and Malone 1999 (which includes a black-and-white version of Fig. 10, plus an illustration of the same 1988/1997 comparison through superimposed contour-plots), painting a 'dismal' picture of degradation. And this conclusion had to be measured against comments

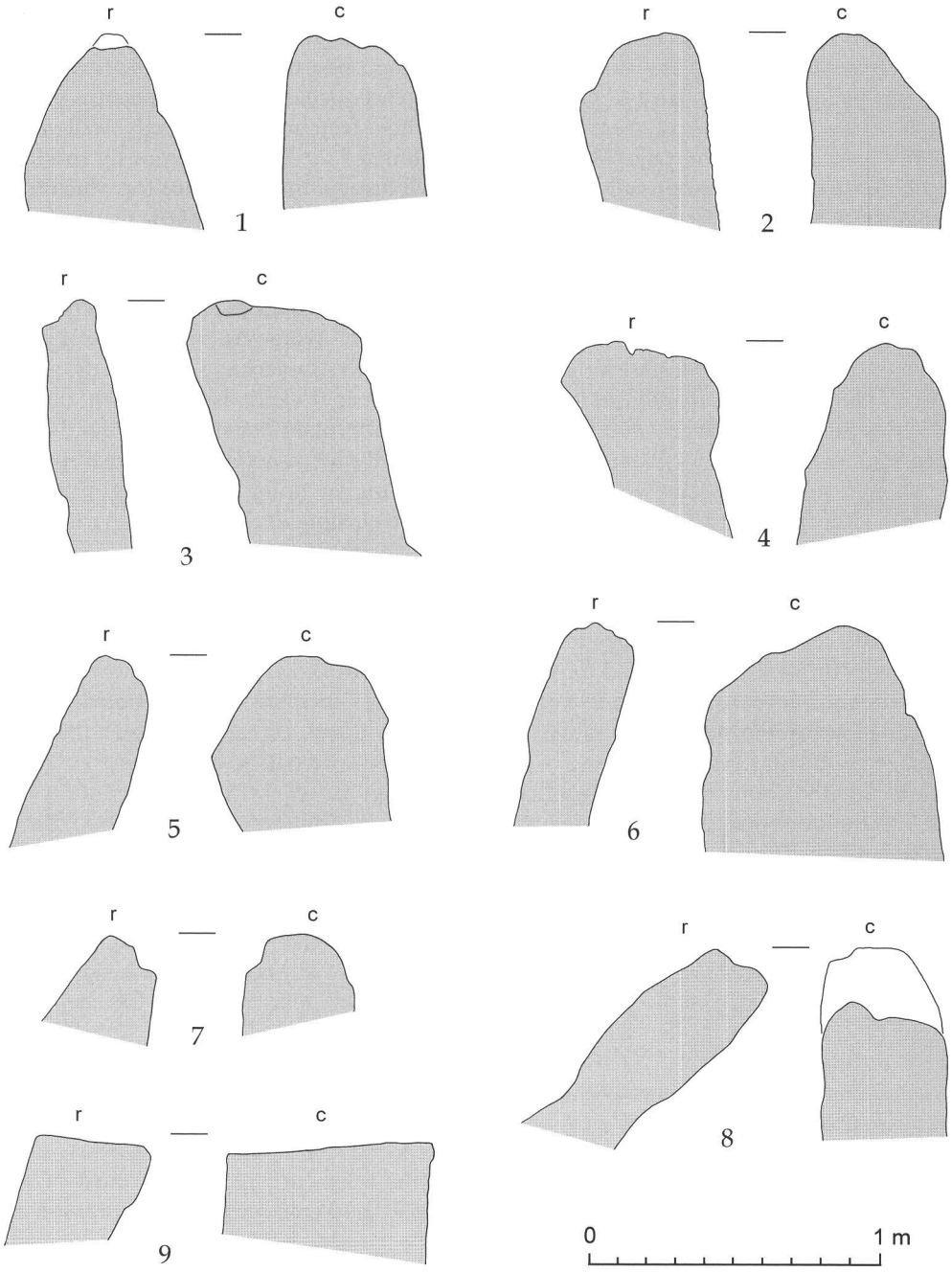

Fig. 11: Nine Ladies: profiles of the nine orthostats of the circle, as recorded at 1:10 in 1988; for each stone, left-hand profile is on approximate radius (r) of stone-circle, each with outer side to left, as viewed progressing clockwise around circle, while right-hand profile is on approximate circumference (c), as viewed from within circle; scale 1:25.

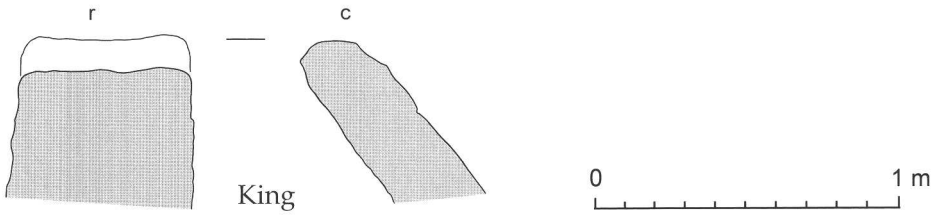

Fig. 12: Nine Ladies: profiles of King Stone, as recorded at 1:10 in 1988; radial (r) and circumferential (c) by reference to nearby stone-circle, as viewed from south-east and north-east respectively; scale 1:25.

coming from other archaeologists troubled by the depressing trend of events — notably, those of stone-circle *aficionados* like Burl (1995, 53), dismayed that this site had fallen 'prey to vandalism', and Barnatt (1996, 44; 1999, 59), bemoaning damage to both King Stone and stone-circle. So there was considerable justification in an expression of 'growing concern' for the 'long-term preservation' of this significant element of the extensive 'scheduled' area of Stanton Moor (Humble and Smith 2000, writing on behalf of EH and PDNPA, the latter having by then taken on responsibility for day-to-day management of the monument). The position had been reached where it was felt that the programme of archaeological fieldwork developing in response to the erosion should culminate in exploratory excavations (as described below), thus to ensure that future archaeological management would be better informed.

Briefly, it should be added that, on the eve of those excavations, a further, *i.e.* eighth, spot-height survey was conducted (November 2000), so as to compile an adequate record of the surface form of the monument and its surrounds immediately before the additional disturbance that would be an inevitable consequence of the excavations. This survey, covering a 22m square centred within the original 25m square, involved 2037 EDM-readings (at 0.50m grid-intersections plus supplements). Contour-lines, at 0.05m vertical intervals (judged to be the limit of tolerance for this site), were produced from the gridded spot-heights, being generated initially by computer, to be checked by eye against the actual form of the ground-surface so as to facilitate minor smoothing of the lines for a more realistic depiction of minor undulations, taking account also of the off-grid spot-heights, in readiness for preparation of the final version of the present Fig. 8. Notwithstanding the strictures ventured on page 25, a hachured plan was prepared simultaneously, with breaks of slope first recorded by EDM, and hachures then interpolated on site (Fig. 9), creating a more easily-assimilated illustration, not least for the benefit of various points raised in the appraisal given above. Nevertheless, the reproduction here of that hachured plan should not blind us to the difficulty in interpreting the significance of many of the apparently-artificial steepenings of slope shown therein, be they relatively pronounced scarps or minor undulations — for all we know, most, if not all, of those superficial slopes *could* have resulted from quite modern movements of earth.

EXPLORATORY EXCAVATIONS IN 2000

Given the results of the succession of surface surveys outlined above, with their demonstration of ongoing erosion, and considering the attendant circumstances and

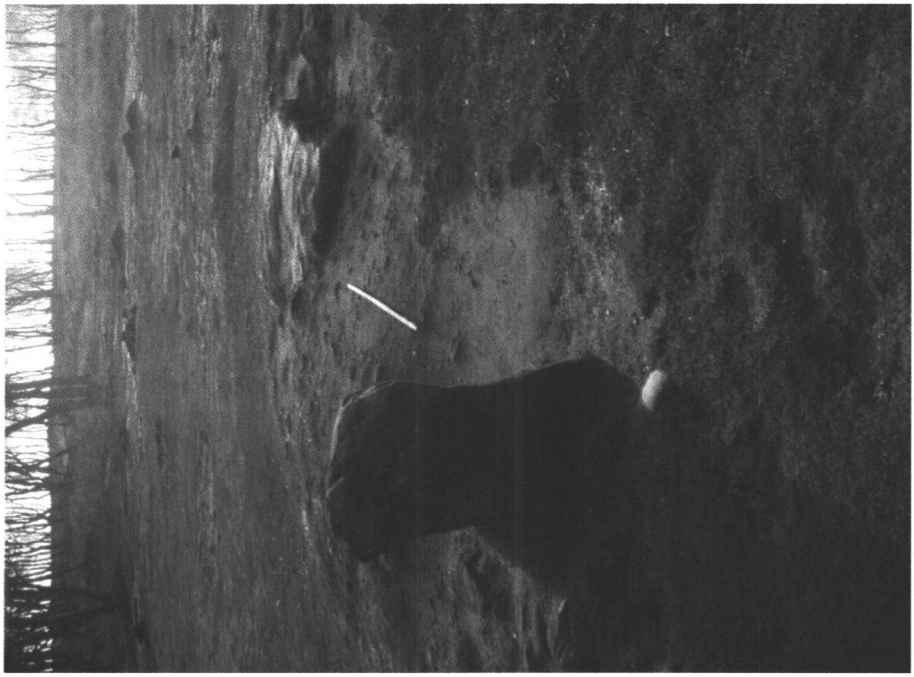

Plate 7: Nine Ladies: examples of abuse and misuse — left is view looking north-east from King Stone to stone-circle in August 1994, with hearth/fireplace built of loose stones in foreground; right shows orthostat 4 with recumbent stone 4a beyond, and eroding ground between and around them both, in December 1997.

consequent concern for the future of the monument, it was determined by EH that selective excavation would be the most effective means of gathering the further information considered to be a necessary prelude to the devising of a strategy for conservation and management of Nine Ladies. Those excavations were undertaken in the autumn of 2000, with three broadly-defined goals set at the outset: to evaluate the archaeological potential of the monument; to identify the degree to which this potential is vulnerable and from what agencies; and to furnish information for those who would take responsibility for the production of a plan for the future management of the monument. The first and second of those goals are tackled in the following pages, while the third, though addressed at the time, has been developed by EH and PDNPA since 2000 to the extent that it now lies beyond the scope of the present paper.[33]

Debate over the extent of excavation required to achieve the stated aims led EH and PDNPA to conclude that a sample of *c.*10% would be adequate. Although comparatively large in the wider context of archaeological evaluations, it was necessary to acknowledge before the event that such a proportion cannot be expected to provide conclusive evidence as to the full character, or vulnerability, of any such monument, for it is quite possible that its determinant below-ground features are not evenly distributed, with the result that significant elements may not be encountered within the excavated sample. In other words, while an excavation of this size may well be capable of proving that damage has occurred and/or is liable to occur to certain elements of the monument, it could not be expected to yield any unequivocal demonstration that there is either a lack of archaeological potential or an absence of vulnerability to damage in respect of the archaeological resource embodied in the monument. In selecting the positions of trenches, it was obviously desirable both to take due cognizance of various specific issues regarding this monument (as rehearsed above) and to ensure that the sample could be accepted as reasonably representative of the range of archaeological information that might be anticipated from such a site, at the same time as testing the variability of the surface erosion then evident. Moreover, it was necessary to be mindful of a need to avoid inflicting undue damage when acting in the name of conservation, and hence to recognize that such partial excavation of a monument must be governed by certain restrictive principles. In essence, it was considered acceptable to excavate superficial deposits (*i.e.* at least down to the surface of undisturbed subsoil/bedrock), including any residue of prehistoric bank and/or mound and/or buried topsoils, but it was preferred to leave intact much of the fill of definable features cut into the subsoil/bedrock unless they either fell wholly within the limits of excavation (for only then could their full shape be appreciated, and so their excavation conducted sensibly, with a view to recovering evidence of form and function as well as sampling the fill for palaeo-environmental and/or dating purposes) or clearly formed part of some intelligible linear feature (*e.g.* ditch or wall-foundation, which might be examined sensibly by cutting a cross section, and again sampled appropriately).

Against this background, it was decided to open six trenches (Fig. 1), one relating directly to each of the two principal features of the site, the stone-circle (01, 40m^2) and the King Stone (02, 41m^2), while the other four were positioned within the surrounding areas in order to examine anomalies detected through geophysical survey (03–06, each just 2.0–3.5m^2, none of which produced useful archaeological information, so they are not described here).[34]

All excavation was done entirely by hand, and certain aspects of excavation-methodology were common to each trench. Turf was stripped as thinly as possible and, once any patches of quarry-waste (*i.e.* that which had been spread about the monuments in 1987 — page 24) had been removed, excavation of the succession of soil-horizons listed in Table 1 was conducted in a series of trowelled spits of arbitrary 0.05m thickness down to the top of the 'illuvial horizon', which was itself removed in 0.05m shovelled spits, as was the 'upper subsoil', to expose the top of the 'lower subsoil'. The surface revealed by the removal of each spit was cleaned by trowel in readiness for planning and photography. For the purposes of this routine recording, each trench was divided into 'units' of varying length (1.25–3.00m, as convenient in relation to detailed morphology of the ground-surface), identified by upper-case letters (A–I in 01; J–S in 02) and defined by crosses in Figs 13 and 15. Each archaeological context, including cut features, was allocated a four-digit number, and these are used here as appropriate. More than 3000 litres of sediment, including some 12% and 17% from trenches 01 and 02 respectively, were dry-sieved through a 7mm mesh as a check on the rate of artefact-recovery in regular hand-excavation — as this yielded no artefacts, it is unnecessary to supply further information here (like all aspects of the excavations, greater detail is available in the archive-report — see note 6).

The Ashover Grit of Stanton Moor weathers to a coarse sandy substrate, and, with the exception of that seen downslope of the stone-circle in trench 03, the soils revealed by excavation were typical humus-iron podzols of the Anglezarke Series (Bridges 1966, 32). Given the generalized soil-profile outlined in Table 1, only significant variations

top below surface in cm	**base below surface in cm**	**horizon**	**description**	**termed here**
0	1–6	Oh	very dark to black organic-rich humus, occasional sandy streaks, sharp boundary	**humic horizon**
1–6	3–14	Ea	pale buff friable sand, leached horizon, sharp boundary	**leached horizon**
6–16	9–24	Bf	dark brown concreted sandy loam, with up to 5% rotted sandstone fragments, illuviated horizon (*i.e.* that to which iron, aluminium and humus are precipitated), undulating boundary	**illuvial horizon**
10–20	22-	Bw/s	mottled mid-brown sandy loam, iron-stained / bioturbated C horizon	**upper subsoil**
14-		C	bright orange-yellow sand with tabular, fine-sandstone fragments up to 20cm maximum dimension, sometimes in apparent layers	**lower subsoil**
		bedrock	tabular sandstones exposed in outcrops	**bedrock**

Table 1: Nine Ladies: description of soil-horizons, with measurements taken only on profiles not truncated and recorded from top of lowest humic horizon (i.e. presumed original surface) where more than one present.

need be described where relevant in the following separate accounts of trenches 01 and 02. Lying on the leached horizon, and penetrating into the illuvial horizon, was a variable scatter of weathered boulders of gritstone, generally coarser than tabular sandstone encountered within the lower subsoil. In composition, those small boulders resembled the orthostats of the monument, except that their surface was usually more friable. Most of them measured no more than 0.3m in length (a few up to 0.46m) and 0.1m in thickness (occasionally up to 0.18m). They evidently occurred here naturally, having probably been left behind where surrounding finer material had been weathered away, and their distribution in trenches 01 and 02 was without significant clustering except in the central area of 01 and in the midst of its northern arm, where they had clearly been gathered together artificially.

Since the interface of the illuvial and upper subsoil horizons was undulating wherever examined in excavation, the soils were removed until an arbitrary surface was reached at which they became sufficiently homogeneous in general for even leached features to be identified. In every case where an apparent feature filled with upper subsoils was investigated (*e.g.* 02, units P and R), the irregular shape suggested a natural origin, as did the merging into adjacent deposits that often occurred. Dark staining of the subsoil extending downwards from the illuvial horizon was particularly common around stones, and this could easily have disguised some anthropogenic features dug into the lower subsoil, which generally comprised a fine sand with variable density of tabular blocks of fine sandstone. In a few places, these blocks were orientated in linear bands, standing on edge and clearly heaved by freeze/thaw action (*e.g.* around the disturbance in unit R of 02 — Fig. 15). In most cases, however, the blocks were disposed horizontally; and in some places, they appeared to have been reduced in size by weathering *in situ* (*e.g.* 02, unit L), while in others they appeared roughly layered within a sandy matrix (*e.g.* east of stone 4 in 01, unit B), possibly due to some periglacial movement. Similar sandstones and sand deposits can be observed in modern quarries at little distance to north-west of the monument (SK 247636).

Investigating the 'embanked' stone-circle (Trench 01; Figs 1, 8, 13 and 14)

Before the event, particular archaeological issues which it was thought appropriate to investigate by way of an L-shaped trench 01 included the character of the central hollow and its related upcast; the possibility that evidence might survive for the former existence of a stone standing midway between stones 5 and 6 of the circle (though it seemed debatable whether a 2m-wide trench could be expected to give clear evidence of the alternative possibility that formal entry to the circle was once gained in this south-western sector — page 21); the composition of the 'embankment' in the eastern sector; the possibility that a soil-profile might survive beneath any upcast bank (and might therefore prove to be a useful source of palaeo-environmental and/or dating evidence); the form of any foundation-pit around stone 4; and the stratigraphical relation of the bank to stone 4 and its foundation-pit.

Trench 01 was set out in such a way that, should it have been considered desirable, it might be extended northwards and/or westwards to give full cross sectioning of the circle. Each arm of 01 measured 11m in length and 2m in width. Turf, humus and leached horizons were removed from the full length of the western arm, but only units F and G were reduced to the lower subsoil. Through the eastern 7m of the northern

arm, only the northern half was excavated into subsoil, because it was intended that the southern half would be used for sampling of the anticipated buried soil; in the event, however, no such soil could be identified. Disturbed deposits down to 0.2m were removed from unit E, where the two arms met at the centre of the circle. In both arms, the line of the Victorian enclosure-wall was easily recognized as a linear patch of crushed sandstone and mortar, these being remnants left by demolition of the wall in 1985, occupying a trench cut down to a maximum of *c.*0.30m below the modern ground-surface (in units B and H).

In the western arm of 01, two anthropogenic features were investigated. One, numbered 0021, was crossed by the western limit of excavation and initially assumed to be part of the wall-trench (whether that be taken to mean the Victorian foundation-trench or its 1985 disturbance); on finding a mortared sandstone block at 0.40m depth, investigation of 0021 was abandoned as it seemed certain to be a modern pit, perhaps made to hold the post that supported the information-board known to have been erected thereabouts by EH's forerunners, the Ministry of Public Building and Works (board fallen by early 1980s — propped against wall by right-hand figures in Pl. 5). The other, 0022, was a rounded pocket, measuring up to 0.38 × 0.16m and penetrating 0.10m deep into upper subsoil. It was identified at the top of the illuvial horizon by its fill of relatively dark, mottled, sandy loam, with four small stones sitting close to its margins. Although positioned just a little south of the mid-point between orthostats 5 and 6 (and hence having apparent potential for interpretation as evidence for the ostensibly 'missing' stone '5a' — pages 12–13), 0022 was surely too small ever to have held a stone of comparable size to any of the existing orthostats. It was perhaps nothing more than a delve made in searching for signs of such a stone, albeit quite an old delve because its fill was too thoroughly illuviated to have been of very recent deposition. Before excavation, the one possible clue to the position of a stone '5a' had been a piece of sandstone poking through the turf, and this too lay roughly central to the western arm of 01 (arrowed in Fig. 13); but it was found to sit on top of the illuvial horizon, without significant variation in the surrounding deposits (despite very close examination), and hence with nothing to indicate an associated feature.

Within the circle, in both arms of the trench, the upper part of the soil sequence was duplicated: below a modern turf developed on a loamy sand, upper and lower humic horizons each overlay a leached horizon, the lower of which formed part of a complete podzol sequence from humus to subsoil (Fig. 14).[35] Following discussion on site with Matthew Canti and Jacqui Mulville (EH's Soils Specialist and Scientific Advisor respectively), it was concluded that the turf and its sand probably resulted from recent management (*i.e.* the spreading of soil/turves; and, if so, this will to some extent have corrupted the integrity of our plans, Figs 8 and 9), while the upper humic and leached horizons had probably developed on an accumulation of sediment partly infilling the circle. This sediment had become podzolized and so was evidently of some age. Such duplicate (*i.e.* upper) podzol horizons were not recognized within trench 02 (below), perhaps reflecting its differing location to 01, the stone-circle standing below more steeply sloping ground than the King Stone (page 15 and Fig. 1), so making the circle more suitable to receive colluvium. Relatively recent events which might have created bare ground close to the monument, and which might therefore have contributed to colluviation, would include the clearance of the surrounding conifer plantation in

the 19th and early 20th centuries (Everson 1989, 18), though it seems that such rapid podzolization would be unusual (*cf.* Reynolds and Catt 1987, 524; Canti 1992, 30–1). However, the duplicate horizons also occurred outside the line of the Victorian enclosure-wall, which would have prevented direct inwash of sediments (though not windblown material), perhaps suggesting that the colluviation pre-dated wall-construction by some incalculable period. It would have to be concluded that, before the deposition of these superficial deposits, the levelling of the internal area of the circle (page 16) may well have appeared even more obvious than it does today.

In the northern arm of 01, removal of the turf revealed that the deposits forming the 'embankment' were variably truncated, while an undulation on its top had filled with modern silt, confirming the recent erosion that had been attested by the repeated surface surveys of 1988–97. This was most clearly seen in the sections adjacent to stone 4, and especially the medial section (b-b' in Fig. 14), where the duplicated humic layers curved upwards to the point where the modern ground-surface cut across them, clearly showing that the 'embankment' once stood higher, and that there has been insufficient time since truncation for re-adjustment of soil-processes (thus confirming the surface surveys in demonstrating very recent and severe truncation hereabouts). Removal of these silts and of the adjacent, thin, weathered surface of the ridge of the supposed 'embankment' showed the latter to be composed of undisturbed upper subsoil. The top of the ridge was removed to an arbitrary depth of *c.*0.16m below the current ground-surface, thereby revealing a lower subsoil of loose yellow sand with occasional small, tabular fragments of sandstone. This surprising result was checked by cutting a deeper section (down to 0.44m from the base of the illuvial horizon) across the northern arm of 01, on a line coinciding with the approximate centre-line of the bank, close to stone 4 (Pl. 8). This section clearly showed the 'embankment' to comprise a mid-brown, mottled, sandy-loam, upper subsoil (surviving to a maximum of 0.12m thickness), sitting above a clean, yellow, incohesive sand with occasional tabular sandstone-fragments (also maximum 0.12m thick), above a horizon with abundant tabular sandstone-fragments, which, like the layer above, extended at least 2m to the east (beyond the wall-trench), allowing it to be interpreted as part of a continuous band of subsoil. Through close inspection during excavation of 01, M. Canti and J. Mulville confirmed both that there was no sign of any artificial build-up of an 'embankment', nor of any buried soil, and that truncation had been so severe as to mean that any surface soil that may once have existed on top of the ridge had been largely lost (leaving no more than its very base, as represented by the upper subsoil). In such stratigraphic circumstances — *i.e.* no sealed deposits nor any bank of upcast — it was considered that techniques like soil-micromorphology, or analysis of particle-size and/or pollen, could not be helpful, particularly in such free-draining, inorganic, sands, where any recorded soil-structure or pollen-content would inevitably be of uncertain origin and liable to include, perhaps exclusively, modern material. This evidence that there is, or anyway that there survives, no built embankment but only a ridge (or 'bank' as we may conveniently term it) of undisturbed subsoil defining the circle, at least in the eastern part of the circuit, is the most unexpected and intriguing outcome of the 2000 excavations, obviously demanding some reconsideration of the form of the monument.

Fig. 13: Nine Ladies: trench 01, with overall plan incorporating detail recorded at various levels, left plan giving interpretation of stones around disturbance at centre of circle, and lower right plan showing superficial slopes of bank and wall-trench adjacent to stone 4 (*cf.* Fig. 9); scale 1:100.

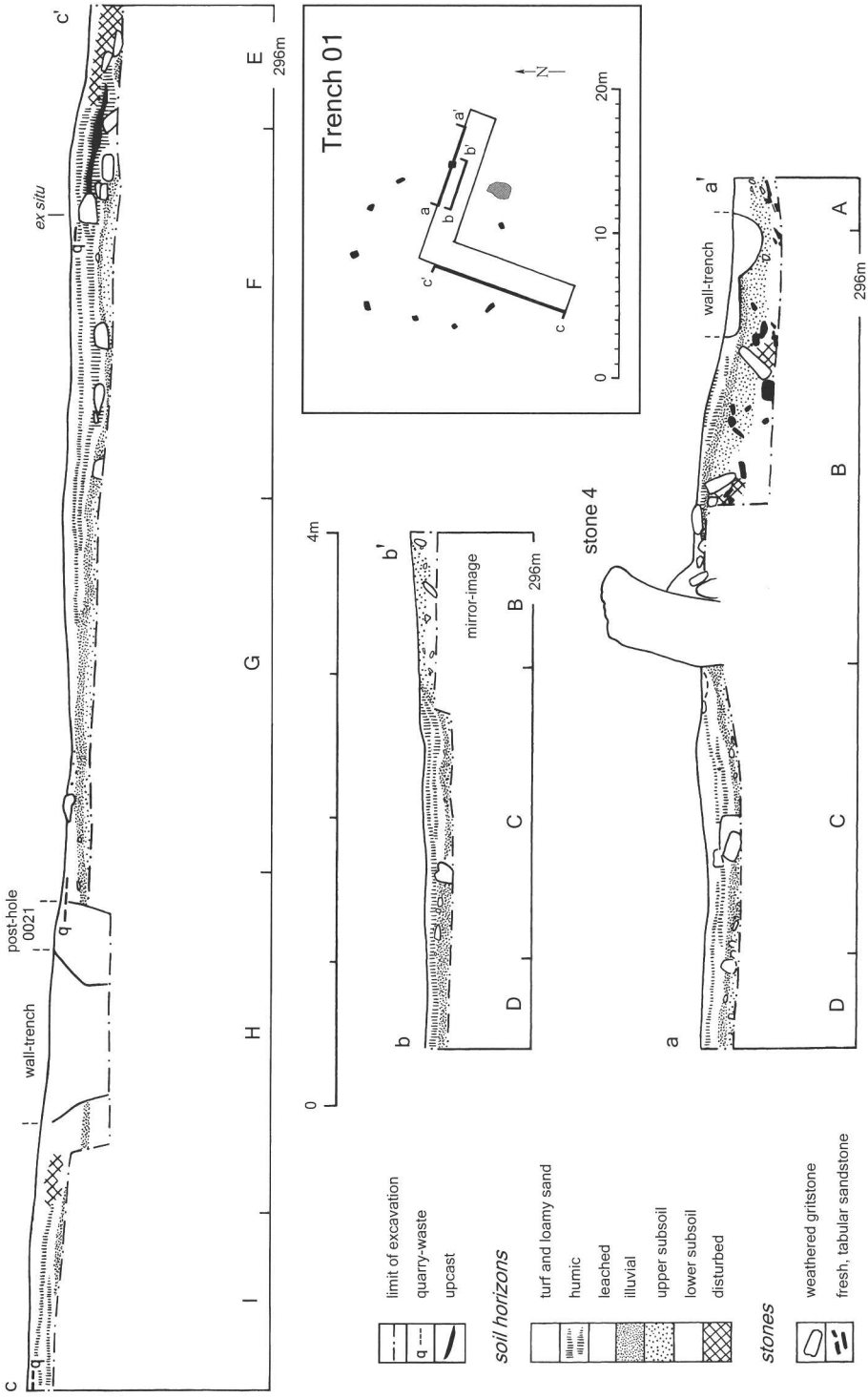

Fig. 14: Nine Ladies: trench 01 sections, including stone 4; scale 1:50. Inset plan, at 1:500, shows location of sections.

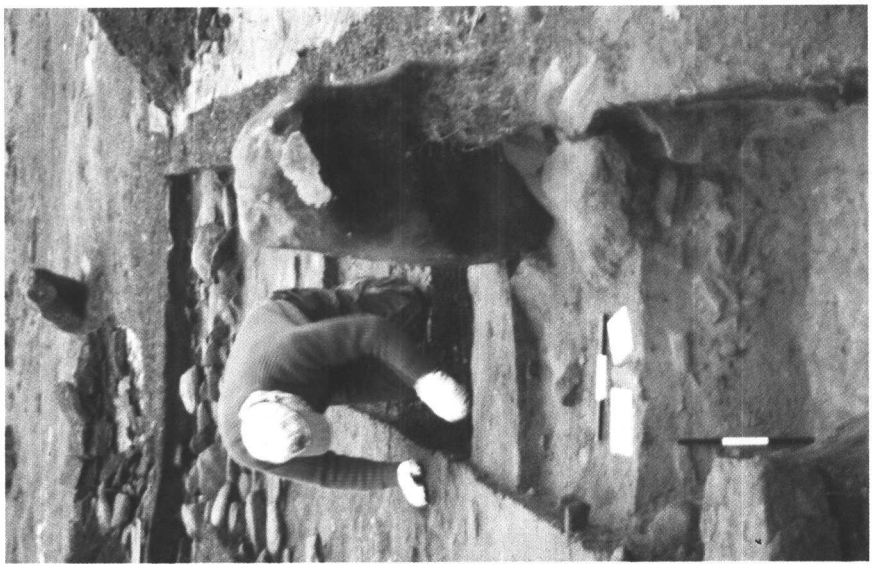

Plate 8: Nine Ladies: left shows excavation in progress within northern arm of trench 01, looking west-north-west, in November 2000; vertical scale rests against section through subsoil at 0.6m east of circle-stone 4, as seen in close-up in right-hand photograph; scale-divisions of 0.10m.

In essence, this new evidence from Nine Ladies suggests that the internal area of the stone-circle was more dished than levelled, apparently with soils sculpted away both internally and externally to leave the raised rim. Quite apart from the difficulty in nominating analogous arrangements on other sites, there are obvious problems inherent in such a novel interpretation, not only in comprehending what became of the material upcast in the process of dishing the interior but also in accepting that there are no obvious signs of hollowing immediately around the circle. Even if achieved through modification of a natural terrace, such dishing of an area of some 5m diameter (*i.e. c.*20m^2) would have generated considerable spoil and there can be no certainty that this was used in constructing this monument — obviously it cannot be asserted that the rim of undisturbed subsoil now seen to form the bank was never topped off by at least some part of the upcast (itself since eroded from the scene) but it does seem improbable that such a construction could have accommodated all of the loose material.[36] Similarly, without more extensive excavation plus far more detailed spot-height survey (and perhaps not even then), it cannot be affirmed that the area round about has not been scraped down (the thickness of material removed perhaps thinning away from the monument), and it can only be suggested tentatively that some of the gentle wiggles in the Fig. 1 contour-lines, where minor irregularities are more common close to the stone-circle than in any other part (especially in 296.8–298.0m) just might reflect such modification of the ground. Be that as it may, the apparent dishing of the interior would perhaps have given this monument something of the appearance of a 'pond barrow' (*e.g.* Grinsell 1941, 89–90, pl. III.b; Ashbee 1960, 25–7; Thomas 2005, 89–94), especially as it should not be forgotten that the circle of stones *could* have been added at a secondary stage.

All that said, it has to be accepted that such a restricted investigation of the site could never be expected to produce definitive and generally applicable answers regarding the form of the monument, and it is worthy of remark that there is some suggestion from patches of erosion upon other stretches of the bank that its composition may not be consistent in all parts, so that artificial heightening in some sectors cannot be ruled out. Trench 01 sampled one of the areas of greatest erosion (*cf.* Fig. 10), where close inspection prior to excavation revealed the bank to comprise a sandy matrix containing indications of thin tabular sandstone, and this was found to reflect the subsoil recorded in excavation quite accurately, while weathered gritstones were then apparent only directly beside stone 4, where they are now seen to be among the packing for its stone-hole rather than forming any part of the make-up of an 'embankment' (see below). Similar weathered gritstones had been visible in the 1980s-90s adjacent to certain orthostats on other eroding parts of the bank, and these too may require interpretation as stone-packing. However, those around stone 9 appeared more widespread than might have been expected of any stone-hole comparable to that provided for stone 4, warning against any simplistic assumption that the bank is of unitary construction.

The packing-stones around stone 4 were clearly distinguishable, especially to its east (Pl. 9). With careful cleaning at the basal limit of excavation, it was possible tentatively to discern the outline of the 'stone-hole' that contains them, extending up to 1.2m west/east and 0.7m southwards into trench 01 (dashed in Fig. 13), and recognizable only by the mottling of its sandy-loam fill, slightly darker brown than the surrounding

Plate 9: Nine Ladies: circle-stone 4 within northern arm of trench 01, looking north-north-east, in November 2000, with stones 3 and 2 beyond; scale-divisions of 0.10m.

upper subsoil. The deepest part of the excavation intended to investigate the 'embankment' (see above) lay largely to the east of the stone-hole, possibly clipping its eastern edge (which was perhaps marked by a near-vertical, weathered gritstone in Fig. 14, though this should not necessarily be taken to demonstrate the depth of the stone-hole). There appeared to be two small features adjacent to the edge of the stone-hole, that to its south having a fill of grey/brown loamy sand with sparse flecks of charcoal, while that to the west contained a cluster of four weathered gritstones apparently without any associated variation in soil-composition. These features were not tested by excavation since that would have involved impinging further upon the fill of the stone-hole.[37]

The edge of one other possible feature extended a short distance into the northern arm of 01, at *c.*1.0m west from stone 4, where it appears as a cluster of gritstones in unit C in Fig. 13 (also in section a-a', Fig. 14, and left of vertical scale in Pl. 9). It was not investigated.

One detail of the northern arm which remains hard to explain is an elongated block of stone sitting just below the turf, on the lower, yellow, subsoil, close to the eastern edge of the bank (outlined in Fig. 13, and protruding into left foreground of Pl. 8). The size and surface condition of this stone (weathered smooth, but not friable) distinguished it from fragments of sandstone embedded in the subsoil, while its location was suggestive of some form of kerb to the bank. However, there was no other sign of such a feature at any point in trench 01.

Where the arms of 01 intersected, in unit E and extending into units D and F, a concentration of weathered gritstones, ranging from 0.5m to less than 0.1m in

Plate 10: Nine Ladies: stones 4, 3 and 2, looking north, probably taken in March 1969. *Copyright A. Burl.*

maximum dimension, formed a rough arc, 0.6–1.6m wide, around a hollow, or disturbance, central to the stone-circle (Plates 11 and 12). There were two distinct fills within the central hollow: the upper was sandy and very dark, with abundant charcoal and numerous recent artefacts (crystals, polished pebbles, plastic comb, cigarette-packet, metal pegs); the lower (yielding no artefacts, but only exposed, not excavated) comprised mid-brown sandy loam with many fragments of angular, fractured, tabular sandstone (some clustered with little soil matrix), quite different in character from the weathered stones which lay around the hollow, suggesting that the angular pieces may have come from penetrating bedrock or from breaking up a larger piece of rock. The possibility of a relatively recent delve of greater depth was also evident from occasional small patches of orange-brown sand at a high level close to the hollow, including a prominent lump at the northern edge of unit E ('upcast' in Fig. 13; *cf.* Plates 11 and 12), and a thin spread overlying the lower humic horizon in unit F (section c-c', Fig. 14). Some of the weathered gritstones forming the arc appeared to be *in situ* (because tightly packed together), while others appeared displaced (as interpreted in left plan of Fig. 13). The northernmost three stones were the most obviously *ex situ* because they overlay the upcast lump of orange sand noted above. It was clear that the best chance of understanding the structure(s) represented by these stones would be in wider area-excavation, so the best-preserved parts, in units E/D and in the eastern part of F, were not excavated beyond the stage seen in Pl. 12, though stones in the central and western part of unit F were removed to ascertain their

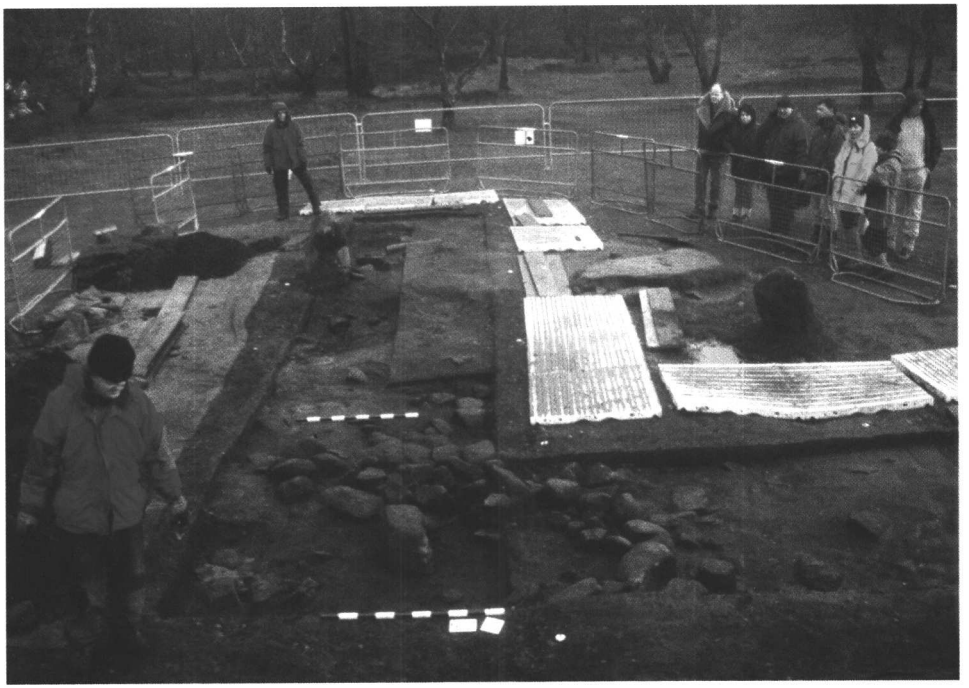

Plate 11: Nine Ladies: trench 01 within stone-circle, looking east-south-east, in November 2000; farther figure stands beyond stone 4, with 4a and 5 visible to right of trench (and party of visitors looking on); scale-divisions of 0.10m.

stratigraphic position (section c-c', Fig. 14), showing one of the weathered gritstones to sit on the surface of the lower humic horizon, and hence considered *ex situ* (labelled in Fig. 14), while most others were judged to be *in situ* because sealed by, or at most poking through, the lowermost humic horizon.[38] Any patterning among the *in-situ* gritstones was not easy to discern, but there appeared to be at least two distinct elements among those surviving stones that seemed most definitely undisturbed: some were laid flat and carefully placed, matching concave with convex edges, while others were set together on edge and standing slightly higher than those adjacent, as if to form a kind of kerbing to a paved platform. However, such a partial record of an evidently damaged structure defies close definition and comparison, and it must suffice to observe that small, defined platforms, or cairns or cists, have been recorded within other local monuments, including stone-circles (Barnatt 1990, 17 — but note that, even after the 2000 excavation, it is not possible to confirm his suggestion that this structure at Nine Ladies was 'eccentrically placed' and hence perhaps 'secondary'), and this may recall our earlier speculation over the possibility that slab 4a might have originated from some construction at the heart of the monument (pages 13–14).

Trench 01 yielded no artefacts of prehistoric type, nor anything that was not obviously modern.

Plate 12: Nine Ladies: detail of stones around disturbance at centre of stone-circle, in trench 01, looking west-north-west, in November 2000; scale-divisions of 0.10m.

Investigating the King Stone (Trench 02; Figs 1, 15 and 16)

Before the event, it was thought appropriate to investigate the form of any foundation-pit for the King Stone, the survival and composition of the 'ring bank' recorded around the King Stone in 1985–6 (page 23), and the possibility that a soil-profile might survive beneath that bank (and might therefore prove useful as a source of palaeo-environmental and/or dating evidence).

This asymmetrically U-shaped trench was set out in such a manner that its two longest arms, forming a right-angle, might eventually be easily incorporated into a wider excavation of the poorly-understood area surrounding the King Stone, should this prove desirable (these, the so-called 'western' and 'southern' arms, were actually aligned north-west/south-east and south-west/north-east respectively, with the 'eastern' also aligned north-west/south-east — Fig. 15). Each arm of 02 was intended to measure 2.0m in width, but the thickness of quarry-waste filling the hollow of a probable pathway in the eastern arm (unit S), up to 0.27m, led to a decision to restrict excavation there to only its western half (without significant discoveries), so that the excavated area totalled 41m^2. As the western section of the western arm was to pass through the midst of the King Stone, it was decided by EH that secure repair of that fractured monolith, undertaken by local masons commissioned for the task, would be a necessary preliminary to excavation of 02, in the interests of both conservation and safety (see page 31 regarding fracture; photographed before repair in Pl. 1, after repair in Pl. 13, while additional views before,

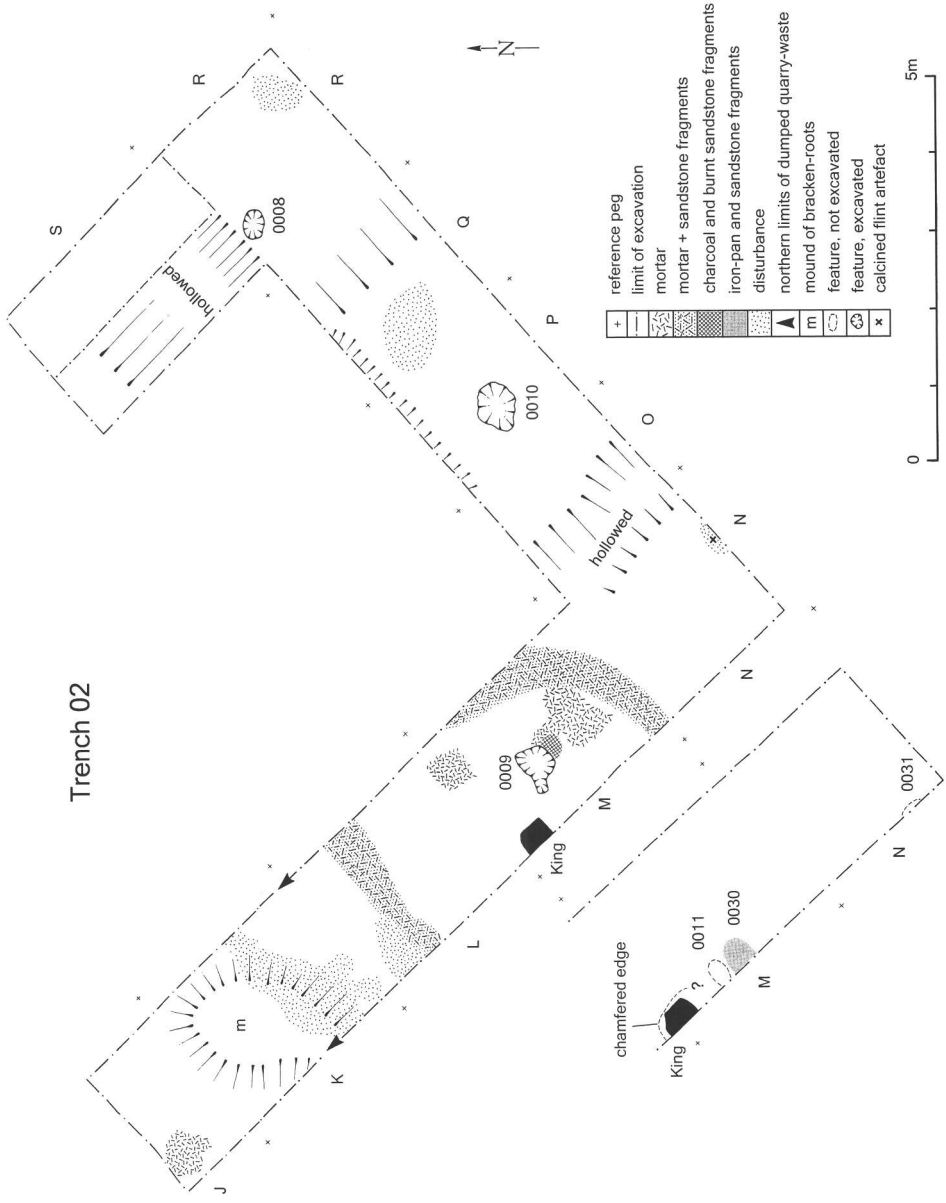

Fig. 15: Nine Ladies: trench 02, with overall plan including detail recorded at various levels, and lower plan showing features revealed adjacent to King Stone; scale 1:100.

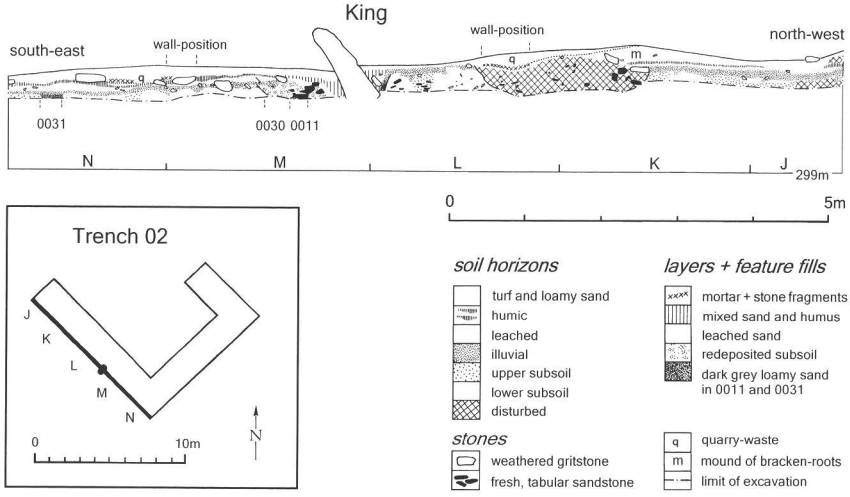

Fig. 16: Nine Ladies: trench 02 section, through King Stone; scale 1:100. Inset plan, at 1:500, shows location of section.

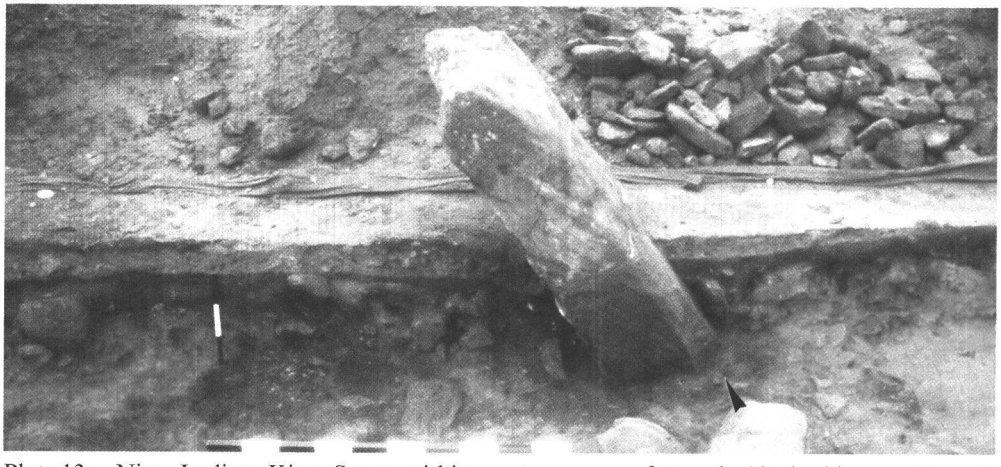

Plate 13: Nine Ladies: King Stone within western arm of trench 02, looking south-west, in November 2000; northern chamfered angle of stone arrowed from below; scale-divisions of 0.10m.

during and after repair have been published in Edmonds and Seaborne 2001, 170, 171–3 and 173 respectively).

Quarry-waste covered much of trench 02, its thickness varying 0.01–0.27m. Below that, the stratification was much as in 01, and is best seen towards the extremities of the section in Fig. 16, with humic and leached horizons, overlying an illuvial horizon, and then upper and lower subsoils. A scatter of weathered gritstones overlying the upper subsoil was demonstrated (by a crisp-packet underlying one of them) to be modern, while a patch of displaced soft, brown, upper subsoil (stippled in unit Q in Fig. 15) is interpreted as a

probable tree-throw because its shape and fill were reminiscent of that beneath an old tree-bole in the corner of unit R (also stippled). Another localized disturbance, probably an animal-burrow (stippled in unit N), was found to contain the sole artefact of probable prehistoric form to be recovered from the excavations of 2000 — a fragment of calcined flint from a retouched artefact (perhaps a rod or long side-scraper/knife). The southern arm (*i.e.* units O-R) was wholly excavated into the lower subsoil, part of the upper subsoil having been worn away by another hollowed path, causing one of several undulations in the subsoil (principal ones hachured in Fig. 15). Two small features, 0008 and 0010, were visible from the top of the leached horizon, and so are unlikely to be of great age.

The extent of modern features/disturbance in the western arm of 02 (units J-N) meant that it was decided to excavate only its western half, containing the King Stone, into the lower subsoil. Once the quarry-waste had been removed, the line of the Victorian enclosure-wall was immediately evident, marked by two bands of mortar and crushed sandstone, but, unlike its equivalent in trench 01, apparently without evidence of a foundation-trench. The northern band overlay the edge of a disturbance, dug at least 0.34m into the lower subsoil/bedrock and partly overlain by a mound of bracken-roots (hachured in Fig. 15, unit K), which itself overlay a crushed aluminium-can. A small, bottle-shaped pit (0009), situated close to the eastern corner of the King Stone, was filled with charcoal-rich humus and degraded sandstone flecks, like a patch of similar materials at the surface of subsoil to its south; this pit contained fragments of modern glass at the base, at *c.*0.10m depth. Numerous modern artefacts (including coins, crystals, polished semi-precious jasper, other types of non-local stone, and glass-fragments) were found within and below the patchy turf adjacent to the King Stone. Thereafter, the King Stone and three small features, each lying partly beyond the south-western limit of excavation, were all that remained for investigation in the western arm (lower plan in Fig. 15).

To north-west of the King Stone, the soils had been worn down to the top of the illuvial horizon, where this stood higher than to its south-east (Fig. 16). The orthostat was found to be set into an elongated hole (dashed in Fig. 15; *cf.* Pl. 13), its variably layered fill of fresh, leached and humic sands becoming clearly distinguishable only after the patchy illuvial horizon had been removed to reveal the surrounding soft orange sand containing horizontal, tabular fragments of sandstone, judged to be an *in-situ* lower subsoil. A relatively deep pocket of upper subsoil, seen in unit L of the Fig. 16 section, appeared to be part of a naturally undulating surface. The edge of the stone-hole was less clearly defined at the south than to east and north, where its almost-vertical edge was marked by a dark grey sand (containing an Edward VII penny), merging at its top into the adjacent illuvial horizon. Other modern artefacts found as much as 0.32m deep into the fill of the stone-hole included pieces of foil and glass, evidently attesting to recent delvings and/or bioturbation (rather than any disturbance due to tilting of the stone, because it is believed to have leaned to a similar degree since at least 1883 [page 22], while the 'Bateman view' also suggests a significant lean some 35 years earlier — Figs 4 and 5). South-east of the King Stone, a group of fragments of 'fresh, tabular sandstone' in unit M in Fig. 16, probably derived from bedrock, *may* have been included in the stone-hole; they overrode a patch of compact, dark grey, gritty, loamy sand with abundant charcoal flecks and small pieces of rotted sandstone,

apparently filling a separate feature (0011), which lay adjacent to a patch of hard iron-rich sand/sandstones (0030 — immediately right of vertical scale in Pl. 13). The fill of 0030 was unlike any other deposit in trench 02, or in 01, strongly suggesting that it was not of natural origin. It seems possible that 0011 and 0030 were elements of a single feature, conceivably post-pipe and packing respectively, but fuller excavation would obviously be required for any confirmation of either this or the alternative possibility that they lay within the stone-hole (and this fell beyond the brief for the project, making an equivocal result inevitable). Those features were first identified at 0.33m below ground-surface, and the overlying deposits were mixed, not conforming to the standard sequence seen farther to the south-west — it is not clear whether this too was part of the fill of the stone-hole, which may therefore have been more extensive than suggested above (as indicated by the '?' in Fig. 15), or of some intrusion related to 0011/0030. To judge from a small part visible towards the southern end of the section (in unit N), a feature with fill similar to 0011 lies at *c.*3.4m to its south-east (0031), and this was not seen until the illuvial horizon had been removed, suggesting that it is of some age.

Shortly before backfilling of trench 02, part of the fill of the stone-hole collapsed into a void, no more than 0.08m across (as measured at the arbitrary base of excavation, but possibly wider at greater depth), perhaps an animal-burrow. The void lay immediately against the north-western side of the King Stone, and it could be probed with the fingers to reach a rounded convex angle, presumed to be at the base of the stone (shown in Fig. 16).[39] This brief exposure of the lower part of the King Stone allows its dimensions and shape to be described more fully than has been possible hitherto (page 22). In sum and as recorded so far, it is a roughly rectangular block some 1.22m long by 0.60m wide, and varying 0.29–0.38m in thickness. The south-eastern surface, *i.e.* under the overhang, is less smoothed by weathering than all others, but this may be due to recent damage from fires (page 31). The exposed portions of its arrises have largely become rounded by weathering, that between south-east face and north-east edge now being less so than the rest (perhaps because a fragment has become detached with a bedding-plane). The angle between the south-east face and south-west edge has been chamfered for a length of *c.*0.37m from the top of the stone (*i.e.* to some 0.08m above the ground-level of 2000, its lower extremity now being below ground — see note 25) — if this piece, up to 0.10m wide, was removed by a single blow, then it must have been struck from what is now the top of the King Stone.[40] The opposite angle, between north-west face and north-east edge, also has a chamfer, up to 0.18m wide and at least 0.90m in length, as gauged from what is thought to be the basal level of the stone, though its narrowing upper part is too weathered for certainty of the original extent. In contrast, where buried before exposed in excavation (arrowed in Pl. 13, and now reburied), this northern chamfer is better defined and less weathered than the southern one. It must have been made prior to erection of the King Stone, at least in its present position. We are left to wonder whether such a large and sharp facet, crossing the grain of the rock obliquely, could have been produced without metal tools; and it is as well to remember that, in the current limited state of archaeological knowledge, there can be no confidence that the King Stone is prehistoric, at least in its recorded form (*cf.* note 3). More particularly, its present stone-hole need not be prehistoric, which makes it uncertain whether the recorded disposition and inclination of the King Stone are in

any way relevant to prehistory, reinforcing our earlier scepticism (page 23). On the other hand, the dense and compact fill of feature(s) 0011/0030 mean it is necessary to remain open-minded to the possibility that the King Stone has been refashioned and re-erected at some time, and may therefore be of prehistoric pedigree after all.

Another negative note must be sounded in respect of the superficial record of an 'ovoid ring bank', as made in 1985–6 (*i.e.* before the dumping of quarry-waste over this area — page 24), for nothing encountered in the excavation of trench 02 could be construed as substantiating that interpretation, despite constant awareness on the part of the excavators that this was an expected outcome. Rather, the evidence of 02 suggests that the impression of a ring-bank results from conflation of various phenomena, including the 'mound of bracken-roots' in the western arm and 'undulations in the subsoil' of the southern arm. In short, it seems best to conclude that the surface around the King Stone has for some time been disfigured by a series of localized deposits and disturbances which, when viewed without the benefit of excavation, were liable to misinterpretation.

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NOTES

[1] As explained on a previous occasion (Guilbert 2001, 190), the outlying stone was known as the 'King' in the 18th century, while the Ordnance Survey called it 'King's Stone' in 1879 (1st edition 1:2500 sheet Derbyshire 29/5), but the modern name, 'King Stone', will be used here purely in deference to its common usage today.

[2] These quoted words are Bateman's (1848, 116), writing in one of many published works to address the archaeological interest of Stanton Moor. In fact, this moor and its many monuments, not least Nine Ladies itself, are so much publicized and so much frequented that it seems superfluous for us to include yet another location-map here. Rather it should suffice to provide National Grid References for the centre of the stone-circle (SK 24916349) and for the King Stone (SK 24876347), and to refer the reader to relevant maps published in two previous volumes of *DAJ* — Barnatt 1986, fig. 30 (wherein stone-circle is '32', King Stone is '9'); Ainsworth 2001, fig. 3 (naming Nine Ladies at a square symbol, with nearby triangle for King Stone) — and in two readily-accessible books about the region — Hart 1981, fig. 6.4 (naming Nine Ladies and 'King's Stone'); Barnatt and Smith 1997, fig. 16 (wherein Nine Ladies is the northern of the larger circles with central circle).

[3] In consideration of Nine Ladies, it should be borne in mind that we have no independent evidence for the date of construction of any element of this monument, either the stone-circle or the outlying King Stone. Although it is common to attribute such a monument to the Early Bronze Age, strictly speaking there is yet no proof even of any prehistoric origin for any part of the Nine Ladies complex and, in terms of age, the best that can be said is that all ten orthostats were in place when the first illustrations of the 'Druidical temple' were prepared by Hayman Rooke (reproduced in Fig. 2 here). Moreover, although our principal purpose here does not relate to dating (because the one piece of flintwork recovered through the excavations of 2000 was not in a useful stratigraphical context — page 50), it does deserve to be emphasized that no prehistoric artefacts can be attributed to the immediate vicinity of Nine Ladies, despite persisting rumours, even assertions, to the contrary — *i.e.* from time to time over more than a century, there has gradually arisen a 'factoid' to the effect that several urns, plus a miniature pot and cremated bone, were unearthed from a barrow or cairn within the stone-circle, and that this occurred late in the 18th century. This notion seems to have started when Lewis alluded to it (1903, 136 — citing Jewitt as his source but, as far as may be determined, unfairly so), being effectively reinforced by Heathcote (1934, 5, 11 — stating, firstly, that Rooke found urns in examining 'a small mound within a circle' in 1789 and, secondly, that the 'somewhat scattered' state of 'a small cairn in the centre' of Nine Ladies 'may have been caused by Rooke in 1789' — and it must be said not only that Rooke seems falsely accused but that there seems to be no documented evidence for any form of antiquarian activity at or near Nine Ladies at the stated date), eventually crystallized by Bartlett (1960, 26 — 'cinerary urn burials were found in the central cairn in 1789'), followed by Lewis (1971, 26 — 'a small cairn near the centre yielded urn burials in 1789'), though others seem to have been somewhat less convinced (Thompson 1963, 18–19 — 'cairn may have enclosed a burial . . . may have been dug into and scattered by Rooke in 1789'; Marsden 1977, 108–9 — 'miniature cup said to have come from the circle in 1784', while recognizing that other of Rooke's finds came from 'a small cairn inside a circle' quite separate from Nine Ladies), until Dyer seems to have reached a better understanding by

noting that 'a small mound in the centre ... has now vanished' at the same time as attributing the relevant cremations, urns and 'incense cups' to a separate ring-cairn (1981, 102–4). In short, some have evidently confused Nine Ladies with another of the circular monuments located 'towards the north-east end of Stanton Moor', because 'within this was a little barrow', which was 'opened' by Rooke some time between the drafting of his communication published by the Society of Antiquaries in 1782 and the writing of his letter of November 1784 to Samuel Pegge (1787 — and we may reasonably suppose that that letter was much as the script published in Rooke's name in 1793, describing his discovery of the said urns, etc in 'no.1 cirque', which later came to be dubbed 'T.61' by Heathcote [1936, fig. 7], or 'Circle 31' by Barnatt [1986, 77–8, fig. 30], situated *c.*180m north of the Nine Ladies circle). That matter should have been finally laid to rest once Barnatt had come to regard such 'hearsay' about artefacts from Nine Ladies as 'spurious' (1986, 78; 1990, 77); but not so, for Bevan (2007, 66) apparently mixes up Bateman's (1848, 22–3) secondary account of Rooke's 'no.1 cirque' with Nine Ladies (while Bateman seems never to have implied that Rooke had opened Nine Ladies).

4 The numbering of circle-stones here matches the 1–9 allocated to the orthostats by Barnatt (1978, fig. 71), supplemented by 4a for the recumbent slab, as coined by Heathcote (1980).

5 Those words of Pitt-Rivers were recorded in his 'Consent Report' to the Office of Works, dated 10 September 1883, the background to which, and something of its relevance, can be gleaned from wider accounts of his official activities as Inspector of Ancient Monuments — *e.g.* Thompson 1960; 1977, ch. 6; Chippindale 1983; Bowden 1991, ch. 6.

6 When this fieldwork was undertaken, both DG and GG were employed by Trent & Peak Archaeological Trust (through much of the period of surveys), subsequently renamed Unit (by time of excavations), and lately re-branded again by the University of Nottingham, as Trent & Peak Archaeology, on whose behalf the present account has been drafted for publication. Following completion of each of the eight surface surveys (1988–2000) and the excavations (2000), a fully illustrated archive-report was submitted to English Heritage (EH, who funded all the fieldwork and related reporting), as well as to Peak District National Park Authority (PDNPA) and Derbyshire County Council's 'Historic Environment Record' (copies of excavation-report also lodged with the public libraries in Bakewell and Matlock, and with the Parish Clerks of Birchover and Stanton-in-Peak). The archive-report on the excavations, drafted in 2001–02, includes detailed sections relating to the programme of archaeological work, excavation-methodology, objectives for each trench, testing of geophysical anomalies, public access, the vulnerability of the monument, and some management recommendations.

7 It might seem logical to assume that the engraving published by Bateman in 1848 (Fig. 5) was based upon the watercolour of 1847 (Fig. 4), were it not that the engraving appears to be better for overall perspective, as too for showing certain of the orthostats more true to shape, suggesting that these illustrations were the work of different people and, moreover, that both may well have been based upon a separate version (itself perhaps being the initial drawing prepared on site?), for the watercolour (viewed by us at Sheffield City Museum) seems too neat and too clean to have been produced in the field. Authorship of these illustrations has been a matter for debate, as exemplified by comparing Marsden 1974, 40 (suggesting that *Illustrations of Antiquity* was 'probably drawn by F.W. Lock') with Marsden 1999, 59, or 2007, 73 (asserting that it was 'mainly the work of Bateman, but with contributions by Carrington', though omitting to substantiate how this is 'now known').

8 For the record, the 'Bateman view' will be found in Kains-Jackson 1880, 14 (actually mimicking it rather poorly and omitting the King Stone); Howarth 1899, 2; Radley 1966, fig. 8. Hopefully, the strictures raised here will lead to this, *i.e.* Fig. 5, being the final appearance in print of the 'Bateman view', at least by way of illustrating the character of this monument, though it can still serve to demonstrate the unreliability of some antiquarian records.

9 Although Jewitt's plan, published at *c.*1:260 (1870, fig. 69; 1884, fig. 17), lacks a north-arrow, the spacing of stones there can be taken to indicate that north is at its top as printed, so that the uppermost stone will be that now numbered 1, while it is seen that stones 4 and 8 gave his west/east dimension of 'about thirty-six feet in diameter', nearly 0.4m wide of the *c.*10.6m average distance separating those stones at ground-level today (*cf.* Figs 8 and 9 here), though it should be acknowledged that any such measurements are bound to vary by some amount in accordance with the exact positions selected on the surface of these irregular stones, above all when making use of the leaning stone 8.

10 A 'watercolour view' of Nine Ladies said to have been made in 1883 along with Pitt-Rivers's plan (Chippindale 1983, 21, 37) might seem to be a potentially useful source in respect of the extra stone, quite apart from various other aspects of the site. But our attempts to locate it have met with no success, and it can anyway be inferred from the content of Pitt-Rivers's notebooks that no 'sketches' were made when he travelled alone, as in 1883 (Thompson 1960, 104–5; 1977, 66–9).

11 One possibility is that stone 9 was somehow reduced in height at some point in the 1780s–1820s, for it had clearly acquired its present form, with flat top that is unique in the context of this monument, by the time that Glover's view was drawn (Fig. 3, left foreground), whereas no such form is recognizable in any of Rooke's illustrations (Fig. 2) and, though it is accepted here that Rooke's drawings are not necessarily to be trusted in respect of all such points of detail, one implication of remarks made on page 13 regarding Rooke's apparent direction of view would be that stone 9 stood as high as most others in 1780. Can it be that the additional stone drawn by Jewitt and, apparently also, by Pitt-Rivers (pages 6–7) was the upper piece broken from orthostat 9 and cast aside at some time after 1780?

12 Photographs of some modern activities are reproduced in Edmonds and Seaborne 2001, 144 and 145 (the latter showing the circle at an early stage of the excavation of trench 01, while a second photo on the same page shows the northern arm of 01 at a late stage of excavation).

13 Although it was Heathcote (1980) who first proclaimed the discovery of stone 4a, it is evident that some part of it had already been put on record by Barnatt (1978, fig. 71) some time before it was wholly 'uncovered . . . with pocket knife' in 1977.

14 Vine's remark that 'recent investigations, which are unpublished, have uncovered a tenth fallen stone and the possible hole of an eleventh' (1982, 76) is puzzling — doubtless his 'tenth' is 4a, but his 'hole' is unexplained (albeit something of the sort seems to be indicated in Hart's plan — 1985, fig. 5.9.6).

15 The one other published claim of a central stone at Nine Ladies comes in the brief account given by Kains-Jackson (1880, 14), but this patently arises from confusion, for it is stated that 'nine stones . . . surround a somewhat larger stone, commonly called "The King's Stone". . .', though the accompanying imitation of the 'Bateman view' (see note 8) includes no central stone, nor an outlying one.

16 Hitherto, the one writer who has seemed open-minded to a variety of possible interpretations of Rooke's records is John Barnatt, stating that 'his drawings suggest a recumbent stone or very small cairn, perhaps this was the vestiges of a cist' (1990, 77), though Barnatt has not gone so far as to infer any connection with stone 4a.

17 Bramwell (1973, 73–4) also surmised wildly that 'the circle of gritstone stumps is probably all that remains of a bell barrow in which an earthen and stone bank surrounded a central cairn in which were the cremations', and it was perhaps this which led Porter (1989, 85) to proffer the most outlandish opinion that 'Nine Ladies is not really a stone circle but the remains of a large barrow with the earth removed', thereby taking the dubious indications of a central mound to wholly unjustifiable extremes.

18 Such 'terracing into slopes' has been noted as 'an aspect of local stone circle design' at other places in the Peak upland (Barnatt 1996, 46), and elsewhere (*e.g.* Cerrig Arthur, as

illustrated in Bowen and Gresham 1967, 38, fig. 18), though it seems fair to say that this phenomenon has yet to be adequately recorded in many cases (Burl [1976, 175, 184, 188, 218] remarks on several instances in Scotland and Ireland).

19 For the sake of completeness, an additional 19th-century view of the stone-circle should be mentioned, though it is of little value because not dated. Drawn by Rev. D. Vawdrey, vicar of Darley Dale in 1847–81, this shows the stone-circle within a clearing in a plantation, and without surrounding wall or bank, though the spacing and form of the orthostats seems simplified, suggesting that other details, including an apparently grassy bump at the centre, may be less than reliable. It can be found in the Derbyshire Record Office (Strutt/Zsp/4/30/1-8), but, in so far as we are aware, it is unpublished.

20 Thompson's claim (1963, 18) that the entrances over the Victorian wall were 'orientated ... to coincide with the original entrances to the circle' seems to lack substance, doubtless arising more from retrospective justification than from serious analysis of the monument.

21 The genesis of Everson's paper of 1989 was an archaeological survey covering the entire plateau of Stanton Moor, conducted in 1985–6 by staff of the then Royal Commission on the Historical Monuments of England (hereinafter RCHME), whose full report is available through the National Archaeological Record (housed in Swindon) under the title *'Stanton Moor, Derbyshire — a catalogue of archaeological monuments; NAR No: SK26SW 12; Part 1'*. It includes detailed surveys of 'selected individual monuments', Nine Ladies being among them. Although their 1:200 plan of this stone-circle remains unpublished, a complementary plan of features then evident around the King Stone is reproduced and discussed by Everson (1989, 23, fig. 2.2) — see page 23.

22 The northern end of the 5m length of straight hollow hachured outside, and to north of, the stone-circle in Fig. 9 is arbitrary, for that hollow actually reaches almost 20m beyond the coverage of Fig. 9, where it peters out.

23 Although Everson's suggestion of secondary usage of Nine Ladies stone-circle as a pond is considered unproven, we do concur with him (1989, 18), and so with Barnatt (1986, 77; 1990, 94), in regarding the 'circular feature' situated at *c.*225m to its west-south-west as a probable 'dew-pond', now dry, rather than the 'ringbank cairn ... not a mere' postulated by Hart (1985, no. 10 of pages 81, 86, figs 5.3 and 5.8). Even so, Everson's 'rubbing post' can provide no support for the pond-interpretation of that feature, because it seems more likely to be a boundary-marker, one of at least three of its kind defining some former division of the Moor.

24 Of course, there can be no certainty of the form of the wall or its entry-arrangements before 1949, the date of the earliest of the photographs of the stone-circle known to the present writers, *i.e.* Pl. 2 (one of two taken by J.J. Parker on the same occasion, the other looking north-east towards stone 3 from behind stone 6, and kindly shown to us by Mrs J. Eccles), giving more than 70 years for alterations (in 1883, Pitt-Rivers tells only of its diameter, '54 feet', its height, '2..4', and its 'coping stones'), so making it impossible to assert that there never was a point of access between stones 1 and 2. An additional detail perhaps serves to reinforce the possibility that a stile, or some other means of access to the circle, once stood thereabouts, for a pair of shallow recesses extends southwards by 1m or so from the inner scarp of the wall-trench where it passes to the north of stones 1 and 2 (as represented among the hachures in Fig. 9, and less obviously in the 296.95–297.10m contour-lines of Fig. 8, where the western recess creates a more marked wiggle in the lines than does the shallower eastern), and these could indicate related wear on the ground-surface. What is more, there is a postcard of the King Stone in the Derbyshire Record Office (D307/V/2/14), dated 1883 and looking west over that stone, which shows its surrounding wall apparently lacking the slab for entry seen in Pl. 4, hence demonstrating that there was at least one change to the entry-arrangements at some stage between 1883 and 1973.

[25] Following English Heritage's deliberate heightening of the ground around the King Stone in 2002 (see note 33), the equivalent heights are *c.*0.45–0.50m vertical and *c.*0.65–0.70m on the slope, as measured in 2009 (and see photo in Bevan 2007, 65).

[26] Since the wall itself features in no archaeological record of the King Stone, the '*c.*4.8m diameter' stated here is as measured from dashed lines presumed to represent the residual hollow of the wall-trench in Everson 1989, fig. 2.2, whereas, in 1883, Pitt-Rivers states this wall to have been '14 feet in diameter' – *i.e. c.*4.3m.

[27] The photograph published by Anthony (1985, 18), looking north-north-east from stone 6 towards stones 1 and 2, seems to show both that the grass was then beginning to appear worn within the circle and that evidence of a central hearth was already obvious some time before the enclosing wall was removed or had even become dilapidated, but the date of that photo is not known.

[28] Throughout the period of the excavations in November 2000, considerable trouble was taken to provide up-to-date information for the benefit of both regular and occasional visitors, because it was recognized that many would be inquisitive about the monument and its investigation. This included a leaflet outlining the wider archaeological background and the problems of erosion, notice-boards attached to a perimeter-fence, and free guided tours of the site, available throughout each working-day (Pl. 11). It was clear that the close and sustained liaison of EH and PDNPA with a range of local communities, each with differing interests in, and anxieties about, the future of Stanton Moor, coupled with the 'visitor-friendly' conduct of the excavators contributed significantly to ensuring completion of the fieldwork. On weekdays, a trickle of 20-50 visitors came each day, while up to 200 came each Saturday and Sunday. From their comments, it became evident that a majority had not come especially to see the excavations, making it possible to deduce that this monument was then being visited by 500 or so people per week even during a comparatively dismal November. Scarcely surprising, then, that so many feet are having such an erosive impact on the place.

[29] There are equivalent records, with 0.10m contours, of Derbyshire's other recognized henge and an adjacent barrow, *i.e.* Bull Ring (Barnatt 1988, fig. 2), and of a round barrow on Carsington Pasture (Harding and Beswick 2005, fig. 2); but, as far as the present writers are aware, no other published surveys of prehistoric earthworks in the Peak are as closely contoured as either these two or those of Arbor Low and Nine Ladies, suggesting that few have been undertaken. To explain this dearth, it may be necessary to look no further than the sizeable investment in time and effort required for completion of such a survey (especially before the advent of the rapid surveying that has been facilitated by use of computerized equipment) — for one reason or another, it seems that many consider such a cost to outweigh the benefits. This is a shame, and there has lately been cause to rue the same deficiency in respect of lowland Derbyshire (Guilbert and Garton 2007, 28).

[30] Accordingly, there can be no analysis here of spot-heights recorded over ground around the King Stone, which was surveyed in this fashion only in May 1988 (445 spots) and August 1994 (182 spots), the latter being undertaken solely for the sake of completeness, as part of a project to record erosion-patches on each of the known or presumed prehistoric monuments in the Peak that have come under the care of English Heritage (and so including Arbor Low, Gib Hill, Hob Hurst's House and Wet Withens besides Nine Ladies), conducted by GG for Trent & Peak Archaeological Unit on behalf of EH.

[31] On the other hand, additional funds were made available in 1997 in order that the seventh survey might be supplemented with spot-heights recorded by EDM at 0.25m intersections of the grid, this coverage extending out to the line of encircling hollow left by removal of the Victorian wall, giving 3524 gridded spots as compared with the 830 taken manually at 0.50m intersections on the same occasion. Thus the 1997 survey was the most intensive of them all, and it should be explained that those commissioning the work believed that this

would provide a better basis for any future recording on the site than could the far fewer spot-heights at 0.50m intersections. Unfortunately, given that this measure of detail was recorded only once and therefore lacked comparative data, these 0.25m spots cannot enter into our analysis of changes in the condition of the monument over time, such as might otherwise have allowed the creation of a more finely-tuned version of Fig. 10.

32 A thorough record of the ten orthostats plus the recumbent slab was compiled in 2000, at the time of the excavations described here. This involved a photogrammetric package, including both stereo-photography with associated 3D survey-control (carried out by English Heritage's Photogrammetry Unit), and 3D laser-scanning (commissioned through Babcock Rosyth Engineering Laser Mapping Service) from which a 3D-model was generated. An account of the photogrammetric method has been presented in relation to a similar project at Stonehenge (Bryan and Clowes 1997), while information on laser-scanning can be found in '3D Laser Scanning for Heritage' (2007 – EH's advice and guidance note on using this technology within archaeology and architecture).

33 Other than several visits to the site in a personal capacity, the sum of the present writers' involvement with Nine Ladies since 2000 has been the recording of a further, *i.e.* ninth, set of spot-heights in November 2002 (covering the same 22 × 22m as in 2000, again at 0.50m grid-intersections — page 33), this time undertaken by DG on EH's behalf. The purpose of this exercise was to document the exact form of the ground-surface before implementation of a plan to reinstate the ground over and around the stone-circle (*i.e.* within the circumference of the trench left by the Victorian wall) to the levels recorded at the first of our spot-height surveys (though leaving the whole of stone 4a visible, whereas a small part of it had retained a turf-cover in 1988), thus to provide protection from further erosion. In short, that work, done by a non-archaeological contractor early in 2003, is understood to have involved the laying of a polypropylene-membrane, followed by imported, sieved, sandy soil of variable thickness (*i.e.* so as to ensure accurate reinstatement), which was then covered in a jute-mesh, followed by turves grown within nylon-reinforced netting, and finally over-seeded with native seed-mix for acid heathland. Vegetation-growth was encouraged by fencing off the stone-circle for some time during and after the repair-work (photo in Humble and Smith 2004, viewed from outside stone 6, looking north-east to stone 3). Eroding pathways around the monument were also infilled, again incorporating a mesh of jute or plastic for reinforcement, and this treatment was extended up to and around the King Stone (though its surrounds were not restored to 1988 level — see note 25). Colour photographs showing the stone-circle and King Stone not long after repair, with cover of lush green grass more nearly complete than for many a year, can be found in Bevan 2007, 60, 65 and 66. Unfortunately, by 2009, some parts of the site were beginning to look threadbare once more and, given the high number of visitors, it is evident that there will be need of repeated repair and continuing vigilance.

34 With the exception of a 'feature' in 03, interpreted as a possible tree-base or tree-throw, all geophysical anomalies investigated in trenches 03–06 proved to reflect modern disturbance or litter. The geophysical surveys, both magnetometry and resistivity, were conducted by personnel from the Ancient Monuments Laboratory of EH, whose report, by T.J. Horsley (entitled *'Nine Ladies Stone Circle, Stanton Moor, Derbyshire — Report on Geophysical Survey, 1998; AML Report 68/98'*) regards these surveys as 'not successful in locating anomalies which could confidently be identified as a response to contemporary archaeological features'.

35 These duplicated soil-horizons were most clearly seen in unit F of section c-c', but were also present in units I, C and B (Fig. 14).

36 We are conscious of entering hypothetical waters, but it deserves to be noted that any significant heightening of the bank in former times would have the side-effect of making the standing-stones less prominent than as seen in recent centuries. Thus, even an additional

0.20m thickness of bank would effectively reduce the lowest of the stones, 9, to a mere 0.2m above the bank-top (assuming it to have been no bigger originally – page 7), while recumbent slab 4a could have been buried from the start, conceivably not even artificially positioned but embedded in the subsoil (though, of course, such large objects can sink into relatively soft ground from a former position atop the soil [*e.g.* Atkinson 1957, 224], albeit the evidence of podzolization means that any biological activity within the soils at Nine Ladies is likely to have been minimal over the relevant period).

37 The differentiation by colour and charcoal-content of at least one of these apparent features does encourage the view that deeper deposits may exist close to trench 01, such as might prove suitable for radiometric dating in due course. However, the experience of Barbrook II, where a radiocarbon-date of barely 1000 years old was obtained from scattered charcoal in fill interpreted as packing around an orthostat (Barnatt 1996, 33), illustrates the difficulties that demand a cautious approach in such matters.

38 Two samples were collected for flotation in search of charred plant-remains, one from pit 0022, the other from beneath some of the *in-situ* stones in unit F. Each was subjected to flotation twice, before the flots and residues were assessed by Andrea Snelling. Although charcoal and charred seeds were present, there was a high proportion of materials identifiable as modern (including weed-seeds, flower-heads, worm-capsules, roots, spores and mortar). Given an inevitable concern over the potential for contamination on a site where burning had been commonplace in recent decades (pages 23 and 31), together with the rumoured scattering of modern cremations within the stone-circle, it seemed inadvisable to conduct further costly work on these undatable samples.

39 A piece of terram, containing a modern 2p coin, was pushed as deep as possible into the void against the King Stone, which was then packed with soil, prior to backfilling of trench 02. All trenches were backfilled immediately after completion of recording, in December 2000.

40 The southern chamfer of the King Stone is not obviously evident in Pl. 4, but it does appear in another of Aubrey Burl's photographs, taken during the same visit as Pl. 3. Incidentally, that other photo also shows the remains of a hearth on the ground-surface below the overhang of the King Stone, apparently demonstrating that such activities had begun there before the 1960s were done.

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