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THE BRONZE AGE COMPLEX ON CHEETHAM CLOSE, TURTON: A NEW SURVEY

M Fletcher

INTRODUCTION

The West Pennine Moors of Lancashire and Greater Manchester contain a large variety of prehistoric monuments, notably of the Earlier Bronze Age (Fig 2). Perhaps the best known of these is the stone circle on Cheetham Close, 7 km north of Bolton. Although now in a ruinous condition, the circle still elicits a great deal of interest locally, due to ease of public access and to the fact that it is the only extant stone circle in the area.

In fact, the circle is only part of a complex of ritual/burial monuments, which also includes two ring-bank cairns, two small cairns of unknown structure, and at least two outliers, believed to date from the Earlier Bronze Age. It is situated at 329 m OD, on the bleak moorland plateau of Cheetham Close, above Turton, Lancashire (SD 717 158). The lack of a modern, definitive survey of the site prompted the author to record the remnants, thus allowing a re-assessment in the light of recent research on megalithic 'ringworks' in Britain.

Geologically, the West Pennine Moors consist of a broad east - west trending anticline, heavily dissected by glacial and river erosion, resulting in residual upland blocks rising to over 300 m OD, with plateau summits and steep flanks overlooking the deep valleys. Cheetham Close forms the southern end of such a plateau, with a slight col between this summit and the more elevated Turton Heights to the north-west. The Bronze Age complex is located at the north-east edge of the plateau, within 100 m of the OS triangulation pillar, and just on the Lancashire side of the boundary with Greater Manchester County (Fig 3). This location commands an extensive aspect in every direction but south, the possible significance of which is assessed later in this paper.

The horizontal bedding of the Lower Coal Measures (Bullion Mine Rock) in the Rossendale anticlinal core is not masked by glacial drift in the Cheetham Close area. However, the Geological Survey have recorded a large peat deposit occupying the col to the north-west of the site (Fig 3), while beyond here on Turton Heights, and on the valley slopes to east and west, thick glacial boulder clay has masked the solid geology.

The high altitude and high rainfall values (in excess of 1500mm per year), combined with poor drainage of the Cheetham Close plateau, has resulted in the widespread development of ombrogenous (blanket) peat up to 1m thick, possibly throughout the last 6000 years (Tallis and Mcguire 1972). Where the peat cover has recently been denuded, especially around the scarp edges, gritstone erratics litter the extensive erosion patches.

The resultant soil type on Cheetham Close summit is an organic (peat) soil of the Winter Hill Association. In common with much of the West Pennine Moors, an Agricultural Land Classification of grade five is obtained, with severe limitations on agrarian output; hence the rough pasture is used for sheep and cattle grazing.

Other evidence of Bronze Age activity in the Cheetham Close region can be assessed from Fig 2, and from the finding of bronze palstaves, diagnostic of the last centuries of the Earlier Bronze Age (c 1300 BC), at Charters Moss (SD 697 169) and Edgeworth (SD 746 182).

The placename 'Cheetham Close' probably originated in the 17th century, when Humphrey Chetham purchased the Manor of Turton, including the prehistoric site; he later founded the Chetham Hospital and Library in Manchester. The stone circle and ring-bank cairn (sites I and II) are Scheduled Ancient Monuments (GMC/20), and although public access exists, they are on private land and in private ownership.

Note on dating conventions

According to current archaeological practice, uncalibrated radiocarbon dates are expressed as bc/ad, whereas those determined as calendar years

(whether derived from calibrated radicarbon data or otherwise) are quoted as BC/AD. 1500 bc is c 1900 BC, 2000 bc is c 2500 BC, and 2500 bc is c 3300 BC.

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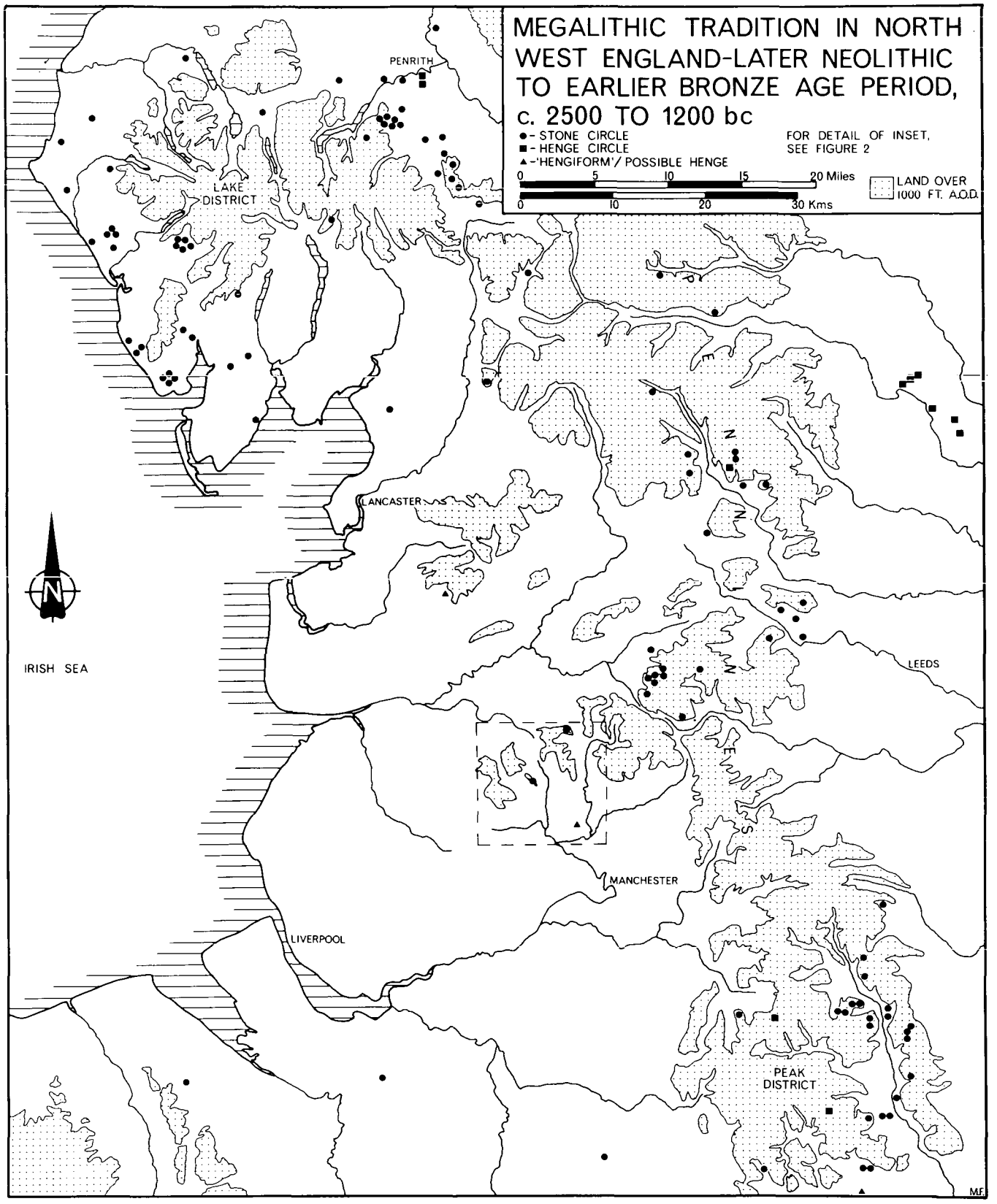


Fig 1 Stone circles in the North West

Jones, without whose help the work could not have been undertaken and Catherine Hindle, who assisted on the Cocker Cobbs excavation. I am indebted to fellow-members of the Bury Archaeological Group: Norman Tyson for reading this paper and making useful comments on its content, and Jim Ashton for relevant information. Chris Aspin, Secretary of Helmshore Local History Society, supplied details regarding Thirteen Stones Hill and Cockerill farm. Finally, thanks to the staff of the libraries at Haslingden, Accrington, Bolton and Northampton for kind co-operation during documentary research, and Mrs. Patricia Drummond of the RCHM(E), who provided access to the National Monuments Record.

PREVIOUS WORK

The first systematic study of the area was a survey carried out in 1850 (Dryden 1850; Dawes 1851-2) which identified a circle of six stones (site I), with single outliers to the south-east and south-west. Greenhalgh (1871; 1880) located a seventh stone, and drew attention also to the periodic acts of destruction to which the site was then being subjected. Some years later, French (1894) excavated the newly-discovered site II, showing it to be a cairn of 'ring-bank' type.

The area received little further attention until 1954, when a saddle-quern was found some 80m north-east of site I. In 1958 the site was Scheduled, and in the following year a local archaeologist excavated the non-Scheduled site III, and recovered three barbed-and-tanged arrowheads from the surrounding peat.

RECENT SURVEY AND RESULTS

A large-scale survey of the Cheetham Close complex was undertaken by the author and volunteers from Bury Archaeological Group during 1983. A permanent site grid with a working origin located at the OS triangulation pillar was established, the Site North azimuth determined at 2.88 degrees west of Grid North. Surface features were then recorded using a theodolite and steel tape; these were related to the OS National Grid by use of the OS pillar, the Bench Mark on which served as a site datum for a contour survey over an extensive area. Field plans were drawn at 1/20 scale, and reduced to smaller scales for publication.

The stone circle (I) is now in a ruinous state, although reference to the early plans allows a certain amount of interpretation to be drawn from the survey. In plan (Fig 5) it is actually a slightly elliptical setting, probably of ten equally-spaced gritstone slabs, of unequal size and shape. The longer axis, of about 18m, trends at 070 +/-10 degrees, while the shorter axis, at right angles, measures about 16m. The longer facets of at least six stones faced into the circle. Unfortunately, of the seven megaliths recorded in 1850, only two are now in situ; the remainder presumably displaced and damaged by the desecration of 1870 and 1880. Megaliths 5,9, and 10 were not previously recorded: this inconsistency could be explained by recent peat shrinkage and erosion.

Stone I.F Originally an elongated slab over 700mm tall, this now lies prone in its original position, flush with the ground surface.

Stone 2.A An upright pillar on the north side of the circle, recorded in 1850 as 1.4m tall; with a mass in excess of 500 kg, this was an impressive monolith by Pennine standards. All that remains today is a shattered slab, less than 1m long, leaning towards the east.

Stone 3.B As seen by Dryden in 1850, this was a large recumbent slab 1.15m long and 400mm high; now not visible, although probing at this location revealed a stone of the right dimensions. Two large slabs, visible 2m to the north-east were also recorded, being possibly significant.

Stone 4 Two small prone slabs at a location recorded by Greenhalgh in 1871; then 200mm high; not seen, or omitted, by Dryden in 1850.

Stone 5 Not previously recorded; a small, vertical, earthfast stump, with a fractured upper surface.

Stone 6.C Now apparently lies in two pieces; the larger one prostrate on the ground surface is of a size compatible with the megalith standing to a height of 840mm in 1850.

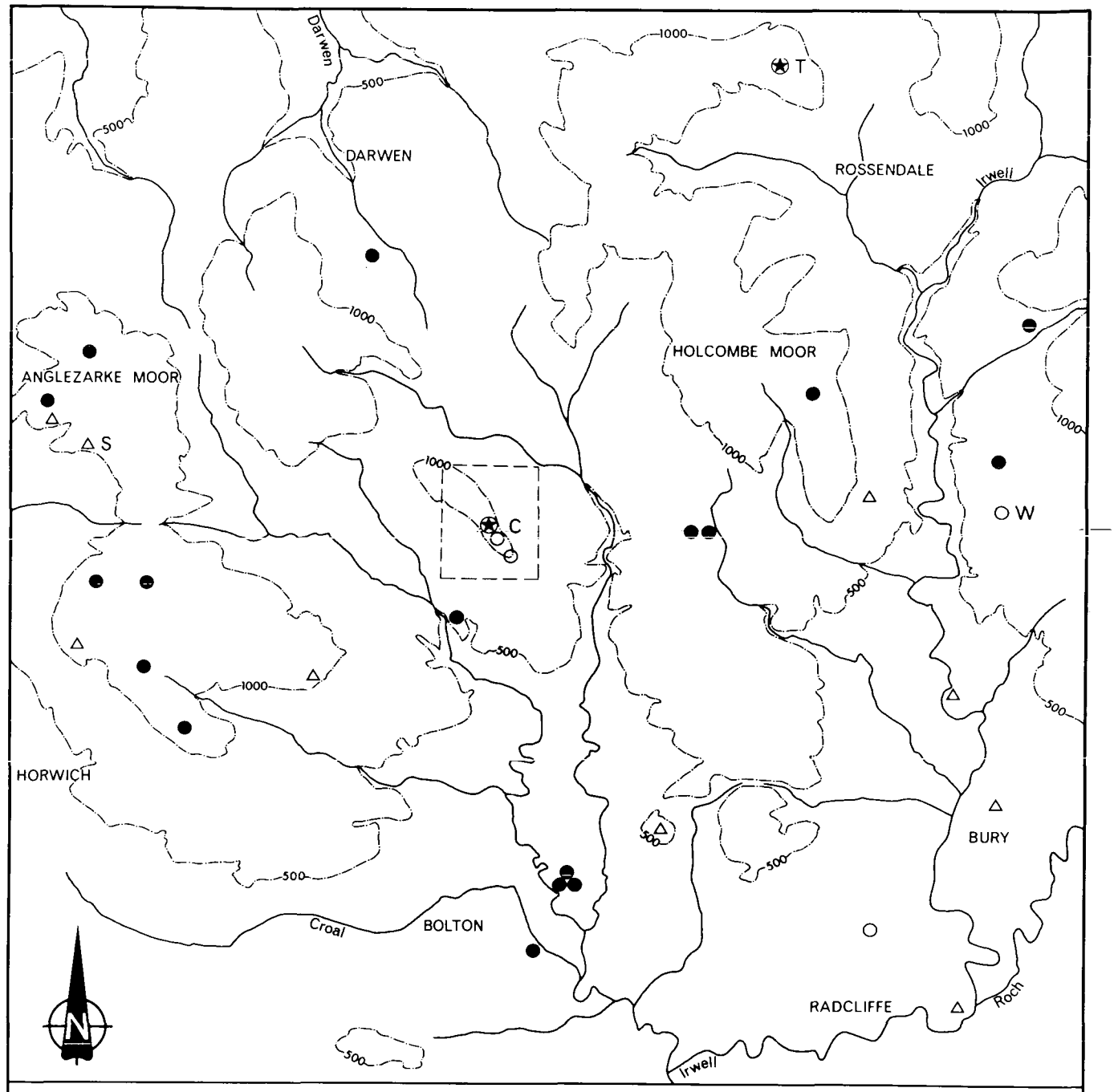
Stone 7.D Apparently in situ as in 1850, but with a fractured upper surface; this stone originally had a pyramidal form 460mm high, compared with 370mm now, suggesting damage suffered in the late 19th century.

Stone 8.E Again probably in situ on the ring-circumference; now stands 430mm high, compared to 730mm measured by Dryden in 1850, suggesting the top was slighted later. As with stone 7.D, the long axis is tangential to the ring-arc.

Stone 9 Now almost wholly buried, and redefined by probing as 1m long; not previously recorded.

Stone 10 Two small slabs, these may have been packing stones for an upright, now robbed.

Outlier H Of all the megaliths surveyed at Cheetham Close by Dryden and Greenhalgh, only this one has remained intact and undamaged, a token survivor. A low pillar-shaped monolith 500mm high, it now stands in the footpath which follows the Cheetham Close ridge (Fig 4). A crude cross, oriented roughly north-south and east-west, has been incised on the upper surface of this stone, a feature recorded first by Greenhalgh in 1871. This carving is unlikely to be of prehistoric origin, but has prompted



BRONZE AGE EARTHWORKS IN WEST PENNINE REGION OF CHEETHAM CLOSE

CONTOUR INTERVAL OF 500 & 1000 FT. (152 & 305 M.) O.D.

FOR DETAIL OF INSET SEE FIGURE 3

0 5 Miles

0 8 Kms

⊛ - Stone circle ● - Barrow/cairn

○ - Ringwork △ - Structure/date uncertain

C. - Cheetham Close

T. - Thirteen Stone Hill

W. - Whitelow Hill

S. - Standing Stones Hill

M.F.

Fig 2 Bronze Age sites in the West Pennines

suggestions that the stone is, or was later utilised as, a 'mere' or boundary stone similar to those on Turton Moor to the north-west. The present county boundary between Lancashire and Greater Manchester runs 15 m south-west of the outlier.

Outlier G Originally noted by Dryden in 1850 as an inclined slab 930mm high, it has now been demolished; careful triangulation using measurements recorded by Dryden allowed relocation of the earthfast stump (Fig 4), and a loose slab lying on the surface nearby was found to be a part of the missing fragment.

A possible outlier stands 33m from the O S triangulation pillar at 303 degrees from Grid North. At 500mm high, this upright stone is well weathered.

The ring-bank cairn (II) is located just south of the stone circle, on slightly higher ground. Partially excavated by Major Gilbert French in 1893, this large feature was fully recorded in plan during the recent survey (Fig 6). Defined by a low, annular rubble and earth bank about 1.75m thick, it is roughly circular, or slightly oval, and about 23.5m in diameter. French (1893) claims that the bank, when excavated, was faced both externally and internally by large gritstone slabs set contiguously in a kerb; but only slight traces of this revetting survives, the missing elements presumably robbed since 1893. Contrary to the account by French (1894), the bank does appear to be broken in the north-east quadrant by a possible entrance, where a gap about 1m wide is flanked by much thicker sections of bank. The area enclosed within the bank can be seen to be paved by cobbles in the north-west quadrant; probing suggests that this surface is continuous over the whole internal area, at a depth of less than 200mm. A low central cairn, not clearly defined on the west, and partially destroyed by illicit excavators, has a diameter of about 4.5m. A possible small satellite cairn, 2m in diameter, lies in the north-east quadrant.

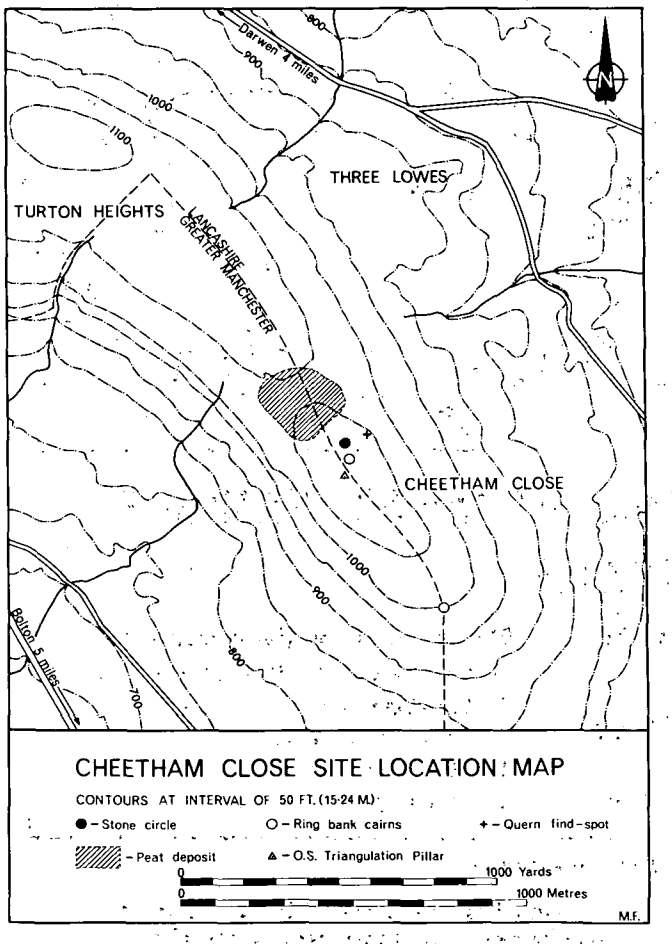


Fig 3 Cheetham Close : site location

A small oval shaped cairn (III) measuring 5 by 4m, and 300mm high, is located 7m to the north-west of the stone circle, overlooking the valley to the north-east (Fig 4). This feature was excavated in 1959 by Allan Spencer, a local amateur archaeologist, who considered it to be a clearance cairn; this interpretation does not preclude a prehistoric origin. Another, smaller circular cairn (IV), located 27m south-east of the ring-bank cairn, just 2m across and 300mm high, is of unknown origin.

The material used in the construction of the stone circle appears to be the coarse, hard sandstone known as Bullion Rock, which could have been quarried from outcrops on the drift-free scarps of Cheetham Close, while the cairn rubble was probably gathered from the spread of glacial erratics below the peat cover.

Probing of the peat on Cheetham Close, prior to sampling for pollen analysis (as yet uncompleted), revealed depths in excess of 1m to the east of the triangulation pillar and from 200 to 500mm around the complex, with thickness decreasing towards the plateau edge. The possibility of other prehistoric features buried beneath the peat is always likely.

Fieldwork by the author in 1980 has revealed another ring-bank cairn (site V), 700m south-east of the triangulation pillar at the southern end of Cheetham Close (SD 7192 1516). Although in a very ruinous condition, and partially overlain by a field-wall, sections of the massive rubble kerb can be distinguished, and a large earthfast boulder near the centre may be an integral feature. Interestingly, the county boundary between Lancashire and Greater Manchester bisects this cairn from north to south as it follows the watershed over Cheetham Close (Fig 3). Many administrative boundaries are marked by prehistoric sites throughout the country; such monuments may have been used as boundary markers in the prehistoric period, or adapted as such at a later date.

DISCUSSION

The 'megalithic tradition' flourished in the Late Neolithic and Earlier Bronze Age of North-Western Europe between 3000 and 1200 BC. During this period several thousand burial and ritual monuments were constructed, principally distinguished by the use of large stone blocks. This practice commenced with the erection of simple chambered tombs such as 'The Pikestones', just 9 km west of Cheetham Close, and culminated in the setting of the great sarsen trilithons at Stonehenge, almost 2000 years later.

Stone circles

Perhaps the most distinctive and prolific manifestation of this tradition is the stone circle. Burl (1976) has recorded over 900 extant.

examples in Britain, ranging in size and grandeur from the vast henge monument at Avebury in Wiltshire to the diminutive 'Four Posters' of the Scottish uplands. The distribution of these sites is not uniform, however: most are located on the uplands of north and west Britain, with distinct concentrations in Cornwall, Wessex, Ulster, The Peak District, The Lake District and Aberdeenshire; each regional grouping displays individual archaeological and architectural traits.

Radiocarbon dating has suggested a construction timespan ranging from 3250 to 1250 BC. Within this period, Burl has determined two basic chronological traditions, based upon structural traits, associated finds, and burial furniture.

The earlier, larger type is exemplified by the southern 'ceremonial' rings, which are usually low-lying, and circular in plan, with many large stones. Any associated burials have been demonstrated to be secondary insertions, unrelated to the main intent. They are related to the Neolithic earthen henge-rings of eastern and southern lowland Britain, and appear to be few and far between: perhaps functioning as seasonal gathering places for hundreds of Neolithic settlers. Notable examples are Avebury and Stonehenge in Wessex, Castlerigg and Long Meg in Cumbria, and Arbor Low in Derbyshire.

The later examples are much more numerous, smaller, and oval-shaped in plan; usually occuring in clusters on the uplands. They are believed to be primarily funerary in intent; constructed and used by small extended family groups in the Earlier Bronze Age, who had settled on previously-marginal moorland areas, perhaps as a consequence of population pressures on the lowlands. Burl suggests that this later type began to develop in the early second millenium BC.

In North-West England, the distribution of stone circles is almost wholly within the moorland and mountain areas. There are three distinct concentrations (Fig 1): in the Lake District around the fringes of the uplands; in the Peak District around the upper Derwent valley; and finally in a broad north-east to south-west band through the south Pennine region. Cheetham Close lies on the south-west extremity of this last group.

Ring-Works

Although Burl classifies Cheetham Close as a 'Cumbrian' circle, on typological grounds the site would be better viewed in the context of the Earlier Bronze Age Pennine 'ring-work' sites, which are inextricably linked with the megalithic tradition. Most of these ring-works have a funerary intent, and have been described functionally as 'enclosed cremation cemeteries' in most excavated examples, since inhumation is not common. Ring-works are very variable in form. Lynch (1972) and Radley (1966), after extensive fieldwork in Wales and Derbyshire respectively, identified ten types, ranging from the plain earth-embanked circle to the freestanding stone circle: a rare phenomenon in the Pennine region. Cheetham Close site I appears, superficially, to be an example of the latter. Between the two extremes are many variations, combining elements of ring-banks, ring-ditches, cairns, and megaliths. The distribution of these monuments is predominantly in the uplands of Wales, the Pennines and Scotland. Interestingly, their chronology and multiplicity of form parallels that of the exotic barrow types of the 'Wessex Culture', and they could thus be interpreted as the upland equivalent of the lowland ditched barrows.

The most common ring-work is the ring-bank cairn, of which sites II and IV on Cheetham Close are examples. In Wales, Lynch (1972) demonstrated that the distribution of ring-cairns and stone circles was coincident only in the north and south-west, but not in the rest of the country. However, Burl (1976) suggests that the further south ones goes in the Pennine region, the more the stone circle tradition overlaps with that of the enclosed cremation cemetery; hence here the third and final phase of the megalithic tradition, towards the end of the second millenium BC, is represented by complex ring-cairns incorporating an orthostatic stone ring.

The close juxtaposition of free-standing stone circle and ring-bank cairn at Cheetham Close is not unique: such pairings are also recorded at Entwistle Moor (Lancashire), Danby Rigg (Yorkshire), and at Cefn Gwernffrwd (Dyfed) where the stone circle and ring-cairn, along with a small cairn of unknown structure, are located in very similar relative positions to those of sites I, II and III at Cheetham Close (Chambers 1983). Burl (1976) suggests that ring-cairns in these cases may be attributed to use of the same territory, at different times, by people who seemingly respected an older monument; although they could be contemporary, with the same or a complimentary function.

Siting

The siting of the Cheetham Close complex would appear to suggest the deliberate selection of the north-east edge of the plateau, where the aspect is open to north, west, and east, but closed to the south by Cheetham Close summit. An unpublished survey by Bury Archaeological Group of Bronze Age burial sites in Lancashire (summarized in Tyson 1980), suggests that such sites are frequently placed at the north end of a hill or ridge with a north-west to south-west aspect. It also notes their distribution along trackways: whether the present pathway, which follows the county boundary north to south along Cheetham Close ridge, originated in the prehistoric period, is open to speculation.

Local availability of suitable megaliths and cairn building material should also be considered, although this factor is probably of less importance than the actual siting. Lynch (1975) considers the relevance of prehistoric 'landscape planning' and aesthetics to Bronze Age ringworks in the uplands of England and Wales.

Form

Burl (1976) suggests that in the early second millenium BC, characteristic structural traits emerge in the smaller stone circles, including the

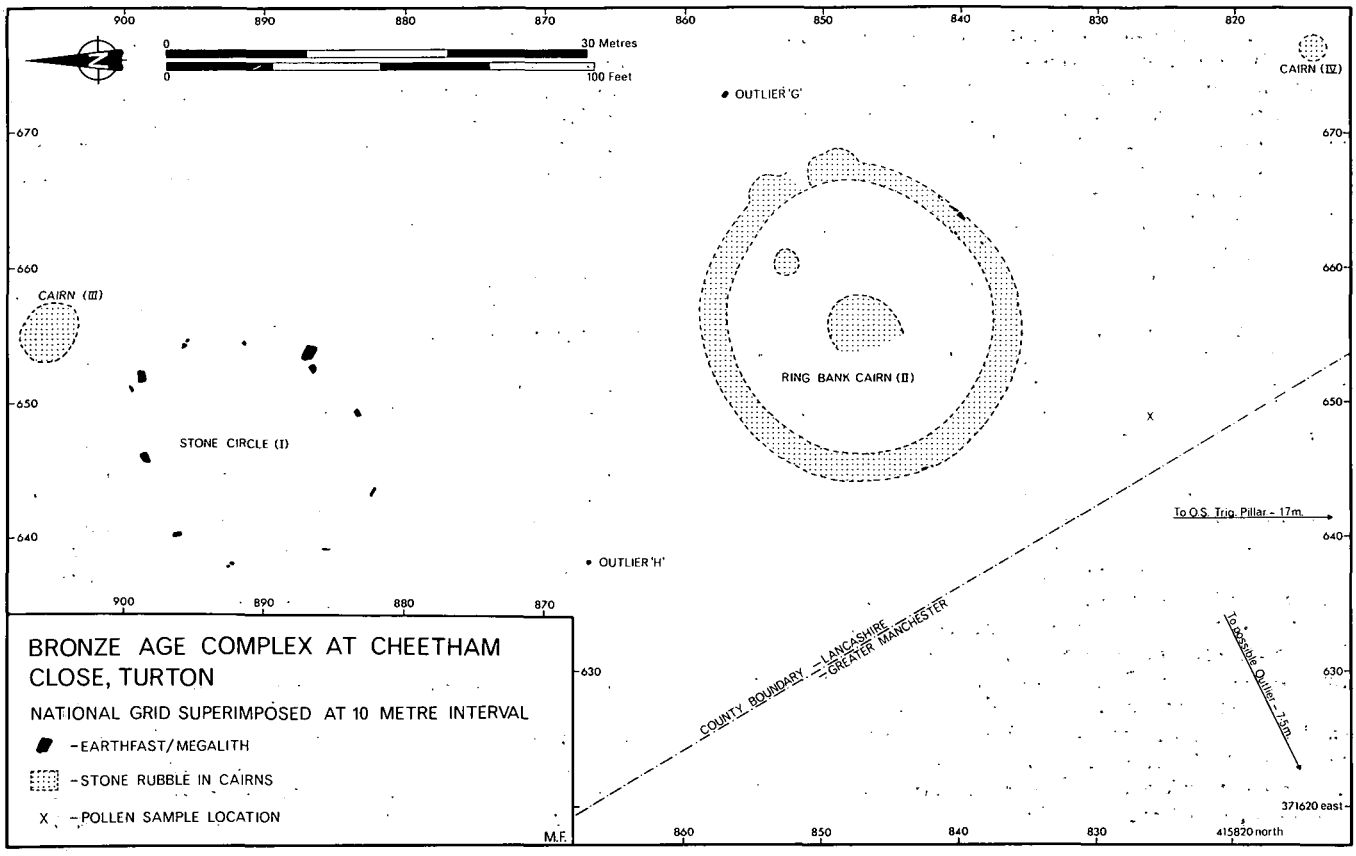


Fig 4 Cheetham Close : site plan

development of elliptical or egg-shaped plans. Both stone circle and ring-bank cairn (sites I and II) at Cheetham Close are apparently elliptical, although the former is slightly larger than most 'late' circles of North-West England. Furthermore, during the second phase of the megalithic tradition, the number of stones in the circle perimeter is formalized: twelve being a common number (probably ten at Cheetham Close); whereas in the larger, earlier circles, twenty or more uprights are usual.

The presence of outliers at Cheetham Close deserves comment. Conspicuous outlying monoliths are recorded as elements of the large, early 'open' circles near the Atlantic coast of Britain: specifically in the Lake District, Peak District, and the Wessex/ Somerset area. Suggested functions for these features include astronomical pointers (Thom 1967), burial markers (Lambrick 1983), travellers' direction markers, and boundary indicators on settled land (Burl 1976). Outlier H at Cheetham Close has already been mentioned as a possible 'mere' stone though not necessarily utilised as such in the prehistoric period.

Again, many of the earlier rings exhibit markers at one or more cardinal points. Stone 2.A at Cheetham Close, by far the tallest and most massive, was set on the north edge of the circle. At Swinside (Cumbria) the largest megalith marks north, as does the portal-flanked entrance to the Carles ring in the same county. Many Wessex and Yorkshire Beaker burials were aligned north-south. At Blackheath ring-bank in the Yorkshire Pennines, stone settings demarcate all four cardinal points (Bu'Lock 1961). The ancient Egyptians considered north as important because of the circumpolar stars which never set; perhaps prehistoric peoples had a similar belief, incorporating cardinal pointers in their monuments to allow north to be easily located (Burl 1979).

Stone 3.B at Cheetham Close was recorded as recumbent by Dryden in 1850: this may have been its original attitude. Recumbent slabs are integral components of the recumbent stone circles of Aberdeenshire, and a recently-excavated round barrow near Alsager (Cheshire) had been raised over a ring of nine massive glacial erratics, lying prone upon the old ground surface, with gaps in the arc to north and south (R McNeil-Sale pers comm).

Function

Much controversy in recent years has centred upon the claims of Thom (1967), who spent many years accurately surveying and analysing hundreds of megalithic sites. Thom has formulated several theories suggesting that the builders went to a lot of trouble to construct stone rings very accurately. His main contention is that most megalithic sites were laid out using complex geometrical techniques, such as Pythagorean triangles, with integral distances involving multiples of a 'megalithic yard' equal to 2.72 imperial feet (829mm). He argues further that precise alignments of stones were used accurately to indicate important calendrical/astronomical events, such as the rising and setting declinations of sun, moon, and the brighter stars.

Although Thom's ideas have gained at least partial acceptance among archaeologists, rigorous statistical analysis of his original data, and more recent field research, have questioned the validity and accuracy of many of these theories, (see for

example Heggie 1981; Barnatt & Moir 1984). Astronomical alignments of a symbolic, rather than scientific, nature may exist within some of the larger circles, but are impossible to prove statistically. Furthermore, the establishment and maintenance of an agrarian calendar would require only general, rough alignments, such as those proposed in the lunar-orientated circles of Aberdeenshire. Anything more accurate would require megalithic fore- and back-sights hundreds of metres apart: a requirement not fulfilled at Cheetham Close, nor at most other circles in Britain.

The more tenable ceremonial functions suggested by Burl (1979) are based upon firmer archaeological and ethnographic evidence. Fire and axe cults, along with human fertility rituals, may have been important in such ceremonies, while Burl argues that the prolific legends involving dancing, and the association of megaliths with water, may be actual folk-memory of almost-forgotten rituals, enacted over two hundred generations ago.

Although primary burials have been excavated in some circles (Barbrook II in the Peak District, for example) secondary burials as later insertions are more usual in a free-standing stone circle such as Cheetham Close I: it seems unlikely that burial was the original or sole function. Where burials are deposited, it is necessary to attempt to distinguish between sites designed for sepulchral use, and those where burial occured as an element of other, perhaps more important rites.

The ring-bank cairns on Cheetham Close were probably designed for sepulchral use. Bu'Lock (1961) defined two Earlier Bronze Age burial traditions in North-West England: the immigrant single-grave barrow, and the native flat cemetery tradition utilising ring-bank structures, commonly but not solely used for burials. Such sites where excavated commonly yield between three and thirteen cremations, some inurned as at Whitelow, Ramsbottom, for example (N Tyson pers comm). Hence the stone circle and ring-bank cairn at Cheetham Close may well represent contemporary and complimentary sites for ritual and burial respectively. The use and relative date of the small cairns III and IV is open to debate. It would seem reasonable to suggest that the Cheetham Close complex was used at specific intervals during the year, probably related to the all-important agrarian cycle, and acted essentially as a ceremonial complex; the stone circle may well have had additional uses as a centre for more purely secular functions, such as social and economic exchange.

Dating

Widespread clearance and settlement of the West Pennine Moors occured initially in the Earlier Bronze Age: Neolithic occupation, judging from artifact distribution, appears to be thinly scattered, while evidence of the Later Bronze and Iron Age is almost non-existent. Burl (1979) suggests that most smaller stone rings were raised between 2100 and 1500 BC: a period when expansion of settlement and agriculture onto the uplands occured throughout Britain. An early date within this period for Cheetham Close is suggested by the integration of outliers and by the presence of a conspicuous cardinal pointer: features which may well imply architectural affinities with the early, large Cumbrian circles.

The earliest phase of activity at the superficially -similar megalithic complex at Cefn Gwernffrwd (Dyfed) has been radiocarbon dated using palaeo-ecological evidence, to c 2000 BC (Chambers 1983). Tallis and McGuire radiocarbon dated the first extensive clearance phase at Deep Clough, Holcombe Moor (6 km east of Cheetham Close) to 1590+/-120bc (c2050 BC).After excavation, the nearby moorland burial sites of Whitelow Cairn and Winter Hill Cairn have been dated on typological grounds to 1650 BC and 1600-1400 BC respectively (Bu'Lock, 1961). Futher afield, in the Peak District, the inurned primary burial of the Barbrook II embanked stone circle was radiocarbon assayed to 1500 +/- 150 bc (c 1835 BC), while a ring cairn at Totley gave a series of radiocarbon dates from 1530 +/- 150 bc to 1050 +/-150 bc (c 1900 to 1350 BC).This suggests that some Pennine ring-works may have been in continual or intermittent use for over 500 years, although their status and function may have changed during that period.

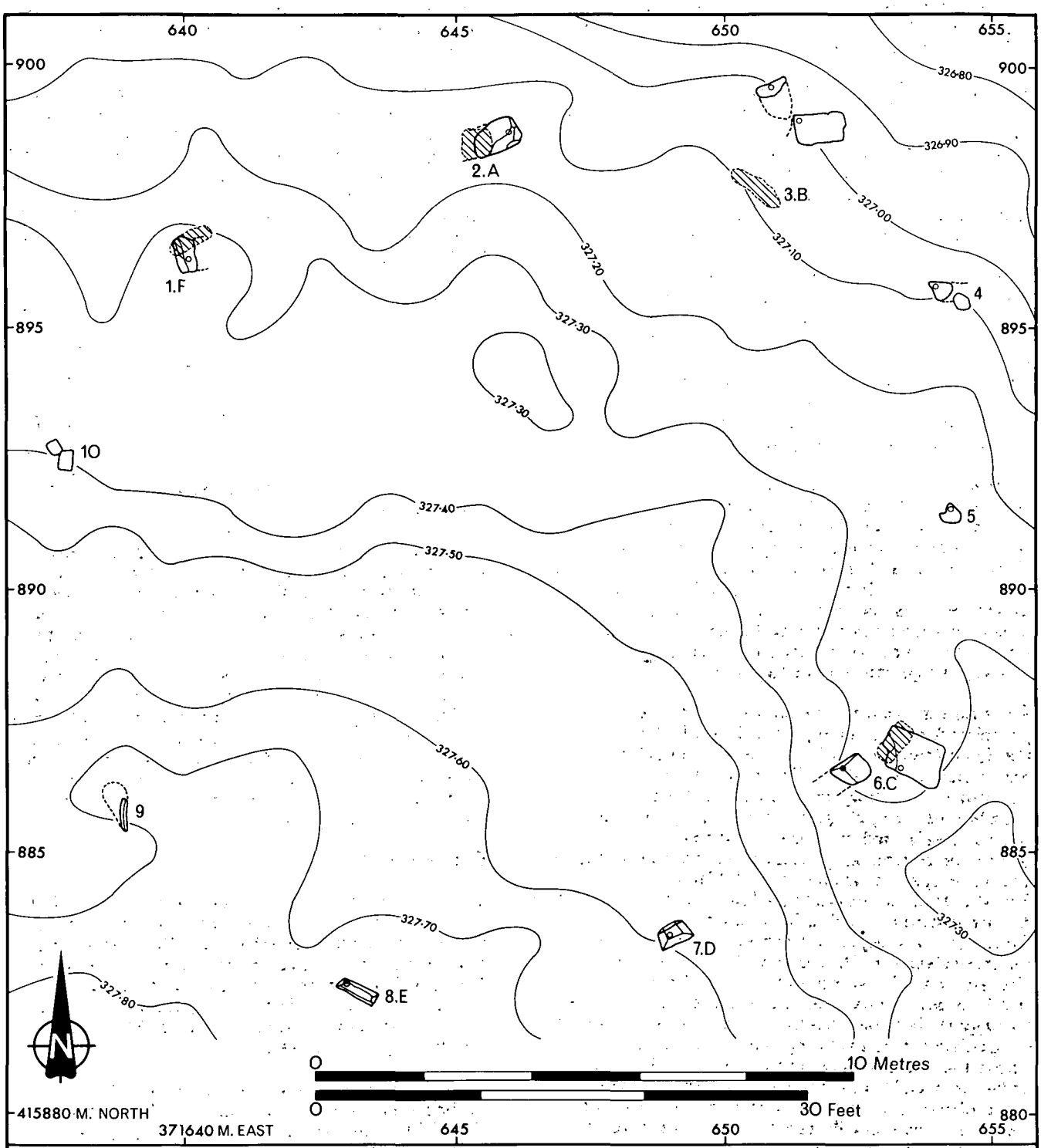
This combined evidence would suggest a probable construction date within the first few hundred years of the second millenium BC for the Cheetham Close complex: the first half of the Earlier Bronze Age, when a communal effort by an extended family group, including not more than a dozen healthy adults, would have been necessary to quarry and raise even the heaviest monolith. Potential cairn building material must have been collected from the weathered plateau edges. Constant dissemination of knowledge and information from other regions, such as the Peak and Lake Districts, via trading and 'cultural contact' may well have influenced the location and design of the native ring-works.

Economy and environment

The West Pennine environment of the Earlier Bronze Age must have been more conducive to upland settlement than at the present time, with warmer average temperatures, less precipitation, and a potential tree-line (birch species) in excess of 330m O D (Tallis and McGuire 1972), and possibly over 400m O D (J Ashton, pers comm): which would include all but the highest summits.

The finding of a saddle quern and three flint barbed-and-tanged arrowheads on Cheetham Close in the 1950's would imply that the settlers were a community of arable/pastoral farmers, with a diet perhaps supplemented by hunting and fishing: the latter a conservative continuation of Late Neolithic activity on the moorlands. Tallis and McGuire (1972) suggest that areas of pasture land existed on deeper soils, but that there is no evidence of significant arable cultivation during the Neolithic and Bronze Ages. Small-scale arable working probably occured on the lighter valley soils, and in close proximity to any settlement sites.

Excavation has suggested that marginal land was already developing towards the middle of the Bronze Age, when the Winter Hill and Wind Hill (Heywood) cairns were constructed in the area: a developed



STONE CIRCLE (SITE I), CHEETHAM CLOSE, TURTON

MEGALITHS NUMBERED & LETTERED AS ON PLANS BY GREENHALGH & DRYDEN

CONTOUR VALUES IN METRES ABOVE ORDNANCE DATUM

NATIONAL GRID SUPERIMPOSED AT 5·0 METRE INTERVAL

– Location of megalith as recorded by Dryden

o – Highest point on stone

– Present stone outline, dashed where located sub-surface by probing

M.F.

Fig 5 Cheetham Close : site I

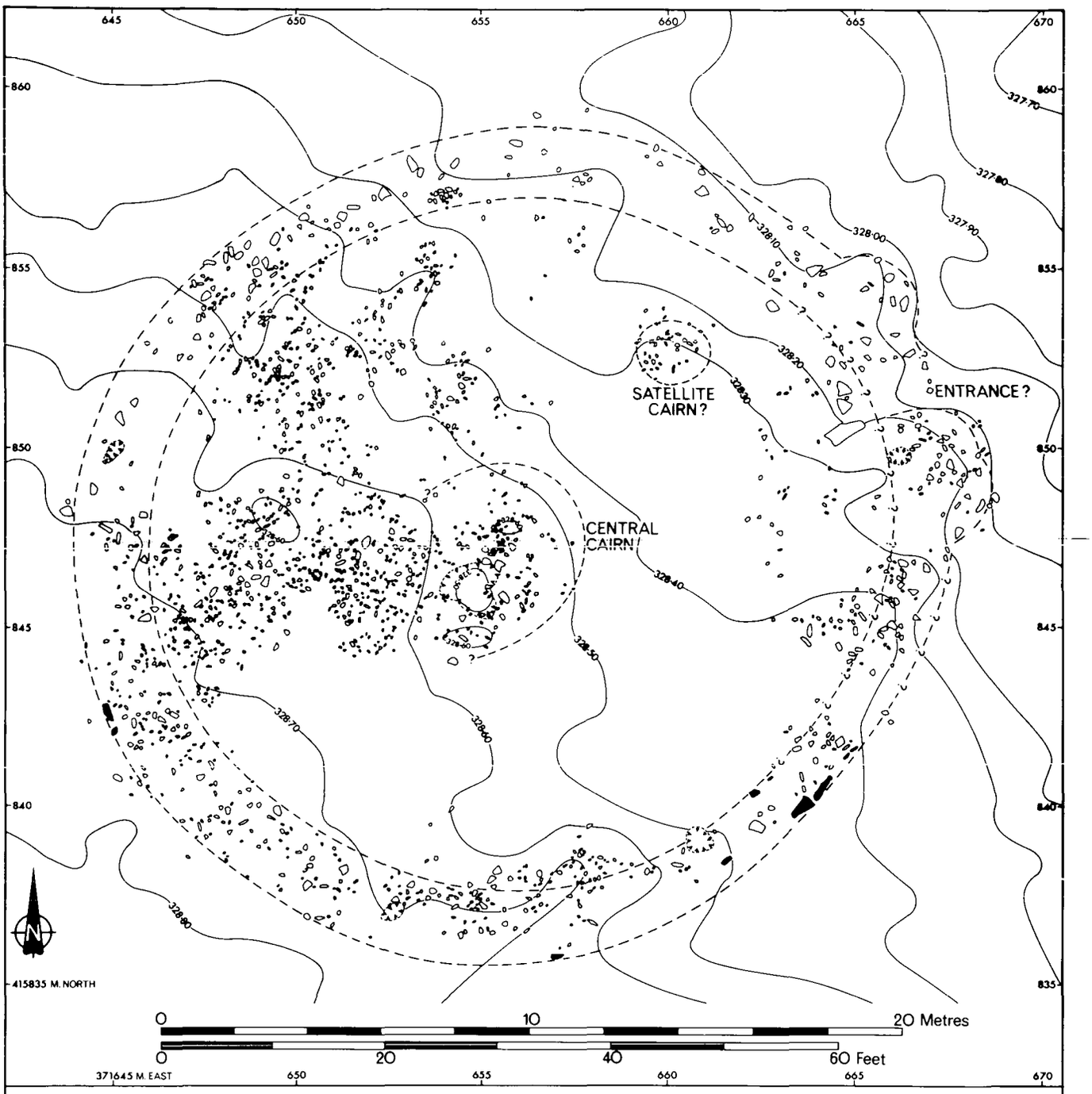


Fig 6 Cheetham Close : site II

podsol structure was revealed in both cases, with thin iron-pan layers (Tallis and McGuire 1972; Tyson 1980). Additionally, it has been demonstrated on Holcombe Moor (and other Pennine areas) that Bronze Age clearance of the forest cover was eventually detrimental to upland settlement. This practice, combined with increasing precipitation in the latter half of the second millenium BC, led to

soil erosion and improverishment, and formerly-fertile brown earth soils suffered leaching, and became useless waterlogged gleys. Consequently, the spread of blanket peat was initiated onto land previously viable for pastorialism.

No evidence has yet been uncovered for a settlement associated with the Cheetham Close complex: an upland occupation site adjacent to its attendant ritual/burial enclosures could be masked by the blanket peat, while a settlement in the valley areas may have been obliterated by later agrarian practice. The farm site known as Torra Barn, 1.5 km south-east of Cheetham Close, is reputed to be the site of an early settlement; this well-drained sandstone plateau area has yet to be investigated archaeologically. Similarly, the glacial spread of sand and gravel at the 'Three Lowes', 1 km north of Cheetham Close is another potential occupation site, clearly overlooked from the complex.

A tentative summary of the available evidence would suggest that in the earliest centuries of the second millenium BC, family groups of 'pioneer' settlers, encouraged by a drier climate and prompted by population increase, extended Neolithic clearance in the West Pennine uplands. One such group constructed a megalithic ritual complex on Cheetham Close summit. Perhaps for several hundred years these people prospered, making regular, seasonal use of their stone monuments linked to long-forgotten cults. Around 1200 BC, climatic deterioration and its attendant discomforts, such as waterlogging and soil erosion, coupled with over use of land resources, forced the upland population to migrate to the overcrowded lowlands "under the grey, raining skies of the Late Bronze Age" (Burl 1979).

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