Castleshaw and Piethorne - North West Water Landholding

Archaeological Survey

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THE UNIVERSITY of MANCHESTER

Contents

1. Introduction

BACKGROUND TO PROJECT

This report was commissioned by North West Water in April 1995 and is an archaeological survey of their landholdings at Castleshaw and Piethorne. The purpose of the survey is to provide a comprehensive document on the location and nature of archaeological sites and their settings within NWW's landholdings. The report also examines the relative significance of these sites and makes recommendations for their future management and research strategies.

METHODOLOGY

The survey consisted of the following:

A photographic survey – an aerial photographic survey was carried out by the Department of Archaeology, University of Manchester, which produced oblique colour photographs at a scale of 1:2500 or greater. Coverage of this survey extended over the entire landholding.

An environmental survey – this survey was carried out by the Palaeoenvironmental Research Unit, Department of Geography, University of Manchester. It examined the geology and topography of the study areas, and also the climate and environmental history of the areas.

A desk based survey – this examined the following material:

— The county Sites and Monuments Record.
— All published maps together with appropriate unpublished estate or township maps.
— Published works including all relevant archaeology/history journals and books.
— The Saddleworth Historical Society archive held at Saddleworth Museum.
— Photographic records including the 1:10,000 verticals held at the Geological Unit, miscellaneous aerial photographs held by Norman Redhead and the Department of Archaeology, any relevant plates held by North West Water, and the new photographic survey carried out by the Department of Archaeology.
— Oral evidence.

Field research – this involved a detailed site walkover to confirm research findings and also to identify new sites. Additionally certain sites were chosen for earthwork survey and photographic record.

REPORT LAYOUT

The report comprises a geological and topographic summary, followed by a discussion of the prehistory of both areas. The historic period is divided into two parts dealing with each study area separately. Following each area history is a gazetteer of sites, the numbers of which correspond to a map base at the back of each gazetteer. The gazetteer sites have been graded as follows:
* – Sites of low significance, of local interest at most. Destroyed sites
** – Sites of moderate significance, of local and possibly regional significance. Good survival. Unassessed potential. Have a group value. A flint findspot of less than ten pieces.
*** – Sites of high significance, or national or regional importance/potential. Good survival of rare site type. High research/conservation potential. A well provenanced flint find spot of more than ten pieces. All sites with statutory protection.

The report concludes with management and research proposals.

2. Geology and Topography Summary

TOPOGRAPHY

The survey area lies to the west of the principal ridge of the South Pennines. The topography rises to a maximum elevation of 447m OD, with local relief of the general order of 100 to 150 metres.

GEOLOGY

Solid

This consists of fluvio-deltaic clastic rocks of the mid-Carboniferous age with the more elevated areas formed of coarse Namurian sediments (Millstone Grit) overlying weaker beds of mudrock. To the north and east of Readycon Dean Reservoir the grits are of the Readycon Dean and Upper Kinderscout series. Further south, at Ox Hey Top and to the west of the Castleshaw reservoirs the rocks are of the Shale Grit series. The eastern limits of the landholdings follow approximately the junction of the Millstone Grits with the Lower Coal Measures except to the east of Rooden reservoir where they are overlain by Lower Coal Measures above Ogden Edge.

Drift

This is composed of boulder clay, except in the Piethorne area where the Lower Coal Measures extend along the western margin. Following Hull Brook above the village of Delph towards Castleshaw Lower Reservoir is a narrow deposit of recent alluvium.

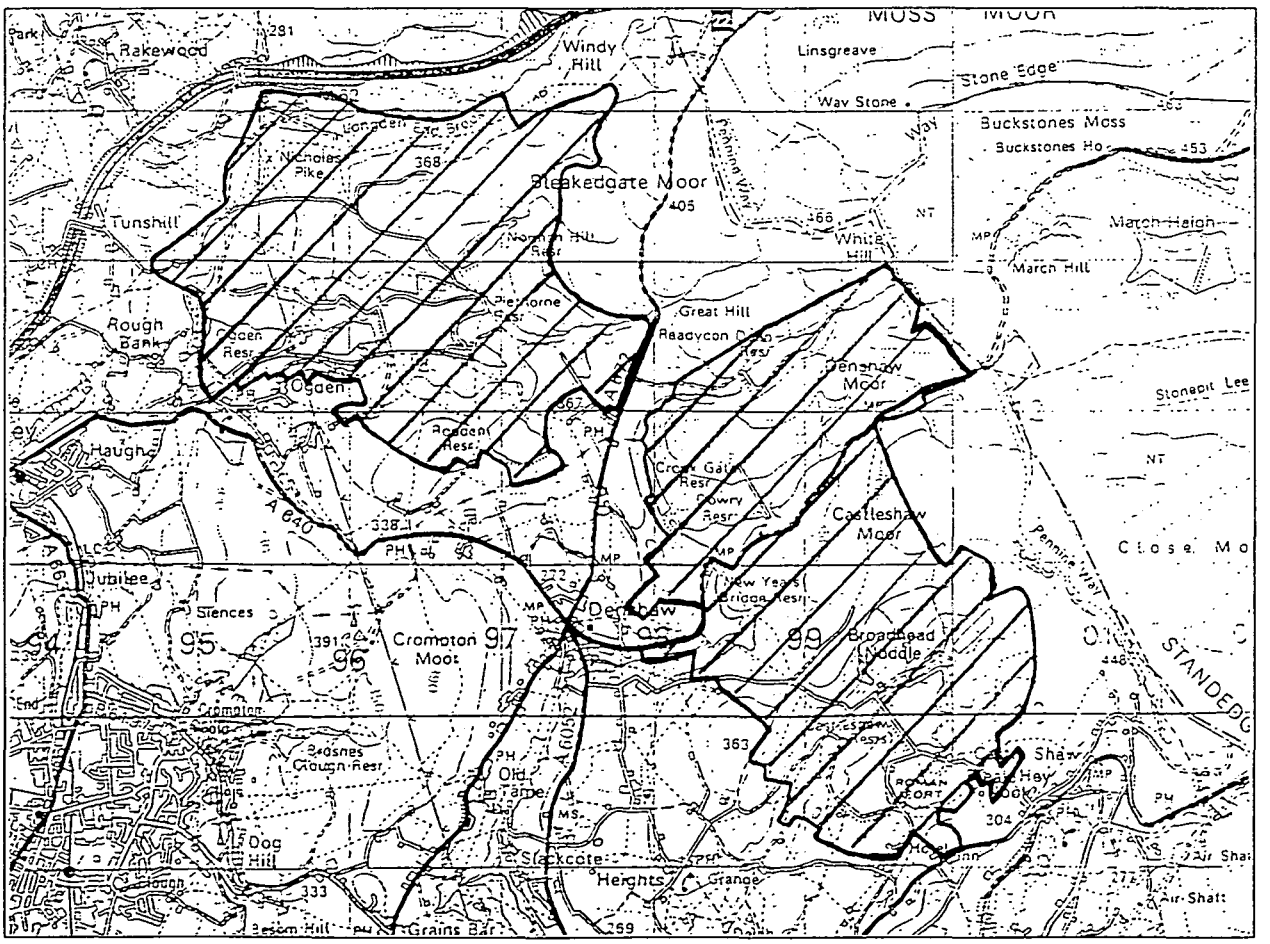


Fig 1 Location map of North West Water Castleshaw and Piethorne landholdings.

3. Prehistoric

The generic term prehistoric refers to the pre-Roman period, which begins in the first century AD. This massive time span, archaeologically spanning many thousands of years, is sub-divided into a number of archaeological periods, many of which are represented within the study areas.

THE MESOLITHIC PERIOD

Within the two study areas there are over 40 sites which have been attributed to the Mesolithic period, which is dated *c* 8000BC to *c* 3500BC. Traditionally the Mesolithic period has been divided into an early and late period, *c* 8000 - 6500BC and *c* 6500 - 3500BC respectively, with one of the defining aspects between the two being the lithic assemblage and material. The early Mesolithic period is associated with larger, non-geometric lithics, most typically with obliquely blunted points and is referred to as the broad-blade industry. The stone used is usually characterized by white flint, probably derived from the Lincolnshire and East Yorkshire Wolds. The late Mesolithic period is associated with small, geometric microliths such as scalene triangles, trapezoids and narrow rods and is referred to as the narrow-blade industry. By this period the white flint is less common and instead brown or deep grey flint as well as black chert are utilized and are derived from local sources, which include glacial erratics.

The forty five sites located within the study areas represent part of a very large concentration of Mesolithic sites within the Central Pennines, to the extent that it is probably the area with the highest density of sites in the British Isles (Fig 2).[1]

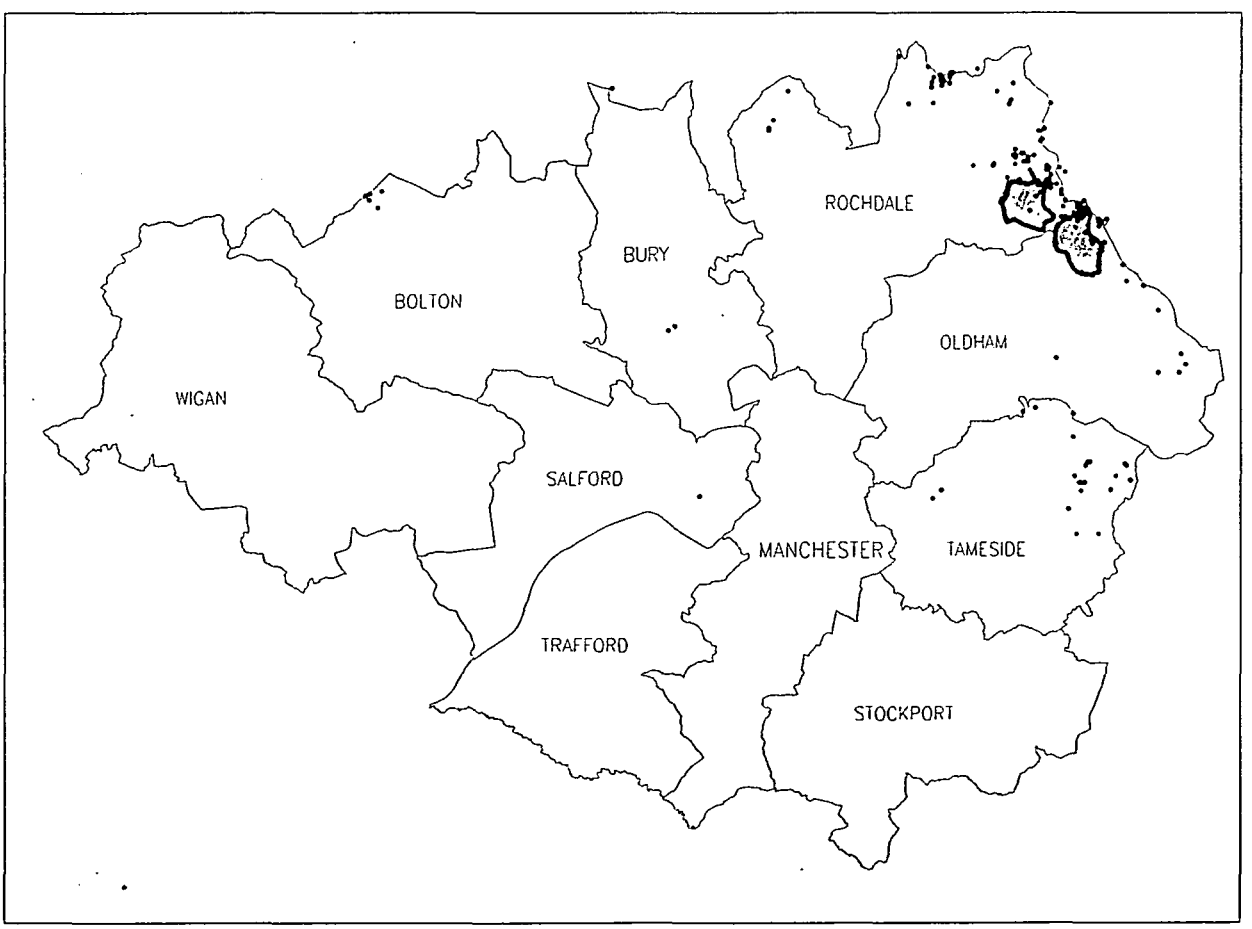


Fig 2 Distribution of Mesolithic sites within Greater Manchester. The two study areas are shaded.

The definition of a site in this instance is anywhere an artifact has been found, and for the Mesolithic period the commonest surviving artifacts are stone tools, usually flint. Within the study areas the sites vary in size from the single flint find (82; Section 8 Gazetteer of Sites - Castleshaw) to one site where over 1000 pieces of flint (including waste material) were recorded (99; Section 9 Gazetteer of Sites - Piethorne). Almost all of these sites occur in the upland areas where blanket peat has developed, usually located at the interface between the peat and the mineral soil beneath. Although a single flint find is considered to be a site, it is the intention of this survey to treat such sites as chance finds as opposed to indicating a temporary camp. Where more than ten pieces of flint have been recovered from a single site, then this is interpreted as representing the remains of a period of flint working activity and as such may represent the position of a short stay settlement episode.

The material culture of the Mesolithic period and later periods was far more extensive than the use of stone, and included bone, wood and leather. Unfortunately these types of organic artifact often do not survive, because of decomposition due to subsoil conditions. The stone tools are normally the only type of material which remain and as a result have become synonymous with the period.

The economy of the population during this period was one of hunter-gatherer, whereby semi-nomadic groups exploited a wide variety of food resources including wild animals, fish and fruits. The mobility of these groups was to a large extent governed by food resource, the location of which was influenced by environmental conditions.

The beginning of the Mesolithic period, *c* 8000BC, is effectively defined by the end of the last ice age and with the cessation of this particular climate, a wetter and warmer climate followed. The result was that the early part of the Mesolithic period witnessed a gradual increase in the volume of woodland, to the extent that by *c* 5400BC most of the land below *c* 350m OD was covered in woodland comprising mainly of oak, elm and other deciduous trees. Pollen analysis from Dean Clough,[2] found in association with site 84 (Dean Clough I; Section 8 Gazetteer of Sites - Castleshaw) which produced a radiocarbon date of 5645 +/- 140bc, provides evidence for low levels of tree pollen in the lowest and earliest part of the profile, with herbaceous pollens, particularly hazel, predominating. This is followed by an expansion of tree pollen, notably lime and alder. From *c* 5000BC[3] increased rainfall initiated the onset of blanket peat formation, occurring firstly on the less afforested plateaus and in areas where tree cover was sparsest. Because a number of archaeological sites are located in a context of a rapid rise in herbaceous pollen it has been postulated that deliberate forest clearance occurred. The reason for clearance would have been to produce areas where grazing animals could browse and thus concentrate the potential prey, which would otherwise be widely distributed under tree cover.

Almost all of the sites located within the study areas are composed of lithic assemblages associated with hunting implements rather than domestic activities and are more commonly related to the later Mesolithic period ie. scalene triangles, blunted bladelets (rods), flakes, blades and microburins rather than scrapers and burins.

The largest single site within the two study areas is located in the Piethorne valley (site 99; Section 9 Gazetteer of Sites - Piethorne) and would appear to have contained evidence for multi-period occupation including both the early and late Mesolithic, as well as material from the later Neolithic and Early Bronze Age periods. The site, which was excavated in the 1980s,[4] occupies a south-facing spur of land in the narrower part of the valley, with the area of Mesolithic activity concentrated in a hollow on the spur. The evidence for the early Mesolithic is provided by thirty three flakes of White-Wolds type flint in the base of the hollow, while for the later Mesolithic, stake-holes, including an arc shaped configuration, as well as two hearths and over 1000 pieces of worked stone (including waste material), comprising chert, flint and rhyolite were recovered (Fig 3). The conclusions drawn from the excavation were that the site was a temporary hunting camp, occupying a sheltered hollow, with the stake-holes perhaps supporting a windbreak and

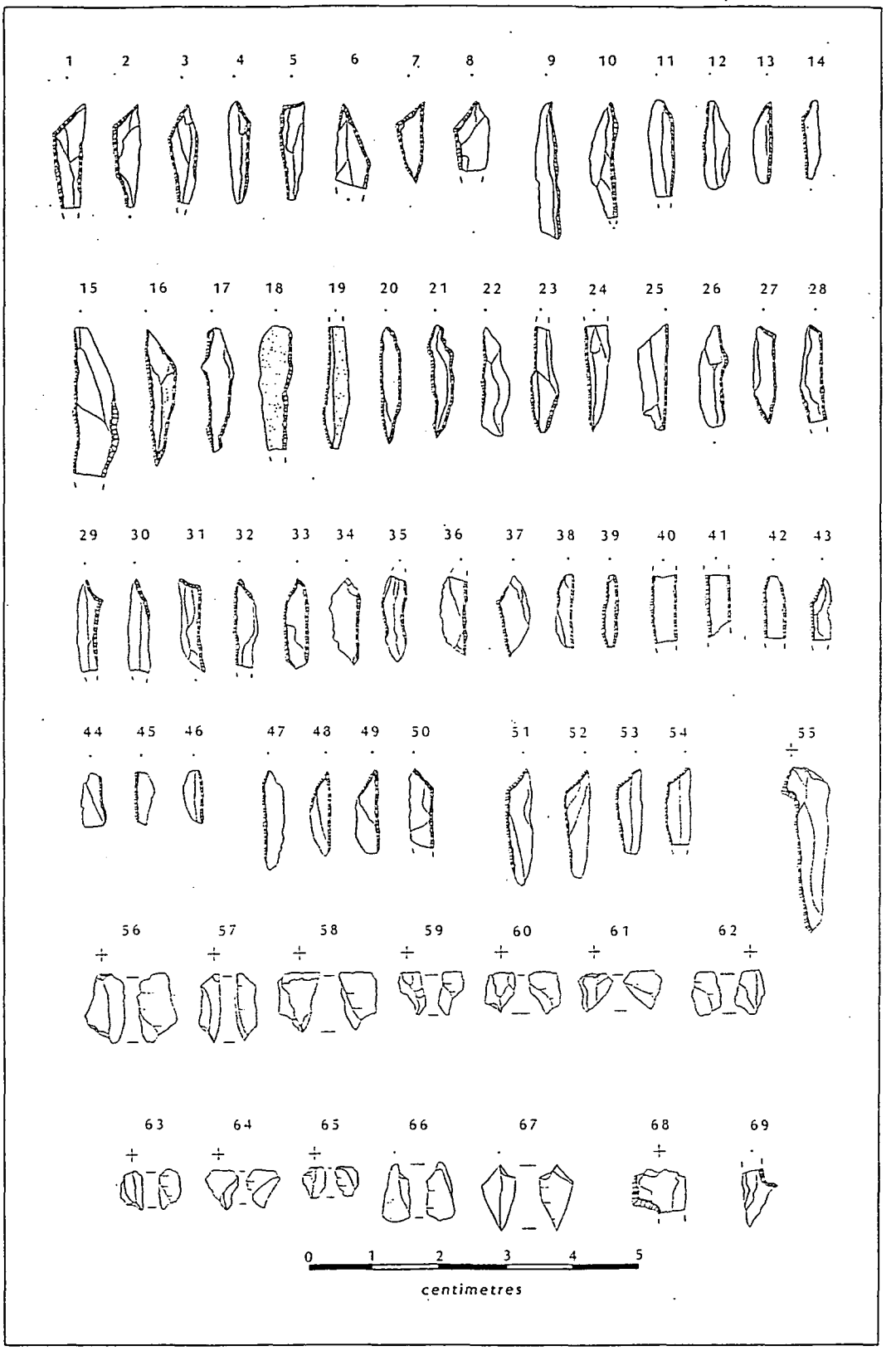


Fig 3 Mesolithic flints from Piethorne (after Poole 1986).

thus providing additional shelter. A second major site within the study areas is located within the Readycon Dean valley and is referred to as Dean Clough I (site 84; Section 8 Gazetteer of Sites - Castleshaw). This site was also excavated in 1980s[5] and produced a total of 932 flints (including waste material). The flint assemblage, dominated by scalene triangles, indicated a late Mesolithic hunting camp, although the presence of small truncated blades may also indicate the exploitation of plant foods (Fig 4).

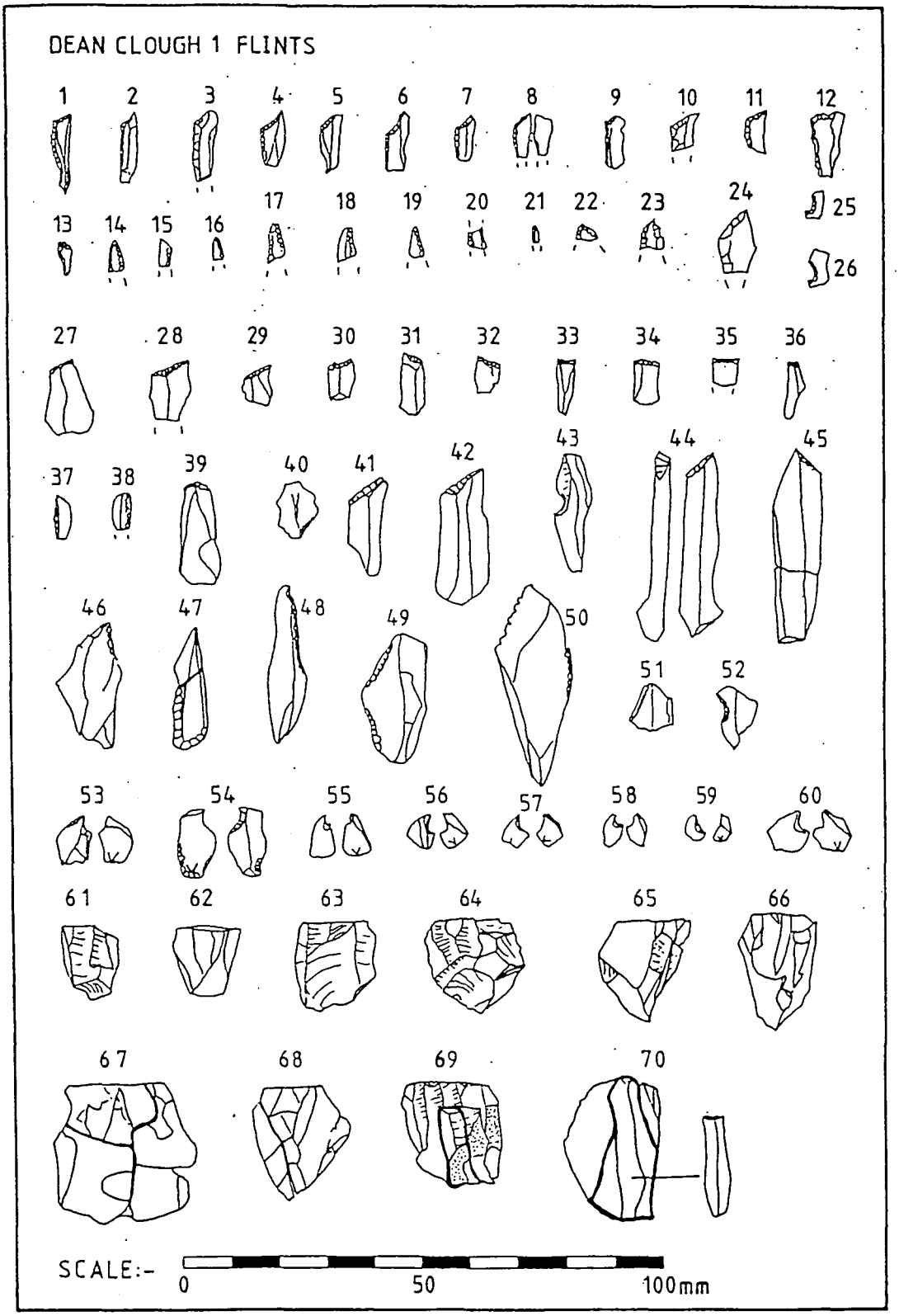


Fig 4 Mesolithic flints from Dean Clough I (after Stonehouse 1986).

The Mesolithic sites within the two study areas are not evenly distributed spatially but are confined mainly within two zones, namely the upper Piethorne valley and the upper Readycon Dean valley, with sites 99 and 84, the two largest sites, in terms of the amount of lithic material they have produced, each centred within one of these main areas. Within the two valleys there are also spatial concentrations, with all of the Piethorne sites and most of the Readycon Dean sites (including all of the larger assemblages) located on the south-facing side of the valley. The

preference for this topographic location has been identified elsewhere in the Pennines, notably at March Hill in West Yorkshire, *c* 1km to the north-east of the Castleshaw study area. At this site it was further observed that the sites of lithic scatters tended to be in a position of high visibility on a plateau edge, with some provision for shelter.[6] March Hill and the adjacent plateau of Lominot are two of many sites on the border of the study areas where dense concentrations of Mesolithic activity have been recovered and while any study of these other sites lies outside the scope of this report, it is wise not to treat the study areas in isolation of their immediate environs and that particularly during the prehistoric periods, their position in the wider landscape setting should be appreciated (see Appendix B).

The overall picture would therefore indicate that the upland zone within which both study areas lie was a favoured hunting location during the Mesolithic, with evidence of settlement primarily confined to temporary hunting camps established during the summer months. The greater number of flints associated with the late Mesolithic would suggest that activity in this area increased during this period.

THE NEOLITHIC PERIOD

The Neolithic is generally considered to cover the period *c* 3500 BC through to the third quarter of the third millennium BC. One of the major characteristics of this period which distinguishes it from the earlier Mesolithic is the drift away from a purely hunter-gatherer economy towards a more sedentary way of life, with farming practices, both arable and pastural being adopted, as man began to exert a greater degree of control over the environment. Nationally the evidence for this change has principally derived from pollen analysis which has revealed a decline in tree pollen, indicating forest clearance and at the same time the appearance of cereal pollen which suggests crop production.

As well as these economic developments, the period is also characterized by more substantially physical remains and these include monuments such as henges and long barrows, as well as settlement sites. Pottery is introduced during this period and the lithic assemblage develops from the preceding Mesolithic to include artefacts such as axes and arrowheads. Despite this wider variety of site type, evidence for forest clearance in this part of the Pennines[7] and of the material culture of the Neolithic is minimal within the two study areas. The small group of sites attributed to this period are all stone artefacts, with no evidence of pottery, settlement or any of the larger monuments. This lithic material includes three stone axes, all recovered as isolated findspots. The largest site, in terms of the number of artefacts, was located adjacent to the Mesolithic hunting camp (99) in the Piethorne valley[8] which produced a total of 434 pieces of flint (including waste material), dated to the late Neolithic/Early Bronze Age period. Amongst this material the majority of tools were scrapers and analysis of the flint suggests that the site was used for skin- or leather-working (Fig 5).[9] Although fragments of two arrowheads were also recovered, it has been suggested that the people responsible for the flint material were not hunting but were transient herdsmen.[10]

The occurrence of Neolithic flint finds in close proximity to a Mesolithic site is matched on one other occasion with a petit-tranchet arrowhead found in association with microliths in the Readycon Dean valley (site 74), while the other Neolithic flint finds from the study areas also come from an upland context, similar to the Mesolithic sites. The implication of this evidence is that similar land areas were being utilized by both the Mesolithic and Neolithic cultures, although the substantially fewer number of sites from the later period would suggest a lower level of activity. Given the absence of settlement sites and of pollen indicating cereal production it is quite possible that the economy of the Neolithic culture in this area was not substantially different to that of the preceding Mesolithic period. The paucity of Neolithic remains within the study areas is a general reflection of activity within the central Pennines, with the better quality soils and natural drainage of the limestone parts of the Peak District appearing to be a far more attractive area for Neolithic occupation.[11]

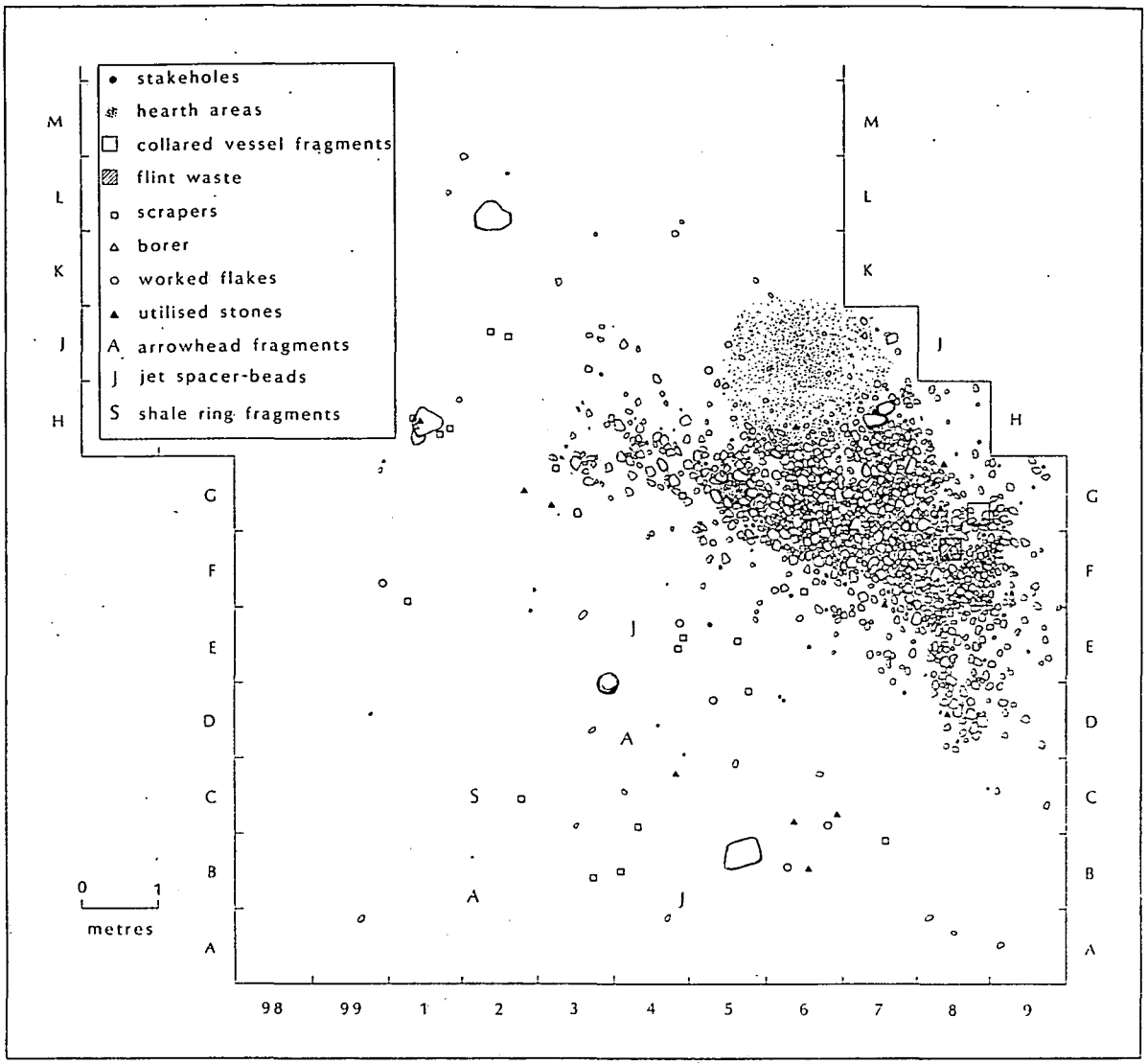
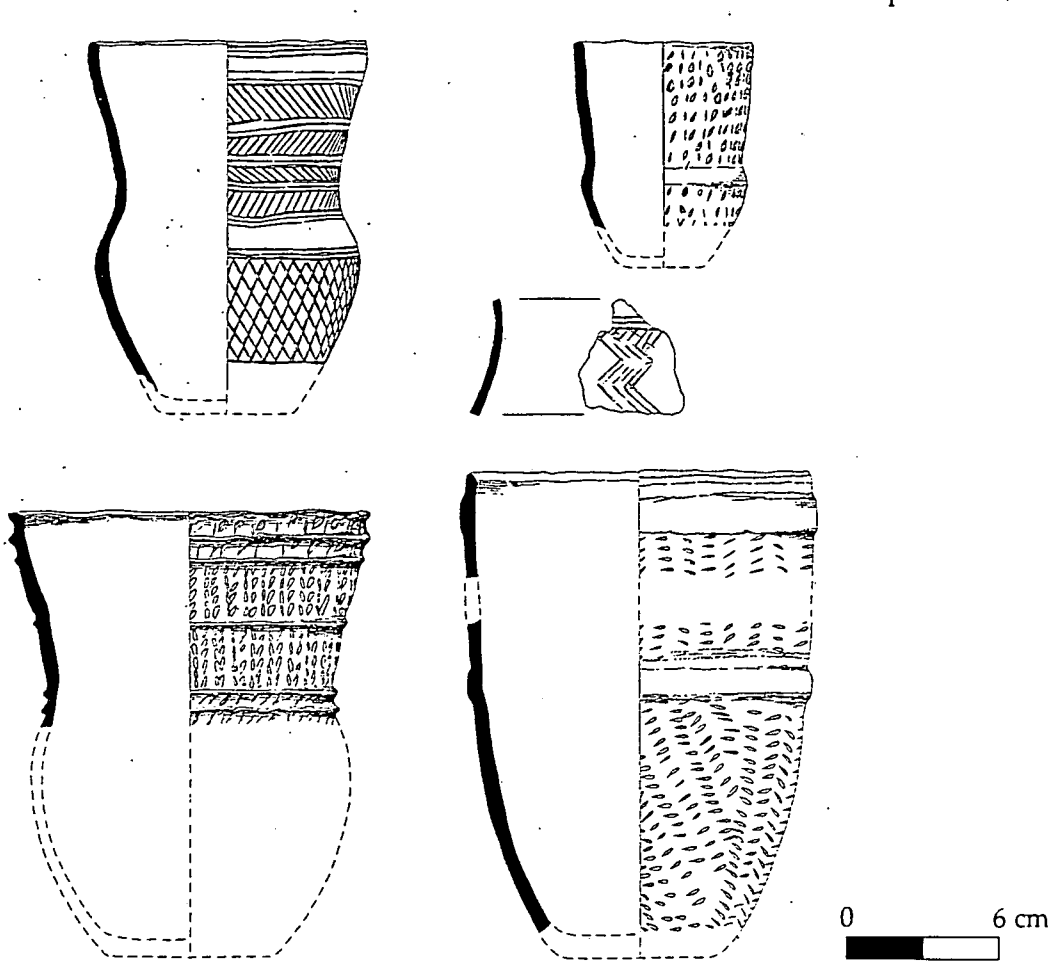


Fig 5 Late Neolithic/Early Bronze Age occupation level at Piethorne (site 99; after Poole 1986).

THE BRONZE AGE

The division of the prehistoric period into defined timespans is a convenient way of making broad distinctions, although in reality the various periods merged into one another, with certain characteristics being prevalent throughout. The Bronze Age in particular could be viewed as reflective of this. Traditionally the Bronze Age is subdivided into three phases, with the Early Bronze Age (last quarter of the third millennium to *c* 1400BC) often linked with the late Neolithic period. However, one particular characteristic of the Early Bronze Age is the production of Beaker pottery, examples of which have been recovered from within both study areas and which therefore represent the earliest examples of pottery within the study areas. Examples of this pottery first appear in Britain during the first quarter of the second millennium BC and in the Peak District, from whence most of the Pennine examples have derived, beakers are associated with burial remains. This association makes the two beaker sites in the study areas of regional significance, as both are not associated with burial remains, but instead would appear to come from a domestic context. The remains of five distinct beakers (site 300) were found within a 'domestic storage pit', sealed beneath Roman deposits, on the site of the Castleshaw Roman forts,[12] and roughly dated to *c* 1550BC (Fig 6).[13] The other Beaker material was recovered along with the late Neolithic/Early Bronze Age flints from the Piethorne valley site 99, where five fragments of pottery, the remains of four vessels, were identified,[14] together with the

Fig 6 Beaker pottery, found at Castleshaw Roman Fort (after Thompson 1974).



fragmentary remains of two further vessels, identified as Early Bronze Age collared urns. Other finds of this period from the Piethorne site were two jet spacer beads, a lump of raw jet (unworked) and two pieces of a shale ring. The recovery of such decorative and personal items, begins to introduce a more three-dimensional character to these prehistoric people, and rather than just 'existing', as indicated by the many functional artifacts, such as the flint tools and pottery, they had many more facets to their culture.

Other site types associated with the Early Bronze Age include a distinctive lithic assemblage, notably barbed and tanged arrowheads and thumbnail scrapers. Both of these types are also represented within the study areas, with a single barbed and tanged arrowhead (**299**) recovered from the Roman fort excavations and at least three sites where scrapers have been recovered (**172, 299**; Section 8 Gazetteer of Sites - Castleshaw and **216**; Section 9 Gazetteer of Sites - Piethorne; Fig 7). Other finds of Early Bronze Age date within the study areas include one (**131**) and possibly two (**161**) flint daggers and polished stone axes (**62, 110, 153** or **289**). The presence of Early Bronze Age material within the study area and again in close proximity to the earlier Mesolithic and Neolithic sites indicates a level of continuity with regard to land use throughout these periods. Generally the Bronze Age is associated with a farming economy, a corollary of which was forest clearance and the creation of field systems, but whereas there is evidence for forest clearance in the Pennine area,[15] this is not matched by any cereal pollens and as a result it would seem that pasturalism, perhaps on a seasonal basis continued into this period, with upland areas still being used.

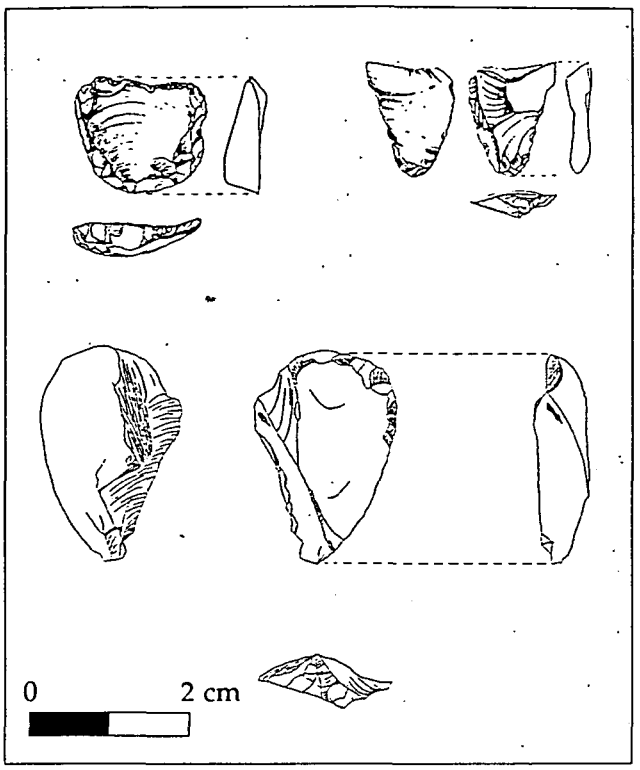


Fig 7 Late Neolithic/Early Bronze Age flint scrapers from Ogden (top) and Cudworth Pasture (bottom).

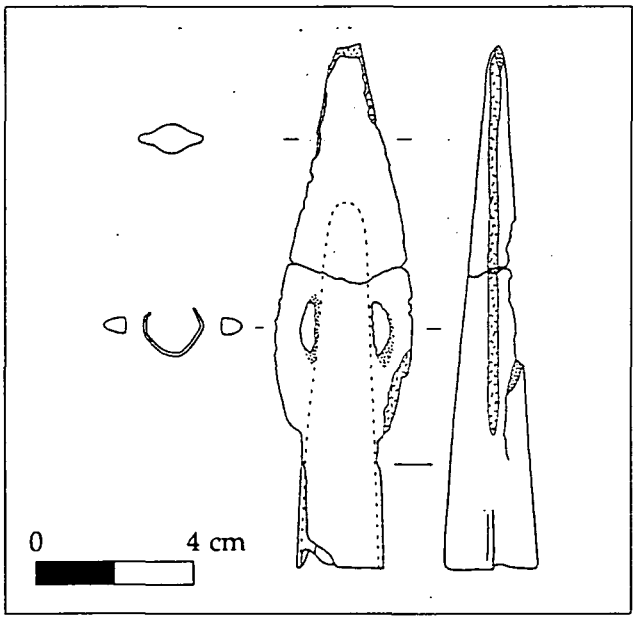


Fig 8 Late Bronze Age leaf-shaped spearhead, found in Piethorne (after Davey & Forster 1975).

A monument associated particularly with the Early Bronze Age is the burial mound (usually referred to as a barrow or a cairn). Although no confirmed cairns have been identified within the study areas, there are examples from the immediate environs, with the closest being a ring mound on Hill Top (SD 9801 0745) to the south-west of the Castleshaw study area. This mound measuring 45' in diameter and 1½' high contained pieces of charcoal and fragments of burnt bone, indicating a cremation burial. Both cremation and inhumation burials took place during the Bronze Age and the cairns tended to be located in upland areas, where their position was clearly visible from surrounding areas. A group of small mounds (site **172**) has been identified within the Piethorne study area and while there may be numerous, less exciting, interpretations for their presence (such as quarry spoil mounds) it is possible that they may represent a group of burial cairns. Although cairns more commonly occur as single monuments in the central Pennine area,[16] the grouping of cairns has precedents such as a cluster of seven mounds measuring 0.3m to 0.4m in diameter on Ringstone Edge, Barkisland, Calderdale.[17]

What most characterizes the Bronze Age and indeed provides the derivation of the period's name is the first appearance of metalwork during this period. The Early Bronze Age, Middle Bronze Age (*c* 1400-1200 BC) and the Late Bronze Age (*c* 1200-500 BC) all feature bronze artifacts, with a broad typological sequence defining each particular sub-period. Two poorly provenanced pieces of metalwork were reportedly found within the study areas; a socketed bronze spearhead from Piethorne (**301**; Fig 8) and a socketed bronze axe from Castleshaw (**314**), both are typologically of Late Bronze Age date. These represent the only evidence for Late Bronze Age activity in the study areas and this is consistent with a general paucity of material from this period in the Pennine area. The reasons for this change are generally agreed to be climatic, with an appreciable lowering of temperature from *c* 1200 BC onwards, together with an increase in rainfall.[18] As well as reducing the possibilities for cereal production there was also renewed blanket peat growth which minimized upland grazing areas, and as a result there appears to have been a general abandonment of the upland areas. The presence of the bronze artifacts may be explained as accidental losses, during cross-Pennine trading journeys.

THE IRON AGE AND ROMANO-BRITISH PERIODS

The Iron Age which spans most of the first millennium BC, has a considerable overlap with the Late Bronze Age period and while its terminus is often viewed as the Roman occupation, which in the North West occurred during the AD 70s, it could also be viewed as co-existing with Roman influences amongst the native population. With the exception of two spindle whorls (301 and 313), found in and adjacent to the Castleshaw Roman forts, which are reputedly of Romano-British origin, although not necessarily native, there are no sites of Iron Age/Romano-British date within the study area. This absence of sites extends across most of the western Pennines, with a few exceptions around Blackstone Edge, to the north of the Piethorne study area, where an iron spearhead and a shale armlet were found. Although palaeoenvironmental work has revealed evidence of forest clearance during this period,[19] it would seem that most Iron Age activity was primarily situated on the eastern side of the Pennines, where a better climate and soils existed. Research in recent years has begun to fill in the gaps in native settlement distribution on the western side of the Pennines. Aerial photography, linked with excavation, has demonstrated the existence of several settlement sites occupied in the later Iron Age or Roman period. These include Great Woolden Hall near Irlam,[20] Irby in The Wirral,[21] Werneth Low near Mottram,[22] and Castlesteads near Bury.[23] A number of other cropmark sites representing potential settlements have been identified and await further research.

DISCUSSION

There is evidence in both study areas for prehistoric activity from the Mesolithic through to the Late Bronze Age, with later Iron Age/Romano-British activity a distinct possibility in the Castleshaw valley, in the immediate area of the Roman forts. During this very long time span, the late Mesolithic period would appear to represent the period of most intense occupation, based on the large number of microlith finds which have been recovered.

Both the Piethorne and Readycon Dean valleys have produced major Mesolithic sites, and as areas lie within a narrow section of the central Pennines where Mesolithic sites are more densely located than anywhere else in the country.

All of the sites identified from this period within the study area, effectively represent the site of a site, in the sense that once the flint material has been found and collected, the immediate area on the ground from whence the material came has probably become archaeologically sterile. However, whether the full site has been recovered or accurately located or accurately interpreted are all problems which have recently been addressed.[24] At sites such as Piethorne (99) and Dean Clough I (84), where precise plans of flint locations, as well as other features such as hearths, have been made, the integrity and value of the site has been maintained. But in the case of chance finds and poorly provenanced collections, the usefulness of the site is only of limited benefit in terms of research and management. Of even less usefulness, is the practice of 'flinting', whereby some flint collectors not only search for flint on erosion patches, but physically dig into the peat in their quest. This practice has led to an unknown amount of material being recovered without being documented and would currently appear to be taking place within the Piethorne study area, as small haphazardly dug pits were identified during the course of the present survey.

It has recently been argued that the provenance of many flint finds suffers from many potential inaccuracies and as a result the identification and precise location of important archaeological sites on the basis of documented find spots alone is difficult.[25]

The work of the West Yorkshire Archaeological Service in the past few years, on the area around March Hill and Lominot has involved 'predictive modelling', which attempts to understand where sites are more likely to be located. In this case the location of flints is still a significant determinant, but through a process of test pitting, excavation and highly accurate surveying

techniques, the provenance and integrity of the sites is of a much higher order. Some of the results of this work have produced temporary hunting sites, which have included in-situ hearth remains and offer the potential to study the use and probable re-use of certain sites.

The level of prehistoric activity in both study areas appears to substantially decrease in the post-Mesolithic period, on the basis of sites identified. That a Neolithic culture didn't actually exist in this area is a distinct possibility and it is conceivable that a late Mesolithic economy and culture survived well into the third millennium BC.

A rejuvenation in activity during the Early Bronze Age is suggested by the recovery of Beaker pottery and other artifacts within the study areas. In both cases where the Beaker pottery was recovered, it came from a domestic context which is uncommon and thus makes both sites significant in terms of Bronze age activity in this area. Although the number of Bronze Age sites are limited, on the basis of these finds and the barrow near Castleshaw, there would certainly seem to be potential for further Bronze Age activity within the study areas, with settlement evidence as opposed to funerary remains being a distinct possibility.

Unfortunately, aerial photograph analysis and field walking for the current assessment have produced no new potential settlement sites of the Iron Age/Romano-British period within the study areas. The population in the central Pennines does appear to have been sparse in this period yet it is quite possible, based on the encouraging results of recent research in the Mersey Basin, that sites may be revealed in the future. Certainly the south facing slopes alongside Piethorne and Ogden Reservoirs would have been capable of supporting early farmsteads.

As for Castleshaw, current investigations demonstrate that extra-mural settlement existed at the fort site. At this moment the precise character of that settlement is not known, whether it was military or civilian in nature. This is discussed in more detail later. The southern part of the Castleshaw valley would have been suitable for native farming and sites may await discovery.

NOTES

1. Stonehouse 1986, 5
2. Louise Brown in Barnes 1982, 86-96
3. Poole 1986, 28
4. ibid, 11-30
5. Stonehouse 1986, 1-9
6. Spikins 1994, 18
7. Barnes 1982, 43
8. Poole 1986, 11-30
9. ibid, 28
10. ibid
11. Barnes 1982, 45
12. Thompson 1974 13-18
13. ibid, 15
14. Poole 1986, 25
15. Barnes 1982, 67
16. ibid, 55
17. ibid, 115
18. Nevell 1992a, 49
19. Barnes 1982, 79-80

20. Nevell 1989
21. Philpott 1993
22. Nevell 1992b
23. Nevell 1994
24. Marriott & Yarwood 1994
25. ibid

4. Roman

The people who inhabited the north of England prior to Roman assimilation were the Brigantes, a large, loose knit community formed of sub-tribes such as the Setanti, Gabrantovices and the Textoverdi. Brigantia was a client kingdom ruled by Cartimandua during the early years of Roman occupation. It acted as a buffer between Roman occupied territory and the hostile tribes further to the north. It was not until AD 69 or later that Rome's strategy in the north fell into difficulty. After divorcing Venutius in favour of her armour bearer, Vellocatus, Cartimandua found herself under threat from her disgruntled subjects.[1] Although she was rescued by a Roman force much of Brigantia was now hostile towards Rome.

The bulk of the population and wealth of Brigantia was undoubtedly concentrated around the rich agricultural land on the east side of the Pennines. It was here, in AD 71, that the governor Cerialis began his campaign to subdue the north. The IX Legion moved up to York then through the Stainmore Pass to reach as far north as Carlisle.[2] Although evidence is scarce, it is possible that the XXth Legion advanced up the west side of the Pennines to meet up with IXth Legion in a pincer movement. The future governor Agricola himself was at this time legate of the XXth. The speed with which he later moved through Brigantia when he became governor suggests that he was already familiar with the topography and also that Cerialis' campaign was successful.

The foundation dates of early Flavian forts in the Pennines are problematical. The dating evidence very rarely allows an accurate distinction between the governorship of Cerialis, Frontinus and Agricola. It is unlikely that Cerialis conquered Brigantia without establishing some fort sites, yet nearly all the early Flavian forts are traditionally given an Agricolan foundation date. When the XXth Legion advanced through the North-West they may well have left garrisons on a route from north Staffordshire to the Tame valley with camps or forts at regular stages along a road which lost its significance in the later Agricolan campaign of AD 79. Castleshaw itself may have been associated with this inroad of conquest, being a fort or camp guarding the head of the upper Tame valley.[3] The two phases of fort discovered during the 1984-8 Castleshaw excavations would allow both the Agricolan fort established in the new west to east cross-Pennine road in *c* AD 79 as well as an earlier, more temporary one, perhaps associated with the campaign of Cerialis.[4] This scenario is lent credence by recent investigations at Ribchester, where wood from trees felled in the winter of AD 72/3 was used in rampart construction of a fort pre-dating the Agricolan one.[5] A re-assessment of the pottery from Manchester also suggests a pre-Agricolan foundation.[6]

The fortress at Chester was being constructed by at least AD 79,[7] at the time when Agricola was pushing confidently through northern Brigantia. If he was to campaign even further north, into Scotland, it was vital that he should protect his rear through firm military control of Brigantia. In order to achieve this Tacitus writes that he set up a ring of garrisoned posts.[8] The problems of difficult terrain and a sparse but widespread population were countered by a tight network of roads and forts which divided the land into manageable parcels. By cordoning off sections of hills unauthorised movement was severely restricted.

The cross-Pennine road which linked the two military bases at York and Chester was a vital part of the Agricolan stranglehold on Brigantia (Fig 9). The forts along the road were positioned at intervals that represented a day's march. From Chester there are five known forts along the road: at Northwich, Manchester, Castleshaw, Slack, Newton Kyme and then on to York. It is likely that there are one or two fort sites east of the Pennines along this road that await discovery.

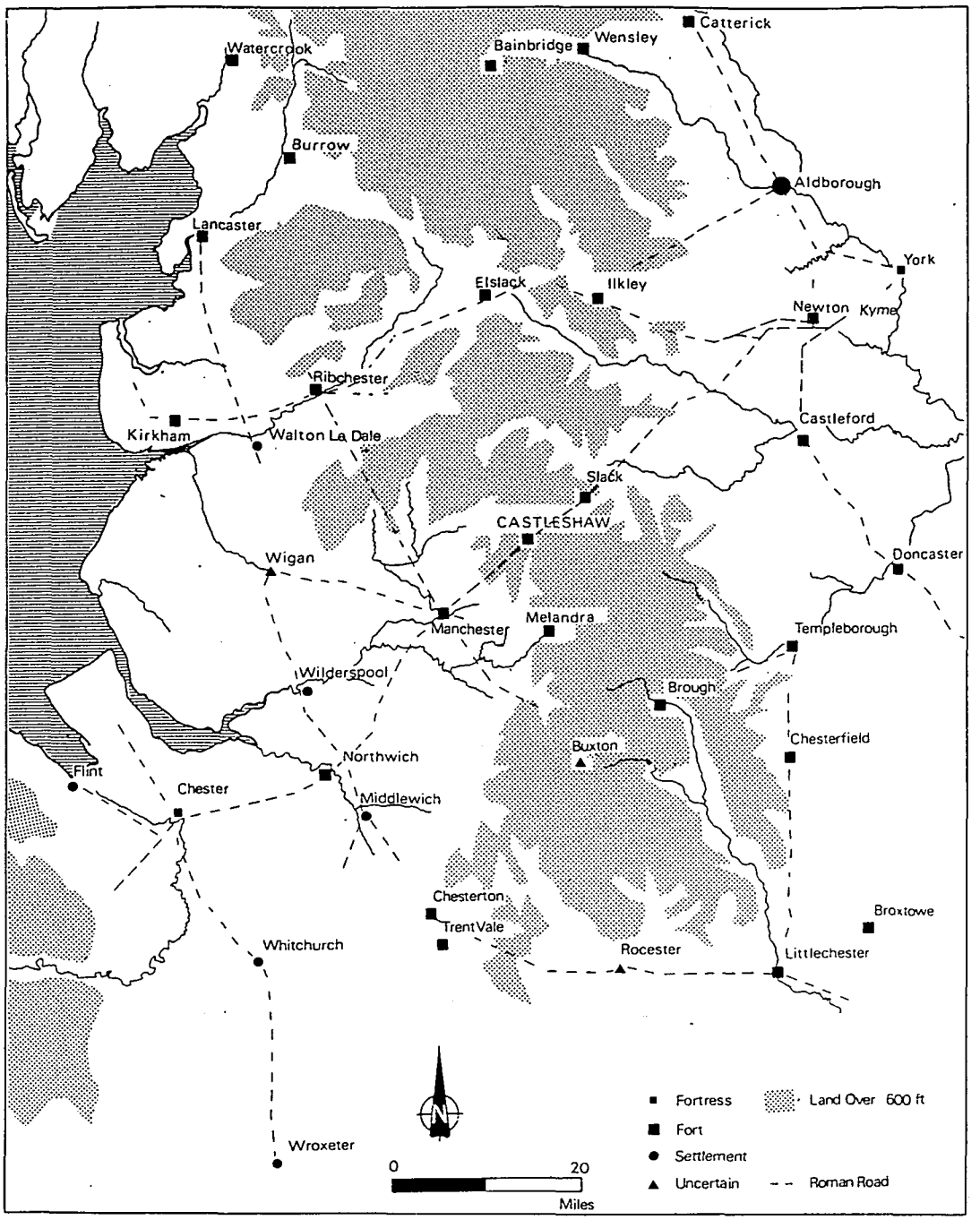


Fig 9 Roads and forts in Northern England in the late first century AD.

Other forts in the North-West at this date included Burrow, Lancaster, Ribchester, Kirkham and Melandra. Storage depots and local, military-run manufacturing sites, for example Walton-le-Dale, Wigan and Wilderspool, augmented the supply system. The route of the road connecting Melandra to Castleshaw has been studied recently.[9] It is suggested that it ran as a contour road from Melandra to Buckton Castle but the line is lost in the area of Greenfield and Uppermill. In all probability a road also went north from Castleshaw towards Blackstone Edge. A number of Roman finds have come from the Littleborough area but no evidence for a military station there has yet come to light and the Castleshaw road may simply have linked with the road connecting Manchester to Ilkley.

Unlike most forts in Brigantian territory, Castleshaw appears to have been abandoned in the late first century. Two reasons for this are possible. Firstly, the late AD 80s saw the withdrawal of one of the four legions stationed in Britain, the IInd Adiutrix, to the Dacian wars. This must have led to a re-organisation of the troops left in Britain. Secondly, part of the new military strategy in the early AD 90s involved the establishment of military garrisons in the Lake District; perhaps the Castleshaw garrison was moved to this newly acquired area. Manchester and Slack forts continued in occupation through to the fourth and mid-second centuries respectively. It is possible that Castleshaw was felt to be expendable because of its close proximity to Slack; the distance of 24 miles between Manchester and Slack was a long day's journey but acceptable. The close spacing of Slack and Castleshaw, with a possible signal station or small fortlet at Worlow in between, was intended to closely monitor the Standedge pass. After nearly a decade of occupation it is possible that the sparsely populated area was sufficiently pacified to allow the removal of the Castleshaw garrison to a more unstable area.

The fort site at Castleshaw was re-used from around AD 105, but on a smaller scale as a fortlet. This date co-incides with the withdrawal of troops from the Scottish lowlands and the establishment of the Stanegate frontier line. Once again there was a re-organisation of troops in Brigantia, the volume of traffic would have increased considerably between York and Chester and Castleshaw regained its importance as a station on the trans-Pennine route. The finds from the fortlet suggest it remained in use until the AD 120s, a date which fits nicely with the construction and garrisoning of Hadrian's Wall beside the old Stanegate frontier. Troop dispositions undoubtedly changed and the Castleshaw unit may have moved north to the frontier.

THE PHYSICAL EVIDENCE

It is useful at this point to describe the remains of the main elements that make up our current knowledge of Roman activity in the Castleshaw valley, ie. the main highway, fort and fortlet; followed by an account of recent research evidence for a fourth element: the annexe (or vicus).

Road (317)

The remains of the Roman road linking the forts at Manchester and Castleshaw have been well documented.[10] Its route is particularly well preserved around High Moor Quarry and along the base of Castleshaw Valley itself. The road survives on the valley floor as an agger, the metalling having been laid on a causeway above the boggy terrain. The line of the road is shown up quite clearly on aerial photographs (Plates 1a & 1b). The agger, which survives up to 1m high and 12-15m broad, runs from just east of Hull Mill reservoir straight towards the south-west corner of the fort. Within the study area, it survives as a green swathe through brown, rushy vegetation in the field west of Castleshaw Camp School but is not evident on the lower ground between Waters Clough and Cote Lane. To the east of Cote Lane it continues as a fine earthwork for *c*100m and then is lost until it is encountered beyond Castle Farm on the east side of the fort. Here it rises as a well defined earthwork in a straight line, passing out of the study area in a south-west to north-east direction. About *c* 1km from Castle Farm it angles eastwards via Brown Rough farm ruin to pass through a nick in Millstone Edge, from whence it proceeds in a straight line across the peat moor to pass around the east side of Pule Hill.

The construction of the road has been revealed by a section excavated, in 1975, at Causeway Sett near Hull Mill reservoir, just outside the study area.[11] Here it comprised an agger of 15m width, on which was laid road foundation material of rammed stone and gravel 7m wide and up to 0.5m thick. Excavations in the fortlet showed the road metalling to be angular sandstones smoothed off with small cobbles, and one could expect a similar upper surface for the main highway.

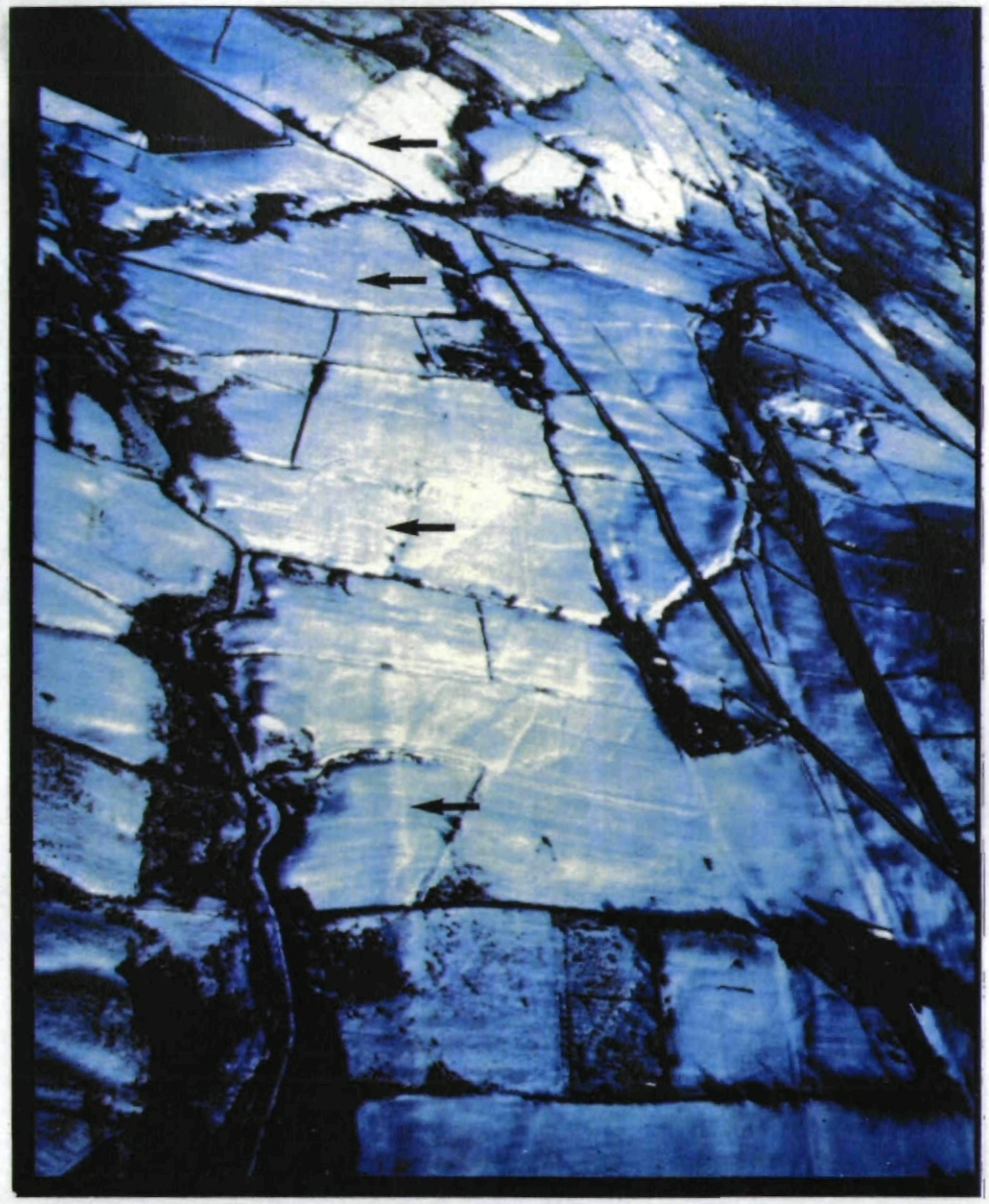


Plate 1a Aerial photograph showing line of Roman road (arrowed) in the Castleshaw valley, west of the Roman fort.

The Roman fort complex **(298)**

The military site at Castleshaw forms the only Scheduled Ancient Monument in the survey area. An Agricolan fort, displaying two phases of occupation, built around AD79 and abandoned probably in the mid-AD90s, was overlain, after a period of abandonment of the site, by a small fortlet erected around AD105 which also had two phases of development before being slighted in the mid-AD120s.[12] All phases of construction were in turf and timber.

Although it was remote and exposed, the site was chosen to serve the road which linked the legionary bases at Chester and York. This road crosses the Pennines at Standedge where the Pennine ridge dips and narrows. The fort had a standard auxiliary infantry cohort. A sister fort only 8 miles away at Slack near Huddersfield controlled the eastern approach to the Pennines, while westwards could be found a fort at Manchester 16 miles away from Castleshaw. The fortlet which succeeded the fort was more unusual. It occupied 1950 sq m and comprised principally an over large granary, commander's house, courtyard building, workshop, and one barrack block and had two possible roles: a base fortlet containing the core buildings of a normal unit where most of the troops were out-stationed, or a commissary fortlet dedicated to an administrative role for control or/and supply.

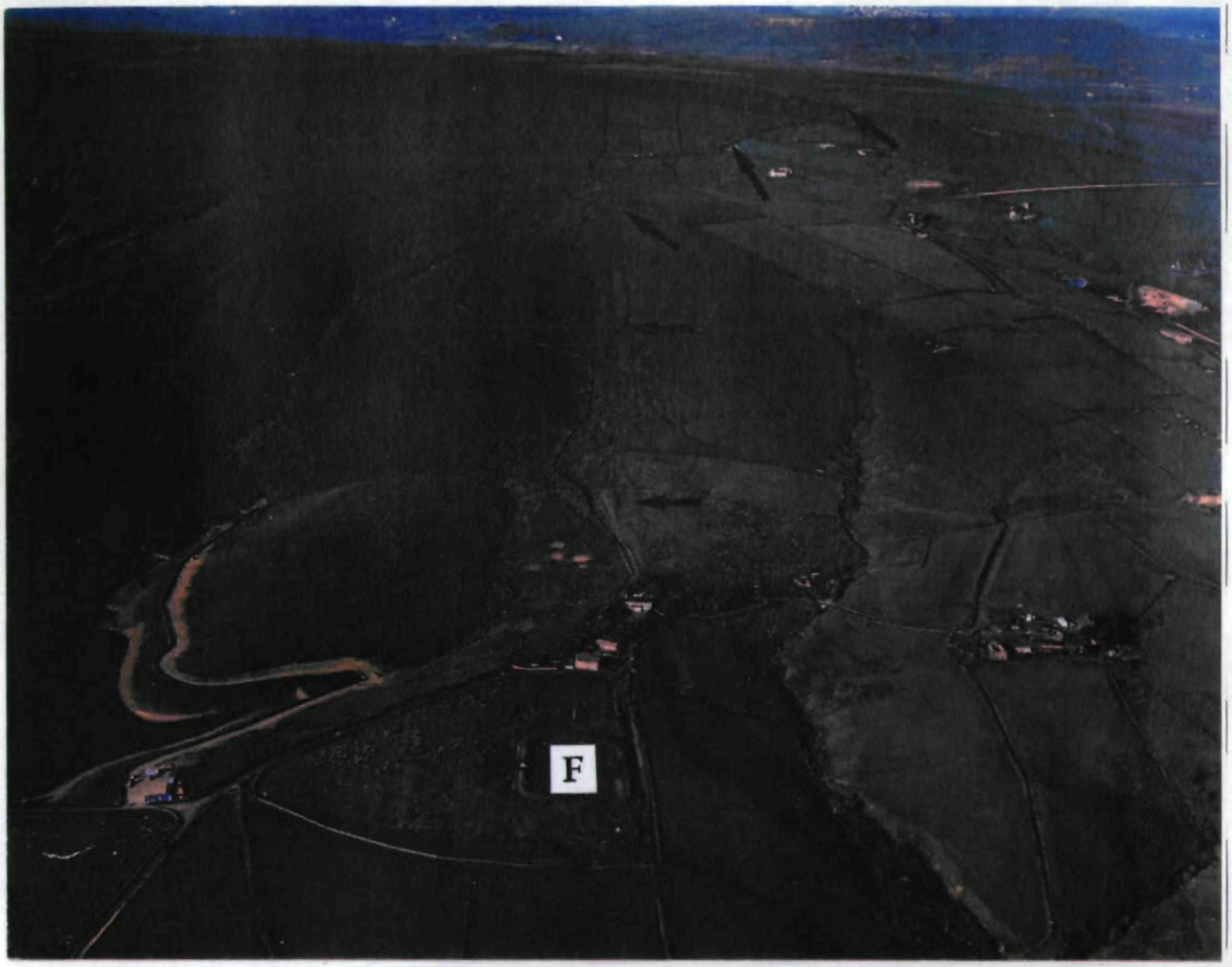


Plate 1b Aerial view of the Roman road (arrowed) to the east of the fort (marked F).

The fort and fortlet were first recorded in 1752 by Thomas Percival,[13] but subsequent ploughing levelled the earthwork remains and it was not until 1897 that Wrigley 're-discovered' the outline of the forts. Several unrecorded trenches were dug before Bruton undertook more systematic excavations in 1907-8.[14] In the late 1950s and early 1960s, Manchester University through Rosser[15] then Thompson[16] carried out several seasons of research excavations. The effect of all this exploration was to reduce the site to a series of spoil heaps and scars making it unintelligible to the visitor.

From 1984-8 the Greater Manchester Archaeological Unit undertook a Manpower Services scheme of conservation and recording of the fortlet. This resulted in the restoration of the fortlet as a visitor amenity: the rampart was restored to 1m high, the course of the inner ditch was marked by a slot, within the fortlet the line of buildings were shown by low profile mounds and interpretation panels were erected at strategic points. Fours years of meticulous excavation and recording were reported in a publication: 'Castleshaw - the Archaeology of a Roman fortlet,' edited by J. Walker, 1989. This book provides our most up to date account of the lay-out of the fort and fortlet.

Fort

The fort ramparts, which were of turf laid on horizontal oak stakes, enclosed an area of *c* 120m by 100m. Two 'V' shaped ditches defended the approaches to the rampart. The 1984-8 excavations within the fortlet revealed two phases of construction for the underlying fort. Evidence for the fort buildings was more disturbed than that of the superimposed fortlet but, combined with the well preserved occupation horizons sealed by the fortlet rampart, it was

possible to draw a phased plan for the fort showing a central range occupied by a granary, stables, headquarters and commander's house (running north to south). The half of the fort east of the *via principalis*, the *praetentura*, held six long, narrow buildings on a north to south axis. The two that lay alongside the *via principalis* were probably storerooms or workshop and the other four were barrack blocks. Finally the retentura consisted of two more barrack blocks on the north to south axis. The fort was not large, being just 1.2ha in area. It probably housed an auxiliary cohort *quingenaria peditata* of around 500 infantry.

Fortlet

The early second century fortlet had two phases of buildings laid out to the same ground plan. It is the second phase of structures that provide the clearest detail. The remains of the fortlet can be described as follows. It covered a total area of 1950sq m, had double ditches of Punic shape, a turf rampart on a stone foundation and two six post gates in the centre of the north and south sides. The south gateway re-used the position of the south gateway of the earlier fort, whilst the north gateway was built in the centre of the earlier fort on the *via principalis* outside the entrance to the principia. The fortlet was divided into two halves, separated by the *via principalis*.

The east half was further divided by a narrow north-south service road. An intervallum ran around the perimeter of the defences, with the exception of the west side. To the east of the service road lay a barrack block, subdivided into 6 rooms. A circular oven located south of the barrack was set into the rampart. A workshop with a central corridor and its associated pits and hearths was found between the *via principalis* and the service road; it was probably used for smithing rather than smelting. The north part of this area contains the only stone founded building known on the site: a two-phase hypocaust with tile pilae. The original furnace and flue on the east side were blocked and replaced with ones on the north side. The original flagstone floor was also replaced with one of pitched stones. The hypocaust had a timber superstructure and several unheated chambers attached to it. This complex of rooms formed the officers quarters or commander's house.

West of the via principalis was a large granary with a central loading bay. Originally, the granary had 78 posts set into 13 trenches to support a raised floor; later a new row of posts was added to increase the capacity by 25%. There was clearly a lack of space in the fortlet as the granary butted right up to the rampart, with no room for an intervallum road here. In the north-west corner was a large courtyard building, which may have been used as the headquarters or/and as a *mansio* providing accommodation for official travellers and the Imperial Post. Against the rampart and south of the granary was a well and possible stable block (Fig 10).

The ditch known as Drycroft Lane (285) is located along the line of the south ditch of the fort and fortlet and has sometimes been mistaken for a Roman ditch. The feature is in fact a modern recut and extension of the Roman ditch. Bruton commented in 1908 "The lane is little better than a stream bed.....It affords a curious example of the ancient water rights of the district. When the mills were running in the valley below, the owner of one of them could insist on a stream being turned down this lane for a certain number of months of the year."[17] There is a stream with a strategic blocking at the head of Drycroft Lane. During the fortlet excavations two trenches examined the base of the lane.[18] In both cases sand, gravel and water worn pottery sherds of eighteenth century and later date were found. Opposite the south-west corner of the fortlet these deposits overlay silts in the truncated base of the Roman ditch and it was found that Drycroft Lane does not quite follow the line of the Roman ditch, coming away from it at the western end but actually cutting into the rampart at the eastern end.

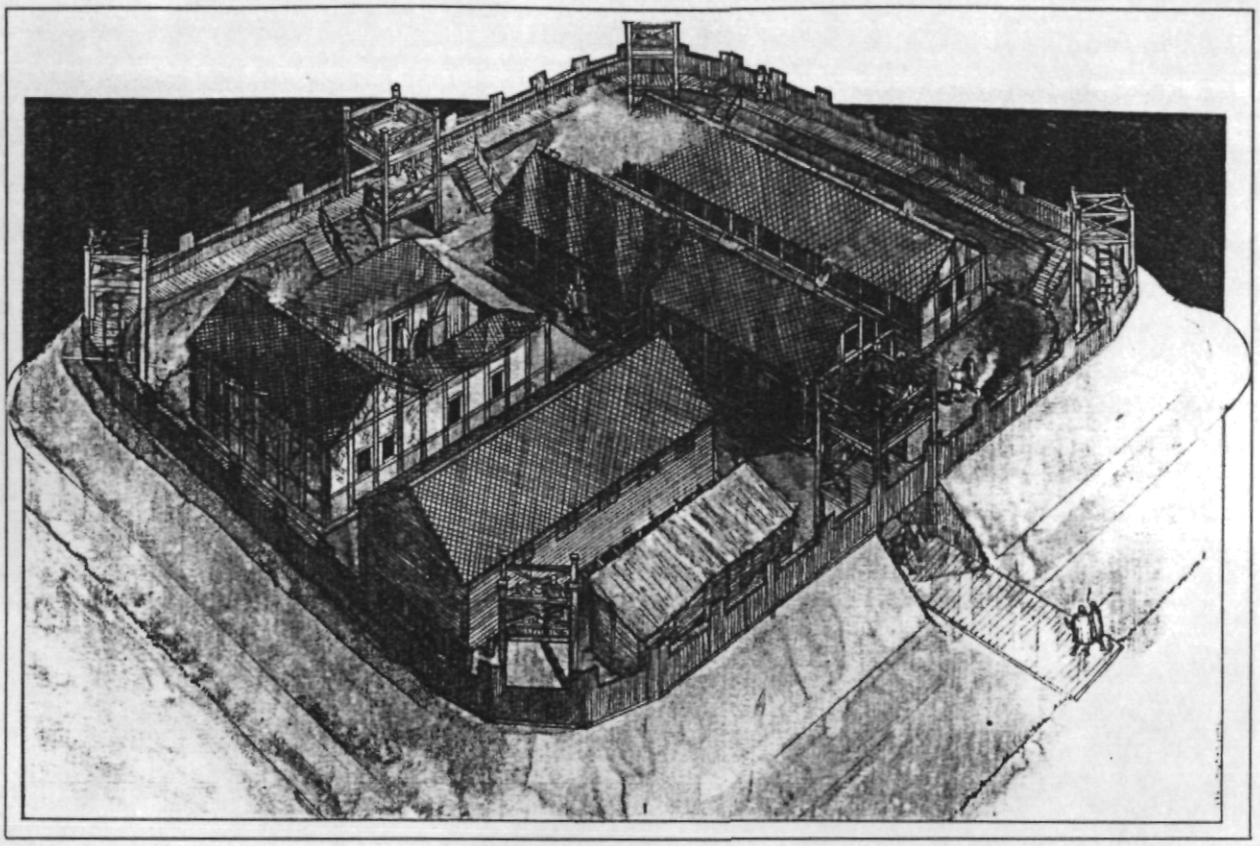


Fig 10 Reconstruction drawing of fortlet.

Annex/Vicus

The 1984-8 project concentrated on the fortlet. Knowledge of Roman activity outside the defences of the fort/fortlet complex was very poor due to lack of research. Several chance finds and evidence for building slots encountered during digging of a drain to a cess tank beyond the east fort defences were the only indications of extra-mural occupation. However, a recent programme of evaluation by the GMAU has begun to address this problem.

In September 1994 a short evaluation examined a cropmark thought to indicate a three cell building opposite the south west corner of the fortlet in Daycroft Field. Two small trial trenches were excavated: one came across a Roman deposit (not excavated) and several sherds of pottery, the other was sterile. The positive trench was located just to the east of what appeared to be a denuded bank. Confirmation of a Roman deposit at this spot outside the Roman defences led, in August 1995, to a much larger scale evaluation involving a trial trench and 31 test pits.[19] Excavation of the trial trench across the low bank showed that it was not Roman in origin, but comprised imported soil covering a shallow Roman ditch which marked the edge of the extra-mural settlement at this point. A stone capped drain terminated a short way downhill from the ditch. East of the ditch was evidence for a building founded on a dwarf wall, associated with a post-hole. A thick destruction deposit was encountered and appears to represent destruction of the structure by conflagration. The trial trench provided a good assemblage of stratified pottery which provisionally gives an early second century origin for the activity here ie. fortlet phase. The 1m square test pits were placed at 10m intervals across the top of Daycroft Field and were excavated to the top of Roman levels or natural. Evidence for buildings, drains, a hearth, trackway, and a ditch system was found within a triangular area measuring 90m long by a maximum of 30m wide (Fig 20). Surprisingly the main York to Chester road was not encountered and it has to be conjectured that it is located elsewhere.

DISCUSSION

Roman Road

Where does the major trans-Pennine highway, the Chester to York road, run as it approaches the fort site? One of the most surprising elements of the 1995 evaluation was a lack of evidence for this road. It has generally been assumed that the road continued in a straight line from the valley floor, running just outside the southern fort gate before climbing up to Standedge. When the south gate of the fort was excavated in 1986 it was noted that the road surface was rutted, an indication that this gateway was heavily used as one might expect if it was the principal access to the main highway. The road is clearly visible as an earthwork *c* 100m south of the fort and *c* 100m north of it but is indistinct close to the fort itself.

Given the spacing of test pits it is highly unlikely that a road of this scale can have been missed; yet the evaluation covered the only suitably flat ground capable of carrying the road on the southern side of the fort. It would be unusual but not inconceivable that the road was channelled through the western fort gate and exited from the eastern one. This unorthodox arrangement could add a new dimension to our understanding of the Roman occupation at Castleshaw. Another possibility is that the road was deliberately removed during the fortlet phase, being replaced by a military annexe. The road was then re-routed around the north side of the fortlet. Certainly Bruton, in his excavations, found evidence for a road curving through the west and east fort gates to run outside the north fortlet entrance.[20] There would, of course, have been a fort phase road exiting from the west gate to join the main highway, but given the regular layout of the fort one would expect it to exit through the gate in a straight line as a continuation of the *via praetoria*. Bruton's curving road is too narrow and has the appearance of a later road taking advantage of the gap left by the west gate site in the remains of the fort rampart. It is possible therefore that two roads may be found outside the west gate: one being the original fort link road, the other being the main road diverted in the fortlet phase. Clearly, the location of the main road must form a major component of future investigations.

Recent research along the line of the Chester to York road has demonstrated the ability of the Roman engineers to adapt to local conditions. It should not be assumed that a road was built in same fashion along its whole length. At Davenport Road, Broadheath (SJ 765 893), south-west of Manchester, the road comprised a *c* 30cm deep layer of rammed pebbles with indications of repairs to the surface as well as linear depressions which may have been cart ruts.[21] At High Moor (SD 971 062), *c* 3 miles from Castleshaw, excavation ahead of construction of a quarry access road revealed a road constructed of locally quarried shale and clay with a metalled surface of rounded pebbles and larger sandstone slabs.[22] The road sealed a black organic layer that contained a large quantity of charcoal and burnt heather over a thin ash horizon. It suggests that the land was simply pared and burnt in preparation for road construction. Pollen analysis indicates woodland clearance and the creation of open heathland communities prior to construction of the road.[23] A wooden artifact was sealed under the road and may have been part of a surveying instrument. It has been given a radiocarbon date of cal 150 BC to AD 210 (2 sigma, 95% probability). A brief description of the Causeway Sett road section in Castleshaw Valley has already been given, and it is worth noting that here there was also evidence for a turf line buried under the road.[24] The potential for survival of a buried ground surface under the main highway close to the Castleshaw fort is high.

On the east side of the Pennines the line of the road has been traced by the Huddersfield Archaeological Society, who have excavated an excellently preserved section approaching the river Colne crossing in Slaithwaite. Here the road comprised substantial layers of carefully laid flagstones which may represent the best preserved section of the road along its whole length.[25] But even here we may be seeing a localised building style reflecting either a particular response to local topography or construction by a different military unit.

Other sites

Two other significant elements of the Roman site at Castleshaw fort are as yet unlocated: the cemetery and the bath house. The key to the former may be the location of the main road as cemeteries were usually placed a little distance from the fort and adjacent to the main road. A likely site for the bath house is beside Waters Clough beneath the southern side of the fort. Such a location would provide a sheltered spot with good water supply, yet still be close to the fort defences. A curving linear feature (305) running from the fort's south-west corner down towards Waters Clough may be a hollow-way that provided access to the bath house. This is, however, pure speculation and the history of intensive water works activity in this area, especially beside Waters Clough, makes any non-intervention interpretation suspect.

The Vicus ?

With such a short but complex occupation history, the site at Castleshaw provides excellent research potential for analysing the origin and nature of an extra-mural settlement. If the settlement was civilian, was it attracted by the fixed market of the cohort garrison? If so what was the nature of the settlement (vicus)? Was it made up simply of houses or was it more complex with workshops, stores, mansio, temple, etc? If a vicus existed in the fort phase, did it survive the period between the fort's abandonment and the fortlet construction and, if so, did it contract in size? Was it's size proportional to garrison strength? Did the vicus survive beyond the demolition of the fortlet? Was the character of the vicus changed by the altered role of the military site? If the extra-mural site was in fact a military annexe, what building types did this contain? Did the annexe belong just to the fort or fortlet phase or was it present in both but in different form? For instance, in the fortlet phase was the now abandoned area of the fort outside the new defences used for storage, stabling etc? Can interpretation of extra-mural activity throw any light on the function of the fortlet? Are the four phases of building activity evident within the fort and fortlet reflected in the extra-mural settlement?

Results from the current evaluation will make it worthwhile re-appraising previous archaeological excavation interpretations of military sites in the central Pennines:

- At Castleshaw itself did excavators misinterpret evidence in the fort areas beyond the fortlet? In the fortlet phase was the area of the fort not re-occupied by the new fortlet left unused or were buildings located there such as those in Daycroft Field?

- At the fragmentary remains of the Roman site at Worlow (Pule Hill) dating of the site is crucial. Was it associated with military re-ordering around AD 120?

- At Slack fort and annexe site 8 miles east of Castleshaw, where Hunter argued the fort site was reduced to one barrack from *c* AD 125 to 140 with the civilian settlement continuing until at least *c* AD 160.[26] How does this fit in with what was happening at Castleshaw? Could the reduction at Slack be contemporary with the final fortlet phase at Castleshaw or its abandonment?

Evaluation Stage 1 produced a finds assemblage of early second century date, tending towards *c* AD 120. This dating is critical. If it is correct then the settlement in Daycroft Field belongs to the second phase of the later fortlet occupation. We know from the 1984-8 investigations that space was cramped inside the fortlet, that the granary and hypocaust buildings were enlarged and that there was no room for an intervallum on the west side of the fortlet. It would appear that the role of the fortlet changed at this time and further building space was required in Daycroft Field. As has already been mentioned, this would have necessitated diverting the main highway.

The finds assemblage is typically military in character and suggests that Daycroft Field was occupied by a military annexe rather than a civilian settlement. However, it must be stressed

that the number of securely stratified finds is statistically small due to the limited extent of Evaluation Stage 1. Having only 'scratched the surface' of extra-mural evidence at Castleshaw it would be unwise at this stage to attempt definitive interpretations. If a military annexe is shown to belong to the fortlet, around 120AD, then the character of the annexe would throw important light on the unusual lay-out and function of the fortlet. If the remains are shown to be civilian in nature then we have a settlement in an area where current evidence suggests very sparse population in the Romano-British period, at a site which must be considered agriculturally marginal at *c* 275m OD.

Notes

1. Tacitus Histories XLV
2. Birley A R 1973
3. Richardson A 1987
4. Redhead 1989a
5. Olivier 1990, 328
6. Nevell 1992a, 58
7. Harris (ed) 1987, 118
8. Tacitus, Agricola, XX
9. Nevell 1992a, 62-6
10. Haigh 1982
11. ibid
12. Redhead 1989b
13. Percival T 1753
14. Bruton 1908 and 1911
15. Petch 1961
16. Thompson 1974
17. Bruton 1908
18. Start *et al* 1986
19. Redhead 1996 c
20. Bruton 1911
21. UMAU 1996
22. UMAU 1995a
23. UMAU 1995b
24. Haigh 1982, fig 4l p 38
25. Bonwell Spence, pers comm
26. Hunter *et al* 1967-70

5. Historical Background - Castleshaw

From the post-Roman period onwards, the historical development of the two study areas becomes increasingly distinct and singular, and therefore from this point onwards the development of each study area will be considered individually.

MEDIEVAL AND EARLY POST-MEDIEVAL

The place-names

In the medieval period the Castleshaw valley lay within Friarmere, one of four divisions of the township of Saddleworth, the other divisions being Lordsmere, Quickmere and Shawmere.

The name Saddleworth is first documented in the late twelfth century and has an Old English derivation. The first element refers to 'a feature resembling a saddle in shape or appearance such as a ridge', possibly Knott Hill above Delph. The second element of the name refers to an enclosure.[1] The name Saddleworth Firth, meaning Saddleworth wood, is also attested from the early fourteenth century. Smith describes this as a 'lost place-name' but the examples which he cites suggests that it could be used for the whole township.[2]

In the medieval period the township also appears under the name Quick, meaning 'a thick-set hedge'.[3] This appears in the forms Thoac and Tohac in the Domesday survey of 1086 and may have been the original name of the township.

The name Friarmere is first attested in 1468. 'Mere', as in the other divisions of Saddleworth township, is derived from the Old English meaning a boundary.[4] The 'friar' element is presumably derived from the ownership of this division by Roche Abbey, discussed further below.

The earlier name for the Friarmere division was Hilbrighthope or Hilbrighthorp. The first element is the Old English personal name Hildebeorht. Of the two variants offered for the second element, hop has an Old English derivation meaning a small enclosed valley, thorp is Old Norse meaning a secondary settlement or outlying farmstead.[5] The first element might conceivably be referring to the Castleshaw valley.

Castleshaw itself is documented from the 1540s. Its meaning is the 'copse near the fort', the second element being a reference to the Roman fort and fortlet.[6]

Eleventh- and twelfth-century Saddleworth

In Domesday Thoac or Tohac is listed in a group of four estates with two carucates of land liable to tax, the others being Holne (Holme), a second Holne (Yateholme) and Alstanesleie (Austonley).[7] Together these occupied an area of territory straddling the Pennines. Despite the size of this territory the arable land which it contained could be ploughed by a single ploughteam. It is also reported to have been waste, possibly as a consequence of the Norman devastation of the North in 1069-70. Parts were also woodland. In 1066 this group of four estates, which formed part of the manor of Wakefield, was held by King Edward and in 1086 was still in the hands of the Crown.

At a subsequent date Saddleworth became part of the extensive estates of the de Lacy family, and was sub-infeudated by them to the de Stapletons,[8] probably by 1166.[9] In about 1200 William de Stapleton II, with the permission of Roger de Lacy, obtained a licence to have divine offices celebrated by a chaplain in his chapel of St Chad in Saddleworth on behalf of himself and his

tenants; the parish church of St Chad in Rochdale was to continue to receive the tithes from Saddleworth 'with the appurtenances of the forest'.[10] This obligation was confirmed, possibly in about 1271, by Robert de Stapleton, when the 'forest of Sadelword' is again mentioned.[11]

The acquisition by Roche Abbey: late twelfth century

In the late twelfth century Friarmere was granted by the de Stapletons to the Cistercian abbey of Roche, founded in 1147. The ownership of Friarmere by Roche is poorly documented, probably largely as a result of the loss of perhaps the majority of the abbey's charters, destroyed during the Civil War siege of York to where they had been removed following the dissolution. As a consequence, with the exception of a charter of 1314, discussed below, the main sources for Roche's ownership of Friarmere are state archives, with supplementary information being provided by the records of Stanlaw, later Whalley Abbey, by virtue of its own associations with Saddleworth.

The precise date of the grant of Friarmere to Roche is uncertain but is prior to 1199 when a charter of Richard II, confirming the right of Roche to lands granted by that date, includes among these possessions land in 'Quike'.[12] It may also postdate 1186 when this estate is not included in an earlier confirmation of Roche's possessions by Pope Urban III.[13] The date of 1293 has elsewhere been given for the acquisition of Friarmere by Roche,[14] but this is certainly too late.

The original grant has not survived but is known through a later confirmation by Warin de Scargill, dated 1314. According to this later charter 'Hillbrighthorpe' had been granted to Roche by Warin's great-grandfather Robert son of William de Stapleton. This must be Robert de Stapleton II, who appears to have succeeded to his family's estates only after 1213.[15] Since this creates a discrepancy with Roche's possession of land in Quick before 1199, either Robert de Stapleton's grant was itself a confirmation of the original charter or the grantor was in fact Robert de Stapleton I, who was living in 1166 and died before 1202.[16]

By the charter of 1314 Warin de Scargill confirmed the earlier grant of

> 'All that land and tenements which are called Hillbrighthorpe, by these boundaries: by the way which leadeth from Stone Edge to Knot Hill and passeth the water of Tame and so upwards to the other Knot Hill, and that Knot Hill even unto Woodward Hill, east, west, and north so far as my land reacheth, with buildings, woods, meadows, feedings, pastures and all appurtenances and other things under the earth and above the earth, with the whole forest and all other liberties to the said forest belonging. I have also granted to the said Abbot and Convent and their successors for me and my heirs full power to enclose all the said tenement by the boundaries aforesaid altogether as walled and the walls if thrown down to make up and renew as often and when they please, and to keep the same enclosed without hindrance or reproach of me or my heirs and assigns. And also common of pasture from the great way which leadeth from Stone Edge to the Bridgewater of Tame toward the north to the boundary aforesaid; and from Knot Hill to Woodward Hill, as the water departs towards the wood of Tame. To have and to hold all the said tenements and pastures in free and perpetual alms, safe and quit from all secular service, claims and demands for ever, so that the said Abbot and Convent of Roche and their successors may do what they will with all that is contained within the said enclosed tenement without contradiction of me or my heirs and without plea of forest.'[17]

The first boundary described in this charter appears to match at least part of the later known boundary of Friarmere, namely the south-eastern alignment from Standedge, across the Tame to Knot Hill; the first Knot Hill, named in the grant evidently lies on the north side of the Tame and may be the present Delph Hill. The place-name Woodward Hill also occurs in an account of the boundaries of the manor of Saddleworth in 1468.[18] It has not been firmly located, but might be the present Wotherhead Hill. Since this lies not only on the Saddleworth boundary but

also on the boundary between Friarmere and Quickmere, the charter of 1314 may specify only that boundary which divided 'Hillbrighthorpe' from the remainder of Saddleworth.

The second boundary given in the charter, describing the area in which Roche had the right of pasture, appears to define the same territory, with 'the way which leadeth from Stone Edge to Knot Hill and passeth the water of Tame' of the first boundary description probably being 'the great way which leadeth from Stone Edge to the Bridgewater of Tame' of the second. The Bridgewater of Tame would then lie in the area of Delph.

The eastern boundary of this territory also appears, as 'from Cnothill as the way goeth to Stonegge', as the boundary of an adjoining area of Saddleworth in which free pasture for 40 cows or oxen was given to the Augustin Nostell Priory by Robert de Stapleton I.[19] This area, which is said to have amounted to about half of Lordsmere,[20] also appears in a later grant dated to *c* 1272. In the early thirteenth century Roger de Lacy had granted the parish church of Rochdale to Stanlaw Abbey.[21] In *c* 1271 Robert de Stapleton II granted pasture for 10 cows, 8 oxen, 60 sheep, and 10 pigs to Stanlaw Abbey for the use of a chaplain at Saddleworth chapel; the boundary here is given as 'from Cnouthull by the road from Cnouthull as far as Stanegge'.[22]

Crump, who argued that the road referred to in this boundary was part of a saltway leading from Cheshire to Yorkshire, identified it with the Roman road which passes the fort and fortlet at Castleshaw.[23] Barnes, however, places it along the known boundary between Friarmere and Lordsmere where there is evidence of 'a road paved with gritstone and bounded by kerbstone' (site 275), which Barnes suggests follows a routeway of some antiquity.[24]

Other parts of the Friarmere boundary, which have been identified as part of the present study include a substantial ditched feature (site 69), which forms the northern boundary to both the township and the study area. This feature also forms the county boundary between Lancashire and Yorkshire. Another ditch with associated hedged bank (SD 9975 0917; Fig 11 & Plate 2), forms part of the southern boundary to the known division between Friarmere and Lordsmere, this feature lies to the west of Waters (276) and although just outside the study area is of sufficient proximity to be worthy of attention.

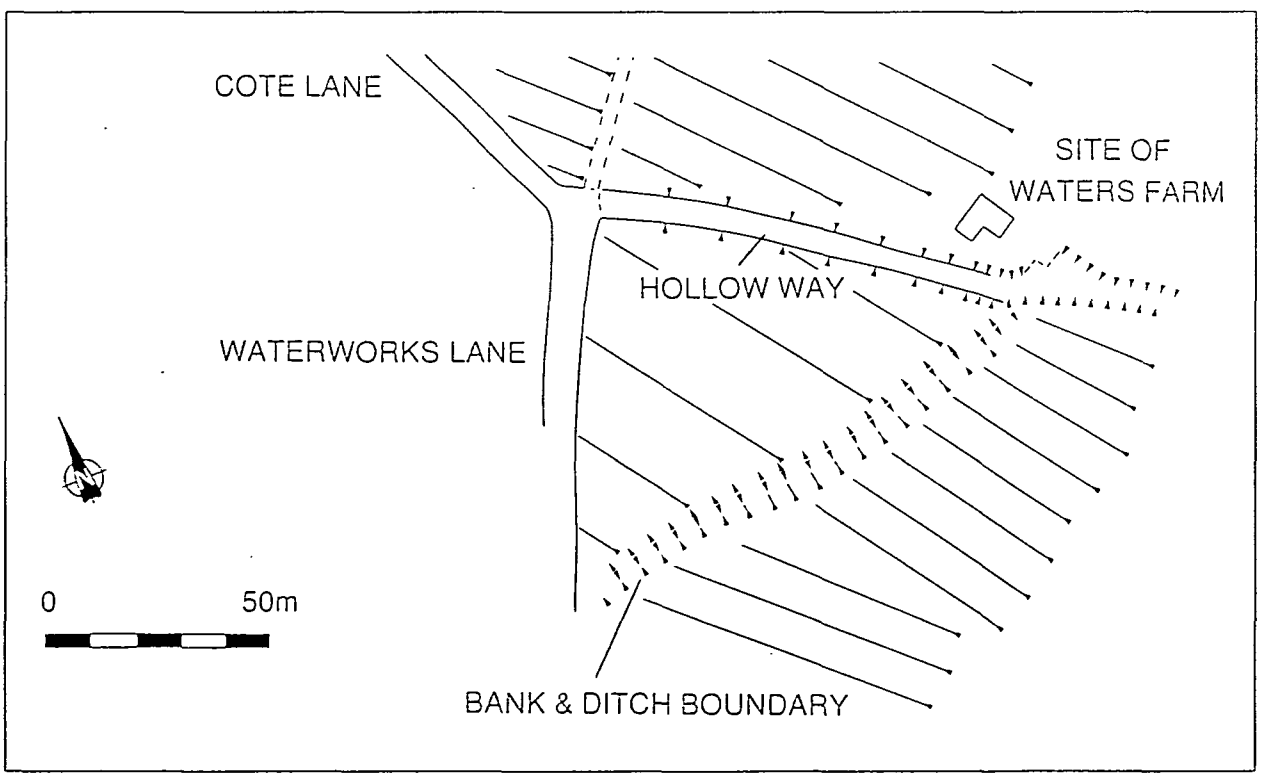


Fig 11 Plan of bank and ditch, forming part of the Friarmere and Lordsmere boundary.

Plate 2 This boundary shows as a prominent bank, in this section to the east of Castleshaw School (background).

Land use under Roche Abbey: thirteenth and fourteenth centuries

The single most detailed evidence for the use of Friarmere under the ownership of Roche Abbey is the 1314 charter confirming the earlier grant of Robert de Stapleton, although the fact that this is a confirmation raises some uncertainty as to whether the existing land use described relates to the late twelfth century, the early fourteenth century or a mixture of the two. Nevertheless, the document shows that part, possibly a substantial part, of the estate was afforested, but that some of the land was also given over to agricultural use, particularly as grazing. The potential for extensive enclosure is explicit within this charter, but it is unknown as to what extent this had been carried out by 1314. The specific mention of the right of Roche to 'things under the earth' is of particular interest, given the archaeological evidence for thirteenth-century iron smelting in the Castleshaw valley (see below). However, no explicit documentary reference to iron-working in Friarmere has been recovered.

Although not mentioned in the charter of 1314, other evidence shows that, in accordance with common Cistercian practice, Roche had established a grange in 'Hillbrighthorpe' from where the estate would have been run by lay brothers from the abbey. The foundation of this grange can be assumed to date from the original grant of the late twelfth century although it may not be documented until 1297 when it appears in the lay subsidy rolls as the 'grangia de Ildbrictop'.[25] The location of this site is not certain, but may be the present hamlet of Grange (SD 986 090) on the northern slopes at the entrance to the Castleshaw valley.

From the 1297 subsidy it is evident that the lay brothers and their staff were engaged in cattle rearing, for the assessors listed ten cows, each with a value of 4s, six cows, value not given, and a third, unidentified item (possibly also livestock), valued at 4s, the total value of these being £4.

However, there is also evidence of arable farming in Friarmere during this period. In 1310 a dispute arose over the collection of tithes in 'Hillbrigthorpe' between Roche Abbey and Whalley, formerly Stanlaw Abbey, which claimed these tithes by virtue of its ownership of Rochdale parish church and Saddleworth chapel. The abbots of Rievaulx and Buildwas were appointed as arbitrators and decided that in lieu of 'all tithes of garbs of all lands cultivated and to be cultivated' in 'Hillbrigthorpe' Roche was to make an annual payment to Whalley of 3s 4d, one pound of wax and one pound of frankincense.[26] Garbs were wheatsheaves, from which one in

every ten would have been given as the tithe.[27] The arbitrators also proposed that a second panel should be appointed to decide the rate at which the tithe of hay should be paid (this was often collected as a money payment).[28]

In the thirteenth century, a further documented use of the estate was hunting. In 1292 the abbot was summoned by the king to explain by what right he claimed the right to free warren in Roche and the abbey's lands at Brantcliffe, Armthorpe and 'Hildebrighope'. In the case of the first three, the abbot was able to cite a charter granted by Henry III in 1250-1, but no such evidence is mentioned for 'Hildebrighope'.[29]

The only medieval sites within the study area, for which proven archaeological remains have been recovered, are two iron smelting works in the Castleshaw valley (**167** and **171**). These have come to light during recent field investigations (1992-4) by the Greater Manchester Archaeological Unit. The results of this research have been presented in four reports.[30] The sites, some 200m apart; one beside Spa Clough (SD 999 104), indicated by a large, disturbed slag spoil heap, the other on Cudworth Pasture (SD 997 105), where a furnace base was revealed in 1907 by a local antiquarian, Ammon Wrigley,[31] and re-dug by the local archaeology society in the 1970s (Fig 12).

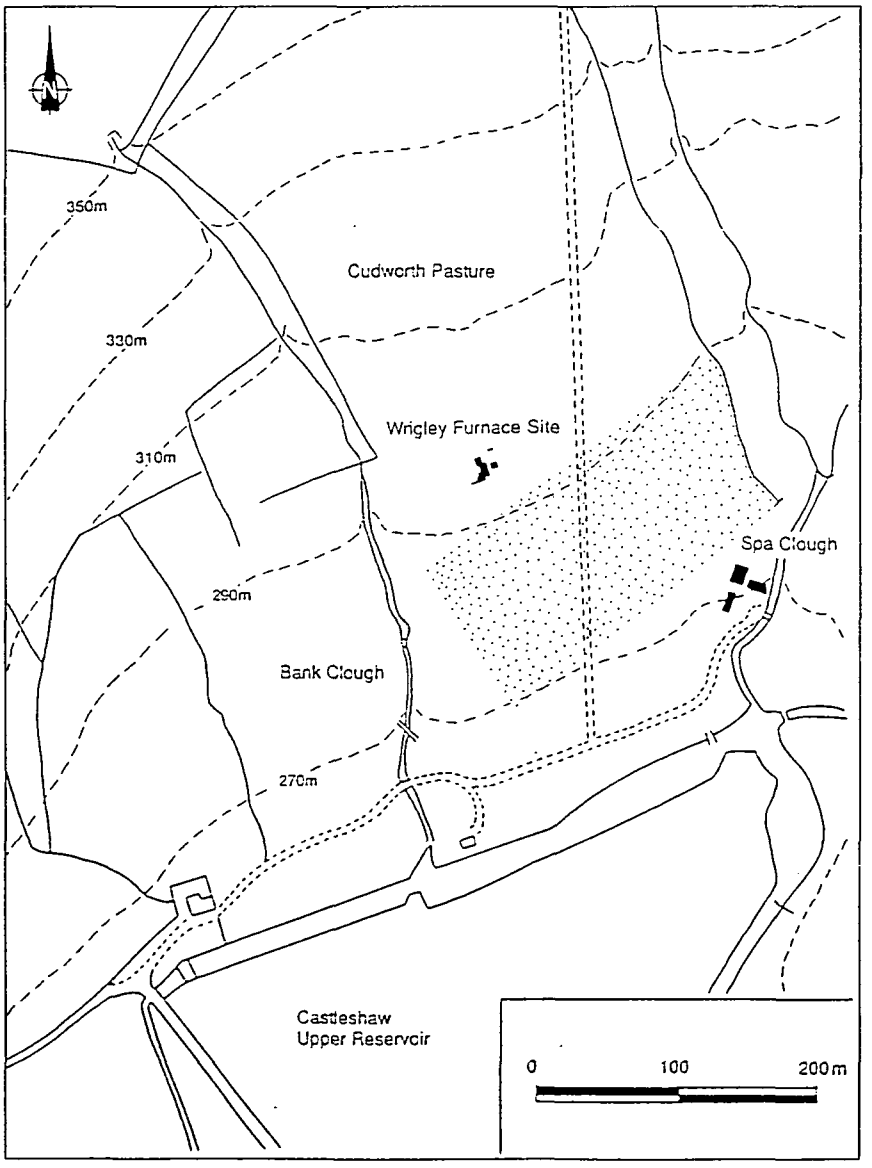


Fig 12 Location of excavation trenches for furnace sites in Castleshaw

Excavations beside Spa Clough (167) successfully located and recorded two iron smelting furnace bases of the free standing shaft or bloomery type, together with an associated depression and post setting. These features were preserved under the deposits of slag, one roughly contemporary with the smelting, the other representing upcast from late nineteenth century quarrying connected with construction of the adjacent reservoir.

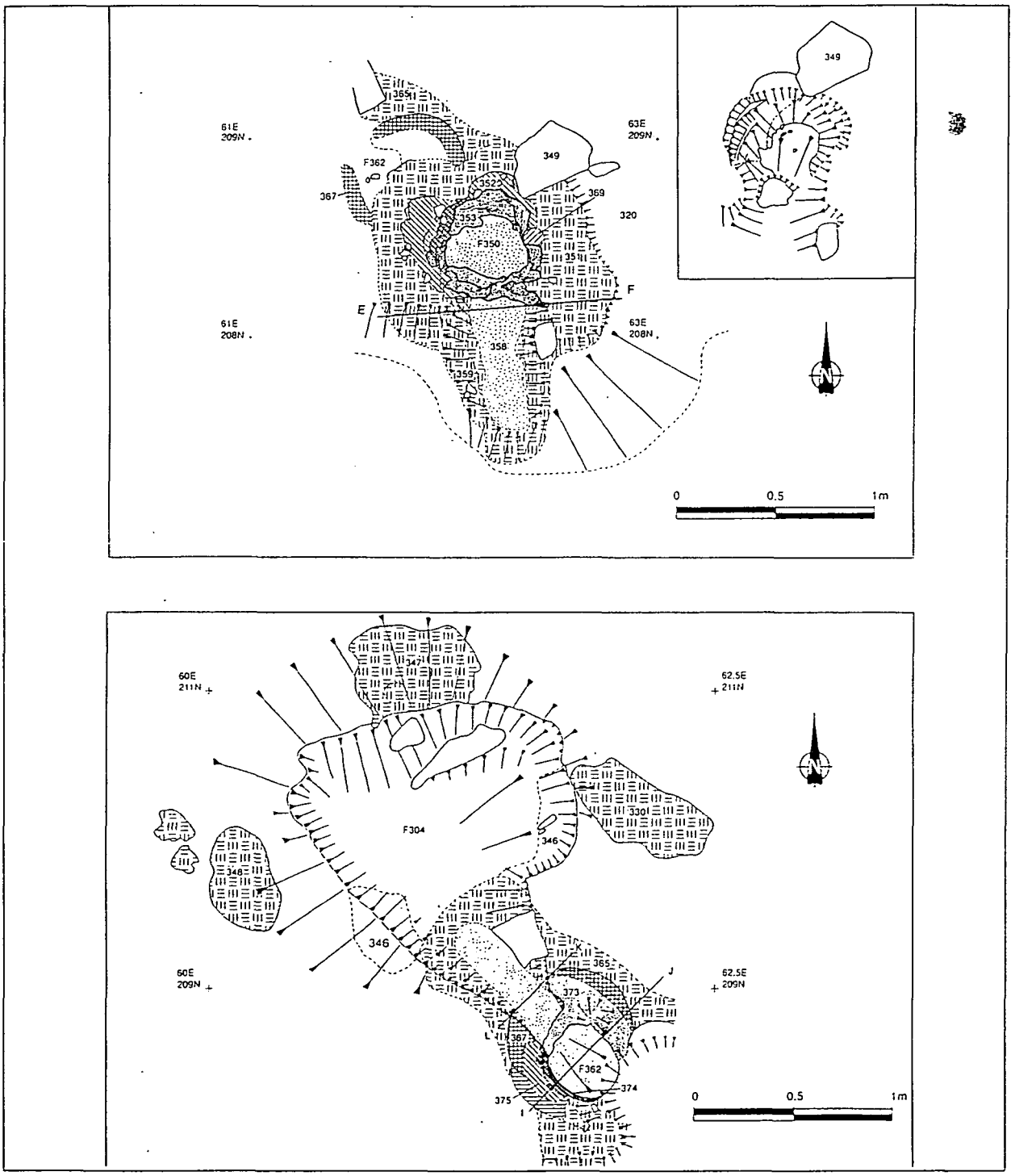


Fig 13 Plan of furnaces at Spa Clough excavation.

The furnaces represented two phases. It appears that clay was dug out to build the first furnace wall, leaving a depression that was then used as a slag collecting pit. Three patches of heat reddened clay indicated where very hot slag had been pulled from the pit. A second furnace was built partly on the site of the first, but with its tapping channel running in the opposite

direction. Neither furnace retained its superstructure but the shaft bases were well preserved, giving an internal diameter of 0.38m - 0.4m. In both cases slag had replaced the clay lining above the tapping arch and was particularly thick on one side of the shaft, indicating where the *truyere* was located (this protected the nozzle of the hand bellows). The second furnace had evidently been used much more than the first as slag had replaced clay lining on a much more massive scale. Clay lining survived well enough from the first furnace's shaft to show repair work (Fig13).

Excavation on Cudworth Pasture (171) revealed the site of Wrigley's furnace only as a patch of very hard baked clay surrounded by a ring of softer dark red clay. However, other iron smelting related features survived remarkably well. A simple ore roasting bed, comprising charcoal, iron fines and cinder and forming a low elliptical mound 4m x 3.2m, lay only 6m from the furnace site. Two dumps of untreated ironstone and flat pieces of stone (for furnace construction or repair) lay in a depression 7m from the furnace. A very short tapping channel rapidly splayed out in to a slag collecting pit, 1.5m from the furnace site. The pit retained slag and cinder from the last smelt. Beside the pit was an ovoid stone platform, interpreted as a base from which to rake hot slag on to a large slag spoil heap. A slot excavated through this slag mound showed it to be 8.5m across with a maximum depth of 0.7m. A total weight of about 29 metric tonnes has been calculated for the slag spoil heap.

Dating for these remains was of key importance. Did they belong to the Roman period, with the Castleshaw forts lying 1km to the south of the site, or medieval when the valley was owned by the Cistercian Roche Abbey? Dateable finds were scarce with just a handful of pottery sherds of late medieval Pennine Gritty Ware and only one of these securely stratified, being within the slag mound at Cudworth Pasture. Therefore, attention was focused on scientific dating techniques. A series of radiocarbon and archaeomagnetic dates were obtained.[32]

The dates correlate quite well and put both sites in to the late medieval period, specifically the late twelfth to early fourteenth century. Problems were encountered in both dating techniques. For the purposes of radiocarbon dating, the age of wood in the charcoal samples is crucial. It should not be assumed that fuel wood was always young and coppiced, mature wood was also used and this can give misleading dates. With archaeomagnetic dating the furnace shafts were found to be totally unsuitable due to magnetic refraction from differential cooling, an interesting phenomenon in itself. But the most reliable samples were stable patches of heat reddened clay, including the tapping channels.

The Castleshaw furnace sites have provided excavated samples for laboratory analysis. The furnace structure was lifted and removed for examination. The immediate post-excavation analysis research programme had three aims. Firstly, to characterise the range of slags and other residues recovered from both excavations. Secondly, to investigate the micro-structure and composition (elemental and mineralogical) of the slags and residues. Thirdly, to investigate the ore-slag relationship if examples of the ore could be recovered. A long term aim is to investigate the interaction between the slag and the furnace lining.

Other landscape features within the study area are confined to several routeways which because of their impressive sunken lane profile indicates usage over a considerable period of time. Low Gate Lane, the lane adjacent to Waters Farm (Fig 11) and an exceptionally well preserved, redundant hollow way (231; Figs 14a, 14b & Plate 3) on the northern side of Castleshaw Lower Reservoir.

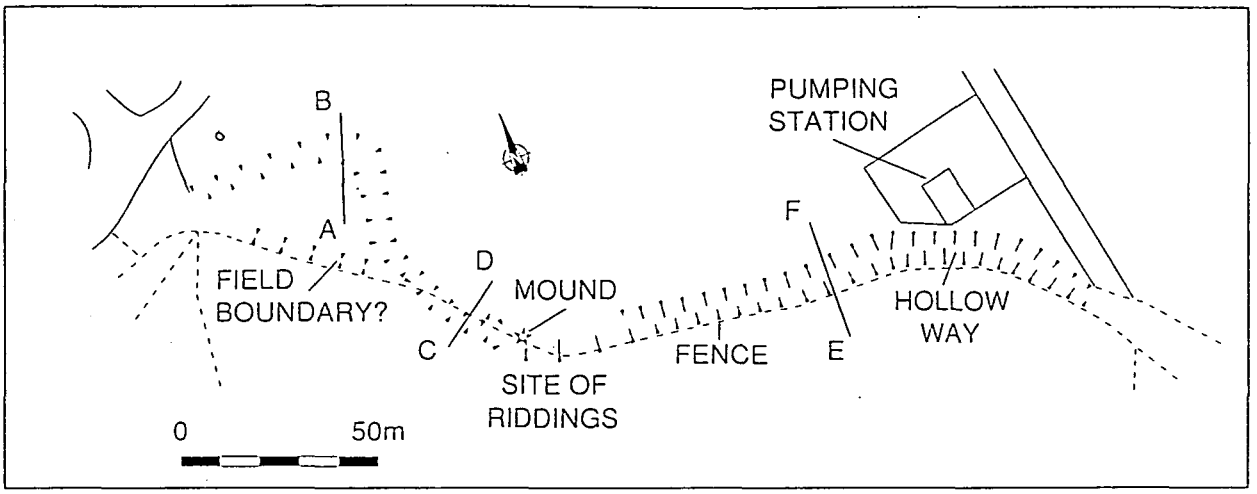


Fig 14a Plan of hollow way 231.

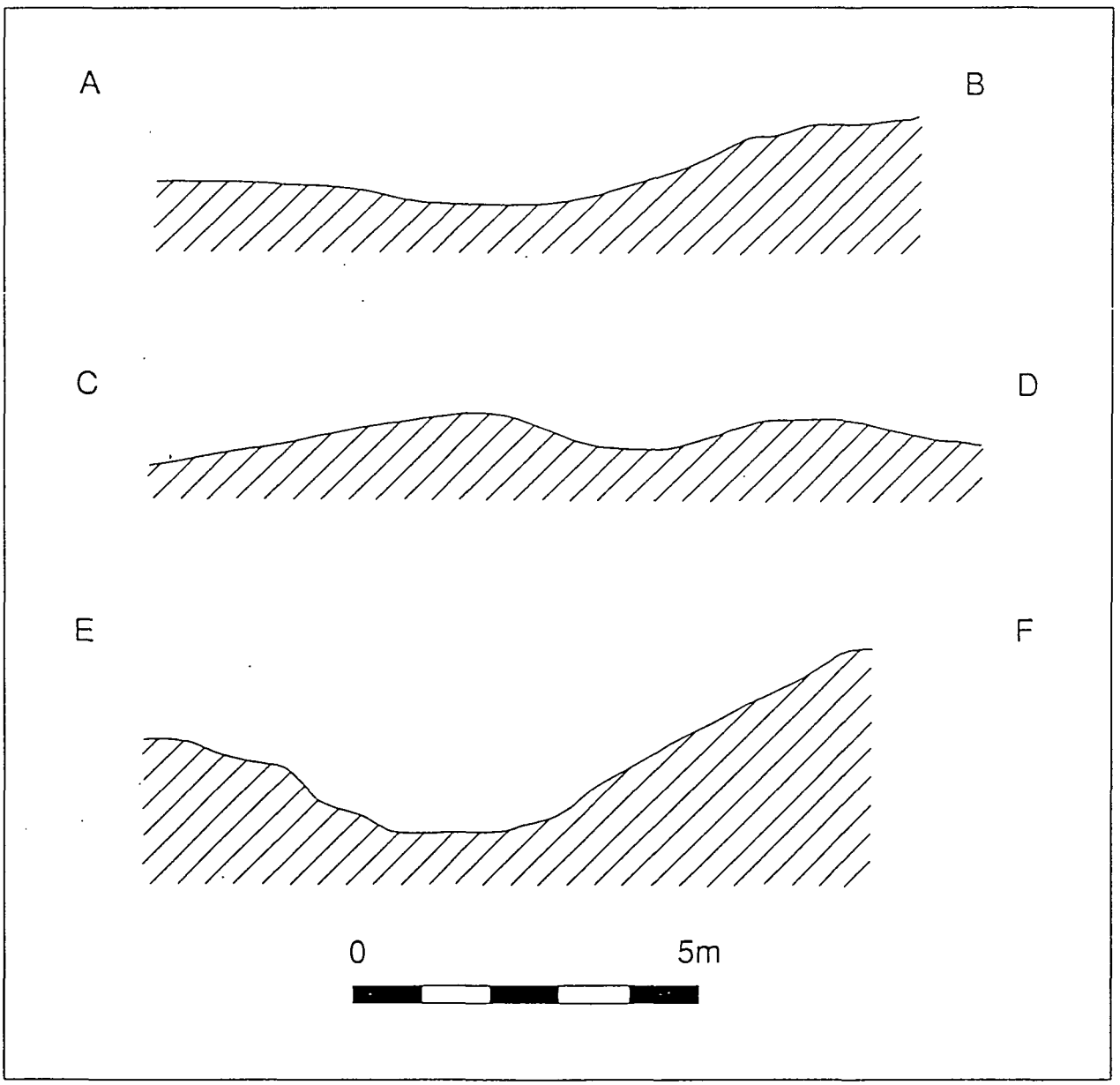


Fig 14b Profiles of hollow way.

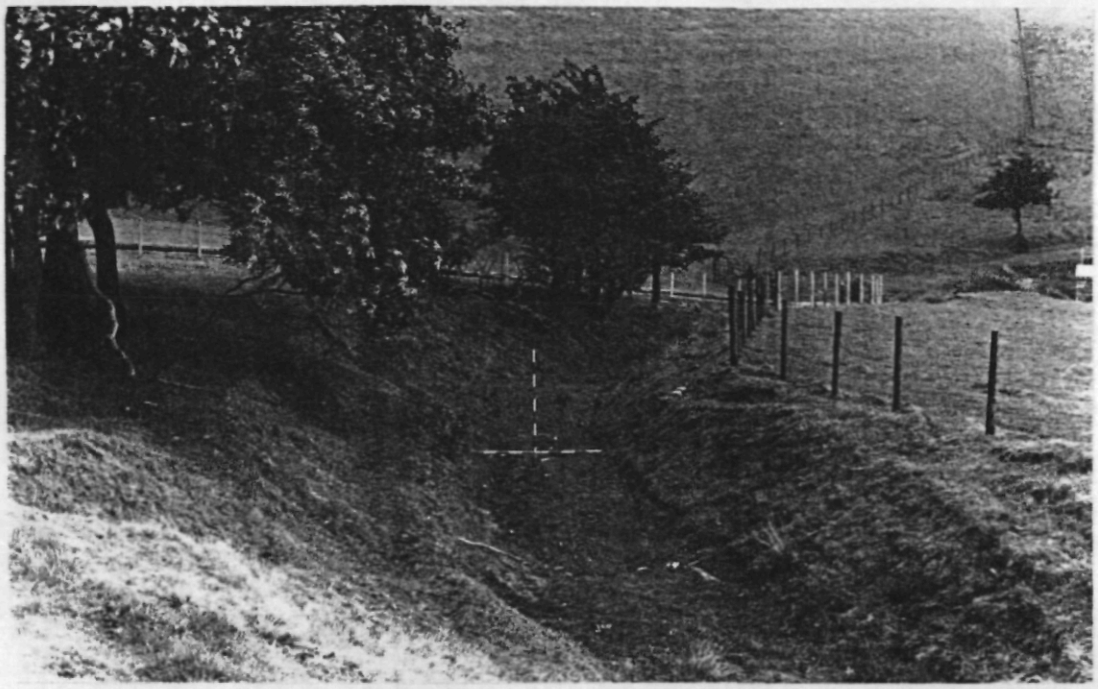


Plate 3 View of hollow way **231** from the west. The embankment of Castle-shaw Upper Reservoir is visible in the background.

The leasing of the estate and the dissolution: the fifteenth and sixteenth centuries

No evidence has been found after the early fourteenth century to suggest the continuation of the monastic grange in Friarmere. In this respect, the estate appears to have been typical of many Cistercian granges. Deteriorating economic circumstances from the beginning of the fourteenth century increasingly led to these being leased to tenants, a situation which was to become the norm in the fifteenth century with only selective granges, in particular those most immediate to the abbeys, remaining under monastic control.[33]

In the case of Friarmere, this change in status can be seen most clearly in the documentary evidence relating to the estate at the time of the Dissolution. The Valor Ecclesiasticus, the pre-Dissolution survey of monastic estates, of 1535, gives no hint that Friarmere was still held directly by Roche. Instead it is listed, curiously as 'Hilbright et Hope' (Hilbright and Hope) in a joint entry with the estate at Thurstonland merely as a source of rents worth altogether £27 0s 8d. From this figure £1 was paid out to Henry Whitehead as bailiff of 'Hilbright' on the abbey's behalf.[34]

Roche Abbey was surrendered to the Crown on 23 June 1538. Initial policy towards the former monasteries and their lands was that these should be leased out, while remaining in Crown possession. In line with this, on 6 February 1539, tenements in 'Saddleworth frethe' formerly the possession of Roche were leased by the Crown to Christopher Chetham for a term of 21 years.[35] By the early 1540s, however, policy had changed to selling off monastic lands, and on 5 June 1543, for the sum of £361 7s 4d, the Crown sold Friarmere to Arthur Assheton.[36]

The grant shows that by this date the estate was divided into eight separate tenancies, listed in in an order running roughly from north to south (Fig 15). With the exception of Knot Hill, which is listed only as pasture, and possibly 'Le Delfe' for which no details are given but which may have been an area of quarrying,[37] all were agricultural areas which included farmsteads or other buildings. Woodland is mentioned only at 'Blackstondelf', which was also the site of quarrying. Mills are listed at Denshaw and Grange, but it is unrecorded as to whether these were for corn or fulling. In some cases at least, the same lessees held neighbouring tenancies, the most obvious example of this being Castleshaw and Grange which were both held by Scofelds, presumably all members of the same family.[38] Henry Whitehead, who leased 'le Delfe' and was one of five

Property	Tenants	Details of property
Aschenbethe otherwise Thoome	Ralph Chetham, Christopher Chetham, John Wrigley	Houses, buildings, lands, tenements, meadows, feedings, pastures
Denshawe	Ralph Chetham, Christopher Chetham, Henry Garside, William Garside, Richard Garside, John Garside	Messuages, mills, houses, buildings, lands, tenements, meadows, feedings, pastures
Castylshaw	John Scofeld, Alexander Scofeld, Laurence Scofeld, Edmund Scofeld	Messuages, lands, tenements, meadows, feedings, pastures;
Grange	John Scofeld, Alexander Scofeld, Laurence Scofeld, Otwell Scofeld	Messuages, mills, lands, tenements, meadows, feedings, pastures
Swaynescrofte	James Lynthwayte, Robert Lynthwayte	Messuages, houses, buildings, lands, tenements, meadows, feedings, pastures
Knotthill	Robert Lynthwayte, Ralph Whytehede	Pasture
Le Delfe	Henry Whytehede	
Blackstondelf	Henry Whytehede, Henry Garside, William Garside, Richard Garside, John Garside	Quarry, messuages, lands, tenements, meadows, feeding, pastures, woods, underwoods

Fig 15 : Details of grant of Friarmere to Arthur Assheton, 5 June 1543

lessees of 'Blackstondelf', was presumably the individual named in 1535 as the bailiff of 'Hilbright'.[39]

In the case of Grange the tenants were liable to 'all that our fourth part of the customs or services vulgarly called Boonez to the said late monastery formerly belonging and pertaining', and Edmund Scofeld, as tenant of Castleshaw, was also liable to perform the same dues. No other obligations are specified with the exception that the five lessees of Blackstondelf' of whom Henry Whitehead was to pay a yearly rent of 16d, and the others each of 4d, as formerly paid to Roche. It is tentatively suggested that the feudal dues owed for Grange and Castleshaw indicate the primacy of those tenancies, with the other tenancies being later subdivisions.

On 7 June 1543, two days after the grant of the former monastic land, Arthur Assheton was given a license by the Crown allowing him to sell half the estate to Roger Gartside.[40] Gartside's share was the northern half of the division, including Denshaw where Garsides or Gartsides, possibly members of the same family, were already the tenants. The Castleshaw valley remained within the ownership of the Assheton family who in 1581 and again in 1617-18 were described as holding 20 messuages and 10 cottages in Quick, Castleshaw, Grange, Delfe and Saddleworth.[41]

LATER POST-MEDIEVAL PERIOD

The division between the Gartside and Assheton landholdings, which was established in 1543 can be traced as a dotted line on the 1851 Ordnance Survey map. The division, within the study area, follows Dowry Water from the county boundary near Little Moss as far as its confluence with Readycon Dean Brook, where it becomes the River Tame and continues along this watercourse to the west of Long Royd Mill, where the study area ends. Thus the northern third of the study area formed a separate landholding to the remainder of the study area from the mid-sixteenth century onwards and the subsequent history of these two areas is consequently distinct.

The Gartside Landholding

The Gartside landholding in the northern part of the study area effectively represents Denshaw Moor and with the exception of two small areas of land: that now confined by Dowry Road to the north and Crook Gate and Dowry Reservoirs to the south; and that to the west of Dowry and New Years Bridge Reservoirs, is all shown on the Denshaw Enclosure Map of 1812 (Plate 4). The implication of this enclosure award is that all of this land was previously unenclosed moorland, used for common grazing. The three farm sites which are located along Dowry Road (**30, 32** and **43**), all fringe this moorland area, with no evidence for settlement in the newly enclosed land. Therefore with the exception of later waterboard boundary walls, all of the stone field boundaries on Denshaw Moor can be reasonably accurately dated to 1812. All of the buildings which later appear within this area of moorland, namely Ragstone (**130**), Fair Spring (**40**) and Peggy Well House (**60**) are therefore all likely to be of post-1812 date.

Plate 4 Enclosure wall on Denshaw Moor. This wall almost certainly dates to 1812 when this moorland area was first enclosed.

The Gartside link with this area is maintained through to this enclosure period, with four individuals of this surname acquiring allotments in the enclosure distribution. The family is also associated with the largest and most striking building constructed in this part of the study area, namely Dowry Castle (**43**, on the site of an earlier building). This was built by John Gartside in 1867, who was a brother of Henry Gartside, who owned a substantially brewing business in Ashton-under-Lyne.[42] This was a large Gothic styled building,[43] with evidence for associated gardens to the west. The building did not exist for a very long time, as it was demolished in 1897. This is a similar story to most of the other settlement sites within this part of the study area, which were demolished towards the end of the nineteenth century, doubtless because of the acquisition of most of this area by the Oldham Corporation, for the construction of the reservoirs.

The Assheton Landholding

The Assheton family held all of the land in the Castleshaw valley from 1543 to 1618, at which point it was sold out to the various tenant farmers resident in the valley.[44] Amongst the tenants who acquired land at this time Hunt has identified seven purchasers, of which at least four of them can tentatively be placed within the study area. Francis and Edmund Scholefield bought the freehold to a farm at Broadhead (probably site **173**); Edmund Buckley acquired at farmstead based at

Castleshaw fold (probably site 315); while Walter Scholefield also held property at Castleshaw fold. Hunt suggests that the latter individual also gave his name to the farm known as Waters (site 276), formerly known as 'Walters'.[45] The preponderance of the Schofield surname amongst this newly created group of freeholders, suggests a continuity of occupation from the list of tenants documented in the grant of Friarmere in 1543.

Further evidence for settlement in the study area has derived from the studious work of the Saddleworth Historical Society in analysing deeds, land transfers, wills and other primary documentary material. Other than Castleshaw, Broadhead and Walters, there are no other pre-1700 sites which can be confirmed within the documentary record, although the sites of Wood Farm (site 236),[46] Wood Barn (site 238),[47] Marled Earth Nook (site 282),[48] Oaken Hill (site 165)[49] and Oakenhill Lee (site 159)[50] are all documented in the eighteenth century and are all potentially earlier. Although many of the farmstead sites have been demolished, several remain and the architectural style of these buildings can also place Low Bank (site 227) and Castle Hill Cote (site 277) as eighteenth century sites, at the latest.

All of the earlier settlement sites within the Castleshaw valley occupy the lower slopes and it is in this area that the first enclosure of land is likely to have taken place. That enclosure of this area may have already occurred by the fourteenth century has already been alluded to with regard to the 1314 charter, and certainly by the early seventeenth century when the Assheton family sold off their lands to the various tenant farmers, each farm is likely to have been surrounded by a field system. The form of these field divisions may have been stone walls as explicitly stated in the 1314 charter, although the earthen banks (291, 293 & 308; some of which are partially hedged) located around Castle Shaw Farm (315) also appear to be of some antiquity and may represent survivals of medieval or early post-medieval enclosure.

Evidence for the type of agricultural activity taking place within the area is of a variable quality. No documentary record of arable farming, in the post-medieval period, has been recovered during the survey, other than references to barns being located on several of the farms; the existence of barns inferring the threshing and storage of grain, although not all barns are associated with arable activity and may have been used to store imported hay for farm animals. More conclusive evidence of arable activity comes in the form of areas of ridge and furrow (174, 175, 232 & 234) located within the study area. These earthworks, the ridges to some of which measure *c* 3m wide, are located around Broadhead and Wood Farm, and it is in such areas, adjacent to the farms, on the lower slopes that arable activity is more likely to be expected.

No specific references to a corn mill within the study area have been recovered during the survey, although in 1618 Edmund Linthwaite was given the right of access to a corn drying kiln in Castleshaw, which although the location cannot be accurately plotted, indicates that corn was being produced and by implication a corn mill must have existed. The position of this mill may have been the later site of one of several fulling mills which were established in the valley or could be one of the mills recorded at Grange in the 1543 grant of Friarmere.

In some of the transcribed deeds of the properties within the study area, there are numerous lists of associated field names and many of these are described as meadow, which would appear to be the most predominant land use of the enclosed area of the Castleshaw valley, certainly during the eighteenth century. Meadowland is used to grow grass which is subsequently mown for hay. Once the hay has been mowed the land is used for grazing and therefore the presence of meadowland is typically associated with pastural farming. Unlike in arable farming, meadowland is not as frequently ploughed and therefore physical remnants of this agricultural activity do not normally survive.

Further evidence for a pastural based farming economy in the Castleshaw valley is provided by the use and partial enclosure of the moorlands, which occupy the upper slopes and plateau sections of the area. The placename 'Cudworth Pasture' is indicative of land use and was given

by the Assheton family to a relative John Cudworth of Werneth, Oldham, prior to the allotment of the remaining lands to the tenant farmers in 1618.[51] Hunt has indicated that large areas of moorland on the north and east of the valley were divided, if not physically enclosed, amongst these tenant farmers in or soon after 1618.[52] Two areas of moorland were divided, these being Castleshaw Moor and Oxhey. The Oxhey land which included parts of the study area on either side of Ox Hey Lane was divided into eight parts. Hunt.suggests that some of the allotments were immediately enclosed with walls, although most remained for use as common pasture until the end of the eighteenth century when much of the land was enclosed.[53] The division of Castleshaw Moor was somewhat more complex, with the moor being subdivided into three areas, due to the variable quality of the land. Plots, representing fourteenths from each of the areas were subsequently divided amongst the farmers. Only one of these larger subdivisions, known as 'Backside', lies within the study area. This represents the land between Moor Lane and Cudworth Pasture in the south and Huddersfield Road in the north, and includes Crawshaw Hey, Grange Hey and the land to the west of Hind Hill. The other two major subdivisions, called 'Millstone Edge' and 'Moor', centred around Blea Green and Coal Hill Slades respectively, border the eastern side of the study area. A seventeenth century description of one of the allotments on Backside runs as follows:

> 'Twelve acres and a halfe thereof or thereabouts lyeth in that part of the said Woodhead which is called the Backside abbuttinge from the side of the said thirty nine acres up by the Ravenstone towards the east or north east, betweene two acres and ffourteen ffalls more thereof sold or agreed to be sold formerly to one Edmund Scholefield and his heirs and twelve acres and a halfe lyinge next to the ffoxstones and formerly sold to one Marke Scholefield and his heirs all along the oldyatehead and for farr as the said Common reacheth.'[54]

The reference to 'ffoxstones' can probably be linked with Foxstones Quarry (154) and the description would therefore appear to be describing the north-eastern part of Castleshaw Moor, which lies within the study area. A more informative document with regard to land use in this moorland area is found amongst the deeds relating to Wood Farm. A document of 1726 describes the land held by Edmund Buckley of Wood and includes the following:

> 'one twelfth part of Oxhey called Three Gates, one eigth part of Grange Hey being three acres lying near Durry Castle [Dowry Castle], 4 acres of common in Woodhead and Millstone Edge and of liberty and right of turbary, stone and winter grass in a parcel called Crawshay Hey'[55]

This document clearly refers to a number of areas within the study area, including the enigmatic Dowry Castle (141), which is thus of early eighteenth century date at least. Although the areas of moorland were therefore divided into allotments, there is no evidence for physical enclosure of most of this land and it would appear that the land continued to be used for common grazing.[56]

The 1726 deed, pertaining to Wood Farm also indicates that the local farmers also had the right to dig peat and excavate stone from the moors, the latter undoubtedly accounting for some of the quarries in the study area, the stone from which was doubtless used both in the construction of the farmhouses and in the field walls.

The settlement pattern and land use within the study area, during the post-medieval period, would therefore appear to consist of a small group of farmsteads, mainly based on the lower slopes of the Castleshaw valley, whose occupants carried out both arable and pastural farming, with the emphasis seemingly on the latter. Most of the enclosure took place during this period, with only that on Denshaw Moor and some on Oxhey datable with some accuracy to the late eighteenth and early nineteenth century.

INDUSTRIAL

The topography and soil conditions contained within the study area do not provide ideal land for agricultural activity. The improved hill pastures will support sheep grazing, although even grazing is not feasible on the high moors. The valley floors and the level terraces provide grazing for cattle and the cultivation of fodder crops and vegetables. The additional factor of climate means that cereal cultivation is not suitable in this area. It is therefore unlikely that many farmers who lived in these valleys could sustain a living from farming practices alone. This situation is compounded by a partible inheritance system which existed during the medieval and post-medieval periods, whereby property was divided at death between all the children of the family, resulting in a continual subdivision of estates into smaller landholdings, thus further reducing the ability to sustain a livelihood from agriculture alone. The documentary material which emerges from the eighteenth century onwards clearly demonstrates that many farmers supplemented their income with an involvement in the woollen textile industry. Indeed in a number of cases wool production represented the primary industry of the inhabitants in the valley. This involvement in the woollen industry can be traced from the predominance of this industry in the West Riding of Yorkshire, in which direction Saddleworth, in economic terms, certainly faced, as opposed to the emerging cotton industry on the western side of the Pennines. An additional factor which encouraged the establishment of a textile industry is the topographic nature of the area, which on the one hand discourages agricultural activity, while at the same time, encourages the siting of water-powered mills along the fast flowing streams, which cut through the valley sides.

One of the earliest and most informative sources for the occupational status of the occupants of the study area are the Saddleworth Parish Registers for the period 1722 to the 1790s. Analysis of the registers clearly indicate the dominance of textile working, very largely in the form of domestic woollen working.[57] For Saddleworth as a whole, as many as threequarters of the local population declared their main occupational interest to be in this particular activity during the 1720s.[58] This figure actually increased during the century, so that by the 1770s 89.2% were involved. The increase in textile activity was paralleled with an apparent decrease in agricultural activity, with the amount of people declaring themselves as having a farming occupation falling from 11.4% in the 1720s to 1.6% by the end of the century. These figures have to be considered in the light that declarations of occupation usually cited the main occupation and there is every reason to believe that a number of people actually had dual occupations and were involved both in farming and in the textile industry.

From the parish registers the majority of the people involved in domestic textile working were described as 'clothier', with the term 'weaver' only rarely occurring. Wild suggests that this is 'a clear manifestation of the dominance of the small family clothier in the Pennine woollen industry at this time...The woollen cloth woven in Saddleworth was produced by small 'clothiers' who rarely employed any persons outside their own family units.'[59] Any 'putting-out' system, whereby manufacturers distributed the raw material to domestic weavers, was not taking place within Saddleworth to any great extent during the eighteenth century.

Evidence for this domestic activity within the study area is found amongst a number of deeds and other documents. A church register record of 1721 describes Edmund Buckley of Wood as a 'clothier', a similar attribution is given to William Wood of Wood Barn in 1757; James Platt of Broadhead in 1726; Isaac Bradbury of Castleshaw in 1749; John Shaw of Oakenhill in 1747; Benjamin Gartside of Oakenhill Lee in 1782; and finally Thomas Platt of Waters in 1726. Wood Barn (Plate 5) within the study area and buildings such as Mill Croft (SD 9896 0900; Plate 6) and in the hamlet of Bleak Hey Nook (SE 0044 0945; Plate 7), which border the study area, provide further testimony to this domestic textile industry, with the characteristic multi-light mullioned windows.

Plate 5 Wood Barn.

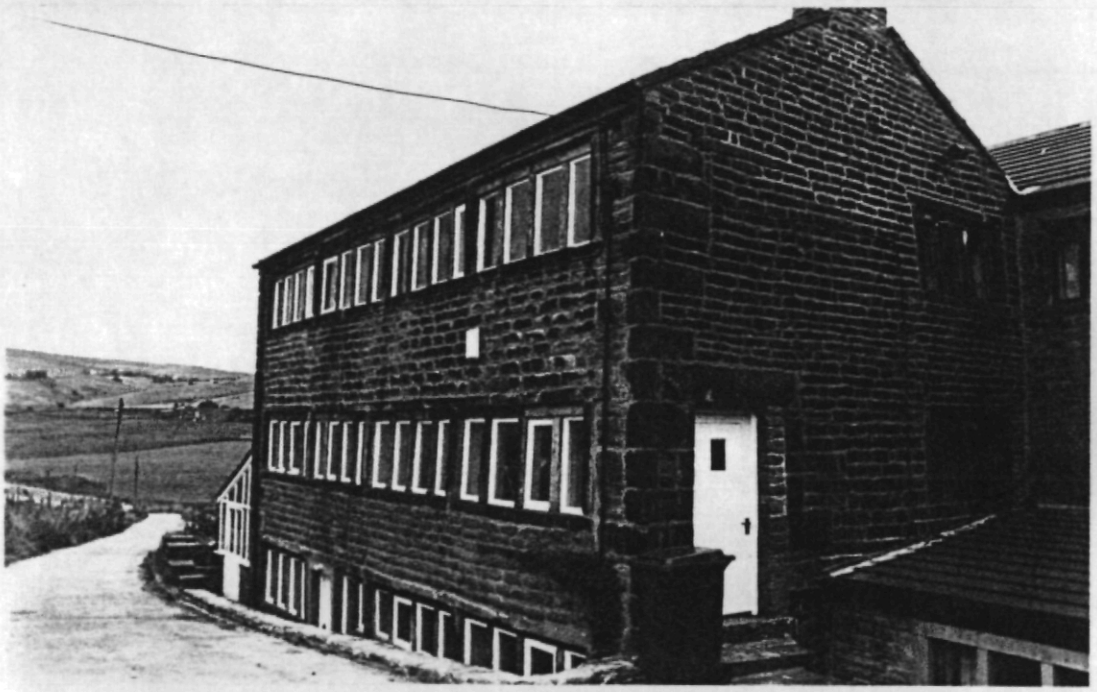


Plate 6 Mill Croft.

Plate 7 Bleak Hey Nook

An interesting description of Lower Moorcroft Wood (244), from a former occupant provides an insight into the arrangement that many of the farms may have had. As well as having a barn and shippon, indicating farming activity, the upper storey of the house is described as follows:

> 'It had a long row of mullioned windows, and had been designed to accommodate hand looms and things appertaining to hand loom weaving, and only on second thoughts was it sleeping accommodation. There still remained there two hand looms, a bobbin wheel, a hand jenny, and some warping waws (walls). There were also skips, baskets, beams, empty bobbins, and various other articles used in the weaving of cloth around the place. These had belonged to my grandfather's elder brother, who had been a small manufacturer on his own, marketing his cloth in Huddersfield.'[60]

The general picture provided by this description, is in keeping with the other evidence consulted, indicating farmers supplemented their living with domestic textile manufacturing, which was also carried out within their homes. Rather than being involved in a 'putting-out' system it would appear that these farmers were independent clothiers, who involved themselves in trading activities as well.

Although the woollen industry within Saddleworth was predominantly a domestic one during the eighteenth century, some of the finishing processes were carried out beyond the confines of the house or farm. This was particularly the case for the process of fulling, whereby the woollen cloth was scoured. This was a washing process undertaken in fulling stocks and traditionally

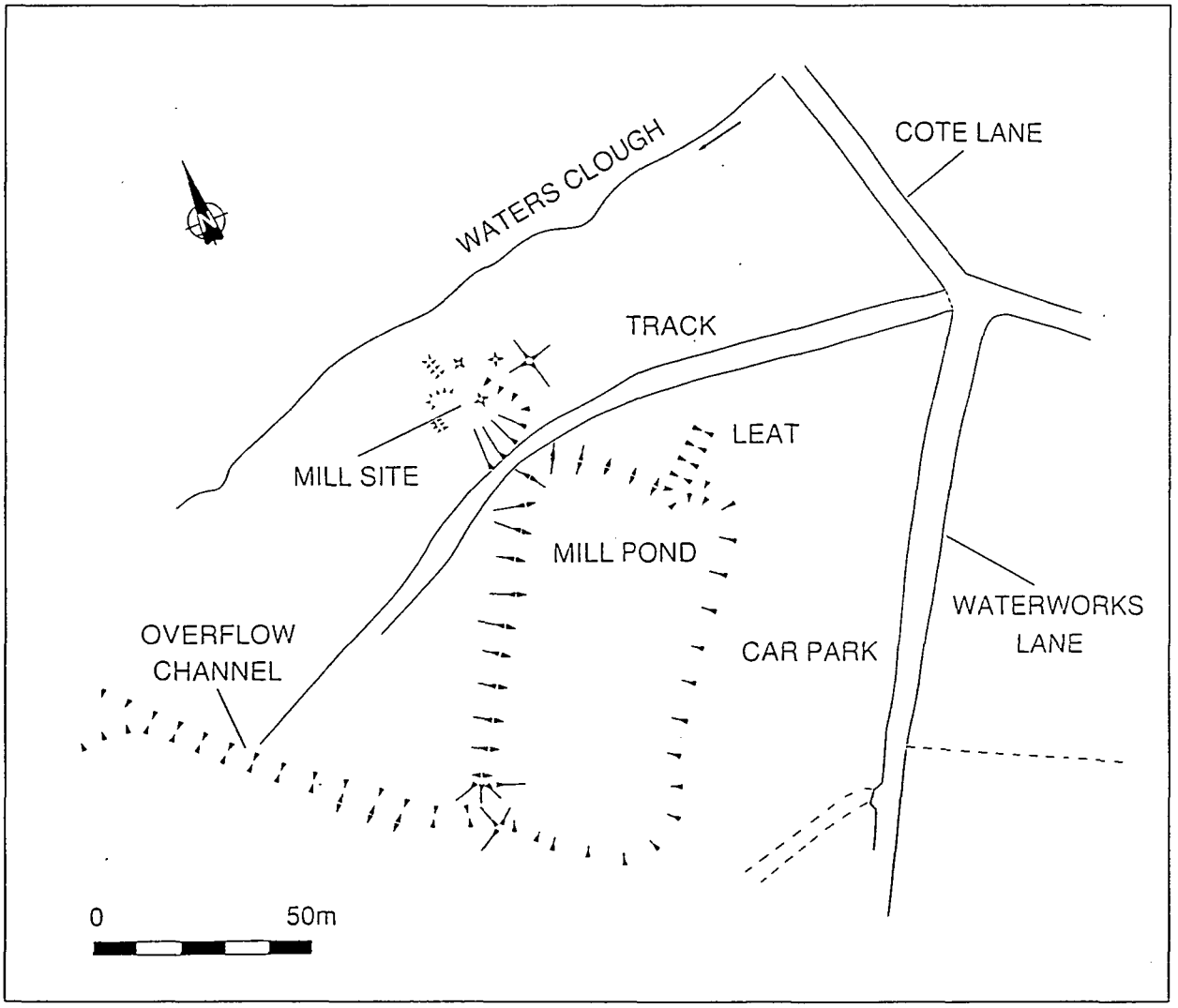


Fig 16 Plan of Waters Mill.

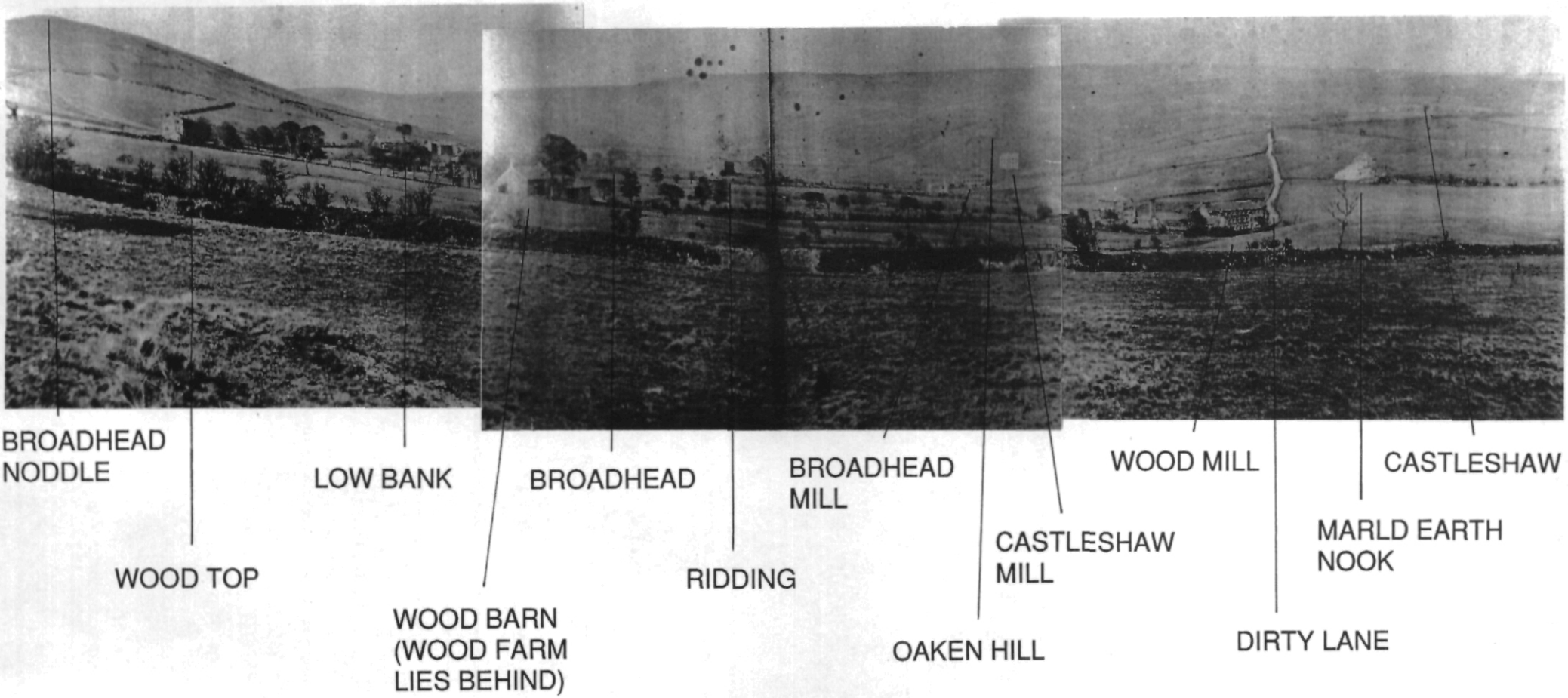


Plate 8 Panoramic view of the Castleshaw valley *c* 1880, prior to the construction of the reservoirs.

using fullers' earth, the action of the stocks and earth serving to remove the oil, size and other dirt. The cloth was then washed and fulled in the stocks, involving prolonged pounding in a soapy solution. The fulling process, which gave a dense felted finish to the cloth, was carried out in water-powered mills. The parish registers also shed some light on the fulling and finishing processes of the industry. During the period 1722-6 only two cloth finishers were represented but by 1787-91 as many as twenty- one were recorded. Wild suggests that these figures represent a reaction to the increasing demands of the domestic industry as well as a shift in emphasis from the production of the traditional coarse narrow kersey cloths to the manufacture of heavier broadcloths which required a considerably greater amount of fulling.[61]

In the latter part of the eighteenth century a second type of mill associated with the woollen industry began to emerge. This was the scribbling mill, which carried out preparatory processes in the woollen industry. The scribbling process involved the disentangling of woollen fibres and arranging them into slivers of similar thickness and weight.[62]

Within the study area the sites of eight woollen mills (**1, 2, 252, 253, 266, 270, 287 & 290**) have been identified. All date from the eighteenth century (Barnes 1983, 39-46) and are either fulling or scribbling mills. Unfortunately none of the buildings survive as standing structures, with

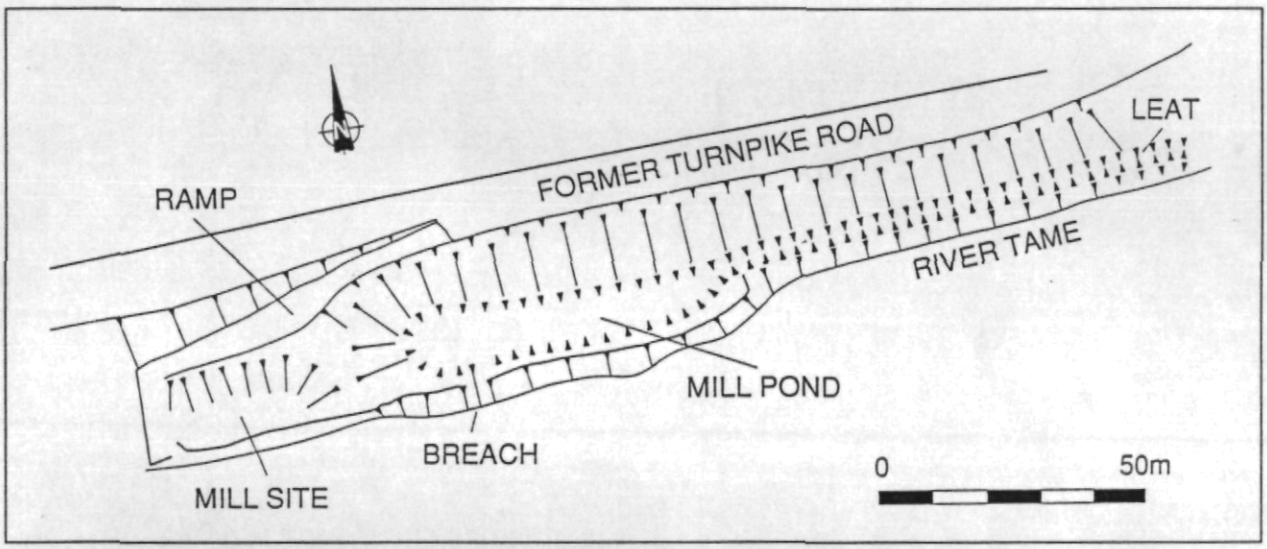


Fig 17 Plan of Long Royd Mill

Plate 9 Long Royd Mill, viewed from the east. The mill leat and pond are visible on the left, with the pre-reservoir line of the turnpike road to the right.

New Years Bridge Mill (2), Wood Mill (266), Broadhead Mill (287) and Castleshaw Mill (290), all now lying beneath reservoirs. Of the remaining sites only the mill ponds and leats survive intact as a tangible reminder of this once significant industry within the study area (Figs 16 & 17; Plates 8 & 9).

Other industrial activity within the study area during the post-medieval period is largely confined to stone quarrying. As already alluded to, this was certainly taking place during the eighteenth century and it is likely that stone was being quarried in the seventeenth century also when many farm buildings in the region were being rebuilt. The majority of the quarry sites identified, lie within the Denshaw valley and many of these are probably associated with the enclosure of Denshaw Moor in 1812.

There is virtually no evidence for coal extraction within the study area, with two areas of bell pits (246 & 250), which are located within the area of landslip on the south-eastern side of Ox Hey Top, representing the only possible exceptions.

The final significant development within the study area came about as a result of the work of the Oldham Corporation in the construction of the reservoirs in both the Castleshaw and Denshaw valleys during the last quarter of the nineteenth century. An Act was passed for the construction of the Denshaw reservoirs (5, 18, 27 & 114) in 1875, with all the works completed by 1883. Further demands for water led to the construction of the Castleshaw Upper (288) and Lower (267) Reservoirs between 1887 and 1891. As well as the reservoirs several other associated waterboard sites are located within the study area and these include valve houses to the reservoirs and a pump house (230; Plate 10). Sites associated with the construction of the reservoir include the line of a narrow gauge tramway (309; Fig 19) and a tramway incline (168)

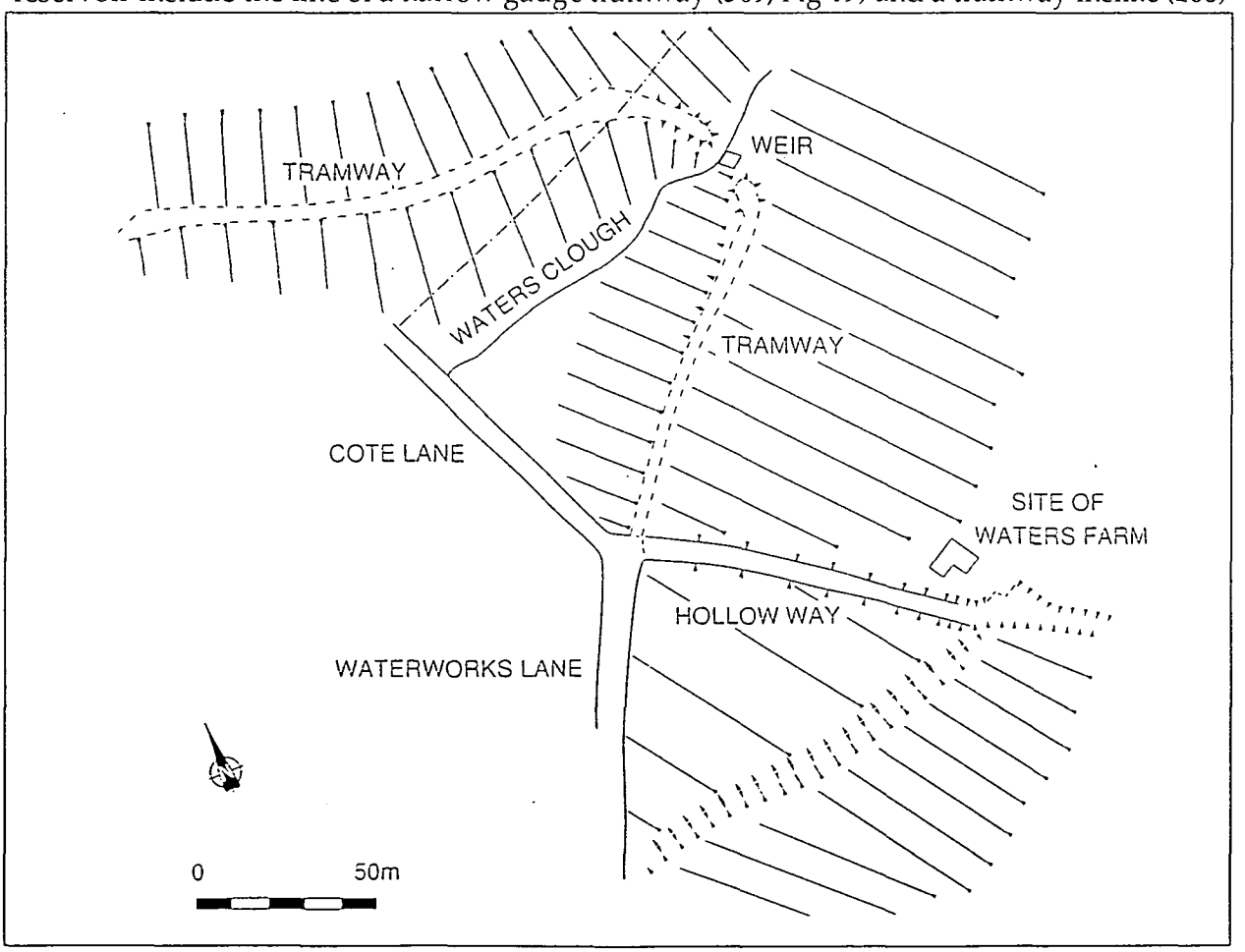


Fig 18 Plan of narrow gauge tramway 309.

Plate 10
Pump House

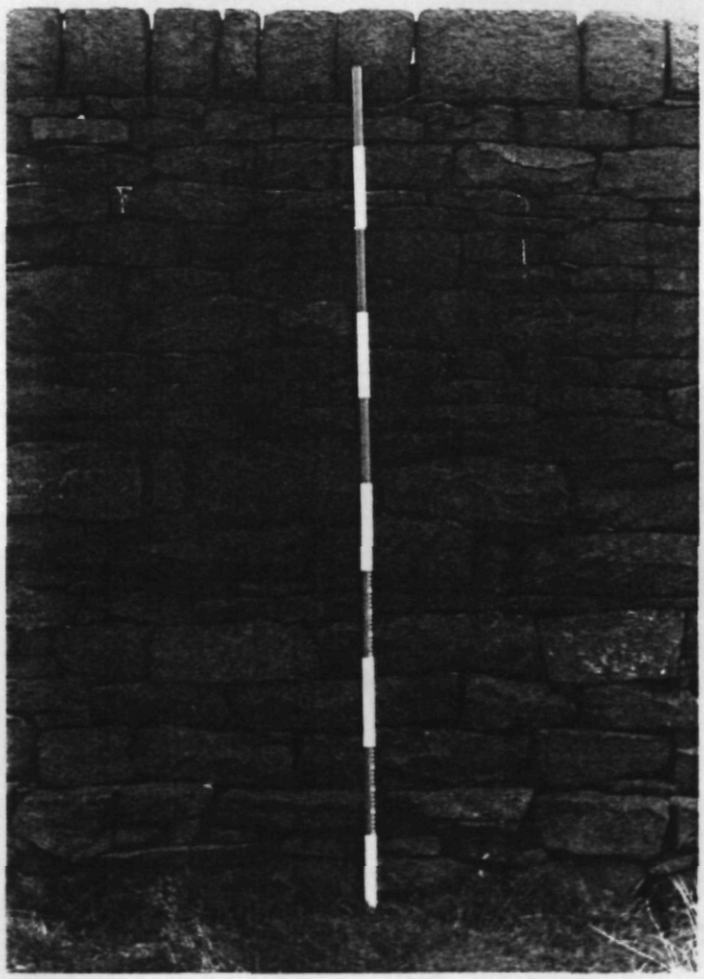


Plate 11 A characteristic Waterboard wall on Fair Spring Road, in the Denshaw valley.

on Cudworth Pasture which is associated with Foxstone Rocks quarry (154) and presumably transported quarried stone for the reservoir construction. As well as acquiring the land specifically required for the reservoirs, much of the catchment area would also have been acquired and evidence of this wider land acquisition by the waterboard is provided by the tall, stoutly built stone walls (Plate 11); the boundary markers and the narrow drainage channels and silt traps, which all form part of the water management programme.

Primarily as a measure to prevent water pollution, several of the farms and cottages which formerly stood within the study area were abandoned and subsequently demolished, following the acquisition of the land by the Corporation, and as result the construction of the reservoirs represents a significant benchmark in the history of the settlement pattern within the study area (Plates 12 & 13).

Plate 12 Site of Low Gate Farm (202). This picture reflects the condition of many of the former farms and cottages within the study area.

Plate 13 Site of Dowry Castle (43).

DISCUSSION

Medieval and Early Post-Medieval

Place-name evidence implies pre-Conquest settlement in Saddleworth, with the name Hilbrighthope possibly indicating such settlement within the Castleshaw valley itself. However, the Domesday evidence underlines the marginality of the area and the likely sparse level of population, possibly further lessened by the Norman devastation of 1069-70. Place-name and documentary evidence also suggests that in the early medieval period, much of Saddleworth was afforested. The initial catalyst for improvement may have been the acquisition of the manor by the de Stapletons, probably by 1166, with the establishment of a chapel here in the early thirteenth century, itself possibly being evidence of a growth in population.

The granting of Friarmere to Roche Abbey, previously dated to 1293, which can now be placed prior to 1199, was perhaps roughly contemporary with the grant of neighbouring pasture in Lordsmere to the Augustin priory of Nostell. Friarmere may also have been given over largely to pasture, based on the grange which was possibly sited at the later hamlet of Grange, but there is also evidence from the thirteenth century of arable farming. Given its proximity to Grange

much of this medieval agricultural activity may have taken place within the Castleshaw valley. No documentary evidence has been found for iron-working within the valley, but this may be a result of the general paucity of sources relating to Roche and its lands. In the thirteenth century Friarmere was also used by Roche for hunting, although evidently without warrant. Both of these last activities imply some degree of continuing afforestation. The right of Roche to wall in their estate is also documented, although it is unknown, from the documentary evidence alone, to what extent this was carried out.

At some date after 1314 Friarmere ceased to be farmed directly by Roche and was leased out to tenant farmers, with the earliest such tenant farmsteads possibly being at Grange and in the Castleshaw valley. Following the dissolution and the subsequent purchase of Friarmere by Arthur Assheton, Castleshaw and Grange continued in the hands of tenant farmers.

Medieval Iron Smelting

Comparison with other hand powered bloomery site of this period is difficult given the sparsity of well dated, carefully excavated examples. The major iron production areas, such as The Weald and the Forest of Dean appear to have had a much higher level of organisation. Minepit Wood (Rotherfield in The Weald) was a fourteenth century smelting furnace within a rectangular enclosure in which charcoal and roasted ore was also stored.[63] Here the site was used for a considerable period of time. The Castleshaw sites give no impression of this degree of permanence; indeed, no evidence for enclosing structures have been found at Cudworth Pasture and only one post pad was recorded at Spa Clough (though here the level of disturbance must be taken into account).

Based on excavation evidence, the impression given at Castleshaw is one of itinerant, seasonal smelters exploiting the local material resource and then moving a few hundred yards further on. Wrigley recalls several slag heaps within a half mile of the one at Cudworth Pasture. These include two, now covered by the reservoirs, one of which may be represented by the spread of slag along the Lower Reservoir shoreline (259), as well as a slag mound near the site of Oaken Farm, which may be the one noted as 166 in the gazetteer. A recent programme of field research indicates that a similar pattern of exploitation existed in West Yorkshire.[64] If mature wood was used rather than coppiced then the iron smelting industry would have been very destructive in the central Pennines. In Nidderdale the decline of woodland in the fourteenth century due to forges in the Forest of Knaresborough is evident in the manor rents and led to the complete demise of the industry by 1391.[65] Nationally, many hundreds of slag mounds have been identified in field survey projects. Research in recent years, spearheaded by the Historic Metallurgy Society, is rapidly filling in gaps in distribution of iron working sites. In particular the Lake District, the Weald, Lincolnshire and West Yorkshire have yielded large numbers. Most of these slag mounds will be associated with remains of a smelting furnace; however, dating is extremely difficult without excavation. Many furnaces have been revealed by excavation but only as a poorly understood (and recorded) peripheral feature within a large scale excavation. The great value of the Castleshaw iron furnace excavations is that this site represents one of only a handful in Britain where the furnace remains and associated features have been the specific object of scientific excavation, providing enough detail on furnace technology, processes and dating to make a significant contribution to our understanding of this vital industry.

The essential resources for smelting were charcoal fuel and iron ore. Charcoal analysis indicates that oak, alder and willow were used in the furnaces and comprised both mature and immature wood.[66] It is possible that a number of charcoal clamps were in operation in Castleshaw during the period of smelting. Remains for these are likely to be slight and may consist of circular patches of burnt clay subsoil with concentrations of charcoal pieces. A feature comprising material of this nature was encountered in the south west corner of Area 1 during the 1992 excavations beside Spa Clough.[67] Only a small part of this feature was sectioned and the rest remains buried in situ. Other charcoal making sites are almost certain to exist in the valley.

The iron ore source at Castleshaw was probably carboniferous ironstone occurring in nodular form in marine bands above coal seams surviving as Lower Coal Measures on the south facing slopes of the valley. This material may have been identified and extracted from the sides or beds of streams; however, canalisation of the stream channels makes it impossible today to look for evidence of this. A further possibility is that mining was undertaken around the area of landslip (248) which may have brought ironstone close to the surface. Features identified as bell pits (246) and (250) are worthy of future research as these could be simple medieval shaft mines.

The product of the iron smelting furnaces at Castleshaw was the bloom, a spongy mass of purish iron created near the base of the furnace. After the furnace cooled down the bloom was extracted and primary smithed. This process consisted of hammering the bloom on an anvil for many hours to remove pockets of air and any slag still adhering. Micro-analysis slag residues together with other excavation evidence, such as the lack of a smithing hearth, indicate that the primary smithing was conducted elsewhere. A good candidate for this activity would be Grange, just outside the study area, where it is likely that the medieval abbey farmstead was located.

Later Post Medieval

Settlement within the Castleshaw valley was well established by the beginning of this period (*c* 1600), and during the course of the following two hundred and fifty years expanded to include the Denshaw valley. The economy of the population was based on mixed farming with any arable activity taking place on the floor and lower slopes of the Castleshaw valley, while the upper slopes provided large pasture areas, which was probably the principal farming activity within both valleys. None of the early farm buildings survive although the sites are well documented and can be reasonably accurately located.

Enclosure of the landscape associated with this farming activity appears to divide into two different types. The earthen hedged boundaries which occupy parts of the lower slopes of the Castleshaw valley, and are in close proximity to the farms, probably represent the earliest enclosure within the study area, and in some cases are potentially of medieval origin. The dry stone wall field boundaries which now characterize the landscape are of a later date, with the walls on Oxhey and Denshaw Moor datable to the late eighteenth and early nineteenth century. Most of this enclosure, embraced land formerly used for common pasture.

During this post-medieval period the livelihood of the farmers within the Castleshaw valley was supported by an involvement in the domestic woollen industry, with some of the farm buildings in and on the borders of the study area providing visible structural evidence of this. In support of this industry a number of woollen mills established themselves within the study area, particulalrly during the eighteenth century. Although none of these mills survive the mill ponds and leat to some of them are still well preserved and in the case of Long Royd Mill, structural remains of the mill building itself would still appear to be present.

The late nineteenth century witnessed the construction of the reservoirs in the Denshaw and Castleshaw valleys, supplying water to the population of Oldham. This phase of activity has left a variety of structures associated with the industry as well as the reservoirs themselves. In the case of Castleshaw the surviving tramways represent sites associated with the construction phase of the reservoirs themselves.

Notes

1. Smith 1961, 310-11
2. Op cit, 312
3. Ibid
4. Op cit, 311

5. Ibid; Smith 1962, 207, 260

6. Smith 1961, 311

7. Page 1912, 198, 302

8. Ellis 1884, 15n 71

9. Clay 1973, 84

10. Hulton 1847, 146-7; Radcliffe 1887, 466-7

11. Hulton 1847, 147-8; Radcliffe 1887, 467-8

12. This confirmation is known from a later confirmation by Henry III in 1232, published in *Calender of Charter Rolls*, vol 1, 146-7. Further confirmations were made by Edward II in 1312 and by Edward III in 1328. The last confirmation was published in Hall 1937, 233-4

13. Dugdale 1846, 504-5; Aveling 1870, 14-16

14. Radcliffe 1887, 470; Petford 1987, n4 citing Raines Mss, vol 1, 221 (Chetham's Library, Manchester)

15. Clay 1973, 84

16. Ibid

17. Aveling 1870, 131-2; Radcliffe 1887, 472-3

18. Radcliffe 1891, 593-4

19. Ellis 1884, 16 with 15n 71; Radcliffe 1887, 466

20. Ellis 1884, 16n 71b

21. Hulton 1847, 135-8; Ellis 1884, 16; Radcliffe 1887, 466

22. Hulton 1847, 148-9; Ellis 1884, 17n 71c; Radcliffe 1887, 468-9

23. Crump 1939, 126

24. Barnes 1981, 10

25. Brown 1894, 90

26. Aveling 1870, 133; Radcliffe 1887, 471

27. Oxford English Dictionary; Brocklehurst 1911, 8

28. Brocklehurst 1911, 9-10

29. Placito de Quo Warranto, 208

30. Redhead 1991, 1992, 1993 and 1996b

31. Wrigley A 1912

32. Redhead 1994 and 1996a

33. Platt 1969, 94

34. Dugdale 1846, 506

35. L&P 1539, 609 no 35b

36. SHSB vol 16 no 2, 22-5

37. Smith 1961, 311

38. In 1582 Ellis Scofield of the Grange 'in right of the Abeey of Roche' was defendant in a case concerning waifs and strays in Saddleworth (Radcliffe 1887, 481)

39. In 1552 Henry Whitehead and James Scofeld were wardens of saddleworth chapel (Radcliffe 1887, 429)

40. L&P 1543, 448 no 30. According to Radcliffe 1887, 480 this division did not take place until 27 May 1551

41. YASRecS 1888, 175; Brigg 1917, 79,116

42. Seville 1984, 10

43. ibid

44. Hunt 1986, 67

45. ibid

46. SHSB vol 4, no 3, 49-51; SHSB vol 9, no 3, 67-8

47. SHSB vol 4, no 3, 51-52
48. SHSB vol 2, no 3, 54
49. SHSB vol 5, no 3, 53-4
50. ibid, 54
51. Hunt 1986, 71
52. ibid, 68
53. ibid
54. ibid, 70
55. SHSB vol 9, no 3, 67
56. Hunt 1986, 71
57. Wild 1971, 220
58. ibid
59. ibid, 223
60. SHSB vol 2, no 1, 9
61. ibid, 223
62. Barnes 1983, 29
63. Money 1971
64. Heginbottom pers comm
65. Jennings 1967
66. Bond in Redhead 1996b
67. Redhead 1992

6. Gazetteer of Sites - Castleshaw

The following gazetteer lists those sites identified within the Castleshaw Study Area by the UMAU / GMAU survey. Abbreviations FW, M, AP refer to the method of identification, ie field walking, map research or aerial photograph analysis. SMR refers to the Greater Manchester Sites and Monuments Record held by the Greater Manchester Archaeological Unit.

1) SD 9811 1042
Long Royd Mill ** M FW

A single rectangular structure with mill pond to the east is shown on the 1822 map. A second rectilinear structure has been added to the site on the 1854 map, when the mill is used for fulling and dyeing. Two similar shaped structures are also shown on the 1895 map, when the site is simply referred to as 'mill'. The site is vacant on the 1906 map. Some evidence of the mill survives, including a revetted platform running alongside the stream and evidence of the mill pond and leat. A 30m section of walling revets a large platform area cut into the valley side, probably representing the site of the mill. A large central depression in this platform is potentially the site of the mill wheel. The tail race from the mill was not clearly identifiable although a drain or culverted channel did emerge from high up on the side of the revetment wall. East of this is a mill pond with stone revetment, fed by a mill leat to the east. The stone weir across the river which allowed water into the leat is still in good condition.

2) SD 9839 1049
New Years Bridge Mill * M FW

An L-shaped building and a small square structure with a reservoir to the north are shown on this site on the 1822 map. This mill is described as a woollen mill on the 1854 map. The site lies beneath New Years Bridge Reservoir on the 1895 map.

3) SD 9837 1053
Sandstone Quarry * M FW

This site is shown on the 1854 map. The site lies beneath New Years Bridge Reservoir on the 1895 map.

4) SD 9846 1060
New Years Bridge House * M FW

Three rectilinear structures are shown on this site on the 1822 map. Two of these building also appear to be shown on the 1854 map. The site lies beneath New Years Bridge Reservoir on the 1895 map.

5) SD 9842 1066 (centre)
New Years Bridge Reservoir ** M FW

This reservoir is shown on the 1895 map. A valve house is located against the embankment wall.

6) SD 9832 1066 (linear)
Quarry * FW

A quarry face on the western side of the road was probably worked during the reservoir construction.

7) SD 9805 1074
Boundary Stone * FW

A boundary stone set into the dry stone wall is marked 'OCWW', marking the former Oldham Corporation Water Works landholding.

8) SD 9801 1070
Track * FW

This trackway runs along the study area boundary. At its southern end the track has a dry stone wall on its eastern side. The track measures *c* 3m wide and its surface has been grassed over.

9) SD 9795 1066
Extractive Site * FW

An irregular shaped earthwork, now grassed over, consisting of irregular shaped depressions and mounds. This would appear to be associated with an extractive activity.

10) SD 9792 1066
Former Field Boundary * FW

What appears to be a collapsed dry stone wall, now grassed over.

11) SD 9800 1080
Former Field Boundary * FW

A collapsed dry stone wall, partially grassed over.

12) SD 9805 1094
Boundary Stone * FW

A boundary stone set into the dry stone wall is marked 'OCWW', marking the former Oldham Corporation Water Works landholding.

13) SD 9806 1095
Extractive Site? * FW

A grassed over depression, possibly representing a small extractive site.

14) SD 9816 1089
Extractive Site * FW

This probable quarry, measuring 3m deep and 10m wide has three grassed over spoil mounds to the east.

15) SD 9816 1090
Former Field Boundaries * FW

Three collapsed dry stone walls, radiate from this point to the north and east. All are partially grassed over.

16) SD 9825 1101
Back o' th' Hill House * M FW

An L-shaped structure is shown on this site on the 1822 map. A rectangular structure is shown on the 1851, 1895 and 1906 maps. The site is vacant on the modern map. No standing remains visible, but the site is recognisable by the mounds of brick and stone debris, no discernible plan is visible, a possible trackway leads to the south-west.

17) SD 9833 1106
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1906 maps. This is a grassed over quarry 10m wide and 10m deep.

18) SD 9846 1115 (centre)
Dowry Reservoir ** M FW

This reservoir is shown on the 1895 map. The reservoir has a foot-bridge over its western arm and a road bridge over its eastern arm. This reservoir also has a valve house at its southern end. The foot- bridge is a 4-arched stone bridge. Composed of two large central arches flanked by 2 smaller arches.

19) SD 9813 1104
Site of Structure ? ** FW

A rectangular terrace at the top of a, probably contemporary, narrow field enclosure may represent a former building platform.

20) SD 9811 1116
Former Field Boundary * FW

A grassed over former field boundary running north-west to south-east. A second similarly grassed over boundary is situated at the northern end of the former.

21) SD 9808 1118
Boundary Stone * FW

A boundary stone set into the dry stone wall is marked 'OCWW', marking the former Oldham Corporation Water Works landholding.

22) SD 9809 1123
Quarry ? * FW

What appears to be a small quarry cut into the hillside, now grassed over.

23) SD 9805 1123
Spoil Mound * M

A small grassed over mound, probably a spoil mound, presumably associated with quarrying activity.

24) SD 9803 1127
Former Field Boundary * FW

A grassed over dry stone wall field boundary survives as a linear mound.

25) SD 9804 1131
Quarry * FW

A quarry cut into the hillside, measures *c* 10m wide and *c* 5m deep. The quarry cuts the track which leads to the larger quarry site (26).

26) SD 9798 1136
Quarry ** M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1906 maps. This is a large quarry face cut into the hillside with a track leading from it to the south.

27) SD 9806 1139 (centre)
Crook Gate Reservoir ** M FW

This reservoir is shown on the 1895 map. A valve house is situated at the dam head end.

28) SD 9810 1146
Field Boundary * FW

Grassed over collapsed dry stone wall.

29) SD 9808 1150
Extractive site * FW

A large grassed over, partially water filled quarry. The quarry measures *c* 15-20m wide and *c* 8-10m deep, it is west facing and cut into the hillside. Associated spoil heaps are adjacent to the quarry.

30) SD 9805 1158
Dowry Green ** M FW

A rectangular structure is shown on the 1812 map when the site is called 'Croked Gate'. On the 1822 map the building is T-shaped and is called 'Dorey'. A rectangular structure is shown on this site on the 1854 map, when the site is called 'Dowry Green'. The site is vacant on the 1895 map. A possible house platform, partially cut into the hillside is visible although there are no visible structural remains. A dry stone wall, probably of Waterboard construction appears to cross this platform and therefore post dates the sites abandonment. There appears to be a small extractive site in the south bank of the natural drainage channel to the south-east of the site.

31) SD 9823 1165
Stone Pillar * FW

A single upright stone, with possible tether marks around its base. There is no indication that this was a gatepost. A series of drains running approximately north to south are situated to the east of this post.

32) SD 9823 1160
Dorey * M FW

An L-shaped structure is shown on this site on the 1812 map. By the 1822 map the site is T-shaped. The site is vacant on the 1854 map. There are no visible structural remains of the site.

33) SD 9838 1136
Lower Dowry * M FW

An irregular shaped building is shown on this site on the 1822 and 1854 maps. The site is vacant on the 1895 map. There are no visible remains of this site which may have been substantially destroyed by a later Waterboard road.

34) SD 9848 1138 to SD 9848 1132
Linear Boundary ** AP FW

Linear feature shown on aerial photographs, which is probably a former field boundary. Nothing visible on the ground.

35) SD 9895 1135 (centre)
Drainage ** FW

Parallel drainage ditches, running south-west to north-east and form part of the water catchment for the reservoirs.

36) SD 9896 1167 to SD 9895 1152
Linear Boundary ** AP FW

Linear field boundary, shown on aerial photographs, which is probably a former field boundary. There is nothing visible on the ground.

37) SD 9879 1169 to SD 9893 1173
Linear Boundary * AP FW

Linear field boundary shown on aerial photographs. Remnants of linear earthwork visible, although disturbed by landslip.

38) SD 9869 1152 to SD 9897 1168
Linear Earthwork * AP FW

Linear, terraced, earthwork following the contour of Denshaw Moor for over 300m. Appears to be a sheep track.

39) centred SD 9881 1148
Linear Boundaries * AP FW

Two linear field boundaries crossing at right angles, shown on aerial photographs. The east to west boundary is visible as a collapsed dry stone wall. However, the north to south earthwork is not visible.

40) SD 9871 1151
Fair Spring * M AP FW

A rectangular structure is first shown on this site on the 1854 map. The site is vacant on the 1895 map. A large house platform is partially cut into the hillside. An L-shaped plan is discernible, with the northern side of the site consisting of a wall revetted into the hillside and still standing to a height of *c* 1.5m. At the south side of the site the walls survive to a height of *c* 0.5-1m high. The

visible demolition material consists of stone and brick.

41) SD 9866 1150 (linear)
Dowry Road * FW

This road measures *c* 8m wide and would originally have been flanked by dry stone walls, although only a section of the western wall survives along the southern part of the road.

42) SD 9859 1150 to SD 9862 1140
Linear Boundary * AP FW

Linear field boundary, shown on the aerial photographs. This is visible as a collapsed dry stone wall.

43) SD 9858 1154
Higher Dowry ** M AP FW

An L-shaped building is shown on this site on the 1812 map. On the 1822 map the site is irregular in shape and is called 'Datsey'. A rectangular structure is shown on this site on the 1854 map, when it is called Higher Dowry. On the 1895 map two large irregular shaped buildings, one of which is on the site of the earlier building, and two smaller rectangular structures are shown. A rectangular pond/reservoir is shown on the same map, lying *c* 20m to the north-west of the buildings. On the 1895 map the site is called 'Dowry Castle'. The site is vacant on the 1906 map, although the pond/reservoir survives.

The remains of a very large house platform, cut into the hillside survive. Large revetment walls to the north and east survive to a height of more than 3m in places. The remains of a collapsed cellar are located towards the northern end of the site. Also a number of ashlar stone blocks including window and door surrounds are scattered about the site. On the hillside above the revetment wall is a rectangular reservoir, now dry and stone lined. This former water supply is presumably associated with the house site and what appears to be a pump is located at the base of the revetment wall. A kerb of stonework in the plot to the west of the house appears to be a garden feature. The approach road to the house, which is from the south-west, is a *c* 4m wide track flanked by dry stone walls with a tree lined northern side.

44) SD 9870 1180 to SD 9874 1165
Linear Boundary ** AP FW

Linear field boundary, shown on aerial photographs. Nothing visible on the ground.

45) SD 9863 1175
Quarry * M FW

A quarry is shown on this site on the 1895 map. This is a large linear earthwork cut into the hillside, with the rock face still clearly visible. Some shallower workings are also visible towards the east of the quarry entrance.

46) SD 9857 1167 (linear)
Drain * FW

This appears to be a drain but has a grassed over collapsed dry stone wall on its southern side.

47) SD 9855 1174
Extractive sites * FW

A series of shallow depressions running along the edge of the hillside between sites 45 and 48. Possibly represent ephemeral extractive workings.

48) SD 9842 1177
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1906 maps. A large, deep quarry with rock face still visible. The entrance is from the south and there are spoil mounds within and adjacent to the quarry. It appears to cut through a dry stone wall field boundary and this suggests it post dates the enclosure.

49) SD 9845 1168 (linear)
Ditch? * FW

A linear ditch curves round the side of the hill in an east to west direction with a second ditch diverging from it, heading further north up the hill. It is not clear whether this is a narrow track or a drain. Towards the eastern end of this feature is a single upright post, which shows no evidence of having been a gatepost.

50) SD 9837 1180
Sandstone Quarry * M FW

This site is shown on the 1854 map. Shown as an earthwork on the 1906 map. This is a large grassed over depression with entrance to the south-west. A number of grassed over spoil heaps surround the site.

51) SD 9822 1186
Extractive site * FW

A small, shallow, grassed over quarry. This is south-west facing and is slightly cut into the

hillside. There are associated grassed over spoil mounds.

52) SD 9819 1190
Extractive sites * FW

Three closely grouped quarry workings. All are west facing and grassed over.

53) SD 9817 1191
Sandstone Quarry * M FW

This site is shown on the 1854 map, it is shown as an earthwork on the 1895 and 1906 maps. The site is west facing with spoil mounds in front.

54) SD 9815 1193 (linear)
Trackway * FW

A grassed over trackway curves round the hillside and links sites **51, 52, 53** and **55**.

55) SD 9818 1198
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1906 maps. This is a large, deep quarry cut into the hillside, with the rock face still visible.

56) SD 9868 1207
Quarry * M FW

This quarry is shown on the 1895 map. This is a large, deep quarry with the rock face still visible. The quarry is north facing and is cut into the hillside, with an entrance to the north.

57) SD 9811 1204 (linear)
Drain ** FW

A canalized drain which has along its length two circular, stone lined, silt collecting ponds (one at a lower level than the other). This then feeds into Readycon Dean Brook, across which the Denshaw reservoirs have been built.

58) SD 9819 1205
Extractive Site * FW

A small extractive site on south side of drain (57) has a small spoil mound facing it on the opposite side of the drain.

59) SD 9817 1209
Former Bridge ** FW

Two stone abutments together with a central stone pillar are all that remain of a narrow bridge across Readycon Dean Brook.

60) SD 9825 1219
Peggy Well House * M FW

A small square shaped structure is shown on this site on the 1822 and 1854 maps. The site is vacant on the 1895 map. There are no visible structural remains.

61) SD 98 12
Bronze Age Dagger ** SMR 212

No further information.

62) SD 98 12
Flint Axe ** SMR 5919

Butt fragment of flint axe 4.5/8" long, with its cutting edge broken in antiquity. Greyish patina. In the Tolson Museum, Huddersfield.

63) SD 9833 1231 to SD 9839 1221
Field Boundary ** AP FW

Linear field boundary, visible on the aerial photographs, nothing visible on the ground.

64) SD 9856 1219
Structures * M FW

An L-shaped structure and a rectangular structure are shown on this site on the 1895 map. The site is vacant on the modern map. An elongated platform *c* 30m long and 3m wide is visible cut into the hillside. There is brick, stone and concrete rubble visible about the site.

65) centred SD 9858 1230
Linear Boundaries ** AP FW

Two linear field boundaries crossing at right angles, visible on the aerial photographs, nothing visible on the ground..

66) SD 9856 1240
Microliths ** FW

1 flint blade and 1 other flint artefact found at this site. The site is south facing. Recovered by WPB Stonehouse.

67) SD 9867 1236
Quarry * M FW

This quarry is shown on the 1895 map. This is a circular, partially overgrown quarry, *c* 30m wide, with an entrance and track to the south-west.

68) SD 987 124
Microliths ** FW
SMR 1203 1 0

8 microliths, 5 scrapers and an unknown amount of blades and flakes found. The site is south facing. Recovered by F Buckley.

69) SD 9812 1221 to SD 9959 1302
(linear)
Boundary Ditch *** M AP FW

This represents the former county boundary separating Yorkshire and Lancashire. The western section of the boundary is a dry stone wall, but in the central and eastern sections it becomes a substantial ditched earthwork.

70) SD 9870 1250
Silt Mound * FW

A weir across a natural drainage clough with associated mounds, would appear to be a silt trap, probably related to Waterboard activity.

71) SD 9879 1249
Silt Mound * FW

A weir across a natural drainage clough with associated mounds, would appear to be a silt trap, probably related to Waterboard activity.

72) SD 9885 1260
Silt Mound * FW

A weir across a natural drainage clough with associated mounds, would appear to be a silt trap, probably related to Waterboard activity. A second mound is located further down the clough, close to the reservoir.

73) SD 9895 1253
Microliths *** FW
SMR 1203 1 4

114 microliths, 4 scrapers, 1 borer, 47 blades and flakes, 2 microburins and one other flint artefact found. The site is south facing. Recovered by F Buckley.

74) SD 9905 1260
Microliths *** FW
SMR 1203 1 1

43 microliths, 3 flint scrapers, 250 blades and flakes, 4 microburins and 5 core pieces were found at this site. The site is south facing. Recovered by F Buckley.

75) SD 9912 1263
Microliths *** FW
SMR 1203 1 3

51 microliths , 4 scrapers, 218 blades and flakes and 2 microburins found at this site. The site is south facing. Recovered by F Buckley.

76) SD 9914 1275
Microliths ** FW
SMR 1207 1 0

1 scalene triangle microlith, 1 microlith fragment, 1 flint blade or flake and 2 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

77) SD 9925 1277
Microliths ** FW
SMR 1207 1 1

2 microlith fragments, 2 flint blades or flakes a 1 piece of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

78) SD 9942 1290
Microliths ** FW
SMR 1206 1 2

1 flint blade or flake and 8 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

79) SD 9949 1298
Microliths *** FW
SMR 1206 1 3

1 scalene triangle microlith, 5 microlith fragments, 20 blades or flakes, 1 core piece and 130 pieces of debris found at this site. This is a south facing site. Recovered by M Stonehouse.

80) SD 996 129
Microliths ** FW
SMR 1204 1 0

40 microliths and an unknown amount of flint gravers, 3 blades or flakes and an unknown number of core pieces found at this site. This is a south facing site. Recovered by EV Darby.

81) SD 9959 1291
Microliths *** FW
SMR 1205 1 0

1 scalene triangle microlith, 1 pear microlith, 1 blade or flake and 13 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

82) SD 9960 1290
Microlith ** FW
SMR 1208 1 0

1 trapezoid microlith found at this site. This is a south facing site. Recovered by K Teale.

83) SD 9956 1288
Microliths *** FW
SMR 1206 1 0

2 blunted bladelet microliths, 1 pear microlith, 1 flint blade or flake and 46 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

84) SD 9949 1289
Microliths *** FW
SMR 1192 1 0

14 scalene triangle microliths, 18 fragments of microlith, 4 borers, 19 truncated blades, 3 worked blades, 4 other pieces, 8 microburins, 10 core pieces and 852 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

85) SD 9947 1283
Microliths ** FW
SMR 1207 1 5

3 flint blades or flakes, 1 core piece and 2 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

86) SD 9945 1281
Microliths *** FW
SMR 1207 1 4

6 scalene triangle microliths, 1 microlith fragment and 5 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

87) SD 9941 1280
Microliths *** FW
SMR 1207 1 3

5 flint blades or flakes and 21 pieces of debris found on this site. This is a south facing site. Recovered by WPB Stonehouse.

88) SD 9938 1279
Microliths *** FW
SMR 1207 1 2

1 blunted bladelet microlith, 1 pear microlith and 1 unclassified microlith, also 4 flint blades or flakes and 10 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

89) SD 993 127
Microliths ** FW
SMR 1203 1 3

47 microliths, 6 scrapers, an unknown amount of blades and flints and 2 microburins found at this site. This is a south facing site. Recovered by F Buckley.

90) SD 9941 1268
Microliths ** FW
SMR 1213 1 2

1 core and 7 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

91) SD 995 128
Microliths ** FW
SMR 1206 1 1

1 blunted bladelet microlith, 1 pear microlith, 1 unclassified microlith, 1 blade or flake and 66 pieces of debris found at this site. This is a south facing site. Recovered by WPB Stonehouse.

92) SD 9954 1279
Microliths *** FW
SMR 1213 1 0

1 blunted bladelet microlith, 4 flint blades or flakes and 7 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

93) SD 9962 1288
Mound * M FW

Presumably a boundary marker, this site is shown on the 1854 map. Nothing visible on the ground.

94) SD 9963 1285
Microliths *** FW
SMR 1210 1 0

1 microlith fragment, 3 flint blades or flakes, 1 microburin, 3 core pieces and 37 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

95) SD 9970 1280
Mound * M FW

Presumably a boundary marker, this site is shown on the 1854 map. Nothing visible on the ground.

96) SD 9963 1280
Microliths ** FW
SMR 1212 1 4

1 microburin and 5 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

97) SD 9949 1274
Microliths ** FW
SMR 1213 1 1

1 microlith and 4 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

98) SD 9940 1260
Microliths *** FW
SMR 1211 1 0

1 blunted bladelet microlith, 2 core pieces and 20 pieces of debris found at this site. This is a north facing site. Recovered by K Teale.

99) SD 9923 1251
Microliths ** FW
SMR 1213 1 4

2 pear microliths and 3 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

100) SD 9923 1246
Microliths ** FW
SMR 1213 1 5

1 trapezoid microlith and 2 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

101) SD 9959 1271
Microliths *** FW
SMR 1212 1 3

1 scalene triangle microlith, 2 core pieces and 13 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

102) SD 9961 1271
Microliths ** FW
SMR 1212 1 0

1 microlith fragment, 1 flint blade or flake and 5 pieces of debris found at this site. This is a north facing site. Recovered by WPB Stonehouse.

103) SD 9963 1272
Microlith ** FW
SMR 1212 1 1

1 scalene triangle microlith found at this site. Recovered by WPB Stonehouse.

104) SD 9978 1272
Mound * M FW

Presumably a boundary marker, this site is shown on the 1854 map. Nothing visible on the ground.

105) SD 9969 1265
Microliths *** FW
SMR 1212 1 2

1 microlith fragment, 2 core pieces and 21 pieces of debris found at this site. This is a slightly north facing site. Recovered by WPB Stonehouse.

106) SD 9983 1236
Sandstone Quarry * M FW

This quarry is shown on the 1851, 1895 and modern maps. This site has three main shallow quarry workings. It is grassed over and has an entrance to the south.

107) SE 001 123
Microliths ** FW
SMR 1201 1 0

3 microliths, 9 scrapers, 6 gravers, 7 truncated blocks, 9 microburins and a total of artifacts numbering 600 in all found at this site. This is a south facing site. Recovered by F Buckley.

108) SD 9985 1215
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1854 map. Nothing visible on the ground.

109) SD 9982 1211
Badger Slack ** M FW

Two small square shaped structures either side of Huddersfield Road are shown on the 1854 map.

Only the southern building is shown on the 1895 and 1908 maps. The site is vacant on the modern map. The site on the northern side of the road is discernible as a roughly square shaped building (*c* 4m by 4m), with three sides standing in stone to a height of less than 0.5m. The building on the south side of the road is a larger structure, measuring *c* 8m by 8m and its plan would appear to comprise four rooms, together with the remains of a cellar. The stone walls survive to a height of *c* 0.5-1m.

110) SD 998 121
Pebble Hammer and Flint Knife ** SMR 5927 1 0

A small quartzite pebble hammer, with hour glass perforation, 2⅔" long and 1½" wide was found by C March, late 19th century. Later a flint knife was also found in the vicinity. Both now lost.

111) SD 996 121
Microliths ** SMR 1193 1 0

6 flint blades or flakes found at this site. Recovered by EV Darby.

112) SD 9975 1261 (linear)
Field Boundary * FW

A grassed over linear mound appears to be a collapsed former dry stone wall.

113) SD 9863 1227
Sandstone Quarry * M FW

This quarry is shown on the 1854 map. It lies beneath Readycon Dean Reservoir on the 1895 map.

114) SD 9886 1240 (centre)
Readycon Dean Reservoir ** M FW

This reservoir is shown on the 1895 map. A stone lined channel runs round the northern bank of the reservoir. A valve house is located on the reservoir embankment.

115) SD 9972 1252 (linear)
Field Boundaries * FW

This is the corner of two lengths of dry stone wall which have both collapsed and are partially grassed over.

116) SD 9908 1230
Flint Finds ** FW
SMR 1202

Five pieces of debris were found. This site is north facing.

117) SD 9928 1233 (linear)
Rapes Highway ** M FW

Shown on the 1812. The eastern section of this road measures *c* 6m wide. The alignment of the road prior to the construction of Readycon Dean Reservoir can be traced to the west of the reservoir bank, it runs below the course of the present road and survives as a grassed over surface revetted into the hillside. The central section of this road is *c* 3m wide and narrows to *c* 2m wide towards its south-eastern end. At the eastern end the road is flanked by collapsed dry stone walls and has a rubble gritstone surface.

118) SD 99 12
Mesolithic Workshop ** SMR 1197

Small workshop half-way down the hill.

119) SD 9953 1199
Milepost ** FW

This mile marker on the turnpike road is composed of a cast iron plate attached to a stone base. The marker reads 'Friarmere, Huddersfield and Newhey Road - Huddersfield 11 miles, Junction 2 miles, Rochdale 8 miles'.

120) SD 9919 1210 (centre)
Extractive Sites * FW

A group of three closely grouped quarries. All are cut into the hillside and have entrances to the south-east or east.

121) SD 9917 1216 (linear)
Drain ** FW

A linear earthwork *c* 2m wide, running in a north to south direction appears to be a culverted drainage channel.

122) SD 9905 1209
Boundary Marker * FW

A boundary stone set into a dry stone wall is marked 'OCWW', marking the former Oldham Corporation Water Works landholding.

123) SD 9900 1225
Drainage ** AP

A series of drainage ditches running north-west to south-east across the top of Friar Naze End. This forms part of the water catchment for the reservoirs.

124) SD 9897 1201
Structure * M FW

A small square shaped structure is shown on this site on the 1895 and 1908 maps. This now ruined structure measures 4m by 3m The mortared stone walls still survive to roof height (single storey) in places with a door and window located in the north-eastern side. The building would formerly have had a lean to roof. There appears to be the remains of other structures to the south of the upstanding building. These remains take the form of mounds of demolition material.

125) SD 9893 1199 (linear)
Fair Spring Road * M FW

This is a broad track *c* 3m wide flanking the hillside. The south-eastern side of the road has a very tall (*c* 2m high) stone wall, which has a plinth at its base. This wall appears to be a waterboard construction. Adjacent to site **124** are two very large stone gateposts in this wall.

126) SD 9884 1192
Silt Mound * FW

A grassed over mound, probably a silt mound, associated with a weir across a drain. This weir is probably a silt trap and both features are Waterboard sites.

127) SD 9894 1178
Sandstone Quarry * M FW

This site is shown on the 1854 map. This grassed over depression appears to have an entrance curving round to the south-west.

128) SD 9925 1194
Sandstone Quarry * M FW

This site is shown on the 1854 map. This is a small quarry cut into the hillside, measuring 3-4m deep and *c* 8-10m wide.

129) SD 9921 1181 to SD 9930 1185
Linear Boundary * AP FW

Linear field boundary now a collapsed dry stone wall.

130) SD 9924 1185
Ragstone ** M FW

A building appears to be shown on this site on the 1812 map. A square shaped structure is shown on the 1822 map. A rectangular structure is shown on this site on the 1854 and 1895 maps. The site is vacant on the 1908 map. The site presently consists of a house platform partly cut into the hillside, with stone walls standing to a height of 1.5m. The building plan appears roughly square with a well/spring on the eastern side of the site. Associated outbuildings appear to be located to the south of the house, on the edge of the slope, and the walls to these buildings survive to a height of 0.5m.

131) SD 9936 1191
Flint Dagger ** SMR 8

A flint dagger, dated to the Early Bronze Age was found at Ragstone in 1924 by Mr N Gartside.

132) SD 9941 1190
Ragstones * M AP FW

This appears to be an extractive earthwork, shown on the 1854 and 1895 maps. This is a natural stone outcrop which has underdone quarrying activity. There appears to an entrance into the quarry face from the south-west.

133) SD 9907 1143
Sandstone Quarry * M FW

This site is shown on the 1854 map. This quarry is grassed over and faces towards the road (northwards) with spoil mounds to the front.

134) SD 9913 1148
Silt Trap * FW

A canalized channel with silt trap and timber sluice gate.

135) SD 9905 1162
Silt Mound * FW

A large silt mound on the south side of Dowry Water is associated with a weir across the watercourse, serving as a silt trap. The feature is likely to be part of the Waterboard works.

136) SD 9910 1160 (centre)
Drainage Channels ** FW

A series of deeply cut drainage channels running north-east to south-west. These are probably associated with the Waterboard works.

137) SD 9940 1180
Extraction Site * FW

Small grassed over workings presumably sandstone quarries, facing northwards towards the road. Some drains have been cut through the old workings.

138) SD 9931 1137
Silt Mound * AP FW

A grassed over mound adjacent to a major drainage channel, probably represents a silt mound associated with a silt trap across the drain. As such it is probably a waterboard related site.

139) SD 9901 1129
Earthwork * AP FW

Small mound *c* 10m in diameter, origin unknown. Composed of shale and mudstone, with the appearance of being a spoil mound. A smaller version of site **141**.

140) SD 9904 1125
Earthwork * AP FW

Small mound *c* 10m in diameter, associated with Dowry Castle (**141**) immediately to the south.

141) SD 9905 1123
Dowry Castle ** M AP FW

This place name is shown on the 1812 and 1854 maps and is shown with an earthwork. This is a large, conical mound *c* 20m to 30m in diameter. It is composed of a large deposit of shale or mud stone and has the appearance of a spoil mound from some extractive industry possibly coal mining. It is too unstable and small for a structure to be sited on it. Some peat development on north and east aspects of the mound.

142) SD 9910 1119
Earthwork * AP FW

Small mound *c* 10m in diameter, origin unknown. Similar in composition to site **141** but smaller.

143) SD 9912 1133 (centre)
Drainage ** FW

A series of parallel drainage ditches running north-east to south-west and forming part of the water catchment for the reservoirs.

144) SD 9940 1090 (Linear)
Possible Boundaries * FW

Grassed over collapsed dry stone walls, possible ditch on the eastern side.

145) SD 9925 1082
Extractive Sites * FW

Several shallow extraction sites, probably quarries, partially grassed over.

146) SD 9931 1074
Extraction Site * FW

Small shallow grassed over quarry.

147) SD 9955 1093 (centre)
Drainage ** FW

A series of parallel drainage ditches running south-west to north-east and form part of the water catchment for the reservoirs.

148) SD 9960 1095
Extraction Site * FW

Shallow grassed over quarry workings.

149) SD 9948 1176
Flint Core ** FW

One flint core was found. This is a slightly north facing site. Recovered by WPB Stonehouse.

150) SD 9980 1123
Microliths ** FW
SMR 1195 1 0

Nine flints, including blades and flakes, were found. This site is slightly south facing. Recovered by WPB Stonehouse.

151) SE 0000 1106
Quarry * M FW

A quarry with a small square structure to the east is shown on this site on the 1895 map. The site of the structure is vacant on the 1908 map. The quarry appears to have been subsumed by the larger Foxstone Rocks.

152) SD 9980 1100
Trackway * FW

Road way, gravelled 3-4m wide, appears cut into the heath land, curving round back of large quarry, may be associated with quarry or silt traps at the rear.

153) SE 000 110
Neolithic Axe ** SMR 1121

Polished stone axe found in March 1887 and given to a private collector. It is described as being 7" long and 2" wide and in nearly perfect condition. It has flattened edges, highly polished, but a piece was broken off at the end when it was found.

154) SD 9995 1098
Foxstone Rocks ** M AP FW

This appears to be an extractive earthwork, shown on the 1851, 1895 and 1908 maps. This is a large quarry, with exposed rock face. The quarry is accessed from the west.

155) SE 0005 1106 to SE 0010 1095
Linear Earthwork * AP FW

Linear earthwork running down in to Cudworth Clough, visible on the aerial photographs. Appears to be a drain with possible weirs.

156) SE 0036 1050
Silt Trap * FW

Silt trap with associated mound of debris taken from the trap.

157) centred SE 0030 1040
Earthworks * AP FW

Complex of earthwork boundaries and trackways on Oaken Hill at the centre of which is a small walled enclosure. These are collapsed dry stone walls, possible paddock to site 159.

158) SE 0040 1040 (linear)
Trackway * FW

Sunken track way 5m wide. Passes through a field boundary at eastern side and turns south. The field boundary gate has been reduced in size to a single track. To the western end, as it approaches Oaken Hill Lee, it becomes shallower.

159) SE 0032 1037
Oaken Hill Lee ** M FW

A T-shaped structure is shown on this site on the 1822 map. This building and two rectilinear structures are shown on the 1854 and 1895 maps. The site is vacant on the 1906 map. Some evidence of a square planned building with four rooms and a cellar in evidence. Mainly rubble with some walls surviving to a height of 2m, composed of mortared rubble stone.

160) SE 0010 0106 (linear)
Drain * FW

Curving watercourse or drain.

161) SD 9999 1027 to SE 0012 1024
Linear Boundary * AP FW

Linear boundary, visible on the aerial photographs. This is a grassed over collapsed dry stone wall 1-2m wide, ditched north side.

162) SD 9996 1021 to SE 0012 1006
Linear Boundary * AP FW

Linear boundary, visible on the aerial photographs. This is a drainage channel or watercourse, very steep up to 5m wide with possible remains of dry stone wall.

163) SE 0006 1005 (linear)
Boundary ** FW

North to south earthen linear boundary similar in shape and construction to boundaries on opposite shore of Castleshaw Upper Reservoir (293).

164) SE 0004 1006
Extractive site * FW

Circular extractive site which is probably a quarry, although the shape of the depression is similar to that of a bell pit.

165) SD 9996 1012
Oaken Hill * M FW

An L-shaped building is shown on this site on the 1822 map. This building is more irregular shaped on the 1854 map. The site is vacant on the 1895 map. No structural remains are visible.

166) SD 9998 1029
Slag Spoil Mound *** SMR 5578/1/2

A small area of slag, mainly grass covered, and exposed in section beside a footpath adjacent to the boundary wall on the north-east corner of Castleshaw Upper Reservoir. Appears to contain mainly tap slag. The level of disturbance from the reservoir construction is undetermined. This slag spoil may be associated with an iron smelting furnace of late medieval date, similar to that revealed beside Spa Clough.

167) SD 9987 1037
Spa Clough Iron Furnaces *** SMR 5578

Remains of slag spoil mound, the site of two late medieval smelting furnaces excavated in 1993 by N Redhead (Greater Manchester Archaeological Unit).

168) SD 9983 1029 to SD 9985 1097
Linear Earthwork ** AP FW

Linear earthwork forming a trackway running up the side of Cudworth Pasture to a quarry complex. This measures 3.5-4m wide with ditch and bank on the west side, with a rough stone surface. This was a gravity controlled tramway used during the construction of the reservoir (N Redhead pers comm).

169) SD 9971 1041(linear)
Ditch ** FW

Curved ditch 0.5-1m wide.

170) SD 9970 1032 (linear)
Ditch ** FW

Curved ditch or water course, 2-2.5m wide crossed by a rubble stone bridge.

171) SD 9970 1052
Cudworth Pastures Iron Furnace Site *** SMR 5578

Local poet and antiquarian Ammon Wrigley first discovered remains of iron working in the Castleshaw valley in 1907 when he located and excavated a furnace base on Cudworth Pastures. The site was re-excavated by N Redhead (GMAU) in 1994. The site, of late medieval origin, comprised a furnace, slag collecting pit, ore roasting bed and a large slag spoil heap (which is still visible as a grass covered mound).

172) SD 9970 1052
Flint Finds **

A waste flint and a scraper, translucent dark grey, possibly of Bronze Age date were recovered during excavation of the iron furnace site.

173) SD 9951 1018
Broadhead *** M FW
SMR 325
Listed Grade II

Listed Building Description:

'House. Late C18. Hammer-dressed watershot stone with graduated stone slate roof. Single-depth plan with 2 storeys and 3 bays; a small parallel range to rear left and a C20 garage to left. Bay 1 has quoins, door to right with dressed surround and 5 and 6-light recessed flat-faced stone mullion windows with king mullions. Bays 2 and 3, probably of a slightly later build, have a central door with dressed surround flanked by 3 and 2-light windows (as above) on each floor. Gable chimney stacks. 2-light gable end windows.'

Three structures: L-shaped, T-shaped and a large irregular structure are shown on the 1822 map. Similar shaped structures and what appears to be a long rectangular structure to the east, shown on the 1854 map. On the 1895 map a rectangular structure and an L-shaped structure are still shown on this site and appear to represent one and part of another of the earlier buildings. One of these buildings appears to be still shown on the 1906 and modern maps.

174) centred SD 9950 1030
Ridge and Furrow ** AP FW

A large area of earthworks relating to agricultural terraces defined by banks forming four fields. Shallow earthworks 3m wide, presumed cultivation ridges because they are cut by later drainage channels running at right angles. Nothing visible in section of drain. Appear also as vegetation marks.

175) SD 995 102
Ridge and Furrow ** FW

A series of possible plough ridges are situated to the rear of Broadhead. These are quite narrow *c* 1-2m and run in approximately a north to south direction.

176) SD 9930 1010 (linear)
Field Boundary * FW

Grassed over dry stone wall, adjacent to a small clough, the wall is curved.

177) SD 9930 1019 to SD 9940 1022
Linear Earthwork * AP FW

Terraced trackway 2-2.5m wide, begins to disintegrate to the western end. Possible revetment. It runs to the western field boundary and stops, not appearing on the far side or appearing to go either upwards or downwards.

178) SD 9913 1030
Extractive Site * AP FW

Extractive site, probably a quarry. Stone quarry, spoil in evidence, entrance to the south west.

179) SD 9914 1033 to SD 9920 1039
Linear Boundary ** AP FW

Linear field boundary, probably a wall. Substantial earthen bank up to 1m high, 2-3m wide. North western side has probable ditch. The feature becomes vague running north east and possibly meets field boundary further along.

180) SD 9918 1036
Extractive Site * AP FW

Extractive site, probably a series of small quarries. Small scoops probably 2-3 quarries, one quarry cuts 181.

181) centred SD 9918 1038
Cropmark ** AP FW

Subrectangular cropmark with curved corners and two gaps, one on its northern side and one on its southern side. Lies on the crest of Broadhead Noddle. Size is difficult to estimate without plotting at 1:2500 but appears to be *c* 50m square. Origin unknown. Does not appear to exist, either seeing turbary cuts, or differential peat growth. South east side is too steep, and north west side has development of blanket peat growth. A second visit failed to show any further evidence.

182) SD 9913 1042
Earthwork ** AP FW

Small mound, *c* 5m in diameter, origin unknown. Nothing visible, more likely difference represented by vegetation change and/or differential peat growth.

183) SD 9914 1049
Extractive Site * AP FW

Small quarry with 3 - 4 centres.

184) SD 9952 1057 (linear)
Trackway? * AP

A linear earthwork climbing the hillside obliquely appears to be a trackway.

185) SD 9910 1040 (linear)
Moor Lane ** M FW

Shown on the 1822 map. Trackway 7- 8m wide flanked by dry stone walls, south-east side remains intact, north-west side has mainly collapsed.

186) SD 9949 1070
Silt trap * FW

A stone weir across a canalized clough forms a silt trap.

187) SD 9972 1091
Mound * FW

Peat covered mound, probably geological, perhaps a small area of landslip.

188) SD 9976 1090 (linear)
Trackway ** FW

Curved branch of the main tramway/routeway (168), which divides from the main earthwork towards the northern end.

189) SD 9983 1099
Structure * FW

Traces of mortared stone and concrete suggest that there may have been some structure, perhaps associated with the quarry sites.

190) SD 9985 1099
Structure * FW

A dry stone retaining wall or revetment adjacent to a canalised drain. It appears that the wall may have formed an abutment for a bridge carrying a track across the drain.

191) SD 9985 1100
Silt Trap * FW

Silt traps with associated silt mounds at northern end of canalised drain.

192) centred SD 9935 1060
Linear Earthworks ** AP FW

A series of drains. Confirmed by fieldwalking.

193) SD 9923 1055
Stone Head ** FW
SMR 9011

A rectangular stone pillar gatepost with head carved on it in recent times. Now damaged.

194) SD 99 10
Stone Head ** SMR 9010

'From a broken field gate' (a gatepost?). Could be Delph Figure in Castleshaw area which was later broken.

195) SD 9928 1062
Extractive Site * FW

A shallow probable quarry with associated spoil mounds.

196) SD 9919 1073 (linear)
Drain ** FW

A canalized and partly culverted drain, which towards its eastern end has a weir, probably a silt trap.

197) SD 9915 1077 (linear)
Track? * FW

Although marked on the modern map as a drain this appears to be a sunken track. It measures *c* 3m wide with a possible grassed over dry stone wall on the south-west side. The feature narrows towards the northern end.

198) SD 9895 1104
Boundary Stone * FW

A boundary stone set into a partially collapsed dry stone wall is marked 'OCWW', marking the former Oldham Corporation Water Works landholding.

199) SD 9868 1113
Extractive Site * FW

A large extractive site, probably a quarry, cut into the hillside and measuring *c* 4-5m deep.

200) SD 9861 1106
Extractive Site * FW

An elongated extractive site, probably a quarry, cut into the hillside.

201) SD 9920 1004 (linear)
Field Boundary ** FW

A hedged earthen linear mound, possibly represents an early pre-stone wall field boundary. It appears to enclose a possible paddock area to the rear of Low Bank.

202) SD 9899 1015
Low Gate * M FW

An L-shaped structure and a square shaped structure are shown on this site on the 1822 map. A single large irregular building is shown on the 1854 and 1895 maps. The site is vacant on the 1906 map. The building plan is still visible, some drystone walling survives to a height of 2m in places.

203) SD 9899 1015 (linear)
Low Gate Lane ** M FW

Shown on 1822 map. Sunken way 4m wide flanked by dry stone walls, runs from Ox Hey Lane/Moor Lane crossroads south-eastward.

204) centred SD 9893 1010
Earthworks ** AP FW

Field full of narrow earthwork terraces, possibly the result of cultivation but this is unclear. Land is improved pasture, with some ridges visible, 3m wide. May represent ridge and furrow although could also be drainage.

205) SD 9869 0994 to SD 9885 1016
Linear Boundary * AP FW

Linear field boundary, visible on the aerial photographs. This is a small, barely visible mound, difficult to suggest origin.

206) SD 9890 1020
Structure * M FW

A rectangular structure in the angle of two lanes is shown on the 1895 map. The outline of the property is shown on the 1906 map, but no buildings appear to be standing. There are no visible structural remains.

207) SD 9872 1022 to SD 9876 1035
Linear Boundary * AP FW

Linear field boundary, probably a wall. Collapsed, grassed over dry stone wall.

208) SD 9870 1046 to SD 9891 1028
Linear Boundary * AP FW

Linear boundary, probably a ditch. Forms part of or links to 210.

209) SD 9873 1053 to SD 9901 1035
Linear Boundary * AP FW

Linear boundary, probably a ditch. Double ditch with standing dry stone wall between.

210) SD 9881 1048
Field Boundaries ** FW

A small group of collapsed dry stone walls, forming a small enclosure, may represent a former farmstead site.

211) SD 9881 1055
Clarke Hey ** M FW

A rectangular structure is shown on this site on the 1822 and 1854 maps. On the earlier map the site is called 'Ox Hey'. The site is vacant on the 1895 map. The site appears only as a platform, with no rubble or debris.

212) SD 9861 1072
Ashler Knoll ** M FW

An L-shaped structure is shown on the 1822 map when the site is called 'Knowl'. A similar shaped structure is shown on the 1854 map, when the site is called 'Ashler Knoll'. The site is vacant on the 1895 map. Nothing visible on the ground, uneven mounds suggests former location of site.

213) centred SD 9873 1089
Extractive Sites * AP FW

Two extractive sites, probably a quarry. Several varying sized quarries, with 2 or 3 centres and associated spoil mounds.

214) SD 9867 1093
Extractive Site * AP FW

Extractive site, probably a quarry. Now grassed over.

215) SD 9868 1090 (linear)
Field Boundary * FW

This is a partially collapsed dry stone wall. There is a bank and ditch on the north-eastern side of this wall, which may represent an earlier boundary. The ditch diverges from the wall alignment at its northern end.

216) SD 9843 1077 (linear)
Turnpike road ** M FW

Shown on the 1812 map, this turnpike road was managed by the Huddersfield and New Hey Trust. With the construction of New Years Bridge Reservoir the road was diverted to the western side of the reservoir and carried across the embankment of Dowry Reservoir. To the west of New Years Bridge Reservoir the course of the earlier alignment can still be traced further down the hill side than the present road, where it is terraced into the hill and measures *c* 8m wide. The road can also be traced emerging from the reservoir on its eastern side where it survives as a grassed over track, *c* 10m wide and is partly cut into the hillside. Slag deposits were observed by the roadside close to the shoreline of the reservoir.

217) SD 9856 1071
Structure FW

A slightly sunken circular stone structure. Composed of three stone courses and *c* 0.5m deep. A cast iron pipe projects from the centre of the base and there is evidence for a former fence with iron supports. The function of this structure is unclear although it may well be a Waterboard structure, perhaps of 19th or early 20th century date.

218) SD 9848 1070
Extractive site * FW

A semi-circular earthwork, adjacent to a probable spoil mound. The mound measures *c* 4-5m in diameter and 1m high.

219) SD 9858 1044
Lower Slack ** M FW

A rectangular structure is shown on this site on the 1822, 1851, 1895 and 1906 maps. On the earlier map the site is called 'Ox Hey', but by 1854 was referred to as 'Lower Slack'. Survives only as small piles of brick and stone rubble.

220) SD 9846 1047 to SD 9853 1026
Linear Boundary * AP FW

Linear field boundary, probably a wall. Collapsed and partially grassed over drystone wall.

221) SD 9844 1040 (centre)
Field Boundaries * FW

This field is bounded on all sides by collapsed dry stone walls

222) SD 9845 1033 (linear)
Track * FW

This trackway, which links farmstead sites, measures *c* 3m wide and is grassed over.

223) SD 9837 1029
Structure * M FW

A rectangular structure is shown on this site on the 1822, 1851, 1895 and 1906 maps. The site is vacant on the modern map. Only a platform survives. No evidence of any rubble or structures. A collapsed dry stone wall lies to the west of this site.

224) SD 9848 1024
Structure ** M FW

A rectangular building is shown on this site on the 1822 map. This structure has an irregular shape on the 1851, 1895 and 1906 maps. The site is vacant on the modern map. Some evidence of the structure is still visible. The walls survive upstanding to a height of 2m, mainly dry stoned with some mortar. A plan of at least four rooms in a rectangular arrangement is discernible amid the rubble. A partially collapsed dry stone wall projects to the south.

225) SD 9860 1006
Extractive Site * AP FW

Large extractive site, probably a series of quarries. Very large quarry and associated spoil, with some evidence of other extraction sites with modern infill or land reclamation to the south east.

226) SD 9866 1016
Sandstone Quarry * M AP FW

This site is shown on the 1854 map. This quarry is shown as an earthwork together with a smaller one to the south on the 1895 map. On the 1906 map four extractive features are shown: an elongated bank or ditch to the north, running perpendicular to Ox Hey Lane and three semi-circular features to the south. This is a large grassed over quarry, with an entrance to the north.

227) SD 9928 0998
Low Bank *** M FW
SMR 1109
Listed Grade II

Listed Building Description:

'House. Late C18 with later alterations and C20 additions. Hammer-dressed stone with graduated stone slate roof. Total of 5 bays and 2 storeys. Bays 2 and 3 form the original house having quoins, a 4-light and 3-light recessed flat-faced mullion ground floor window, a 3-light double-chamfered mullion window on the first floor and a later window opening. The bay to left is of a later date, has 3 and 2 (ground floor) and 10-light (first floor) recessed flat-faced mullion windows, a lean-to conservatory and 2-light gable windows. Bay 4 has a door with square cut surround and bay 5 is a C20 addition. 2 ridge chimney stacks. C20 openings to rear. Included for group value.'

An irregular shaped building and a rectangular building, *c* 20m apart, are shown on the 1822, 1851, 1895 and 1906 maps. Both buildings appear to be still shown on the modern map.

228) SD 9942 0995
Trackway * FW

Small grassed over track *c* 2m wide, cuts 232, running north-east to south-west.

229) SD 9941 0992
Ridding ** M FW

An irregular shaped structure is shown on this site on the 1822 and 1854 maps. On the 1895 map the building is more rectangular in plan. The site is vacant on the 1906 map. Visible only as a flat platform, no visible structural remains.

230) SD 9952 0996
Pump House ** M FW

Single story rectangular structure of rock-faced gritstone. Flat roofed with an ashlar parapet, string course and plinth. Southern elevation has a rectangular extruded chimney and commemorative plaque. West elevation has three semi-circular headed windows, now blocked, with an ashlar sill. North elevation has two similar windows, east elevation also has two similar windows and a door in similar style.

Situated to the north is a circular structure 6-7 m in diameter and 2m deep. Of hammer dressed gritstone with a semi-circular capping stone. The centre contains a cast iron machine head, with an associated cast iron pipe and ladder.

231) SD 9933 1000 to SD 9950 0994
Earthwork ** AP FW

Hollow way *c* 4m in width running north-west to south-east. Visible on the ground as sunken track way running from Low Bank farm to the reservoir.

232) centred SD 9946 1006
Ridge and Furrow ** AP FW

An area of linear earthworks are visible on the aerial photographs and appear to represent ridge and furrow. These features are defined on the eastern and western sides by banks. Visible on the ground only as two linear earthworks, presumed boundaries, both cut by a trackway (228).

233) SD 995 098
Clapper Bridge * FW

A clapper bridge reportedly crossing the main water feed into Castleshaw Lower Reservoir (F Schofield pers.comm.) was not observed despite the low water level.

234) centred SD 9937 0979
Ridge and Furrow ** AP FW

Cultivation terraces defined by banks to the north and east. 3m wide ridges visible, truncated by the reservoir. Less visible north and west areas.

235) SD 9925 0977 to SD 9931 0980
Trackway * AP FW

Linear earthwork visible on aerial photographs is a grassed over trackway.

236) SD 9923 0986
Wood *** M FW
SMR 1110
Listed Grade II

Listed Building Description:

'Farmhouse and barns. Mid C18 but largely rebuilt including and early C19 facade and C19 barns (one of 1896). Ashlar and hammer- dressed stone with graduated stone slate roof. Double-depth central-entrance plan with 2 storeys and barns to either side. Symmetrical facade with projecting plinth, raised quoins, square eaves gutter brackets and gable chimney stacks. Central door with fanlight, keystone, archivolt and enriched panel above a moulded hood. 4 ground floor and 5 first floor windows with square-cut surrounds and continuous sill bands and C20 casements. The window above the door has an enriched lintel and cornice. Semi-circular- headed gable window. 2 and 3-light double chamfered cavetto- moulded mullion windows to rear (which has been largely rebuilt in C20) and gables, some of which are blocked. Segmental and elliptical-arched cart entries to barns on each side. Datestone of 1773 is reused from elsewhere.'

An irregular shaped building and an L-shaped building are shown on this site on the 1822 map. An irregular shaped structure which possibly includes both of the earlier structures is shown on the 1851, 1895 and 1906 maps. The building appears to be still shown on the modern map.

237) SD 9914 0989
Wood Top ** M FW

An elongated rectangular structure is shown on this site on the 1822, 1854 and 1895 maps. The outline of the property but with no apparent standing buildings is shown on the 1906 map. There are no visible standing remains, although the site is recognisable as a platform. To the north of this platform a cobbled path over a drain runs down to Wood Farm. The west side of building has become incorporated into the dry stone walls that flank the lane running north-east to south-west.

238) SD 9918 0975
Wood Green *** M FW
SMR 1111
Listed Grade II

Listed Building Description:

'Farmhouse and adjoining barn. Mid C18 but with later alterations. Hammer-dressed watershot stone with graduated stone slate roof. Double-depth 2-storey plan with 2 bays and barn to right. Quoins. 3 and 5-light recessed flat-faced stone mullion ground floor windows and 7-light first floor. Gable chimney stacks. 2 and 3-light gable windows. The entrance is adjacent to the house in the adjoining barn: doors at front and rear have chamfered surrounds. The barn has a blocked cart entry and other openings to the gable. The rear displays openings of the earlier date in the form of 2, 3 and 5-light double-chamfered cavetto-moulded windows. Blocked taking-in door.'

A U-shaped structure is shown on this site on the 1822 map. This building is rectangular in shape on the 1851, 1895 and 1906 maps. On the later map the site is called 'Wood Barn'. The same building appears to be shown on the modern map.

239) SD 9902 0971
Banks * M FW

A rectangular shaped structure is shown on this site on the 1822 map. This and a second rectangular structure are shown on the 1854 map. On the 1895 map one of these buildings is L-shaped and the site of the second building is

vacant. The site is vacant on the 1906 map. There is nothing visible on the ground.

240) SD 9907 0964
Ruin * M FW

This description is given to a site on the 1854 map. The site is vacant on the 1895 map. There are no structural remains visible on the ground, although a possible house platform is discernible. A track to the west is still visible.

241) SD 9923 0964
Pond ** M FW

This site appears on the modern map as an irregular shaped, water filled pond within a rectangular enclosure. It survives as a grassed over earthwork. There is a channel from this feature into Castleshaw Lower Reservoir and the pond was presumably some form of header reserve for the main reservoir.

242) SD 9913 0958
Works * M FW

Described as 'Works' on the modern map this site is shown as a flattened T-shaped structure, terraced into the hillside and surrounded by a wooded enclosure. The enclosure and terraced platform are still visible but there are no structural remains. A second smaller structure is shown on the opposite side of the track and there are no visible remains of this site. Both sites are likely to be associated with Waterboard activity.

243) SD 9905 0948
Field Boundary * FW

Former dry stone wall, now collapsed and partially grassed over.

244) SD 9901 0944
Moor Croft Wood ** M FW

A rectangular structure and an L-shaped structure, *c* 40m apart are shown on this site on the 1822, 1854 and 1895 maps. The site is vacant on the 1906 map. Nothing remains on the ground, except two terraces that suggest where structures had been.

245) SD 9895 0949
Structures ** FW

Two possible structural sites and an associated trackway. One site consists of a small levelled platform cut into hillside, on the west of the track. The second site, further up the hillside and on the east of the track is represented by a low stone wall and a platform.

246) SD 9893 0949
Extraction Site ** FW

Steep bank has been roughly revetted with stone, adjacent to two possible bell pits. One pit is 8m in diameter with a circular spoil mound, the other is similar in size, but has a semi-circular spoil mound.

247) SD 9877 0945 to SD 9887 0964
Linear Earthwork ** AP FW

Large linear earthwork, probably a bank for an earlier field system.

248) centred SD 9890 0980
Area of Landslip AP FW
Earthworks ***

Large area of earthworks the result of ancient landslipping, covering 0.25km square.

249) SD 9886 0960 (linear)
Trackway * FW

A roughly made track with a crushed gritstone surface.

250) SD 9875 0967
Extraction Site ** FW

Probable bell pits 8-10m diameter, 2m deep.

251) SD 9873 0969
Extraction Site * FW

What appears to be a grassed over quarry with an entrance to the north-east.

252) SD 9920 0920
Johnny Mill ** M FW

A rectangular structure and a reservoir are shown on this site on the 1822 and 1854 maps when the site is referred to as a woollen mill. On the 1895 map this building together with two other rectilinear structures are shown on the site. The site of the buildings is vacant on the 1906 map but the reservoir survives. No structures survive on the ground, the stream has been canalized using dressed stone. Reservoir is still water filled although the south-east corner has been breached and rebuilt. Inflow is from a stream to the west and originally overflowed at north end, now blocked.

253) SD 9913 0940
Moor Croft Wood Mill ** M FW

A square shaped structure at the north-eastern end of an irregular shaped reservoir/pond is shown on this site on the 1822 and 1854 maps. On the 1895 map the site of the building is vacant but the reservoir survives. The reservoir is embanked on three sides. Two inflow streams from the west and the out flow was from a cast iron pipe in north-east corner. Nothing of the mill structure is visible.

254) SD 9932 0966 (linear)
Trackway * FW

Remains of cobbled road similar in construction to 255. Shown on 1854 map joining 255. This road is also seen in section in the bank forming the edge of reservoir. Identified at low water level within reservoir.

255) SD 9933 0971(linear)
Trackway * FW

Kerbed trackway with a large pebbled surface. Present on 1854 map linking Wood Farm with Wood Mill. The road has been washed away towards the water's edge and it is clear that slag fragments have been used in its construction. This would normally be underwater.

256) SD 9935 0972(linear)
Wall/Track * FW

North of kerbed track (255), a wall footing or track leading into the reservoir.

257) SD 9939 0973 (linear)
Field Boundary * FW

Substantial dry stone wall remnants, shown on the 1854 map.

258) SD 9939 0972 (linear)
Field Boundary? * FW

Single width laid stones, perhaps for a wall? They form a line running parallel with and *c* 10m to the south of 257. The line curves at the western end towards 257.

259) SD 9939 0971 (centre)
Slag Remains ** FW

Concentration of slag including tap and furnace types similar to medieval smelting slag encountered in excavations at Spa Clough (167). The slag extends *c* 70m along shore line and, although it has been washed up by wave action, its dense concentration here strongly suggests the siting of a furnace in the near vicinity. Pieces of coal and molten glass fragments were also found along this section.

260) SD 9944 0978
Track * FW

Stones laid on edge, running north to south. Remains of track shown on 1854 map linking Wood Mill with Ridding Farm.

261) SD 9954 0986
Roadway * FW

Remains of road. Higher level than 262 but similar material and possibly a continuation going up on the west side of stream to link with the hollow way. Identified at low water level within reservoir.

262) SD 9954 0983
Roadway * FW

Remains of road seen in side of stream channel and buried by *c* 0.5m of soil/silt. Could be early road surface running up to hollow way (231). On 1854 there is a track continuing the line of Cote Lane northwards from the junction with Dirty Lane. This may be remnants of that road, however, the rounded cobble stones in the stream section seem too substantial for a mere track. The section shows metalling *c* 0.4m deep and a concave profile. The direction of the road can only be inferred. Identified at low water level within reservoir.

263) SD 9952 0983
Roadway? * FW

Cobbling with some very large boulders running north-east to south-west on north side of stream an possibly related to 262.

264) SD9953 0983(linear)
Wall * FW

A single line of stones are situated in the silts of the reservoir bed (normally underwater). The wall extends about 20m south-east before turning to the south-west. It appears to represent the line of an earlier, pre-reservoir, field boundary, shown on the 1854 map.

265) SD 9950 0977 (linear)
Track * FW

Remains of track comprising angular, flat gritstone and shown on the 1854 map. Some large

stones mark the edge. Runs close to and parallel to stream.

266) SD 9940 0972
Wood Mill * M FW

Two large irregular shaped buildings and two associated reservoirs are shown on this site on the 1822 and 1854 map, when the site is referred to as a woollen mill. On the 1895 map the site lies beneath Castleshaw Lower Reservoir. Although the water level in the reservoir was very low at the time of field walking nothing was visible on the ground.

267) SD 9940 0945 (centre)
Castleshaw Lower M FW
Reservoir **

This reservoir is shown on the 1895 map. On the 1906 map the reservoir is shown as being owned by Oldham Corporation Water Works. A valve house is located on the eastern embankment. An outflow channel is located on the south-west side of the reservoir takes water back into Hull Brook and a single storey gritstone structure lies adjacent to this channel and appears to be a sluice control structure.

268) SD 9930 0950
Field Boundary * FW

Line of stones set on edge running north-west to south-east close to reservoir dam embankment and present as a field boundary on the 1854 map.

269) SD 9939 0923 (linear)
Field Boundaries * FW

This is the junction of two former dry stone walls which have collapsed and are now partially grassed over.

270) SD 9960 0926
Waters Mill ** M FW

An L-shaped structure with reservoir to the south is shown on the 1822, 1854 and 1895 maps. On the earlier map the site is referred to as a woollen mill. The site of the building is vacant on the 1906 map, although the reservoir survives. The mill pond is still visible, but no longer water filled. Originally fed from the north it is embanked on three sides. The mill site is only visible as a pit *c* 10m below the pond, which is now partially filled with modern debris. A culverted overflow channel taking water back into Waters Clough is situated at the south-western end of the pond.

271) SD 9965 0926(linear)
Trackway * FW

Rough track, 2m wide, passes between mill site and mill pond, in an east to west direction. Possibly modern as it cuts existing field boundary.

272) SD 9948 0923
Structures * FW

Remains of a stone mortared building, not shown on any maps consulted. In places the walls survive to a height of 1m. In plan approximately 9m square with a small annex on the eastern side. South-west of this building footings of a possible barn or outbuilding *c* 7m by 20m.

273) SD 994 092
Drainage * FW

Linear earthworks, probably drainage running east to west and possibly associated with building (272).

274) SD 9956 0912
Water Cote ** M FW

A rectangular structure is shown on this site on the 1822, 1851, 1895 and 1906 maps. On the later two maps the site has been renamed Liftrey Dyke. The building now forms part of Castleshaw Camp School. The building is a two storey structure, constructed in watershot, hammer dressed gritstone. It has a graduated stone slate roof and ridge and gable chimneys. The doors and windows have square cut stone surrounds. All of the windows are sash. Additional constructional phases include a cross-wing at the southern end and additional modern brick structures to north and rear.

275) SD 9958 0910 (linear)
Trackway *** FW

A cobbled track, grassed over in places, runs in a south-west to north-east direction on the eastern side of a boundary wall by Castleshaw Camp School. The track can only be traced for a short distance. Its alignment corresponds with the boundary between Friarmere and Lordsmere.

276) SD 9980 0920
Waters ** M FW

An irregular shaped structure, an L-shaped structure and a rectangular structure are shown on this site on the 1822 map. The irregular shaped structure and rectangular structure are shown on this site on the 1851, 1895 and 1906 maps. Only a

small square structure is still shown on the modern map. Only a patch of differential vegetation and rubble remain.

277) SD 9963 0943
Castle Hill Cote *** M FW
SMR 5561
Listed Grade II

Listed Building Description:

'House. '1715 FSLS' (Francis and Lydia Scholfield) on door lintel. Dressed stone with slate roof. 2 bays and 2 storeys. Projecting plinth. 3 and 6-light recessed cavetto-moulded ground floor windows and 3 and 5-light on the first floor. C20 porch to left gable. Lean-to extension to rear. 2-light gable windows. Gable chimney stack.'

A group of five rectilinear shaped structures are shown on this site on the 1822 and 1854 maps. Three of these buildings are still shown on the 1895 map. Two of these buildings are shown on the 1906 map. Only the house now survives, although platforms to the south and on the opposite side of the lane probably represent the position of the other buildings formerly on the site.

278) SD 9949 0941
Brick Spread * FW

Bricks forming rectangular flat surface. Brick and coal debris surround this feature and there are two vertical wooden stakes. Some Victorian pot sherds. Bricks crude and hand made locally. Identified at low water level within reservoir.

279) SD 9951 0947
Cobble Spread * FW

Spread of large cobble stones in circle *c* 3m diameter. Forms slight raised mound. No mortar evident. Identified at low water level within reservoir.

280) SD 9953 0951 (linear)
Track * FW

Small cobbles forming track. Revetted with large grit stones on west side. Possibly a reservoir construction road. Identified at low water level within reservoir.

281) SD 9949 0957
Post Holes * FW

A group of circular post holes, with a maximum diameter of 0.3m, filled with iron stained mid to dark orange silty clay. Cut into soft sand and grit. No finds. Function unclear. The post holes extended in a narrow band for *c* 0.4m. At the north end was a linear slot *c* 4-5m long and 0.5m wide cut into natural hard grey shale/clay. It was filled with dark grey silt clay and loose shale. No finds. Ran south-east to north-west. Identified at low water level within reservoir.

282) SD 9956 0967
Marld Earth Nook ** M FW

An elongated U-shaped building is shown on this site on the 1822, 1851, 1895 and 1906 maps. A very small square shaped structure is the only building shown on the site on the modern map. An L-shaped gritstone barn, watershot with quoined corners and a modern graduated stone slate roof. South side has a centrally placed barn door with quoined surround and a single stone lintel, door placed to the left with stone surround and blocked. Right hand side has two periods of rebuild. West gable is watershot with three high roof vents with a lean to addition on north-west corner. North side of lean to has a small blocked door and window, with stone surround and lintel. North face has single blocked opening half buried. East gable majority random course with single-central opening, with squared stone surround (hayloft opening).

283) SD 9970 0967 (linear)
Field Boundary ** M FW

Linear boundary formed by a 1m high lynchet, topped by a collapsed grassed over dry stone wall.

284) SD 9970 0957 (linear)
Field Boundary * M FW

Linear boundary formed by collapsed, grassed over, dry stone wall.

285) SD 9975 0950 (linear)
Dry Croft Lane ** M FW

Only the eastern end of the lane is shown as a routeway on the 1822 map. On the 1854 map a similar length of routeway is shown, but with a footpath extending the line of the lane towards Castle Hill Cote. At its western end the line of the route is composed of a raised earth bank, 3m wide. Towards the Roman fort it becomes ditched, initially on north-west side only and then both sides. It actually occupies the southern ditch of the Roman forts for most of its eastern half.

286) SD 9961 0980
Extractive Site * AP FW

Extractive site, probably a quarry is visible on the aerial photographs. On the ground the site appears as a patch of varied vegetation. Possibly natural feature, or possibly a backfilled feature. Feature unknown. Small extractive site.

287) SD 9964 0995
Broadhead Mill * M FW

An L-shaped building with a pond/reservoir to the east is shown on this site on the 1822 and 1854 maps. This site is described as a woollen mill on this map. On the 1895 map the site is vacant and now lies beneath Castleshaw Upper Reservoir.

288) SD 9974 1003 (centre)
Castleshaw Upper M FW
Reservoir **

This reservoir is shown on the 1906 map, when it is owned by the Oldham Corporation Water Works. A valve house is situated on the embankment.

289) SD 998 100
Polished Greenstone Axe ** SMR 5918

Polished greenstone axe, of Bronze Age date, found 6 feet below ground level at 820 feet OD while excavating the bed of the reservoir in 1891. It was 4½" long and 2½" wide at the cutting edge.

290) SD 9979 1000
Castle Shaw Mill * M FW

An irregular shaped structure with a pond/reservoir to the east is shown on this site on the 1822 and 1854 maps. The site is described as a woollen mill on the latter map. On the 1895 map the site is vacant and now lies beneath Castleshaw Upper Reservoir.

291) SD 9989 0988 to SE 0002 0977
Earthwork ** AP FW

Ditch. Grassed over collapsed dry stone wall 2m wide.

292) SD 9977 0977
Harbour * M FW

A rectangular structure is shown on this site on the 1822, 1854 and 1895 maps. The site is vacant on the 1906 map. A house platform is the only visible remnant on the site.

293) SD 9985 0980(Linear)
Boundary ** FW

Two large prominent earthen boundaries, ditched both sides, 1.5-2m wide and 0.5m high. One runs roughly north to south, the north end is truncated by the reservoir and at its southern end it joins a similar boundary which runs at right angles. The latter runs parallel to the road and a dry stone wall, which it probably predates.

294) SD 9975 0972
Extractive Site ** AP FW

Extractive site, probably a quarry. On the ground visible only as a very shallow scoop, possible quarry, but could be dewpond. A second amorphous depression is situated immediately to the west, which may also be extractive.

295) SD 9964 0965 to SD 9976 0967
Earthwork ** AP FW

Linear feature running towards the north-western corner of the Roman fort, visible on the aerial photographs.

296) SD 9963 0961 to SD 9972 0948
Field Boundary? * AP FW

A linear feature visible on aerial photographs. Nothing visible on the ground.

297) SD 9980 0960
Extractive Site * AP FW

A grassed over depression on the western side of the Roman forts. This would appear to be a stone quarry, which slightly cuts into the Roman ditch.

298) SD 9986 0965 (centre)
Castleshaw Roman Fort *** M FW
SMR 1191 1 1-20
Scheduled Ancient Monument

The 1854 map describes it as a camp and shows the site as two square enclosures one inside the other. The 1895 map describes the site as 'Castle Hill' and shows the site as having a square shaped plan with the north-eastern and north-western sides shown as earthworks and the south-east and south-west sides defined by field boundaries. A large bank, aligned east to west, is shown lying within the fort and would appear to represent the northern rampart of the Roman fortlet. The 1906 map depicts the same earthwork arrangement as the 1895 map but also identifies the site as a 'Roman Camp'. The site consists of a Roman fort within which lies a Roman fortlet, with both fort and fortlet sharing

the south gateway. Both have been extensively excavated in the past and the fortlet has been recently consolidated with ramparts re-instated. To the south of the scheduled area, a curving platform on top of the hill may possibly have a bank around its edge. Current archaeological evaluation of this area suggests that this area contains Roman archaeological deposits, enclosed by a ditch.

299) SD 9986 0965
Flint Finds ** SMR 1191/1/8

A collection of worked flints including microliths, scrapers and a barbed-and-tanged arrowhead, were recovered during excavation work on the Roman fortlet (1984-8) and indicate pre-Roman activity on the site.

300) SD 9986 0965
Prehistoric Pottery *** SMR 1191/1/8

During excavations on the Roman fort, 122 sherds all of which, apart from 47, can be assigned to 5 distinct vessels. The sherds represent a Late Southern British Beaker domestic site, *c* 1550 BC. Two of the beakers are typical Late Southern vessels, whilst the remaining three, represent the functional variation to be found on domestic wares rarely buried as accessories in Beaker graves.

301) SD 998 096
Stone Spindle Whorl ** SMR 1191/2/0

A stone spindle whorl, suggested to be of Romano-British date, was found by A Wrigley, within the Roman fort, 3' below the 'Roman floor' in 1907.

302) SD 9990 0960 (linear)
Field Boundary * FW

A linear ditched earthwork aligned on the south gate of the Roman fort extending in a north-west to south-west direction. This appears to be a former field boundary.

303) SD 9989 0956 (linear)
Field Boundary? * AP FW

A linear earthwork running to the south and parallel with Dry Croft Lane may possibly be a former field boundary.

304) SD 9991 0950 (linear)
Field Boundary * AP FW

A linear earthwork running parallel to the above site and Dry Croft Lane has a lynchet appearance and may represent the site of a former field boundary.

305a) SD
Field Boundary AP

305) SD 9984 0956 (linear)
Drainage/Boundary ** FW

Drainage channel running approximately from the south corner of the Roman fort. Its source is unclear, but further down the slope it becomes more noticeable as a field boundary with ditch and possible grassed over dry stone wall. At its southern end it joins with a banked watercourse from running in an eat to west direction. This would appear to be a mill leat and may have been associated with Waters Mill (270).

306) SD 9978 0940 (linear)
Boundary? * AP FW

Possible drain, although more likely to be a dry stone wall or similar boundary.

307) SD 9994 0940(linear)
Trackway/Footpath ** FW

Substantial footpath 2-3m wide, up to 1m high with ditch on the north side.

308) SD 9984 0933 (centre)
Field Boundaries ** FW

A small enclosure is flanked on two sides by two earthen field boundaries, which are *c* 1m wide and *c* 1m high, both have associated ditches. There are a few remaining hawthorn bushes on these banks, which appear to be mature field boundaries, possibly of late medieval date.

309) SD 9978 0930 (linear)
Tramway ** FW

A linear earthwork *c* 3m wide survives as a trackway into a field at its southern end, at Waters Clough it takes the form of two earthen abutments, although no evidence for a bridge survives. North of Waters Clough the trackway has been terraced into the hillside, which it curves around the base of. At its northern end the earthwork aligns with Cote Lane and the road across the top of Castleshaw Lower Reservoir's embankment. At its southern end the earthwork aligns with Waterworks Lane.

310) SD 9989 0930 and 9984 0930 (linear)
Boundary * FW

Small field boundaries, possibly grassed over dry stone walls forming part of a much bigger field system.

311) SD 9985 0925
Hollow Way *** FW

Possible branch or continuation of Cote Lane. A sunken way with dry stone revetments on south-west and partially on the north- east side, *c* 3m wide. Its alignment corresponds with the boundary between Friarmere and Lordsmere.

312) centred SD 9997 0917
Linear Boundaries * AP FW

Series of walls. Seen on the ground as a series of walls now collapsed.

313) SE 000 097
Spindle Whorl ** SMR 5931

Spindle whorl of Romano-British date found near Roman Fort by T Thompson of Delph.

314) SE 000 097
Socketed Bronze Axe ** SMR 5932

Socketed bronze axe 4" long and ornamented with 3 ribs found pre-1771. Round socket, side loop, and when found contained remains of original wooden haft.

315) SE 0006 0969
Lower Castle Shaw *** M FW

A hamlet consisting of ten rectilinear buildings is shown on this site on the 1822, 1854 and 1895 maps. On the later map the hamlet is just referred to as Castle Shaw. On the 1906 map two of the earlier buildings are no longer shown and a rectangular building has been added. On the modern map only two buildings are shown on the site. The more westerly of these buildings is a two storey two phase building of watershot rock-faced gritstone with a graduated stone slate roof. The northern end of the western elevation, has two modern stone mullioned windows of two lights each, one to ground floor and one to first floor. The south end has five light- flat faced recessed stone mullioned windows, to both floors, with an angled corner worn at the base. The south elevation has two light recessed chamfered mullion windows to both floors. The northern end of the eastern elevation has a cartshed door now infilled with French windows, with two light modern mullion windows to both floors. The south end has similar windows and a modern door. To rear of property a modernized stable block exists. The eastern building has been recently modernised with replacement doors, windows and roof, plus additions.

315a) SD
Well M FW

316) centred SE 0010 0990
Linear Boundaries * AP FW

Series of linear boundaries at Lee Clough visible on aerial photographs. These are drainage channels which are ditched north-east side and mounded on south-west side. One of these becomes a dry stone wall with gate posts.

317) SD 9940 0907 to SE 0021 0981
Roman Road *** AP FW

Line of Roman road to Castleshaw Roman forts. Within the study area the remains of the road are of variable quality. Some evidence for an agger survives to the north of Castleshaw Camp School, although this section does appear to have been disturbed by a later track and what appears to be drainage features. Between Waters Clough and Cote Lane there are no visible remains. Between Cote Lane and the Roman forts a well preserved section of a agger is visible, *c* 8m in width. The road then runs under Castle Shaw Farm, before its course can again be traced as an agger to the east of the farm. The road alignment is clearly visible on aerial photographs.

318) SE 0017 0964
Castle Shaw School ** M FW

A rectangular structure is shown on this site on the 1822, 1851, 1895 and 1906 maps. The same building appears to be still shown on the modern map. This building has been modernised, with new windows, roof and further additions.

319) SE 0013 0958
Structure ** M FW

A small rectangular building is shown on this site on the 1822, 1854 and 1895 maps. The outline of an enclosure is shown on the 1906 map, but no buildings are standing. The east wall of a structure has been incorporated into the dry stone wall that flanks Dirty Lane. It is visible as a mortared quoined corner standing to a height of 1.5m. The south wall with an entrance can also be seen.

320) SE 0021 0952
Spoil Mound? ** AP FW

A small circular mound, grassed over may represent a spoil mound related to an extractive industry, although no associated extractive site was observed nearby.

321) SE 0027 0950 (linear)
Field Boundary * AP FW

A linear grassed over earthwork appears to be a former field boundary.

322) SE 0036 0954
Structure ** M FW

What appears to be some form of trackway or 'gridlike' structure is shown on this site on the 1854 map. The site is vacant on the 1895 map. This site occupies a widened section of the lane and has a roughly terraced appearance. It is possible that this was the site of a row of stretcher gates, used in the woollen manufacturing industry.

323) SE 0044 0955
Structure * M FW

A small square shaped structure is shown on this site on the 1822 map. It may also be shown on the 1854 map. The site is vacant on the 1895 map. There is nothing visible on the ground.

Key to Maps 1 - 6

◇ Flint Find

◆ Extractive Site

□ Structure (either site of, ruined, or still standing)

– Track

= Field Boundary

≡ Ridge and Furrow

△ Reservoir

● Other

Castleshaw Study Area Key Map

Scale 1:10,000

Based on OS 1:10,000 sheets SD 91 SE (1981), and SD 91 SW (1979). *Crown Copyright Reserved*

Castleshaw Study Area
Map 1
Scale c 1:5,000

Hedgate Moor
Green Hole Hill
White Hi
Readycon Hill
Foxstone Edge
Green Hole
Little Whinning Gulf
Millstone Moss
Great Whinning Gulf
Middle Clough
Great Clough
Quarry (dis)
Culvert
Weir
Great Hill
Green Brow
Rapes
Euro Const & Co Const Bdy
CP & ED Bdy
Reservoir
Readycon Dean Reservoir
Rapes Highway
Overflow
Sluice
Friar Naze End
Broad Greave Hill
Denshaw Moor
Lurden Top
Lurden
Readycon Dean Brook
Foot Bridge
Ragstone
Ford
Path
Track
Drain
PH
BS
FB
FF
SS
BM 381·37m
BM 369·17m
BM 373·84m
BM 360·72m
Mere
MS
Heath
Friar Naze End
Quarry (dis)
Weir
Sluice
Overflow
Ragstone
Ford
Path
Track
Drain
Rapes
Denshaw Moor
Broad Greave Hill
Lurden Top
Lurden
Readycon Dean Brook
Readycon Dean Reservoir
Rapes Highway
Euro Const & Co Const Bdy
CP & ED Bdy
Great Clough
Middle Clough
Great Whinning Gulf
Little Whinning Gulf
Millstone Moss
Foxstone Edge
Green Hole
Green Hole Hill
Green Brow
Hedgate Moor

Castleshaw Study Area
Map 2
Scale c 1:5,000

BM 466·64m
White Hill
Readycon Hill
White Hassock
Black Gutter
Ford
Path
Middle Clough
Great Clough
Wolf
FB
Green Brow
Rape Hill
Rapes
Quarry (dis)
Track
Drain
Readycon Dean Reservoir
Rapes Highway
Friar Naze End
Broad Greave Hill
Denshaw Moor
Lurden Top
BM 390·30m
BM 373·84m
Ragstone
Water
BM 360·72m
Mere Clough Moss
Boundary Stone
BM 402·18m
A640
Badger Slack
Huddersfield Road
Haigh Gutter
Fords
Stone
Little Moss
Haigh Gutter Moss
BM 432·86m
Dan Clough Moss
March
CW
CS
Dr
MS 119
81
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96
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103
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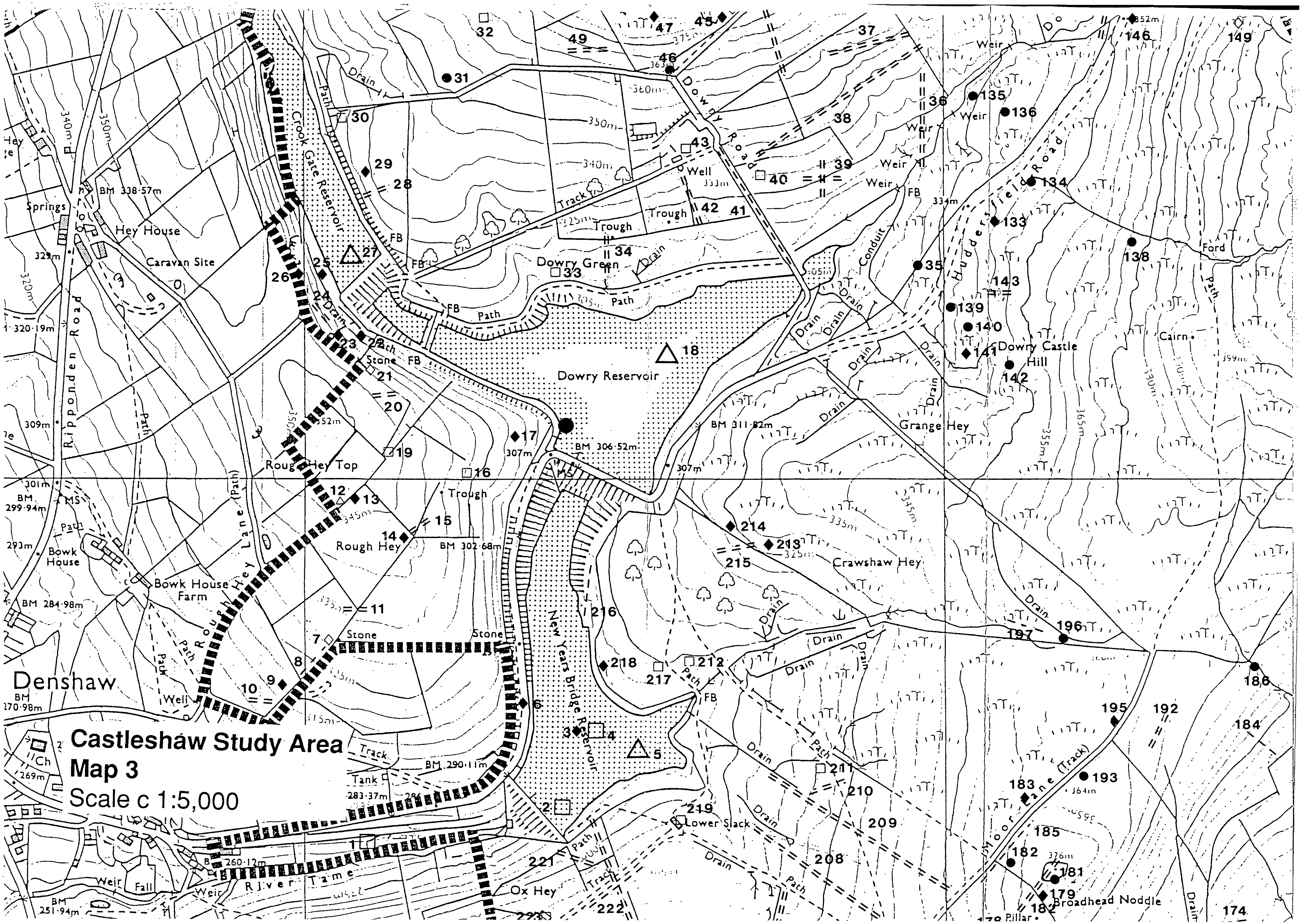
Castleshaw Study Area
Map 3
Scale c 1:5,000
Denshaw
Springs
Hey House
Caravan Site
Ripponden Road
Crook Gate Reservoir
Dowry Green
Dowry Reservoir
Dowry Road
Dowry Castle Hill
Huddersfield Road
Conduit
Grange Hey
Crawshaw Hey
Rough Hey Top
Rough Hey
Rough Hey Lane (Path)
Bowk House
Bowk House Farm
New Years Bridge Reservoir
Moor Lane (Track)
Lower Slack
Ox Hey
River Tame
Broadhead Noddle
Cairn
Ford
Weir
Well
Trough
Track
Path
Drain
Stone
Tank
Fall

Castleshaw Study Area
Map 4
Scale c 1:5,000

Castleshaw Moor
Cudworth Pasture
Huddersfield Road
Dowry Castle Hill
Grange Hey
Crawshaw Hey
Broadhead Noddle
Moor Lane (Track)
Bank Clough
Spa Clough
Cudworth Clough
Oaken Lee Clough
Blea Green
Northern Rotcher
Fords
Ford
Cairn
Pillar
Weir
FB
Drain
Conduit
Path
Track
Quarry (dis)
352m
334m
365m
355m
345m
335m
325m
376m
364m
442m
425m
430m
440m
435m
410m
400m
375m
315m
350m
199m
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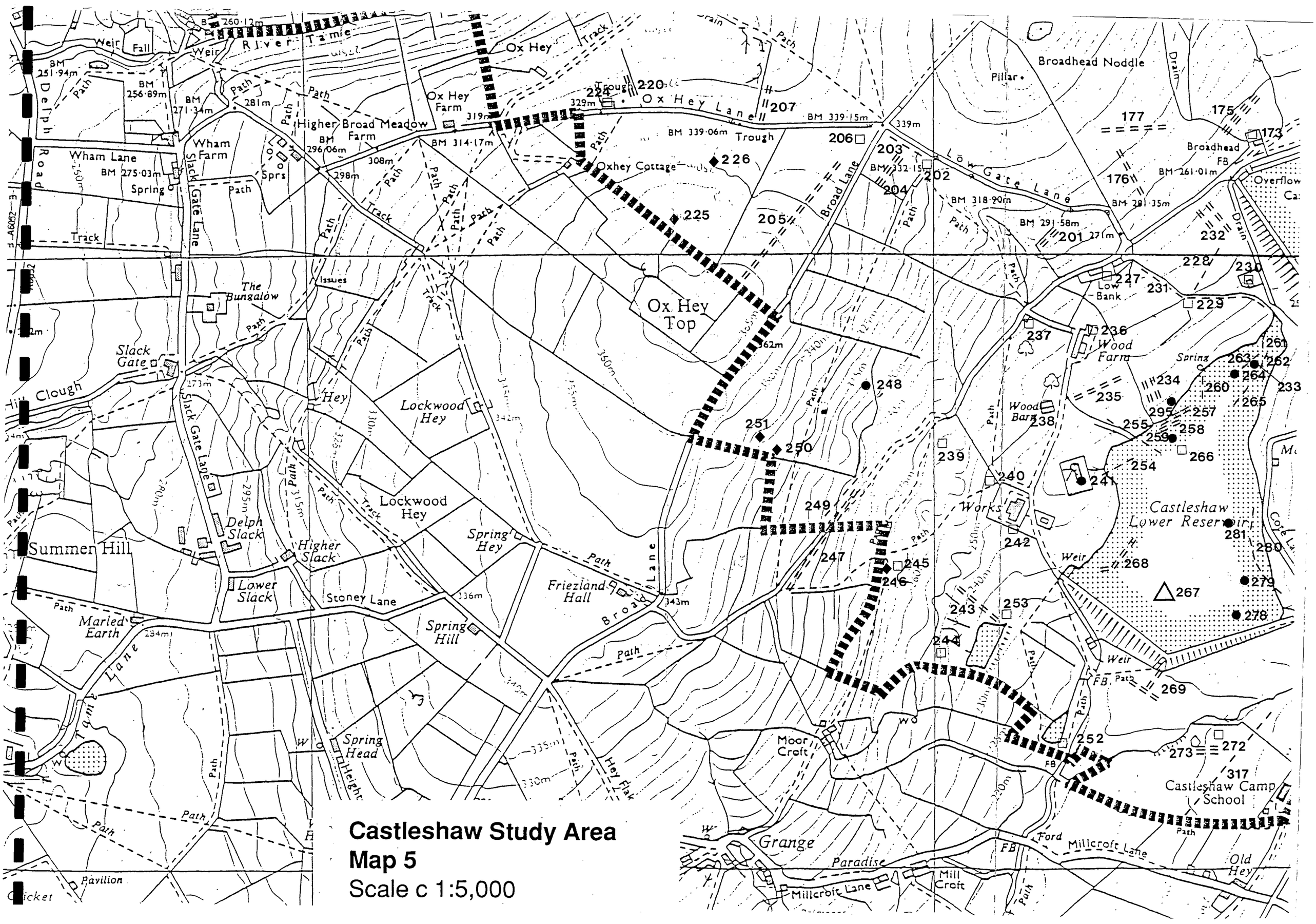
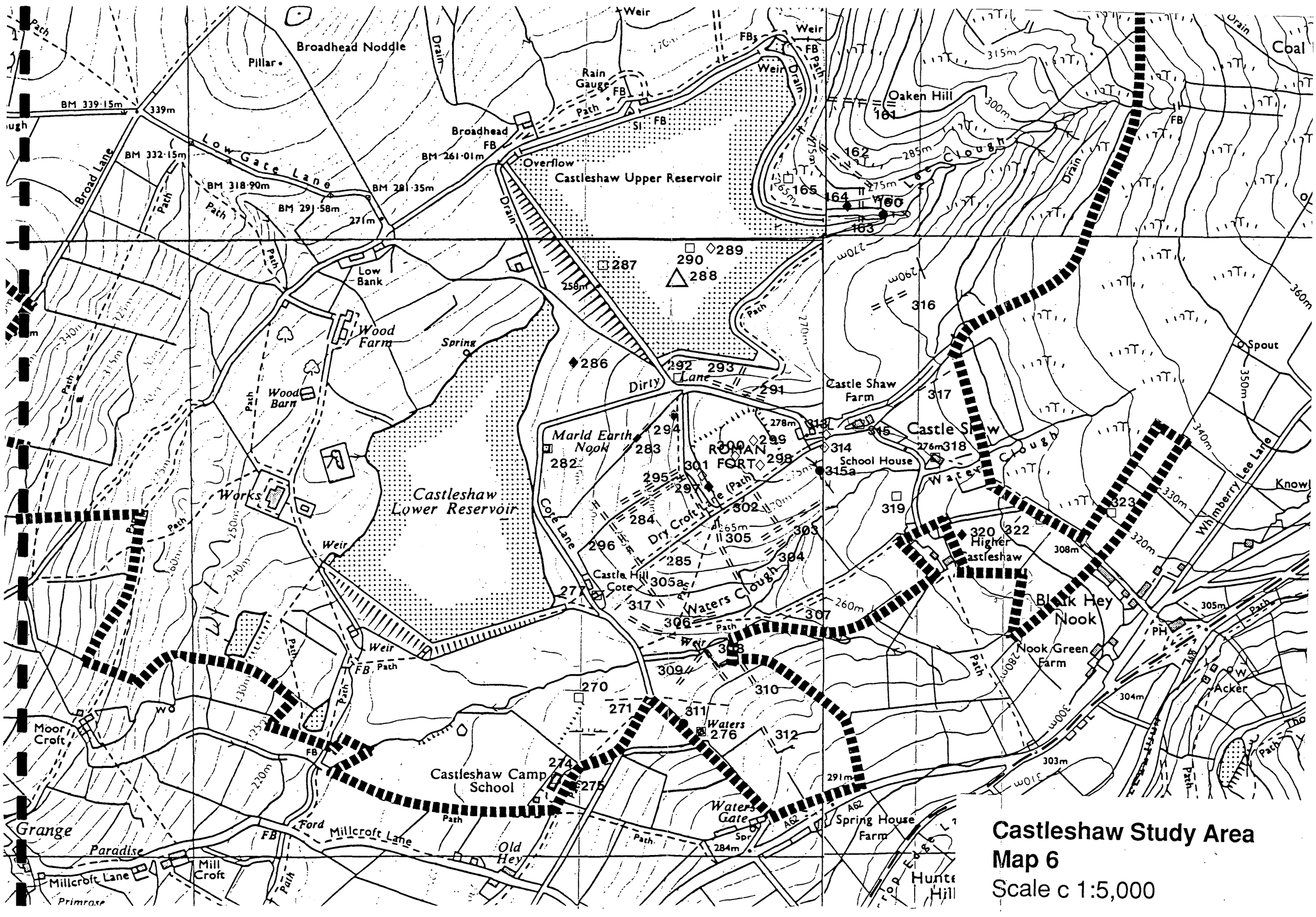


Castleshaw Study Area
Map 5
Scale c 1:5,000



Castleshaw Study Area
Map 6
Scale c 1:5,000

7. Historical Background Piethorne

MEDIEVAL

The Piethorne study area lies within the former township of Butterworth, which was in the parish of Rochdale and county of Lancaster. The early land ownership history of the township is rather vague and even by the twelfth and thirteenth centuries when the picture does begin to clear, there are a variety of landowners, the extent of whose holding is unclear. The manor of Butterworth, which appears to centre on the site of Butterworth Hall, to the west of the study area, was held by the Eland family in the twelfth century. A grant of land in Butterworth was made by Hugh de Eland in the late twelfth century and this eventually passed via Monk Bretton Priory to Sir John de Byron in 1292.[1] The Byron landholding which also included Hospitaller Knight's land in Butterworth, does appear to include a large part of the study area. By a deed of 1462 the Byron family also acquired a lease of the manor of Rochdale.

The Byron Chartulary, which records grants of land associated with the family, and which is sometimes referred to as the 'Black Book of Clayton', appears to contain several references to land within the study area and as a result provides the first direct historical references to land within the study area. Almost all the early references which can be linked with the study area are to Ogden or as it appears in the charters to 'Akeden', 'Hakeden', 'Hokeden' or 'Okeden'. All of these grants, which are of thirteenth and fourteenth century date, relate to land granted to the Byron family or between settlers. One particular grant, which is undated, appears to relate to a substantial part of the study area. The grant reads as follows:

> 'Adam, the son of William de Okeden, with the consent of Cecilia his wife, granted to Adam his son, for his homage and service, certain lands in Okeden comprised in the following divisions, viz., beginning at Okeden, ascending to the Mereredeyott, following which to Lese Clogh [? Hanging Lees Clough], and taking in all his portion of Bynns, and thence descending to Okeden-broc; this was witnessed by Richard de Turnagh, Alexander de Belefeld, William de Salisbury, William del Halgh, Clement de Okeden and others; he also granted lands in Okeden to his son Richard on similar terms.'[2]

If 'beginning at Okeden' refers to the area around Higher and Lower Ogden, the reference to 'Bynns' includes Bins Higher Pasture, and 'Okeden-broc' is Piethorne Brook, all of which, including Hanging Lees Clough forms a sequentially described land area, then this grant refers to a large portion of the central and southern part of the study area.

Another grant to John de Byron and of late thirteenth or early fourteenth century date reads:

> 'John, son of Louecocke de Hakeden, all his lands in Guttfordacres in Hakeden, subject to payment of a peppercorn. Witnesses, William de Hopwood, William de Liuesey, and others.'[3]

A nineteenth century conveyance relating to the property called Raghole (206) refers to the site as 'the Gutford Acres otherwise the Good far acres otherwise the Raghole'. This would clearly appear to approximately locate the medieval land grant and again place it both within the study area and within Ogden. From these two grants it would seem that the area referred to as Ogden during the medieval period represented the larger part of the Piethorne valley.

The 1846 tithe map of Butterworth, shows that the township was divided into two parts, namely the 'Freehold side' and the 'Lordship side'. According to Farrer and Brownbill these sides refer to ancient terms of tenure, some freehold and some of the lord of the manor, which were in place before 1600.[4] Although the sides are still in place on the nineteenth century map, the actual tenurial situation by this period had substantially altered, with many of the landholdings in the

'Lordship side' long since passing into freehold possession. However, the division between the two sides runs across the study area and is defined by Tunshill Lane (site 25), a routeway which survives as a substantial hollow way earthwork. The area to the south of Tunshill Lane is in the 'Lordship side' of the township and that to the north in the 'Freehold side'. The various landholdings referred to in the 'Black Book of Clayton', and which lie within the study area, all appear to be located within the 'Lordship side', as is to be expected given the position of the Byron family. The 'Freehold side' forms part of the township called Schofield. Very little information from the medieval period has been unearthed with regard to this area, although it would seem that the Turnagh family were at one point lords of this estate and there is a grant (*c* late thirteenth century) whereby William son of Adam de Turnagh received land in Longden Brook.[5] Given that the 'Freehold side' of the study area effectively represents a section of Longden End Clough valley, it is feasible that this is an early reference to land in the study area. The Turnagh family appear to have adopted the local name Scholfield (*ibid*) and continued to own land within the 'Freehold side' of the township into the post-medieval period. A grant of land to the Schofield family in 1568-9 (see below) from the Byron family would again appear to include a large part of the Longden End Clough valley. Because this grant of land is made by the Byron family this suggests that they also held land on the 'Freehold side' of the township.

One site of industrial activity, which may be of medieval origin, within the study area is an iron working site (**214**). This was identified as a result of dramatically reduced water levels in the Piethorne Reservoir system during the survey and consisted of a discrete spread of iron smelting slag on the northern bank of Ogden Reservoir. In November 1995 the site was fieldwalked and a rapid drawn survey undertaken (Fig 19). The site covered roughly 10m sq and comprised bands of furnace slag, good quantities of furnace lining (mainly slagged on one side), frequent burnt red sandstones and small quantities of tap slag. A few sherds of pottery were recovered but their association with the furnace debris must be viewed with caution. One medieval green glazed and one possible early post-medieval Midland Purple sherd were present amongst nineteenth century black glazed wares.

Three small areas were cleaned by trowel to examine the stratigraphy of the site. Black mineralized deposits with a little slag and charcoal to a depth of *c* 5-10cm were encountered. These seemed to represent the remains of a slag spoil heap base. Unfortunately, there was not enough associated pottery to date the site, but based on Castleshaw, one would tentatively suggest a late medieval origin.

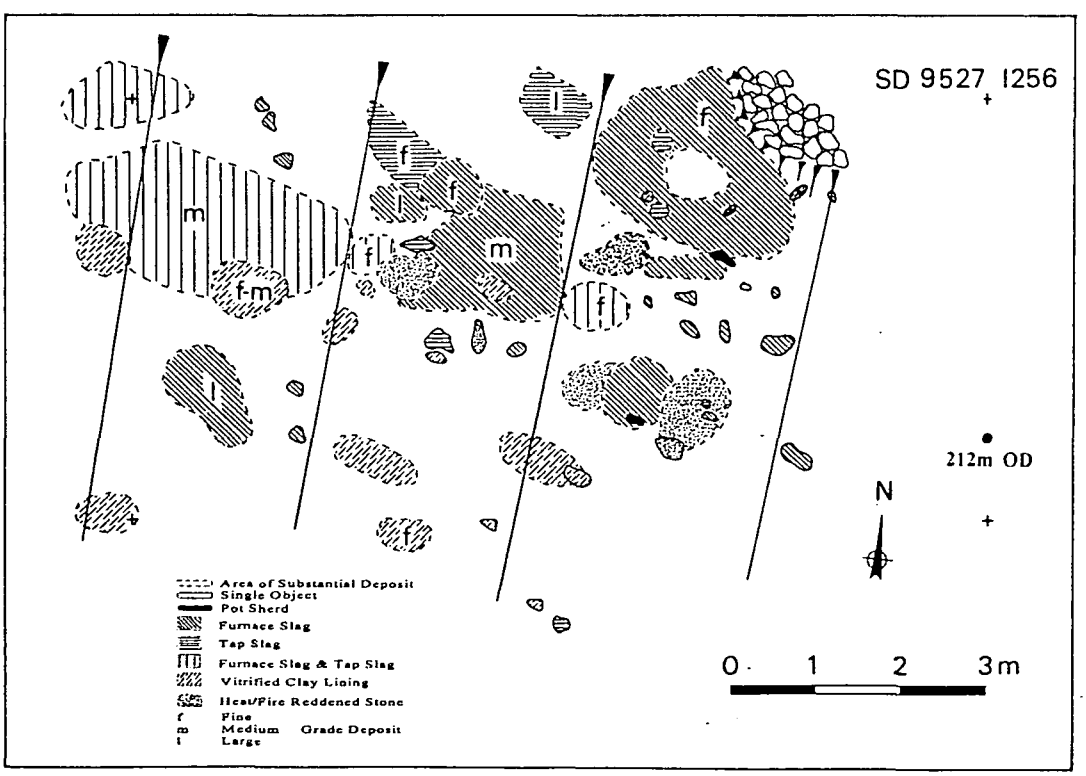


Fig 19 Rapid Drawn Survey of slag debris at Ogden Reservoir

POST-MEDIEVAL

Financial problems at the beginning of the seventeenth century forced the Byrons to sell off or release many of their Lancashire estates, including Butterworth. The evidence for these financial difficulties are gleaned from a letter of the Earl of Shrewsbury to Sir John Byron in 1603, where he advises him to reduce his establishment at Newstead and to live in Lancashire because 'you are in great debts and unless you take some present and speedy course to free yourself of debtts which will eate into your state lyke a mothe in your garment'.[6] Thus when Sir John died in 1625, at the same time the lease on the manor of Rochdale expired, its ownership reverted to the Crown. The manor then passed to Sir Robert Heath, who in 1626 commissioned a survey of the manor. This survey which has survived in transcribed form, represents one of the most informative historical documents for the study area, during the post-medieval period. Not only are a number of areas and sites specifically mentioned but the survey also provides further evidence for Byron's selling off of land during the late sixteenth century and early years of the seventeenth century. Examples of the type of survey information supplied include the following:

> 'Gerarde Scoffielde gent. claimeth to him & his heirs for ev. div. lands & tenements herein Redd. Savile iiis. ivd.
> Idem by deed dat. 16 Mar. 11 Eliz. [1568-9] granted from John Byron of Clayton co. Lanc., Esq. unto Cuthbert Scoffielde greate Unkle to the said Gerrard Scoffield all that More ground in Butterworth cont. p estim. 60 acres as it is meared & bounded viz. beginning at the west part of a yate called the High Yate & so following the way unto a place called the hermost Windie Hill & so the Black Yate. As it is now meared & divided in so following the said Ditch northwd unto a certain Brook called Long Deane brook & so followg the sd brook backward again Westward unto certain Land of the sd Cuthbert Scoffeild called Bowstede & soe from Bowstede Southward and then Westward unto Mr Lowes Clough & from the said Clough Southward unto the said Yate.'[7]

When particular details of this landholding are given the following sites are mentioned:

> 'A close of rough pasture called Lowes past. adjg North to Bynnes past....2 Tenements called Whitley Dean consisting of sevll closes ar. mead. & past....Another tenement called Whitley Dean consisting of diver closes ar. mead. and past....A tenement called Whittley dean a [sic] Longland consistg of ar. mead. & past. lying North on Longden Brooke....'[8]

This entry in the survey appears to refer to land within the Longden End Clough valley part of the study area. Although few of the placenames referred to can be categorically located, it is tempting to suggest that the 'High Yate' and 'the way unto a place called hermost Windie Hill' refer to Tunshill Lane which leads towards Windy Hill. This is given further support by the reference to Lowes pasture adjoining on the north side of 'Bynnes' pasture, which is located on the south side of Tunshill Lane. Of the placenames which can be more securely located the references to tenements called 'Whitley Dean' must surely be associated with sites 51 (Plate 16), 78 and 83.

Another significant entry in the survey book is the landholding of Robert Holte of Ashworth, who acquired land from Sir John Byron in 1608-9.[9] This reads as follows:

> 'Robert Holte of Ashworth Esq. here claymeth to hold to him and his heirs for ever divers lands & tenements, viz. Two messuages in ye Bynns lying South West on Ogden and North on Lower Pasture & Ruff heyes....Sevll close of ruff pasture in ye Bynnes....Moiety of a tenement called the Hanging Less in ye joynt occupation of Mr Holte & Thomas Butterworth. Moiety of a close of ruff pasture & moss in joint occupation of Mr Holte & Thomas Butterworth called ye Hanging Lees pasture. Two tenements mead. ar. & past. called Coldgreave lately enclosed from the waste adj North to Hanging Less & Philly Shaws.'[10]

In this case placename references such as 'Bynns', 'Hanging Lees' and 'Coldgreave' can with some assurance be linked with sites 186 (Plate 17), 266 and 272. Other placenames referred to in the 1626 survey which can be located within the study area include Ragholes (site 206), referred to as 'Raghill' and 'Raghall'; Coldgreave Pasture, which is presumably the area to the east of Cold Greave (272) and either side of Cold Greave Clough; and Ogden Edge Pasture, which lies on the southern side of the study area.

Several other documents from this period also provide useful information upon certain sites within the study area and these include a list of constables for the early part of the seventeenth century of 'the one side of the township of Butterworth', appointed by Sir John Byron which include references which can be associated with sites 296, 137 and 188 (Plate 17):

1609 - Geoffrey Turner, Richard Haworth of Normanhill, and Robert Gartside of Pythorne
1617 - Cuthbert Butterworth of Townehillholes

A large number of deeds relating to various properties within the study area have also survived, largely because of the acquisition of much of the land by the Oldham Corporation during the nineteenth century for the construction of the reservoirs. These provide additional information on many of the sites already referred to in the 1626 survey and constables list, including details about who owns the various freeholds; the landholding, including fieldnames, associated with various properties; the types of buildings on the sites ie. houses, cottages, barns and outbuildings; and the entitlements of freeholders with regard to common land and rights.

From this variety of detailed source material it is clear that many of the farm sites within the study area were in freehold occupation by the early seventeenth century and in the case of the sites in Longden End Clough valley by the mid-sixteenth century. Of the farms themselves none of these early sites have survived with intact standing buildings, although the sites are still distinguished by collapsed stone ruins, which in some cases have standing walls and plan arrangements which are still definable. The structural remains visible on these sites include the stone masonry, stone tiles as well as slightly more diagnostic features such as chamfered stone mullion windows, window and door surrounds. In general the structural debris of these sites is consistent with buildings of seventeenth century date or later. The seventeenth century was a period when major changes in building construction were taking place and the houses of yeoman farmers in particular were subject to change, with the yeoman farmhouse often being rebuilt and utilizing for the first time stone as a structural material. Whether farmhouses existed on these sites prior to the stone buildings is not clear, although in the case of the mid-sixteenth century buildings called 'Whitley Dean' it is unlikely that these would have been built in stone at this date. Prior to construction in stone the buildings which did exist are likely to have been timber-framed structures, although there is no surviving evidence for this. The documentary record fits well with the physical remains, in that many of the freeholds appear to have been acquired at the same time as the new wave of building activity was taking place and it is therefore likely that many of those who acquired the properties were responsible for the new stone buildings. A number of datestones, removed from the farm buildings when they were demolished by the Oldham Corporation Waterworks and built into the garden wall of Piethorne House (site 230) provide additional information on the buildings. The earliest recovered stone is dated 1622 and is reportedly from Close Farm (site 154), many of the other stones are of eighteenth century date and while some may indicate foundation dates for the site, it is likely that many refer to a single building episode rather than the earliest building.

With regard to the landscape within which these farm sites were set it would appear from the documentary material that a certain amount of enclosure had already taken place by the 1626 survey, with a mixture of agricultural activities taking place. Potentially the earliest reference to a field system in the study area is the reference to 'Guttfordacres' (later part of the landholding associated with Ragholes) in the Black Book of Clayton,[11] which is of late thirteenth or early fourteenth century date. The 'acres' element of this name usually implies plots of arable land,[12]

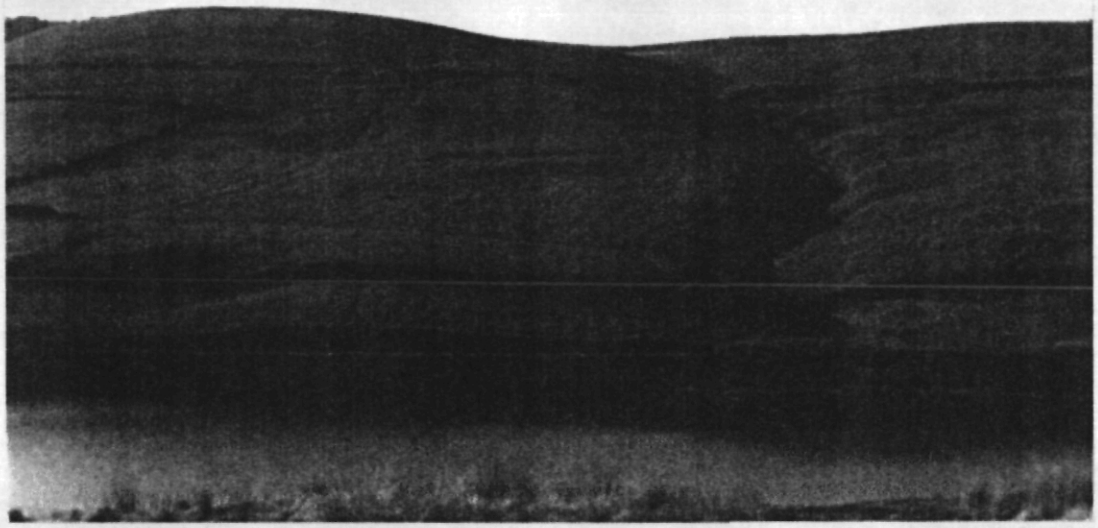


Plate 14 The potential deserted medieval farm site **120**. The site is visible as a flattened terrace (mid-picture) with ridge and furrow running past it to the right and below it.

Plate 15 Earthen bank (**72**)

Plate 16 Lower Whiteley Dean (**51**)

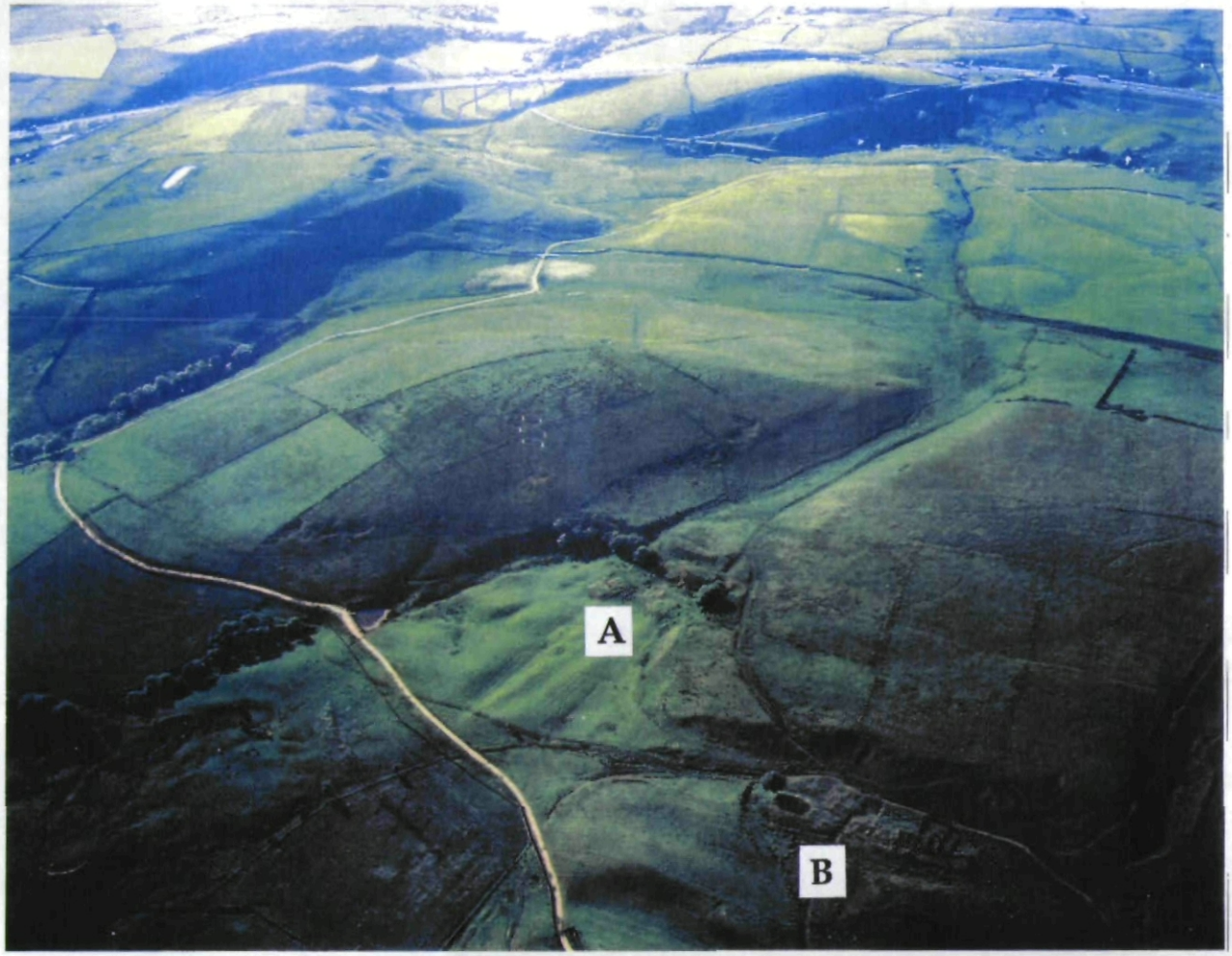


Plate 17 An aerial view showing the sites of Tanning Holes (A; **188**) and Binns (B; **186**)

which would probably have had a perimeter enclosure at least, to protect crops from wandering animals.[13] In the 1626 survey there are a number of references to closes of arable, meadow and pastureland. The dating of this enclosure is not certain although in some cases it cannot have pre-dated 1626 by a great length of time, for example one particular reads:

> 'Two tenements mead. ar. & past. called Coldgreave lately enclosed from the waste adj North to Hanging Less & Philly Shaws.'[14]

This indicates that fields were recently created from the moorland waste. The structural form of the enclosure divisions may originally have been hedges and this is indicated by one reference in the survey which reads:

> '3 acres in Henginlees [Hanging Lees] 7 yds. to the rod as now measured hedged & taken out of a close called the New Meadow'[15]

Within the study area there is generally scant evidence for this early enclosure although a handful of substantial earthen banks with ditches (sites **31, 33, 37, 72, 194, 195, 196, 203 & 208-10**), particularly around the site of Ragholes and Town Hill may represent former hedge lines. One of these earthworks **194**, is of particularly large proportion, and given its proximity to Ragholes it may represent an agricultural perimeter enclosure and be of medieval date. The majority of enclosure within the study area is now defined by dry stone walls and while there are no precise dates for these, given the absence of documented enclosure awards, it is likely that enclosure by stone walls dates to the seventeenth and eighteenth centuries,[16] paralleling the adoption of stone as a building material for farm buildings.

Surviving physical evidence for the various types of agricultural land use is usually confined to arable land and possibly meadow land and comes in the form of ridge and furrow. This represents the earthwork remains of ploughing activity and examples of it survive from the medieval period through to the nineteenth century. Its purpose is traditionally regarded as assisting land drainage[17] and where it occurs on sloping land it is usually aligned with the slope rather than traversing across it. The morphology of ridge and furrow has been used as a means of dating the agricultural activity, with a generalization being that the wider ridges (ie. *c* 5m wide or more) are early and narrower ridges (ie. *c* 1m wide) are of later date. The plan shape of ridge and furrow is also used as an indicator of date, with typical medieval examples having a reversed S-shape, while later forms tend to be straighter. However, this cannot be considered a hard and fast rule and ridge and furrow cannot always be dated on the basis of morphology alone.[18] The majority of the ridge and furrow identified within the study area has a straight alignment and the ridges measure *c* 2-2.5m wide. As already stated this information is insufficient to date these earthworks, although it has been suggested on the basis of work on ridge and furrow carried out in West Yorkshire that ridges of this width may be of sixteenth or seventeenth century date.[19] The possible site of an abandoned farm (site 120; Plate 15) which is situated within a field of ridge and furrow may, if further information on the site is recovered, provide a more accurate date for the apparently contemporary ploughing remains. If the suggested sixteenth or seventeenth century date for the ridge and furrow within the study area proves to be correct this would integrate well with the settlement pattern and enclosure evidence.

As well as the enclosed agricultural land there is also documentary evidence for common pasture within the study area, with one of the earliest references again found in the Black Book of Clayton, wherein it is recorded that Adam, son of William de Okeden, granted to his son various lands including 'all his portion of Bynns'.[20] This must be a medieval reference to Binns Higher and Lower Pasture, the former still remaining largely unenclosed to the present day. The 1626 survey provides detailed information on the common pastureland within Butterworth with a distinction made between stinted and unstinted common. Stinted common is land which is apportioned for use by a number of specified people, whereas unstinted represents land with no restrictions on those who use it. The 1626 survey identifies rough stinted pasture within the study area at 'Colegreave' and Ogden Edge; and unstinted common around Bleakedgate Moor, which may include some of the land on the eastern side of the study area.[21] It is likely that the areas of stinted moorland would have been physically defined in some way and the 1626 reference to the landholding of Gerarde Scoffielde (see above) refers to '60 acres [of 'More ground'] as it is meared & bounded'.[22] The term 'meared' implies the use of merestones, which are large stone boulders used as boundary markers, these would in no way have impeded the movement of livestock.

The various property deeds which have been transcribed also provide some information on land use within the study area, with two notable examples being turbary rights and the siting of a corn mill within the study area. Turbary rights (the right to dig peat, which was used for fuel) are referred to both in these deeds and in the 1626 survey and are usually expressed in terms such as:

> '...the fourth part of Bindes Pasture together with common of turbary to be taken throughout the mores, mosses and wastes of Butterworth...'[23]

This reference forms part of a property agreement amongst the deeds for Binns, dated 1610 and confirms rights established in the conveyance of a tenement called Binns, from Sir John Byron to Geffraye Turnoughe in 1608.[24] Other turbary rights are mentioned in association with Coldgreave, dated 1649,[25] and there are three further references to turbary rights on Coldgreave pasture in the 1626 survey.[26]

The reference to a corn mill in the study area provides supporting evidence for arable farming. Although mentioned in the Coldgreave deeds, the mill appears to be associated with Binns. The earliest reference is dated 1677 and reads:

> 'Messuage and Tenement of...William Brearley [of Binns] together with the mill and kill [?kiln] thereunto belonging'[27]

A deed of 1680 refers to the mill as 'a water corn mill',[28] while a lease of 1683 refers to 'Thomas Brearley of Binns, Millar'.[29] The precise location of the site of this corn mill has not been established, but given the later association of Binns with Kitcliffe fulling mill (227)[30] and the close proximity of these two sites it is likely that the fulling mill occupies the site of the earlier corn mill. The only other possible early mill site identified during the survey was situated to the west of Raghole on Rag Hole Clough (site 205). Evidence for the position of the kiln is provided by an estate plan of 1888 which shows fields called 'Higher Kiln Green' and 'Lower Kiln Green', immediately to the west of the site of Binns. The location of the kiln would therefore either be in one of these fields or form part of the adjacent Binns complex. A vaulted cellar survives at the Binns site and appears to have a flue at its southern end, while this may be associated with a kiln there were no other indications for such a structure. The kiln, wherever its location, would have been a corn drying kiln, which would have dried the grain prior to milling. A particularly common feature of such kilns are the perforated floor tiles on which the grain was placed and through which the heat passed. None of these tiles were identified at Binns, although if the tiled floor area was still in situ, it could be obscured by overburden.

Thus in terms of land use, there is evidence for a mixed farming economy within the study area, with arable activity occurring on the lower, flatter slopes of the valleys and the higher slopes providing common pastureland. Most of the enclosure is associated with the arable areas and the documentary and physical evidence would suggest that the majority of the early enclosure, as well as the settlement sites and agricultural remains are of sixteenth or seventeenth century date.

INDUSTRIAL

Evidence for industrial activity within the study area is dominated by sites of an extractive origin, notably stone quarrying, although some coal workings are also present. The earliest documentary reference recovered for quarrying in the study area comes from a release of 1698 in which 'John Garside and Susan to have liberty to get slate in the stonepit that now is open for the repair of Hanginleighs [Hanging Lees]'.[31] Other than this reference there is a surprising absence of documentary evidence for quarrying in the area, including the 1626 survey which does mention other land use rights. Despite this, the reference to stone quarrying for the repair of Hanging Lees implies that the building was already made in stone, and the surviving structural remains elsewhere appears to demonstrate seventeenth century stone buildings in the area. Some of the stone walled field boundaries are also likely to be seventeenth century in date and therefore the presence of stone structures would require the existence of quarries at this date. Later extensions and the grassed over nature of many of these workings makes their dating difficult (other than when they post-date the Ordnance Survey map sequence), although it would be reasonable to assume that the quarries nearest to settlement sites are likely to have been the source of building material and therefore to be of a relatively early date. For example the site of Norman Hill (297) has an area of quarrying immediately to the east and this is likely to have been the source for the farm buildings. The first clear picture of quarrying activity in the study area is provided by the First Edition Ordnance Survey map of 1851, which shows several small sandstone quarries scattered across the area, this activity continues through the nineteenth century and by the production of the OS Second Edition in 1895 the quarry 261 has been substantially enlarged, although some of the smaller sites appear to have become disused. The reservoir building activity of the mid-nineteenth century is likely to have been responsible for most of this quarrying activity, with quarry site 109, together with the remains of a tramway,

on the east side of Norman Hill Reservoir, representing one of the more significant industrial archaeological sites of the area.

Evidence of coal working in the study area is restricted to those areas where the Lower Coal Measures either outcrop or lie close to the surface. Consequently the land to the west of Rag Hole Clough and the north facing slopes of Ogden Edge represent the only areas of coal exploitation identified within the study area. Some of the workings to the west of Rag Hole Clough are shown on the 1851 OS map and may therefore date to this period, with more extensive nineteenth and twentieth century works situated immediately to the west of the study area boundary. There is no map evidence for mining on Ogden Edge although several bell pits are located in the area around the newly built water treatment works. These pits represent a crude form of mining whereby a shaft was sunk into a coal seam close to the surface and the coal was worked out, in cross-section the pit being bell shaped. At some point the roof became dangerously unstable and the pit was abandoned, another shaft would then be sunk close by. This form of mining is difficult to date: it began in England in the medieval period, but there is no fixed date when it went out of practice. The coal would undoubtedly have been mined on a small scale for local use.

The other industrial sites in the study area are related to the textile industry and are two fulling mills. The water-powered fulling mill was associated with the woollen industry and by the late eighteenth century the fulling process, had been mechanized for several centuries[32] and the presence of fulling mills on rivers and streams well established. Both Kitcliff Mill (227) and Longden End Mill (13) are described as fulling mills on the 1851 map and both have associated mill ponds. Tenter fields are also shown by these two sites, with the tenter field for Longden End Mill appearing on the 1851 map, while that to Kitcliff appears on the 1895 map. The tenter field was where the woollen cloth, having been fulled, was stretched and dried by hanging it on racks under tension.[33] The field adjacent to Longden End Mill retains a series of terraces running across the hillside and indicates the position of the tenter post alignment. The date for the establishment of the two fulling mill sites has not been established (as already mentioned Kitcliff Mill may well occupy the site of a seventeenth century corn mill, but the date at which it began as a fulling mill is not known). It is likely that both are of eighteenth century date, as a study of fulling mills in the neighbouring township of Saddleworth has revealed that this was the period when many mills were established, with four fulling mills existing in that township prior to 1740, and a further seventeen founded during the remainder of the century.[34] Unfortunately there are few structural remains to both the mill sites, with no standing remains at Longden End Mill and buildings of perhaps nineteenth century date, all that survive of Kitcliff Mill. However, in both cases the water management features, which include mill ponds and water channels are still discernible.

Fulling represents one of the finishing processes in the woollen industry and from the medieval period through to the final decades of the eighteenth century was almost the only aspect of the industry which was mechanized and housed within a building specifically designed for its function. The preparatory and manufacturing processes of the woollen industry remained until the nineteenth century a domestic industry and in the Rochdale area this usually meant it was combined with farming.[35] Therefore most farm households would carry out processes such as carding, spinning and weaving within their homes, with the finished cloths then sent to the fulling mill. The usual operational system within the industry was that the raw wool was supplied to the farmer by a 'middleman', who then collected the finished cloth and paid the farmer for his efforts. Increasingly during the latter years of the eighteenth century and the early years of the nineteenth century several of the previously domestic processes were mechanized, to the extent that weaving became almost the only part of the industry carried out in a domestic environment. Within the study area no direct references to domestic involvement in the woollen industry have been recovered, although considering its widespread occurrence it is highly likely that the farmers of the area were supplementing their income in this way. Other than the mills and the tenter fields, the only other indicator of textile activity is provided by the site of New

Nook (**4**), which lies to the north-east of the site of Longden End Mill. This row of three cottages retain in their south-facing front elevation a large expanse of mullioned windows, which is often an indicator of domestic weaving activity. This is because weaving required a brightly lit work area and it is possible that in this case the occupants of the cottages were either agricultural workers who also carried out weaving, or were solely engaged in the latter and were perhaps employed by the owners of the nearby fulling mill.

The major development within the study area during the second half of the nineteenth century and early years of the twentieth century was the impact of the water industry. The natural catchment potential offered by the Piethorne valley resulted in the construction of Norman Hill (**124**), Hanging Lees (**268**), Piethorne (**300**; Plate 18) and Kitcliffe (**228**) Reservoirs under the Oldham Corporation Gas & Water Act of 1855, with the actual construction taking place between 1858 and 1866. This was followed by the construction of Ogden Reservoir (**214**) between 1872 and 1878; and Rooden Reservoir (**255**) between 1894 and 1901. These reservoirs were built to supply water to parts of Oldham, Chadderton and Rochdale. Piethorne represents the main and largest reservoir of the group, with Norman Hill, Hanging Lees and Rooden reservoirs, originally providing additional storage for Piethorne. Kitcliff Reservoir and later Ogden were originally constructed to supply compensation water to mill-owners further downstream. Other than the reservoirs, one of the other major waterboard sites in the study area is a tunnel between Longden End valley and Piethorne valley (Plate 19).

Plate 18 An aerial view of Piethorne Reservoir (bottom), Hanging Lees Reservoir (centre) and Rooden Reservoir (top).

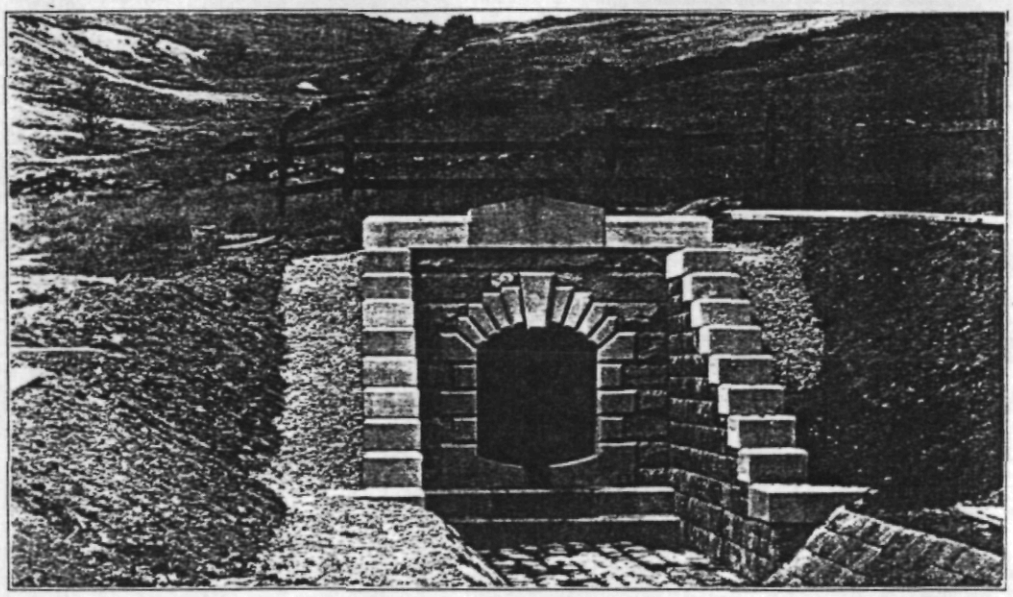


Plate 19 View of the tunnel entrance (**149**) as it appeared when opened in 1929.

Notes

1. Farrer & Brownbill 1911, 213
2. Fishwick 1889, 118-9
3. ibid, 115
4. Farrer and Brownbill 1911, 213
5. ibid, 217
6. Fishwick 1913, xii
7. ibid, 41
8. ibid, 42
9. Littleborough Historical Society - Oldham Archives Thh 4
10. Fishwick 1913, 53-4
11. Fishwick 1889, 115
12. Field 1993, 4
13. Faull & Moorhouse 1981, 659
14. Fishwick 1913, 53-4
15. ibid, 55
16. Faull & Moorhouse 1981, 663
17. Taylor 1975, 87
18. Williams 1988, 21
19. J Marriot, West Yorkshire Archaeological Unit, pers. comm.
20. Fishwick 1889, 118-9
21. Fishwick 1913, 70
22. ibid, 41
23. Littleborough Historical Society - Oldham Archives B1
24. Littleborough Historical Society - Oldham Archives Bc1
25. Littleborough Historical Society - Oldham Archives, Coldgreave No.7
26. Fishwick 1913, 64-6
27. Littleborough Historical Society - Oldham Archives, Coldgreave No 15

28. Littleborough Historical Society - Oldham Archives, Coldgreave No 16
29. Littleborough Historical Society - Oldham Archives, Coldgreave No 119
30. Littleborough Historical Society - Oldham Archives, Ba10
31. Littleborough Historical Society - Oldham Archives, Coldgreave No 20
32. Giles and Goodall 1992, 12
33. ibid
34. Barnes 1983, 27
35. Wadsworth 1925, 91

8. Gazetteer of Sites - Piethorne

The following gazetteer lists those sites identified within the Piethorne Study Area by the UMAU / GMAU survey. Abbreviations FW, M, AP refer to the method of identification, ie field walking, map research or aerial photograph analysis. SMR refers to the Greater Manchester Sites and Monuments Record held by the Greater Manchester Archaeological Unit.

1) SD 9552 1412
Tenter Fields ** M AP FW

A field to the north of Longden End Mill, shown on the 1851 map as being 'Tenter Ground'. By 1895, the extent of the tenter fields appears to have increased, with the field directly adjacent to the mill showing evidence of tenter posts. Site vacant on the 1910 map. A series of terraces cut into the hillside and running approximately east to west represent the surviving remains of this site. No holes associated with the tenter posts were observed.

2) SD 9562 1412
Structure ** M AP FW

Small L-shaped building to the east of Longden End, shown on the 1851, 1895 and 1910 maps. Site vacant on the modern maps. This demolished stone structure retains little obvious information of its arrangement. On the south side of the lane immediately opposite this site the position of another stone structure survives as a terraced platform.

3) SD 9567 1411
Longden End ** M AP FW

A single rectangular structure shown on the 1851, 1895 and 1910 maps. Site appears vacant on modern map. This is a demolished stone built structure which was divided into two bays. Some of the walls still stand to *c* 2m in height and amongst the demolition material are some chamfered stone mullion windows, which may indicate a 17th or early 18th century date.

4) SD 9580 1415
New Nook ** M AP FW
SMR 2307/1/0

A single rectilinear building shown on the 1851 map and all later maps. This is a row of three cottages, built in two phases with the eastern cottage the earlier build. The cottages are two storey with a graduated stone slate roof and constructed in watershot stone. Each door has a dressed stone door surround and multi-light mullion windows, particularly on the south facing front elevation. Would appear to be a row of farm labourers cottages, which also carried out domestic weaving activity and probably of 18th century date.

5) SD 9588 1413 (linear)
Field Boundary ** FW

A dry stone wall, running approximately north-west to south-east, is built on an earthen bank, which may represent an earlier phase of boundary division.

6) SD 9589 1398 (linear)
Field Boundary ** FW AP

A linear bank, running approximately north to south, would appear to represent the line of a former field boundary. A second bank crossing this (east to west) near its southern end and parallel with Longden End Clough may represent a second field boundary.

7) SD 9582 1391 (linear)
Field Boundary ** FW AP

A linear mound running approximately north to south on the south side of Longden End Clough and possibly continuing on the north side would appear to represent the site of a former field boundary.

8) SD 9575 1393
Extractive Site * FW

A sub-circular depression on the south side of footpath would appear to be a grassed over quarry site.

9) SD 9576 1396
Footbridge ** M FW

A footbridge is shown on this site on the 1851 map and all later maps. The present structure appears to be a Waterboard design comprising rock-faced stone with ashlar detailing. It has a low arch with voussoirs and keystone. Small pillars are located at the ends of the parapet walls.

10) SD 9577 1400
Waterboard Works * M FW

This site is shown on the modern maps as a rectangular building within a similar shaped enclosure and described as 'works'. The site is now demolished with brick demolition debris marking the site.

11) SD 9576 1409
Earthwork ** FW AP

A circular banked feature with central depression. Function is not clear, although appears modern.

12) SD 9568 1402
Mill Pond ** M AP FW

Pond feeding Longden End Mill. Fed by Longden End Brook with a weir at the east end. Shown on the 1851 and all later maps and still water filled, although heavily silted/reeded up.

13) SD 9551 1404
Longden End Mill ** M AP FW

Shown on 1851 map as a rectangular building with a possible small outshut to the west facing side. Mill pond runs up to east side. Marked as a fulling mill. 1895 map shows mill has had alterations to the east side and other structures erected to the west. 1910 map lists mill as disused. A chimney, tank and filter beds are marked on the map, as well as a number of other smaller structures. Modern map shows site as vacant with only tank and filter beds remaining. Building shown on 1895 map on the western side of the site is still standing, although has been substantially modernized and is now used as a house. None of the mill buildings survive although platforms containing stone and brick debris are visible on the eastern side of the site.

14) SD 9548 1401
Foot Bridge * M AP FW

Bridge shown on 1851 map and later maps crossing Longden End Brook just south of Longden End Mill. A bridge is still located on this site, although it is a modern structure.

15) SD 9544 1383
Sandstone Quarry * M AP FW

Large quarry shown on the 1851 map. Site vacant on later maps. This has a number of quarried edges and has a track running around on the north and west sides, as well as running into the workings.

16) SD 9538 1374
Extractive Site * AP FW

Visible on APs, not shown on any map. On the ground this is a small grassed over quarry cut into the hill side.

17) SD 9542 1366
Sandstone Quarry * M AP FW

Small quarry shown on 1851 map at the edge of a footpath. Not shown on the 1895 or later maps, although visible on APs and on the ground where it is cut into the hillside and grassed over.

18) SD 9545 1359
Sandstone Quarry * M AP FW

Small quarry shown on 1851 map in the corner of field. Site vacant on the 1895 and later maps, although quarry is visible on APs and on the ground where two and possibly three working areas are cut into the hill side and grassed over.

19) SD 9545 1357
Quarry * M AP FW

Small quarry shown on the 1895 and 1910 maps in corner of field. Marked as 'Old Quarry' on the 1910 map. Visible on aerial photographs and on the ground, where it is cut into the hill side.

20) SD 9531 1357
Pond * AP FW

Small circular depression in middle of field. Not shown on any map. Visible on APs and on the ground. It would appear to be a pond, situated in the corner of two field boundaries (**21** and **23**).

21) SD 9532 1357 (linear)
Field Boundary * FW

A low linear bank running, approximately north-west to south-east, would appear to represent the line of a former field boundary.

22) SD 1322 1348
Extractive Site * FW AP

A spoil mound with pit on east side, partially cut by modern track.

23) SD 9530 1350 (linear)
Field Boundary * FW AP

A linear bank running approximately south-west to north-east probably represents the line of a former field boundary.

24) SD 9536 1341 (centre)
Ridge and Furrow ** FW

Ridge and furrow running approximately south-west to north-east. The ridges measure *c* 2.2m wide.

25) SD 9527 1335 (linear)
Tunshill Lane *** M FW

Shown on the 1851 map and all later maps. This lane runs across the study area in approximately an east to west direction and in places is a major hollow way *c* 4-5m deep with stone revetment along its banks. The whole feature measures over 8m across in places.

26) SD 9515 1327
Doldrum * M FW

Two buildings are shown on this site on the 1851 map: one is T- shaped and on the north side of Tunshill Lane, the other is rectangular and on the south side of the lane. By the 1895 map both buildings are shown but the site has changed its name to Thorney Bank. Both buildings are shown on the 1910 map and an 'Old Shaft (Coal)' is shown on the north side of the lane. The site is vacant on the modern map. There are more visible remains of the building on the south side of the lane largely consisting of stone rubble and stone slates for the former roof. Wall alignments of this rectangular building can still be defined. A flattened area on the north side of the lane, terraced into the hillside represents the site of the second building. This second building site was reportedly used for JCB practice (Anne Symonds pers comm) and is therefore likely to have been substantially destroyed. The shaft is survives in a good condition, comprising a stone lined shaft surrounded by shale spoil mounds.

27) SD 9505 1317
Extractive site * FW

An arc shaped depression cut into the hillside on the west side of track, may be a small quarry.

28) SD 9511 1313
Extractive site * FW

A U-shaped depression which may represent a small quarry working.

29) SD 9519 1317 (centre)
Ridge and furrow ** FW

A small area of ridge and furrow, running both south-east to north-west and south-west to north-east. Ridges measure *c* 1.5-2m wide.

30) SD 9522 1314
Extractive site * FW AP

An elongated depression, running parallel to track appears to be extractive in origin.

31) SD 9524 1307 (linear)
Field boundary ** FW AP

A linear bank with possible ditches on either side, running in an angular east to west direction, Similar to some other earthen bank boundaries in this area.

32) SD 9529 1308
Extractive site * FW AP

A sub-circular depression on north side of angled turn of boundary 30 appears to be an extractive feature.

33) SD 9535 1307 (linear)
Field boundary ** FW AP

An earthen bank with ditch on eastern side, similar to a number of other boundaries on the south side of Town Hill. Shown on 1910 map.

34) SD 9533 1312
Extractive site * FW AP

An elongated U-shaped depression cut into the hillside, probably a quarry working.

35) SD 9538 1313
Extractive site * FW AP

A small U-shaped depression cut into the hillside, probably a quarry working.

36) SD 9537 1317 (linear)
Field boundary ** FW AP

A low bank appears to represent the line of a field boundary shown on the 1910 map.

37) SD 9547 1323 (linear)
Field boundary ** FW AP

A low bank with what appears to be ditches on either side. At the northern end of this feature the alignment of the bank appears to curve around to the east and eventually peter out. This bank forms part of the same feature as 33 and part of the alignment is shown on the 1910 map.

38) SD 9545 1342
Track/Footpath * M AP FW

Shown on the 1851 map connecting quarry 40 to Tunshill Lane and possibly Tunshill Hey Mill. Track removed by 1895. Nothing visible on the ground.

39) SD 9545 1338
Earthwork ** FW AP

A small hillock on the northern side of Town Hill appears to have a ditch running around its southern side. It may be a natural feature.

40) SD 9550 1345
Sandstone Quarry * M AP FW

Linear quarry shown on the 1851 map. Site vacant on 1894 and later maps, although visible on APs. These partially grassed over workings are cut into the hill side. A linear feature to the south-west running towards Tunshill Lane, may represent the position of a former field boundary.

41) SD 9555 1353
Track ** M AP FW

Track shown on all maps leading from Tunshill Lane to Longden End Clough. Shown on the 1851 map and visible on APs as possibly originally connected to the track south of Tunshill Lane leading down to Binns. At its southern end this is now a grassed over track measuring *c* 2m wide. As it passes quarry site (15) and leads towards the site of Longden End Mill (13) this becomes a cobbled track.

42) SD 9556 1356
Extractive Feature * FW AP

A small circular depression would appear to be an extractive site, probably a small quarry.

43) SD 9563 1346 (centre)
Ridge and Furrow? * FW AP

A series of linear features running approximately south-west to north-east. These may represent ridge and furrow, although it is also possible that they represent land drainage.

44) SD 9560 1355 (centre)
Ridge and Furrow * FW AP

A series of linear features running approximately north-west to south-east. These may represent ridge and furrow, although it is also possible that they represent land drainage.

45) SD 9582 1365
Stone ** FW

A large stone, *c* 2m in length lying on its side. Originally it may have been set upright, as a depression at one end of it appears to mark the position of the hole dug to erect it. As it is situated on the very top of Nicholas Pike, a prominent hill, it may have represented a notable landmark at one time.

46) SD 9569 1362
Extractive Site * FW

A sub-circular mound and associated depression which would appear to be extractive in origin.

47) SD 9571 1367
Mounds * FW

A series of small amorphous mounds which may be grassed over spoil mounds, associated with extractive workings on Nicholas Pike.

48) SD 9568 1364
Structure * M AP FW

Small square structure shown on the 1910 map. Not shown on modern maps although a very dilapidated structure is visible on the APs. This small square shaped stone structure is a ruinous sheepfold.

49) SD 9560 1370
Tracks/Footpaths * M AP

Two footpaths, shown on 1851 map, leading to quarry near site of New Barn. Not shown on 1895 or later maps. One footpath cuts across Nicholas Pike and runs very close to the structure 48.

50) SD 9563 1376
Sandstone Quarries * M AP FW

A number of small quarries along the footpath leading to New Barn, shown on the 1851 map. The largest quarry to the west is still shown on the 1910 map where marked as 'Old Quarry'.

51) SD 9596 1386
Lower Whitely Dean *** M AP FW

Shown on the 1851 map as a single rectangular building on the edge of Lower Dean Brook, where named as 'Lower Dean'. On the 1895 map the building had been extended slightly on the north face. Also visible is a square structure on the bank of the Brook which is still evident on the modern map. Site now called 'Lower Whitely Dean'. Plan remains unchanged on 1910 map although a

small outbuilding has been erected to the south. Modern map shows the site as vacant although wall foundations and the square structure are still visible on the APs. The watershot stone walls to this structure still stand to *c* 2m in height. The L-shaped plan of the building is still clearly discernible with the northern arm, added by the 1895 map, containing a small vaulted cellar with holes in side walls and a cold shelf still in situ. The remains of a fireplace in the eastern wall of the original rectangular block is also visible.

52) SD 9579 1379
New Barn ** M AP FW

Single rectangular building shown on the 1851, 1895 and 1910 maps. Site appears vacant on the modern map. Remains are visible on APs. This demolished stone structure has walls of watershot stone still standing to *c* 2m high, with a possible cross wall discernible. Despite the site's name there is no evidence for it being a barn, with a more likely function being as an outbuilding for animals.

53) SD 9587 1375
Water Tunnel & Spoil Heap ** M AP FW

The entrance to a tunnel containing a water pipe is shown on modern maps & visible on APs. This has a Waterboard design with rocked-faced stone work and ashlar coping. The arched entrance to the tunnel has a rusticated surround. A large spoil heap, presumably associated with the excavation of the tunnel, lies to the north and has been cut by an extension of the footpath running up from Longden Mill to Lower Whitely Dean. A single linear feature runs from the mouth of the tunnel down to Longden End Clough. This probably represents the alignment of the waterpipe.

54) SD 9597 1378(centre)
Ridge and Furrow ** AP FW

A small area of ridge and furrow, running approximately south-west to north-east, with the ridges measuring *c* 2m wide. This area of earthworks has been truncated by a later track and spoil heap to the west.

55) SD 9583 1359
Sandstone Quarries * M AP FW

Two small quarries shown at the top of Nicholas Pike on the 1851 map. Not shown on 1895 or later maps although visible on APs and on the ground. The stone partially outcrops on the top of Nicholas Pike and these quarries represent shallow workings.

56) SD 9582 1349
Extractive Area * FW

An area of amorphous mounds with some stone spoil, probably associated with quarrying activity.

57) SD 9586 1346
Extractive Site * AP

A number of very small grassed over circular pits, probably small quarry workings.

58) SD 9581 1344 (linear)
Linear Depression * FW AP

A linear feature running approximately east to west, probably represents a former field boundary.

59) SD 9587 1341
Spoil Mounds? * FW

A group of three amorphous shaped mounds in western corner of field. May relate to extractive workings or possibly grassed over debris.

60) SD 9590 1344 (linear)
Field Boundary ** FW AP

A dry stone wall field boundary is built upon a prominent bank *c* 3m wide, which has a ditch *c* 2m wide on the northern side. This substantial earthwork would appear to be overly large to be simply a field division.

61) SD 9609 1343
Extractive Area * FW

A series of elongated depressions cut into the hillside appear to represent shallow quarry workings.

62) SD 9599 1346
Stone Cairn * FW

A small discrete area of stone rubble, may represent a footpath cairn, or alternatively is associated with quarrying activity.

63) SD 9598 1350
Extractive Area * FW

An area of amorphous mounds and depressions in the hill side would appear to represent shallow quarrying activity.

64) SD 9593 1357
Footpath * M AP FW

Footpath following line of Lower Whitely Dean Brook, connecting New Barn to junction of Tunshill Lane at Turf Hill. Shown on 1895 and all later maps. This survives as a grassed over path.

65) SD 9606 1364
Sandstone Quarry * M AP FW

Small quarry shown on 1851 map. Not shown on 1895 or later maps. This is now a grassed over depression cut into the hill side.

66) SD 9612 1368
Pond * M AP FW

Small sub-circular pond near site 75 shown on 1895 and later maps. Survives as a rushy depression.

67) SD 9611 1372
Ridge and Furrow ** FW AP

Possible area of ridge and furrow, running approximately east to west.

68) SD 9604 1381
Ridge and Furrow ** FW AP

An area of ridge and furrow, running approximately north-west to south-east, with the ridges measuring *c* 2.2m wide. A later drain cuts obliquely across these earthworks.

69) SD 9607 1387
Field Boundary ** FW AP

A linear earthen bank, running approximately south-west to north- east, appears to represent a former field boundary.

70) SD 9606 1390
Ridge and Furrow ** FW AP

An area of ridge and furrow on the western side of an old watercourse, with the ridges running approximately north to south.

71) SD 9612 1391
Ridge and Furrow ** FW AP

An area of ridge and furrow on the eastern side of an old watercourse, with the ridges running approximately north to south.

72) SD 9615 1387 (linear)
Field Boundary ** FW AP

A large linear earthen bank, measuring *c* 2m wide and 1m high, curves down towards Longden End Clough in an approximately north to south direction. If it is simply a field boundary it is very substantial.

73) SD 9618 1375
Track ** M AP FW

Track shown on all maps connecting Higher Whitely Dean, Middle Dean, New Barn, Lower Whitely Dean and Longden End Mill, with a footbridge crossing the Lower Whitely Dean Brook. Visible on APs. Track tends to diminish into a footpath as it heads east towards Higher Whitely Fold. This track measures *c* 2-3m wide and is grassed over, its course is substantially disturbed in places.

74) SD9625 1380
Ridge and Furrow ** FW AP

An area of ridge and furrow, running approximately north to south, the ridges measuring *c* 1m wide.

75) SD 9621 1366
Pond/Water-filled Pit * M AP FW

Irregular shaped pond/water-filled pit shown on the 1851 map next to field-wall. Site vacant on the 1895 map. 1910 map shows a small rectangular structure at approximately the eastern end of the feature's position. Shown water-filled on modern maps. Both features are visible on APs. The water filled pit lies in the bottom of what appears to be a large quarried area, which has now been grassed over. The structures are still visible as small stone built buildings. A mounded bank runs around the southern top of the quarry and then curves round to the south to join Tunshill Lane.

76) SD 9630 1355
Extractive Site * AP FW

Small circular pit, possibly extractive. Not shown on maps but visible on APs. On the ground this feature is a pond and adjacent to it on the eastern side is a linear bank running parallel with the field boundary which may represent an early boundary division.

77) SD 9630 1375 (linear)
Field Boundary ** FW AP

A linear earthen bank, measuring *c* 2m wide and 2m high is cut through by trackway 73 and joins dry stone wall boundaries on north side of track. May represent an early field division.

78) SD 9640 1380
Middle Dean *** M AP FW

One rectilinear building shown on this site on the 1851 map. All later maps show the site as vacant. A path connects this building with Higher Whitely Dean and New Barn and is still shown on modern maps. The remains of the building are visible on APs. The remains of this stone built structure survive to over 2m in height in places, including a quoined corner. The building is partially terraced into the hill side. The rectangular plan of this building is still discernible, with a small cell on the eastern end.

79) SD 9656 1359 (centre)
Extractive Area * FW

A large area of amorphous earthworks which may be the result of extractive workings, probably quarrying.

80) SD 9663 1361
Sandstone Quarry * M FW AP

A small quarry on the south side of a track is shown on the 1851 map. Survives as an irregular shaped depression with an entrance leading on to a trackway to the north.

81) SD 9679 1371 (linear)
Extractive Sites and Trackway * FW AP

A linear hollow trackway, along the line of which are several areas of extraction works.

82) SD 9665 1374 (linear)
Path/Track * M AP FW

Path leading down to Higher Whitely Dean from Tunshill Lane. Shown on the 1851, 1895 and 1910 maps. Survives as a grassed over track, terraced into the hill side.

83) SD 9674 1384
Higher Whitely Dean *** M AP FW

Shown on the 1851 map as a rectangular building, possibly of two units, with an outbuilding to the west, a spring and a well. Named on the map as 'Top of Dean'. 1895 map does not show outbuilding. Renamed as Higher Whitely Dean. Plan remains largely unchanged on the 1910 and 1930 maps but modern maps show the site as vacant. The main building on this site, although demolished, is clearly discernible and is of two phases. The earlier phase is the southern end, which is a three bay stone built structure, with evidence for a doorway into the central bay. Amongst the debris of this building, and still in situ in places, are chamfered stone mullions. A later extension has been added on the northern side. A small square shaped structure, with quoins, presumably the smaller outbuilding on the western side of the site is also visible, although ruinous.

84) SD 9679 1386
Footpath ** M AP FW

Path visible on the 1851 map and partially visible on APs and on the ground. Not shown on the 1895 or later maps. Leading to Windy Hill from Higher Whitely Dean, a continuation of 73.

85) SD 9687 1388
Extractive Area * FW AP

A disturbed area of ground may indicate former extractive activity.

86) SD 9713 1390 (linear)
Field Boundary ** FW AP

A substantial earthen bank, measuring *c* 3-4m wide and 1m high, with a large ditch on the eastern side, curves northward and follows the line of the field boundary down to Longden End Clough. The dry stone wall which forms the boundary to the study area actually cuts through this feature.

87) SD 9704 1387 (linear)
Track * FW

A grassed over trackway cutting up the hill side in an east to west direction.

88) SD 9706 1385
Extractive Feature * FW

A small grassed over depression, cut into the hill side, would appear to be extractive in origin, probably a small quarry.

89) SD 976 140
Flint Scatter ** SMR 8869/1/6

This site was excavated by Kenneth Teale, it had been buried under hill wash so had been sealed. The flint was coloured flint from Cheshire. The

site is described as being early Mesolithic, *c* 8500-6500 bc.

90) SD 976 140
Flint Scatter ** SMR 8869/1/1

Here was found 159 unretouched blades and flakes, 1 scraper and 9 microliths.

91) SD 975 139
Flint Scatter ** SMR 8869/1/2

A single unretouched blade and flakes found on this site.

92) SD 973 138
Flint Scatter ** SMR 5268/1/2

Described as a surface scatter of Neolithic to Early Bronze age flints.

93) SD 974 138
Flint Scatter ** SMR 5268/1/0

A reference to a scatter of Neolithic to Early Bronze age flints.

94) SD 975 138
Flint Scatter ** SMR 8854/1/0

This site is Early Mesolithic (*c* 8500 bc - 6500 BC) in date and was excavated by Francis Buckley in 1924, he found Yorks/Lincs Wold flint. Among the assemblage were chippings and gravers.

95) SD 9756 1382
Quarry * FW

A small quarry cut into the western bank of Piethorne Brook.

96) SD 9757 1378
Quarry * FW

A small quarry cut into the western bank of Piethorne Brook.

97) SD 9755 1372
Quarry * FW

An elongated quarry on the south side of Piethorne Brook.

98) SD 9752 1363
Structure and FW
Demolition Material *

A small stone Waterboard shed on the northside of track in a ruinous condition. Adjacent to the shed on the eastern side is a large area of quarried stone, dumped on the side of the track. Further down the hill side is more stone debris including worked stone.

99) SD 9745 1370
Settlement Site, Piethorne *** SMR 5035/1/0

Excavation, carried out by Mr S Poole, revealed a late Mesolithic settlement site, probably a seasonal hunting site, with evidence of a shelter, hearths and flintworking. There was also evidence for late Neolithic and Early Bronze Age occupation in the form of flintwork, fragments of four Beakers and Early Bronze Age pottery, including fragments of two collared urns, a worked shale ring, and jet beads. The two collared vessels suggest the site may have been occupied as late as 1200 BC. The late Neolithic/Early Bronze Age site had many scrapers, spells and worn pebbles together with carefully placed slabs which indicate skin or leather processing. No evidence of structures.

100) SD 973 137
Flint Finds *** SMR 5268/1/1

This site is dated *c* 4000 bc to 2000 bc and is reportedly S Poole's main excavation area. During excavation a few flakes of white Wold flint were found, in association with this site were later Mesolithic remains that had arc shaped stone and stake settings with hearth spots. The assemblage includes wasters, cores & microliths.

101a) SD 970 135
Flint Finds ** SMR 5268/1/5

This area is described as having six possible sites of Mesolithic date (6500 - 4000 BC).

101) SD 971 136
Flint Scatter ** SMR 5268/1/6

This site is described as an occupation site, dated to 3000-2000 BC.

102) SD 9716 1354 (linear)
Terraced trackway * AP FW

An S-shaped feature running across Windy Hills. This feature is *c* 2.5m wide and has a slight bank on the southern side.

103) SD 971 135
Flint Scatter ** SMR 8869/1/0

Three unretouched flakes and blades, and one large quartzite polisher, ellipsoidal in shape, were found on this site.

104) SD 9734 1361
Excavation Area FW

Stephen Poole excavation area on the north bank of Piethorne Brook, lies immediately adjacent to this trench.

105) SD 9739 1359 (linear)
Linear Feature * FW AP

A linear ditch feature, possibly a drain or a former field boundary runs approximately east to west.

106) SD 9744 1352
Site of Structure? * FW

Two linear banks projecting from field boundary wall, appear to represent grassed over structural walls.

107) SD 9746 1350 (linear)
Linear Feature * FW AP

A short length of earthen bank, running east to west, may represent the line of a former field boundary.

108) SD 973 134
Pottery Finds ** FW
SMR 8862/1/0

Sherds of pottery dated to the 14th-15th centuries were found on this site. The area from which these finds were recovered is a very stone area, which may retain some terraced platforms.

109) SD 9707 1321
Quarry and Tramway ** M FW

A quarry is shown on this site on the 1910 map. It appears to be disused on the 1930 and later maps. This is a large quarry face with a small stone hut by its northern entrance. Running away from the quarry in a south-westerly direction, and along the eastern side of Norman Hill Reservoir, is a tramline. This is composed of iron rails on timber sleepers, with a gauge of c 0.6m. The line becomes truncated further to the south.

110) SD 9690 1330
Extractive Features * FW AP

Three sub-circular shaped depressions, which appear to represent quarrying activity. A track running south-west to north-east passes through these features. A second linear feature, possibly a ditch, runs north-west to south-east, to the east of these features.

111) SD 9685 1330 (linear)
Field Boundary * FW

A linear ditch, running approximately north to south, follows the line of a field boundary shown on the 1895 map.

112) SD 9682 1336
Extractive Area * FW

A disturbed area of ground with amorphous earthworks may represent a site of extractive activity. This area is shown as a small enclosure on the 1895 map.

113) SD 9694 1341
Extractive Features * AP FW

A group of three pits on the northern side of a field boundary and a single pit on the south side. These are all grassed over quarry workings.

114) SD 9675 1343
Extractive feature? * AP FW

A large U-shaped cut into the hill side, may either be a natural feature or a large quarried area, which has now grassed over.

115) SD 9672 1341
Extractive Feature? * FW AP

A large U-shaped cut into the hill side, similar to site above. A stone dressed well is located within this feature and at the southern end is a square platform area. To the south-west of this platform, adjacent to field boundary are a collection of stone slates, which may either have been dumped from another site or may be indicative of a nearby demolished structure, possibly associated with the platform.

116) SD 9671 1340 (linear)
Extractive Area * FW AP

An elongated depression on the western side of a field boundary would appear to be an area of quarrying.

117) SD 9648 1342 (linear)
Track * FW AP

A linear feature running south-west to north-east across Binns Pasture would appear to be a grassed over trackway.

118) SD 9653 1328 (linear)
Field Boundary * FW AP

A linear ditch running approximately south-west to north-east may represent a former field boundary.

119) SD 9669 1331 (linear)
Trackway and AP FW
Extractive Sites *

An S-shaped trackway extending to the east of Tunshill Lane. At the eastern end of this track are several pits, probably quarrying activity as well as a timber lined well.

120) SD 9665 1325
Site of Structure and FW AP
Ridge and Furrow ***

An uneven terraced area of land lying in the middle of a field of ridge and furrow. The ridges measure *c* 2m wide and run approximately north-west to south-east. It is possible that the terraced area represents the site of a structure, possibly an early farm contemporary with the ridge and furrow. A well is situated to the east of the terraced area.

121) SD 9661 1322
Site of Structure? ** FW AP

A terraced area, possibly representing a house platform.

122) SD 9670 1319 (linear)
Ditches? ** AP FW

An L-shaped alignment of ditches. These are orientated north-west to south-east and then turn north-eastward and have a trackway appearance. They appear to overly the ridge and furrow (120).

123) SD 9675 1313
Extractive Feature * AP FW

A U-shaped depression on the west side of the reservoir appears to be a grassed over quarry.

124) SD 9685 1310
Norman Hill Reservoir ** M FW

This reservoir is shown on the 1895 map, when it is owned by Oldham Corporation Water Works. Sluices are located at the north- east end, as are a number of weirs along Piethorne Brook.

125) SD 9672 1306
Earthwork * M FW

A quarry on the western bank of Norman Hill Reservoir is shown on the 1910 and later maps.

126) SD 9688 1295
Earthwork * M FW

A mound to the south-east of Norman Hill Reservoir is shown on the 1910 and later maps. This may be a large silt mound associated with reservoir management.

127) SD 9699 1296
Ridge and Furrow ** FW

Ridge and furrow, running approximately north-west to south-east, with the ridges measuring *c* 2.5m wide.

128) SD 9705 1292
Extractive Site * FW AP

A disturbed area of ground, may represent an area of extractive workings.

129) SD 9694 1286
Earthwork * AP FW

A single ditched earthwork which is sub-circular in shape with a linear extension on the south side. The earthwork lies within a group of former field boundaries. This is clearly defined on the ground, with the main sub-circular area terraced into the hill side, the function of this feature would appear to relate to relatively modern water management.

130) SD 968 128
Flint Find ** SMR 8870/1/0

A flint borer of Mesolithic date found on this site.

131) SD 9677 1282
Extractive Area * FW AP

An amorphous group of depressions would appear to represent extractive workings, probably quarrying.

132) SD 9665 1284 (linear)
Linear Feature * FW AP

A linear bank, curving parallel with the boundary of Old House Ground Plantation, follows the line of a short length of track shown on the 1851 map.

133) SD 9662 1293
Extractive Feature * AP FW

A sub-circular feature which may be extractive in origin. A pair of linear features, probably former field boundaries are located to the north of this feature. The sub-circular feature is a small quarry with a further quarried area with associated spoil to the east. A narrow track running up to this quarry provides access to this site.

134) SD 9653 1289
Quarry * FW AP

A small quarry cut into the hill side with with a ditch running to the north.

135) SD 9653 1288
Structures? ** M FW

What appears to be the outline of two rectilinear structures is shown on this site on the 1851 map. The site is vacant on the 1895 map. A possible platform is visible on the south side of the plantation boundary and also the wall which comprises this boundary is composed of some dressed stone suggestive of re-used building material.

136) SD 9648 1296
Ridge and Furrow ** AP FW

A small area of ridge and furrow, aligned approximately north to south. The ridges measure *c* 2.2m wide.

137) SD 9647 1300
Extractive Feature * AP FW

A shallow sub-circular feature, now grassed over, probably associated with quarrying activity. An area of disturbed ground, possibly spoil associated with extractive workings is situated to the north-west of this site.

138) SD 9652 1316
Piethorn ** M FW

A cruciform shaped building and a smaller rectangular shaped building are shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. A demolished rectangular building with bay divisions is discernible with the wall alignments largely grassed over. A possible quarry is located to the rear of this building. A banked enclosure, partly tree lined survives to the south of this site.

139) SD 9647 1332
Extractive Features * AP FW

A pair of circular features *c* 50m apart, which appear to be quarry workings. Two elongated depressions to the west of the more northerly circular feature would also appear to represent extraction

140) SD 9637 1323
Extractive Features * AP FW

Three irregular shaped depressions which are areas of quarrying activity.

141) SD 9647 1314
Roughfield ** M FW

A rectangular building is shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. Very little structural remains survive to this site, other than amorphous rubble mounds, grassed over. On the western side of the site a small square shaped stone structure partially survives. A wall revetment on the west side of the site (which possibly represents the western end of the earlier building) contains two 'cupboards' and may represent the larder area of the house.

142) SD 9640 1306
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1910 maps. This is a large grassed over quarry, cut into the hill side. Two shallower quarry workings are located to the east of this main site.

143) SD 9638 1307 (linear)
Track? * FW

A linear ditch or track, running along the side of the field boundary in a north to south direction. A sub-circular depression is located along the eastern side of it and the track may be both for agricultural use and providing access to extractive workings.

144) SD 9632 1303
Site of Structure? * FW

A small square stone platform on the northern side of a field boundary. This would appear to be

the site of a small structure. A track appears to curve round the south side of this site.

145) SD 9634 1296
Ridge and Furrow? ** AP FW

A field of ridge and furrow, aligned approximately north to south, enclosed within a single field, visible on the APs. These features are not discernible on the ground.

146) SD 9634 1293
Quarry * FW

An irregular shaped depression would appear to be a quarry working. There is a track leading into this feature from the south.

147) SD 9628 1291
Rhodes Barn ** M FW

A T-shaped building is shown on this site on the 1851 and 1895 maps. The site appears ruinous on the 1910 map and is vacant on the modern map. The structural remains do not entirely relate to the map evidence with two rectangular structures identifiable. The larger of the two on the south side of the site, approximately occupying the site of the T-shaped building, this is a two roomed, stone building with evidence of a stone flag floor. The northern building is divided into five and possibly six divisions and would appear to have had an outbuilding function.

148) SD 9628 1288
Extractive Site? * FW

An area of depressions and associated spoil mounds may indicate an extractive site, although some of spoil contains demolition material and it may be that this site is a relatively modern tipping site, which has been grassed over.

149) SD 9624 1290
Tunnel Entrance ** FW

A tunnel entrance with stone lined channel to the south. The entrance has the same design as site 53 and appears to represent the southern end of the same tunnel. To the south-west of the tunnel entrance is a large spoil mound which has been flattened off, this is likely to comprise spoil from the excavated tunnel, similar to site 53.

150) SD 9619 1283 (linear)
Field Boundary ** FW

A linear bank *c* 2m wide and *c* 0.3m high curves round from watercourse and climbs hill side to join with track. Follows line of field boundary shown on 1851 map.

151) SD 9617 1302 (linear)
Field Boundary ** FW

A curving linear bank, paralleling the course of a watercourse, running approximately north to south, appears to follow line of a field boundary shown on the 1851 map.

152) SD 9621 1303
Extractive Feature * AP FW

A sub-circular feature which may be extractive in origin, visible on APs. Site was not observed on the ground.

153) SD 9621 1310
Earthwork ** AP FW

A square shaped enclosure? with a linear extension to the east. This would appear to be a natural feature.

154) SD 9625 1316
Close ** M FW

An irregular shaped building is shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. The remains of a rectangular shaped building divided into four, possibly five, bays is cut into the hillside on the northern side of this site. The remains of two small outbuildings are situated on the south side of the site. Most of the wall are alignments are grassed over with rubble mounds to *c* 0.5m high.

155) SD 9626 1324
Extractive Features * AP FW

Two circular shaped features alongside a field boundary which would appear to represent quarrying activity.

156) SD 9619 1322
Sandstone Quarry * M FW

A small quarry is shown on this site on the 1851 map. Not shown on the 1895 map. This survives as a grassed over earthwork.

157) SD 9617 1326
Extractive Features * AP FW

A line of small circular features which appear to represent a discrete group of quarry workings.

158) SD 9615 1328
Sandstone Quarry * M FW

A small quarry with a track to the south is shown on the 1851 map. Not shown on the 1895 map. This survives as a grassed over earthwork.

159) SD 9605 1332
Pond * FW AP

A small circular depression in corner of small enclosure appears to the site of a pond.

160) SD 9594 1326
Extractive Feature * AP FW

A shallow, sub-circular feature which appears to be extractive in origin, probably quarrying.

161) SD 9595 1329
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1910 maps. This is a partially grassed over quarry with a group of four smaller sub-circular pits, also extractive in origin located to the east.

162) SD 9593 1332
Extractive Feature * AP FW

An irregular shaped feature which may be extractive in origin. A very haphazard area of quarrying, now largely grassed over.

163) SD 9583 1336
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 and 1910 maps. This feature actually extends on either side of a field boundary wall, which has collapsed. A small circular pit is located on the eastern side of the main extraction site.

163a) SD
'The Good Field'

164) SD 9584 1340
Linear Ditch ** FW AP

A short length of ditch with a mound on the north side, possibly represents a boundary. May link with 60.

165) SD 9577 1327
Extractive Features * AP FW

These appear to be two separate extractive features, located on either side of a field boundary wall. The southerly feature has a clear entrance into it from the west and also contains a small stone structure in its base. Both sites were probably stone quarries.

166) SD 9564 1339
Site of Structure(s)? ** FW

At the northern end of routeway **171** at its junction with Tunshill Lane, a section of stone walling and a platform area on the eastern side of the routeway may indicate the site of a building. A second platform on the western side of the lane may also represent the site of a structure.

167) SD 9566 1331
Earthwork * AP FW

A large circular earthwork with an L-shaped feature on the western side is situated across a field boundary. Although the area of this feature is undulating and possibly contains some natural shaping of the landscape, there is no clear evidence of anthropogenic activity.

168) SD 9568 1327
Extractive Site * FW AP

A small grassed over depression cut into the hill side, with an entrance on the western side. Appears to be a small quarry.

169) SD 9561 1325
Extractive Feature * FW AP

A sub-circular feature, probably representing small scale quarrying activity.

170) SD 9559 1319
Extractive Feature * FW AP

A sub-circular feature, probably representing small scale quarrying activity.

171) SD 9566 1324 (linear)
Trackway ** M FW

This trackway is shown on the 1851, 1895 and 1910 maps, forming a large loop around Lower Pasture, joining with Tunshill Lane at either end. The western arm of this loop is a wide trackway, c 3m wide, which occupies the saddle of land between Town Hill and Turf Hill and may represent a drovers routeway. Where the road passes the site of Tanning Holes (189) a branch

route curves southwards leading into this site. The main routeway curves round to the east and becomes a slight hollow way. The eastern arm of the loop is a slight hollow way with dry stone walls on either side.

172) SD 9576 1315 (centre)
Earthen Mounds ** FW

A group of six small circular and sub-circular mounds, with a maximum diameter of *c* 2-3m. May just be spoil upcast, although there is no evidence of extractive areas in the immediate vicinity. They may also represent a group of small barrows.

173) SD 9564 1310
Extractive Site * FW AP

A small pit with entrance on the west side, probably represents a small quarry.

174) SD 9557 1311
Extractive Features * AP FW

A group of six sub-circular pits, three either side of the field boundary which are probably extractive in origin.

175) SD 9591 1312
Extractive Site * FW

A sub-circular depression cut into hill side would appear to be extractive in origin, probably quarrying.

176) SD 9595 1308 (linear)
Track * FW AP

A curving, sunken trackway, measuring *c* 2m wide lies to the east of main north to south track, with a gatepost at the junction of the two. The destination of the track is not clear.

177) SD 9590 1303
Extractive Site * FW AP

An elongated depression running parallel to track would appear to be extractive, probably quarrying.

178) SD 9590 1294
Coal Workings? * FW

A large area of shale spoil may indicate a collapsed coal working.

179) SD 9605 1302
Sandstone Quarry * M FW AP

This quarry is shown on the 1851 map with a track to the west. Not shown on 1895 and later maps. This is a large quarried area with several working areas. The track to the west is till clearly visible.

180) SD 9607 1285 (linear)
Field Boundary ** FW AP

A dry stone wall boundary is sited over a lynchet with a difference in land levels of *c* 1m either side of wall. The alignment of this boundary is shown on the 1851 map.

181) SD 9612 1281
Quarry * M FW AP

A small quarry is shown on this site on the 1895 map. It is cut into the hill side with access direct from the track on the south side.

182) SD 9607 1275 (linear)
Field Boundaries * AP FW

Two linear earthworks which survive as banks, follow the line of field boundaries shown on the 1851 map.

183) SD 9592 1288
Bins Barn ** M FW

An irregular shaped structure is shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. A similar building arrangement to that of the maps is visible on the ground, with three bay divisions, dividing a stepped building plan with the largest building division on the western side. The walls are largely flattened and overgrown, not standing above 0.5m.

184) SD 9594 1282
Trackway? * FW AP

A linear bank, running approximately north-west to south-east, with a larger semi-circular mound at the northern end. These features correspond with the line of a track to Bins Barn shown on the 1851 map.

185) SD 9588 1274
Quarries * M AP FW

A large quarry is shown on this site on the 1910 map. This extensive site is composed of two main quarried faces as well as a number of quarry spoil heaps. Access into the quarry is from the south.

186) SD 9580 1285
Binns *** M FW
SMR 2440/1/0

A group of five rectilinear structures are shown on this site on the 1851 map. Only four buildings are shown on the 1895 map. The site is vacant on the 1910 map. This extensive group of stone buildings have all been demolished, although many of the wall alignments are still clearly visible. One building retains a vaulted cellar with small alcoves built into the side walls and probably used as cupboards. An opening at the southern end of the cellar opens out at ground floor level and has the appearance of a flue. Amongst the demolition debris are included stone slates and ridge capping stones. There are also chamfered stone mullions and corbels, all of which indicates buildings of 17th century date. As well as the building remains a rushy depression in the middle of the site would appear to mark the position of a pond. On the south side of the site is a hollow way with stone revetment in the side walls.

187) SD 9580 1299 (linear)
Field Boundary * FW AP

A linear feature running approximately east to west probably represents the position of a former field boundary. Part of this alignment follows a field boundary shown on the 1851 map.

188) SD 9560 1300
Coal Adit? ** FW

An area of coal shale spoil with an associated linear depression cut into the hillside may represent the remains of coal workings. An embanked track runs across the linear depression and appears to be a later feature.

189) SD 9560 1297
Tanning Holes *** M FW

Two irregular shaped structures and three smaller buildings are shown on this site on the 1851 map. The site is referred to on this map as 'Tanning Holes or Town Hill Holes'. One of the smaller structures is no longer shown on the 1895 map and a large L-shaped building has been added on the south side. The site is vacant on the 1910 map. The site of the later L-shaped building retains the best visibly preserved remains which include a revetted platform beneath which are three large stone vaulted cellars. These cellars are interconnecting and measure *c* 4m high, which would appear to be rather too large for normal domestic use and may instead have a commercial function. A number of other platforms with some wall alignments visible are distributed over the site, including both the mapped buildings and the area to the south. A well, still water filled, and with a loose stone capping, is situated on the eastern side of the site.

190) SD 9540 1290
Extractive Features * AP FW

Three extractive areas cut into the hillside, with an entrance to the south. The central area is relatively shallow and there is stone spoil on the south side of the workings, which would suggest quarrying activity.

191) SD 9552 1286
Site of Structures? *** FW AP

An L-shaped depression and two rectangular depressions, with very angular edges and corners are situated on a flat platform of land. They may either be removed building foundations or the site of infilled cellars. A mound on the north side of these features may be grassed over demolition material. The proposed hollow way, which branches off from the main routeway (171) runs along one side of this site. There is some indication of ridge and furrow running in an east to west direction on the south side of this site.

192) SD 9547 1284
Reservoir ** M FW

A small semi-circular pond is shown on the 1895 map. On the 1910 map the reservoir is in the ownership of Oldham Corporation Water Works. On both maps a channel is shown to the west of the reservoir.

193) SD 9532 1283 (linear)
Lynchet ** FW AP

Running east-west across the hillside this lynchet would appear to indicate the position of a former field boundary.

194) SD 9529 1288 (linear)
Field Boundary ** FW AP

This is a linear earthen bank (running north-south) which becomes increasingly prominent as it ascends the hillside. It is clearly ditched on both sides with the bank *c* 1.5m high and the whole feature, including ditches, measuring *c* 6-7m wide.

195) SD 9525 1281 (linear)
Field Boundary ** FW AP

A linear earthen bank similar to 194, running north to south. This bank also has ditches on either side. The feature is interrupted by the stone lined water channel (192).

196) SD 9522 1283 (linear)
Field Boundary ** FW AP

Linear earthen bank, similar to 194 and 195, aligned east to west.

197) SD 9523 1286 (centre)
Ridge and Furrow ** FW AP

The lower third of this field contains ridge and furrow. The lowest part of the field has several ridges running east to west across the hillside. Above these the ridges are aligned north to south. In both cases the ridges measure *c* 2.2m wide and this area of agricultural activity is contained within the field boundaries 194 and 196.

198) SD 9492 1295
Structure * M FW

A small rectangular building is shown on this site on the 1851 map. The site of the building is vacant on the 1895 map. The site is described as 'Old Shaft (Coal)' on the 1910 map. A stone capped shaft with shale spoil mound around it.

199) SD 9484 1294
Coal Pit * M FW

A coal pit with a very small rectangular structure immediately adjacent to it is shown on this site on the 1851 map. The site is vacant on the 1895 map. Site is composed of a shale mound.

200) SD 9488 1294 (linear)
Trackway * FW AP

Curving trackway defined by linear bank, may be associated with extractive industries. This feature cuts through field boundary (203).

201) SD 9495 1290
Extractive Site * FW

A small shallow pit may be extractive in origin, probably coal working.

202) SD 9494 1287
Extractive Site * FW AP

Shallow elongated depression, culminating in rounded end. Appears to be an adit.

203) SD 9500 1289 (linear)
Field Boundary ** FW AP

A linear lynchet with some trees along its line appears to represent a former field boundary.

204) SD 9501 1285
Extractive Site ** FW AP

A circular pit, which appears to be a coal working, either a shaft or bell pit.

205) SD 9509 1283
Mill Site ? ** FW

What appears to be a ford across Rag Hole Clough, with a terraced trackway on either side, may also represent a small weir across the brook, with the area upstream of the ford, a rushy area which may have been a small mill pond. There is no real structural evidence for a mill building, although the brook is markedly narrower on the south side of the ford (downstream) and would have been a suitable site for a small mill.

206) SD 9516 1283
Raghole *** M FW
SMR 8853/1/0

A group of three irregular and rectilinear shaped structures are shown on this site on the 1851, 1895 and 1910 maps. The site is vacant on the modern map. The most southerly of the buildings has undergone consolidation of its surviving walls and survives as a recognisable building shape, unlike the other two buildings. This is a rectangular structure, with a small block at the north-eastern end, forming an L-shape. At the northern end of this building a brick floored area, enclosing a smaller stone floored area may represent a large fireplace area. To the east of this building a terraced platform associated with stone debris represents the site of the eastern building. This site has been cut through by a later trackway.

207) SD 9510 1279
Structure *** M FW

An irregular shaped structure is shown on this site on the 1851, 1895 and 1910 maps. The site is vacant on the modern map. This stone built structure has undergone consolidation of its surviving walls. The main section of the building

(aligned east - west) is divided into four bays and appears to be a barn with animal accommodation on the western side. The threshing floor of the barn is clearly discernible. An additional bay on the northern side retains stall divisions and appears to be another animal accommodation area. A considerable amount of stone rubble including roofing flags and ridge capping stones are scattered all around the site.

208) SD 9518 1276 (linear)
Field Boundary ** FW AP

A linear low bank represents a former field boundary, which is still shown on the 1910 map.

209) SD 9512 1269 (linear)
Hollow Way and FW AP
Field Boundaries ***

A hollow way *c* 2m wide running approximately north to south leads to the site of Ragholes (206 and 207).This feature is defined by a prominent earthen bank on its western side, which is itself ditched on its western side. The eastern side of the hollow way is a steep sided edge, but may also originally have been a bank, but in this case the ditch on its eastern side has been infilled. At its northern end near the farm the hollow way flattens out, with the ditch on the western side becoming more pronounced, a stone box drain is visible running along this ditch at this point. Both the hollow way and the earthen bank(s) appear to be of some antiquity.

210) SD 9511 1264 (linear)
Field Boundaries ** FW AP

An L-shaped linear earthen bank, *c* 1-1.75m high and 1m wide. A ditch is visible on the eastern side of one arm of this feature, which appears to be a field boundary of some antiquity.

211) SD 9514 1262
Extractive Feature * FW AP

A small arc shaped depression cut into the hillside appears to be extractive in origin, either a small adit or a quarry.

212) SD 9504 1251
Coal Pit * M FW

A coal pit with a small track to the north-east is shown on this site on the 1851 map. The site is vacant on the 1895 map. Nothing visible on the ground.

213) SD 95 12
Stone Head ** SMR 9058/1/0

Original location and date of this head are unknown. It is reportedly now used as part of a downspout on a rebuilt farm which is now used as a gift shop called 'The Shippon 1710'.

214) SD 9526 1248 (centre)
Ogden Reservoir ** M FW

This reservoir is shown on the 1895 map and is then in the ownership of Oldham Corporation Water Works.

215) SD 9527 1256
Iron Smelting Site *** FW

A spread of iron smelting slag found on the northern bank of Ogden Reservoir. The findings may represent the very truncated remains of a slag spoil heap from a bloomery or free standing shaft furnace. A single sherd of green-glazed pottery, of Early Post-Medieval or Late Medieval date, and a few sherds of 19th century pottery were found in association with this deposit.

216) SD 952 125
Flint Finds ** FW
SMR 2314

Two flints, possibly Neolithic or Early Bronze age in date were found on the bank of Ogden Reservoir. These were an end-scraper and a flake.

217) SD 9536 1262 (linear)
Field Boundary * FW

A linear earthwork running north to south through this field would appear to represent a former field boundary.

218) SD 9536 1266
Earthwork * M FW

A small sub-circular mound is shown on this site on the 1895, 1909 and 1930 maps. The site is vacant on the modern map. This mound survives and is composed of shale spoil and is likely to be associated with coal extraction, probably a coal shaft no longer visible.

219) SD 9544 1270 (linear)
Field Boundary * FW

A linear earthen bank curving northwards would appear to mark the position of a former field boundary.

220) SD 9553 1259 (linear)
Field Boundary * FW AP

A low linear earthwork running north to south across this field would appear to represent a former field boundary.

221) SD 9562 1262 (linear)
Field Boundary * FW AP

A low linear bank on the line of a footpath, probably represents a former field boundary.

222) SD 9563 1262 (centre)
Tenter Fields * M FW

The 1895 map shows a number of parallel lines in the field either side of a footpath. This field lies just to the north of Kitcliff Fulling Mill and represent rows of tenter posts. The site is vacant on the 1909 map. There are no visible remains of this tenter field.

223) SD 9582 1273
Structures ** M FW

A pair of small square shaped structures are shown on this site on the 1910 map. One of these buildings still stands and is a stone built structure containing a large stone forge/fireplace, with a stone flue. This building would appear to have operated as a small smithy and may be associated with the quarry (185) which is immediately adjacent.

224) SD 9588 1265
Stone Head ** SMR 9215/1/0

A stone head measuring 13½" x 6¾" x 4¼". Head appears hooded as a Romano-British cucullus figure but medieval masons wore similar headgear and in any case the affect may be accidental, being more a delineation of the face. The carving is quite crisp and there is a lack of sooting suggesting it was not displayed for long before it was laid in the foundation of a field wall near the settlement at Spring Holes. Head is carved from a reasonably well dressed building block of granular gritstone, showing slight rustication. The stone may be a mason's doodle. The wall from whence it came is shown on the 1851 map and the stone may be a lucky charm to protect livestock when the field was enclosed. Stone found and held by farmer Brian Haworth at Kitcliff Farm.

225) SD 9577 1266
Spring Holes * M FW

A single irregular shaped structure is shown on this site on the 1851 map. On the 1895 map the building shown on the site has a completely different plan and is an elongated rectangular shape. On this map the site is called Spring Hall. The same arrangement is shown on the 1909 and 1930 maps. On the latter map the site's name has reverted to 'Spring Holes'. The site has since been demolished with stone, machine made brick and modern demolition material scattered about the site.

226) SD 9569 1258
Hydraulic Ram ** FW

A small brick built construction containing a hydraulic ram which would have been used to pump water, and is probably associated with the site of Spring Holes further up the hillside.

227) SD 9571 1249
Kitcliff Mill ** M FW
SMR 5162/1/0

A group of three irregular shaped structures together with two small reservoirs are shown on this site on the 1851 map. The mill is described as a fulling mill on this map. One of the buildings has been slightly enlarged on the 1895 map and two rectangular buildings added on the north side, but otherwise the site appears to be largely the same. On the 1909 and 1930 map the reservoirs appear to have silted up and one of the earlier buildings has been demolished. The site appears to be largely vacant on the modern map. The only building which appears to be related to the mill and which is still standing is a single storey shed on the south side of the brook, which appears for the first time on the 1895 map. This building is still in good condition with a slate roof, although all of the window openings have been blocked. No other mill buildings are visible although the platforms on which the other buildings were located are still visible. A weir and one of the mill ponds are still in place. On the north side of the brook and representing the other rectangular building first shown on the 1895 map is a farmhouse, with a laithe house arrangement. The housepart is on the south side of the site with a barn and shippon on the northern side. There is a blocked barn doorway in the eastern elevation. The original relationship between the farm site and the mill is not clear, although both buildings now seem to form a single farm site.

228) SD 9595 1247 (centre)
Kitcliffe Reservoir ** M FW

This reservoir is shown on the 1895 map and is then in the ownership of Oldham Corporation Water Works. The same map shows a sluice valve house at the eastern end of the reservoir. A meter house and boat house are shown on the western edge of the reservoir on the 1909 map.

229) SD 9604 1233
Structure * M FW

A small rectangular structure is shown on this site on the 1895 map. This site is described as a sluice on the 1909 and 1930 maps. The site is vacant on the modern map. Still visible although the timber gate no longer survives and therefore no longer functions as a sluice.

230) SD 9582 1236
Thorn Bank ** M FW

Two L-shaped structures, *c* 20m apart are shown on this site on the 1895 map. The site is referred to as 'Piethorne' on the 1909 map. Both buildings appear to be still shown on the modern map. The eastern building is composed of single storey stone sheds, which appear to be for Waterboard use. The western building is a large T-shaped house, which now appears to have been divided into two dwellings. It is constructed in rock-faced stone with some ashlar detailing. Most of the windows are modern replacements. The front facade to the house is west facing and has a symmetrical arrangement with a central doorway. The site probably represents the original home of a senior Waterboard official. Contained within the garden wall of this house are a number of datestones which were removed from the farm sites within the study area after their demolition.

231) SD 9581 1232
Extractive Feature * AP FW

A U-shaped feature which may be extractive in origin. This site has an entrance on the north side leading onto a lane and would appear to be a small grassed over quarry.

232) SD 9532 1227
Spring Mill ** M FW
SMR 5161/1/0

Two large rectilinear shaped buildings on the north side of the lane, associated with smaller structures to the east and south as well as a small reservoir to the south are all shown on the 1895 map. The westernmost part of the large building on the northside of the lane is described as an 'Inn'. All of the buildings on the northern side of the lane are now domestic houses, including the inn which has been converted. All are stone built and the terrace to the east of the former inn may represent the homes of mill workers employed at Spring Mill. The mill itself is composed of single storey sheds, mainly stone built although some are of brick. All of the road side windows and an arched cartdoor have been blocked.

233) SD 9511 1216 (centre)
Reservoir ** M FW

This reservoir is shown on the 1895 and later maps.

234) SD 9539 1234
Gate House ** M FW

To the east of 232 and situated on the northern side of the lane is an attractive two storey stone built house, called the 'Gate House', which in a centrally positioned pediment contains the date 1862.

235) SD 9576 1197
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1895 map. On the 1909 map the site is referred to as 'Old Quarry'. This is now a grassed over depression with spoil mounds within it and around the sides. It may have been partially infilled.

236) SD 9615 1200 (linear)
Trackway * FW

A terraced trackway cut into the side of narrow stream valley. It is probably related to the canalized stream channel, allowing stone to be brought to the site.

237) SD 9628 1207
Bell Pits ** SMR 6216/1/0

Two bell pits on the south side of the footpath. Both measure *c*10m x 8m. The eastern one may be a small quarry as it is not as steep sided and there is a more obvious entrance. On the north side of the footpath is a linear band of mounds and depressions which have either been produced as a result of extractive industry or have been formed by a water course presently dried up. The vegetation along this line is quite lush indicating wetter conditions. Immediately adjacent to the footpath on the north side are two areas of stone abutment which appear to form part of a water culvert. The majority of this site would now

appear to lie beneath a new water treatment works.

238) SD 9634 1203
Bell Pit ** SMR 6216/1/1

A bell pit measuring *c* 7m in diameter is situated on the north side of a field wall. There is evidence of a spoil heap on the north side of the pit.

239) SD 9634 1203
Bell Pit ** SMR 6216/1/2

A bell pit measuring 8m x 6.5m situated on the south side of a field wall.

240) SD 9635 1201
Site of Structure * SMR 6217/1/0

Three mounds, one of which is linear in shape. All appear to be formed with flagstone and represent either an early field boundary or a small building.

241) SD 9628 1197
Bell Pit ** SMR 6216/1/3

A bell pit measuring 9m x 8m. There is a spoil heap on the north-west side.

242) SD 9626 1196
Bell Pit ** SMR 6216/1/4

A bell pit measuring 5m x 8m with a spoil heap on the north side.

243) SD 9622 1187
Bell Pit ** SMR 6216/1/5

Two bell pits with spoil heaps to north-west. The larger pit measures 6.5m in diameter, the smaller 4m in diameter. There are three small spoil heaps to the south of the pits and possibly one further bell pit. Further to the south is a linear mound which may be an early field boundary.

244) SD 9644 1191
Extractive Site * FW AP

This large irregular shaped depression has spoil mounds around its edges and would appear to have been formed by an extractive process. It does not appear to be coal exploitation and may therefore be a quarry.

245) SD 9644 1184
Extractive Site * FW AP

A sub-circular depression which appears to be extractive in origin.

246) SD 9645 1169
Extractive Site * FW AP

A large area of amorphous depressions and associated spoil mounds. This may well represent surface coal workings.

247) SD 9649 1168
Structure/Earthwork * M FW

A very small square shaped structure is shown on this site on the 1851 map. On the 1895, 1909 and 1930 maps the site is shown as a small sub-circular depression. A number of former field boundaries are located to the north and east of this feature. This would appear to be a bell pit. The boundaries about this site are collapsed dry stone walls.

248) SD 9656 1181
Extractive Site * FW AP

Small sub-circular depression, probably extractive in origin.

249) SD 9658 1185
Extractive Site * FW AP

An elongated depression with a possible entrance or track at the northern end, appears to be extractive in origin and is possible a surface coal working area.

250) SD 9669 1179
Extractive Site * FW AP

A small arc shaped depression cut into the hillside, would appear to be extractive in origin, possibly a small stone quarry.

251) SD 9679 1173
Extractive Feature * AP FW

A large irregular shaped feature which may be extractive in origin. It is possibly an area of surface coal working.

252) SD 9680 1180
Extractive Features ** AP FW

A large sub-circular feature and three smaller surrounding features which may be extractive in origin. This may be either coal or stone extraction.

It is noteworthy that a collapsed drystone wall runs through the extractive area, indicating that it predates the enclosure wall.

253) SD 9685 1178
Rooding ** M FW

A large irregular shaped building is shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. There are no visible remains of this building, with only the enclosure walls surviving, which indicate the sites former position.

254) SD 9735 1164 (linear)
Relict Watercourse * AP FW

An elongated feature which sub-divides into several other linear features represents a relict watercourse.

255) SD 9710 1178 (centre)
Rooden Reservoir ** M FW

Shown on the 1910 map when it is in the ownership of Oldham Corporation Water Works. On the same map a sluice valve house is shown on the northern edge of the reservoir.

256) SD 9701 1185
Old Shaft * M

This site is shown on the 1895 map. The site now lies beneath Rooden Reservoir.

257) SD 9701 1201
Extractive Features * AP FW

A series of six small circular features which may be extractive in origin. These represent a line of small quarries cut into the hillside.

258) SD 9682 1198 (linear)
Trackway * FW AP

A trackway which branches off from the main path/track passed quarry (259) is formed by a stone banked cutting which curves and flattens out as it descends the hillside, and then appears to join line of another path/track descending towards Hanging Lees (266).

259) SD 9672 1188
Sandstone Quarry * M FW

A small quarry on the northern side of a field boundary is shown on this site on the 1851 and 1895 maps. A much larger quarry is shown to the north of this site on the 1910 map. This large quarry area appears to be approached by a terraced trackway on north side. Various platforms both within and on the edges of the quarry may represent the site of former quarry buildings.

260) SD 9661 1210
Knowsley ** M FW

An elongated L-shaped building is shown on this site on the 1851 and 1895 maps. The site is vacant on the 1909 map. There are few visible remains of this site, although some wall alignments may be distinguishable.

261) SD 9638 1223
Earthwork * M FW

What appears to be an extractive earthwork is shown on this site on the 1851 map. On the 1895 map the site is referred to as 'Quarries' and a much larger extractive area is shown. A small quarry to the east of the main quarry area is first shown on the 1895 map and is referred to as 'Old Quarry' on the 1909 map.

262) SD 9629 1215 (linear)
Coal Workings * FW AP

A linear area of disturbed ground running down the hillside, may be extractive in origin, possibly small scale open cast working.

263) SD 9628 1236
Sandstone Quarry * M FW

A small quarry is shown on the north side of a track on the 1851 map. This appears to have been enlarged slightly by the 1895 map.

264) SD 9648 1236
Intake * M FW
SMR 2445/1/0

An irregular shaped structure is shown on this site on the 1851 map. The site is vacant on the 1895 map. No visible remains, although a platform area would appear to mark former position of building. The site has been substantially planted in later years.

265) SD 9668 1218 (centre)
Landslip ? ** AP FW

Possible landslip area. Does not really appear to be a landslip appears to be a more natural undulating area.

266) SD 9686 1223
Hanging Lees ** M FW

Two structures: one L-shaped, the other irregular in plan are shown on this site on the 1851 and 1895 maps. The site is vacant on the 1910 map. Two large areas of stone rubble lying either side of a footpath are now visible. In the western area two rooms of this building are still discernible. A trackway with a collapsed gatepost runs to the east of the site.

267) SD 9696 1212
Well? * FW

A small square shaped stone structure, which has partially collapsed, may represent a capped well, or just possibly a capped coal shaft.

268) SD 9690 1236 (centre)
Hanging Lees Reservoir ** M FW

This reservoir is shown on the 1895 map when it is owned by Oldham Corporation Water Works. An indicator house on the southern edge and a sluice valve house on the western edge are shown on the 1910 map.

269) SD 9699 1245
Structures ** M FW

Two L-shaped structures lying *c* 20m apart are shown on this site on the 1851 map. The eastern building is still shown on the 1895 map. The site is vacant on the 1910 map. A large area of stone debris is scattered across this site, although there are no discernible in-situ structural remains.

270) SD 9688 1247
Site of Structure? ** FW

A large area of stone material, partially grassed over, is associated with a terrace to the south and the remains of a stone gate to the east. Would appear to represent the site of a building.

271) SD 9677 1251
Ridge and Furrow ** FW

Ridges *c* 1-2m wide running down and along the hillside and divided by a curved bank. Two narrower linear banks running across this ridges may be later boundary walls.

272) SD 9698 1252
Cold Greave ** M FW

An elongated rectangular structure is shown on this site on the 1851. On the 1895 and later maps the site is shown as an L-shaped building. The site has been demolished and with very few remains now visible. Areas of stone rubble and possibly two wall alignments are traceable.

273) SD 9700 1260
Lynchet ** FW

A short length of earthen bank, running approximately south-west to north-east, may represent a lynchet on the side of the valley side.

273a) SD 9697 1265
Earthworks FW

A series of linear and irregular shaped earthworks which would appear to be associated with reservoir construction works.

274) SD 9704 1253
Routeway ** M FW

A road running from the Ripponden Road (A627) on the eastern side of the study area, running north-west across the study area towards the site of Cold Greave. In places this track measuring *c* 3-4m wide is partially a hollow way and has dry stone walls to the side.

275) SD 9711 1251
Field Boundary? ** FW

A linear bank, running south-west to north-east, may represent a former field boundary.

276) SD 9719 1247
Ridge and Furrow ** FW

Ridge and furrow, running north-west to south-east, with the ridges measuring *c* 2.5m wide.

277) SD 9709 1241
Ridge and Furrow ** FW AP

Narrow ridges, possibly agricultural in origin running across the hillside, parallel to dry stone wall field boundary.

278) SD 9707 1235
Ridge and Furrow ** FW AP

Ridges *c* 1-2m wide running both down and across the hillside would appear to be agricultural in origin.

279) SD 9714 1231 (linear)
Field Boundary ** FW AP

A curving linear bank which appears to contain some stonework is also characterized by occasional hawthorn trees and may represent a mature field boundary.

280) SD 9719 1219 (centre)
Feeder Reservoir/ FW AP
Filter Bed **

A very flat area of land to the north-east of Rooden Reservoir. This has a pronounced bank on the eastern side and a bank across its northern end, which appears to act as a dam wall, below which water is feeding into Hanging Lees Reservoir. Anne Symonds (North West Water Warden) suggests it may have been a failed reservoir.

281) SD 9720 1202
Structure * M FW

A rectangular structure is shown on this site on the 1910 map. To the north-east of it appears to be a quarried edge. There are no visible remains of the building, although areas of brick demolition material indicate the remains of the site. The small quarried edge to the north-east is still clearly visible and may be associated with Waterboard works.

282) SD 9732 1221 (linear)
Reservoir Feeder ** M FW

A meandering channel shown on the 1910 map taking water from Cold Greave Clough to Rooden Reservoir. A stone lined channel still operational.

283) SD 9746 1231
Extractive Features * AP FW

A series of eight small circular features which appear to be quarry workings, with a possible track running along the eastern side of them.

284) SD 9758 1212
Extractive Site * FW AP

A small pit on the eastern side of track would appear to be a small extractive site, possibly a gravel working, because of the adjacent gravel pits.

285) SD 9764 1210
Gravel Pit * M FW

This pit is shown on the 1851 map. Although still discernible this extractive site has been largely infilled by modern rubbish.

286) SD 9778 1201
Earthworks * FW

An amorphous group of earthworks in corner of field. These appear to be grassed over debris possibly related to the adjacent road's construction or maintenance.

287) SD 9782 1221 (linear)
Ditches * AP FW

An elongated linear feature running parallel to the turnpike road is a stone rubble filled ditch.

288) SD 9782 1231
Pond * FW

A small circular shaped pond.

289) SD 9781 1234
Pond * FW

A small circular shaped pond.

290) SD 9790 1232
Gravel Pit * M FW

This pit is shown on the west side of the turnpike road on the 1851, 1895, 1910 and 1930 maps. The 1910 map describes the site as 'Old Gravel Pit'. This pit is still clearly defined and is grassed over.

291) SD 9784 1237
Pond * FW

A large square shaped pond, which is now dry and grassed over. A small circular pit is located to the west of this feature.

292) SD 9771 1242
Extractive sites * AP FW

A group of four grassed over depressions would appear to represent quarry workings.

293) SD 9769 1255
Quarry * M FW

Quarry on south side of Cold Greave Clough, adjacent to weir, shown on the 1910 map. On 1930 map the site is described as 'Old Quarry'.

294) SD 9755 1263 (linear)
Structure and Ditch * FW AP

A small probable Waterboard structure is situated on the south side of track. A linear ditch feature runs away from this building to the west. It is not clear whether the two features are related.

295) SD 9743 1271 (linear)
Field Boundary * FW

A dry stone wall field boundary, which has a ditch on its eastern side, perhaps indicating a property boundary.

296) SD 9736 1287 (linear)
Field Boundary * FW AP

A linear feature, running east to west, may represent a former field boundary.

297) SD 9722 1274
Norman Hill ** M FW
SMR 2423/1/0

A large cruciform shaped building with two small rectilinear buildings is shown on this site on the 1851 and 1895 maps. The site is shown as vacant on the 1910 map. No clearly defined wall alignments survive on the site, although at least three platforms, terraced into the hillside are clearly visible, some stone rubble including stone slates are visible, although much of this material has been grassed over. A trackway leading through the site continues eastward, extending beyond the study area. This is on the line of a track shown on the 1851 map. A quarry located immediately to the north of the farm site, may represent the source of stone for the buildings.

298) SD 9700 1271
Drainage Ditches? * FW

A series of linear ditches, running east to west, may represent land drainage, although ridge and furrow is another possibility.

299) SD 9684 1271 (linear)
Bridge(s) ** M FW

A stone bridge, with two gateposts (one in situ) on the south side, would appear to represent the line of this pre-reservoir track (274), with the bridge carrying the track over Piethorne Brook. It is possible that a second bridge is located to the south but the channel which it spanned has completely silted up and thus obscured any evidence for this second bridge. These features would be underwater when reservoir was full.

300) SD 9656 1262 (centre)
Piethorne Reservoir *** M FW

This reservoir is shown on the 1895 map, when it is owned by Oldham Corporation Water Works. A number of sluices and weirs are associated with this reservoir.

301) SD 96 12
Leaf-shaped Spearhead ** SMR 5017/1/0

Crude late Bronze Age spearhead 6⅜" long with small lunate openings in the blade. Found by G Radford and in private possession. Casts in Tolson Memorial Museum and Rochdale Museum. Precise location of original findspot is not known.

Key to Maps 1 - 4

◇ Flint Find

◆ Extractive Site

□ Structure (either site of, ruined, or still standing)

– Track

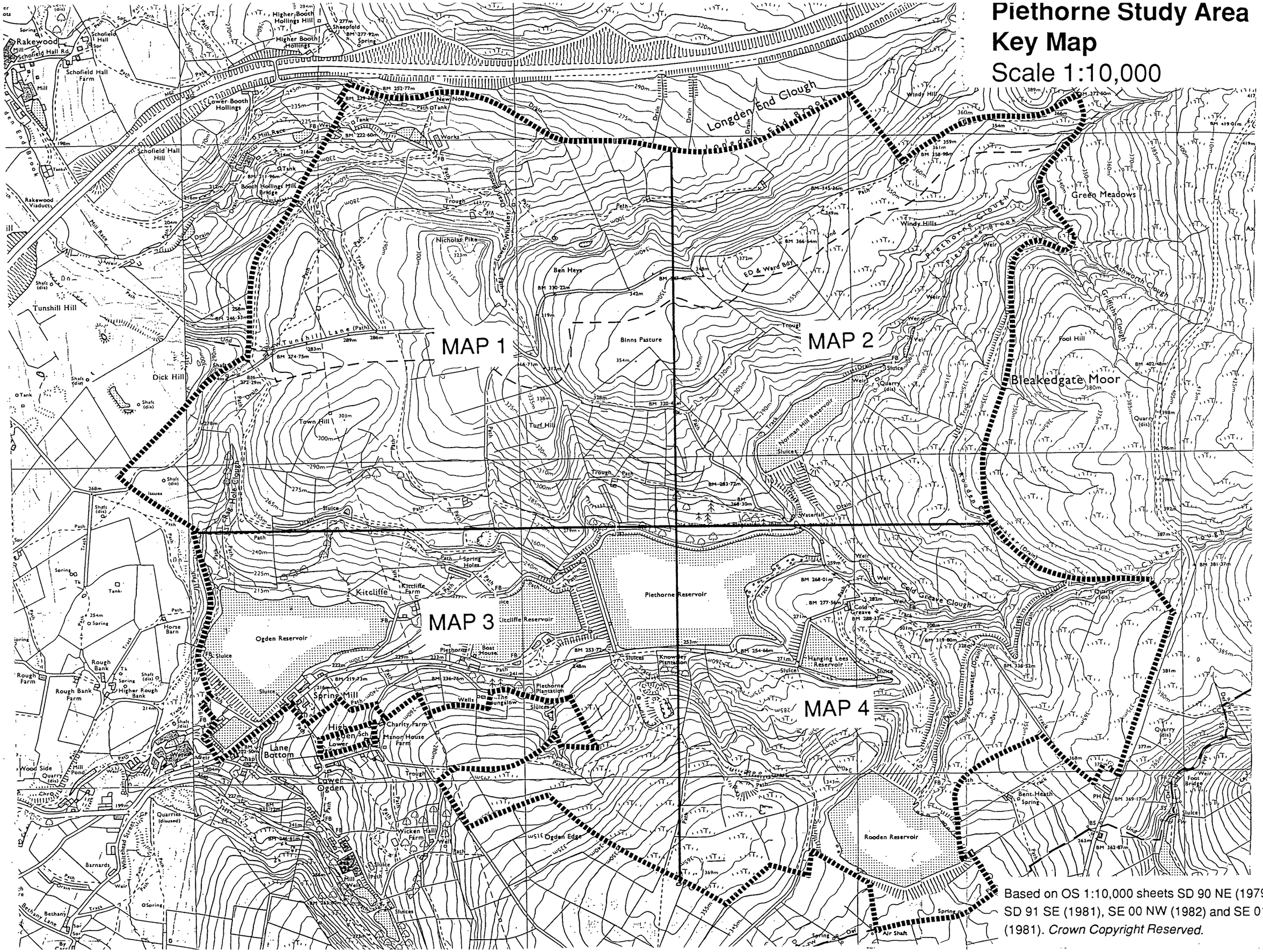
= Field Boundary

≡ Ridge and Furrow

△ Reservoir

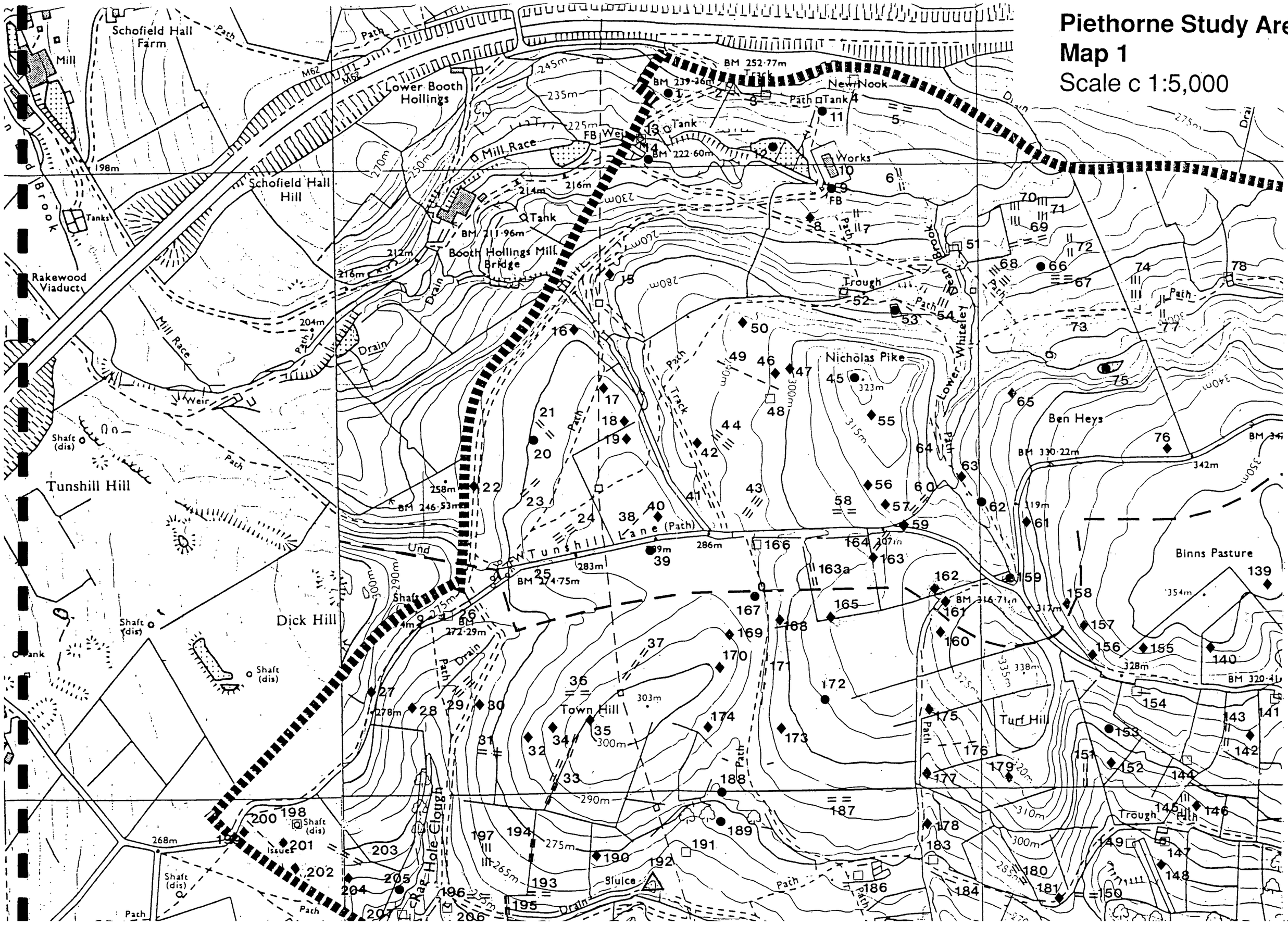
● Other

Piethorne Study Area
Key Map
Scale 1:10,000



Based on OS 1:10,000 sheets SD 90 NE (1979), SD 91 SE (1981), SE 00 NW (1982) and SE 01 SW (1981). *Crown Copyright Reserved.*

Piethorne Study Area
Map 1
Scale c 1:5,000


Schofield Hall Farm
Mill
M62
Path
Lower Booth Hollings
BM 252·77m
Track
BM 239·36m
New Nook
Tank
Mill Race
FB
Weir
BM 222·60m
Works
Schofield Hall Hill
198m
Tanks
Brook
214m
216m
230m
Tank
BM 211·96m
Booth Hollings Mill Bridge
Drain
Rakewood Viaduct
204m
Weir
Shaft (dis)
Tunshill Hill
Dick Hill
Shaft (dis)
Tank
Shaft (dis)
Shaft (dis)
Issues
Shaft (dis)
Path
Trough
Clean Brook
Nicholas Pike
323m
Lower Whitley
Ben Heys
BM 330·22m
342m
Binns Pasture
354m
BM 316·71m
Turf Hill
BM 320·41m
Town Hill
303m
Lane (Path)
Und
BM 274·75m
Shaft
BM 272·29m
Path
Track
Crag Hole Clough
Sluice
Trough
Path
Drain
Path
Path
Path

Longden End Clough

Longden End Brook

Tag Heys

Windy Hill

Windy Hill
389m

BM 372·50m

Green Meadows

Windy Hills

Piethorne Clough

Piethorne Brook

Weir

Ashworth Clough

Griffiths Clough

Fool Hill

Bleakedgate Moor
380m

Ben Heys

Binns Pasture

Norman Hill Reservoir

Sluices

Track

Path

Trough

Drain

Quarry (dis)

Waterfall

ED & Ward Bdy

BM 347·40m

BM 345·36m

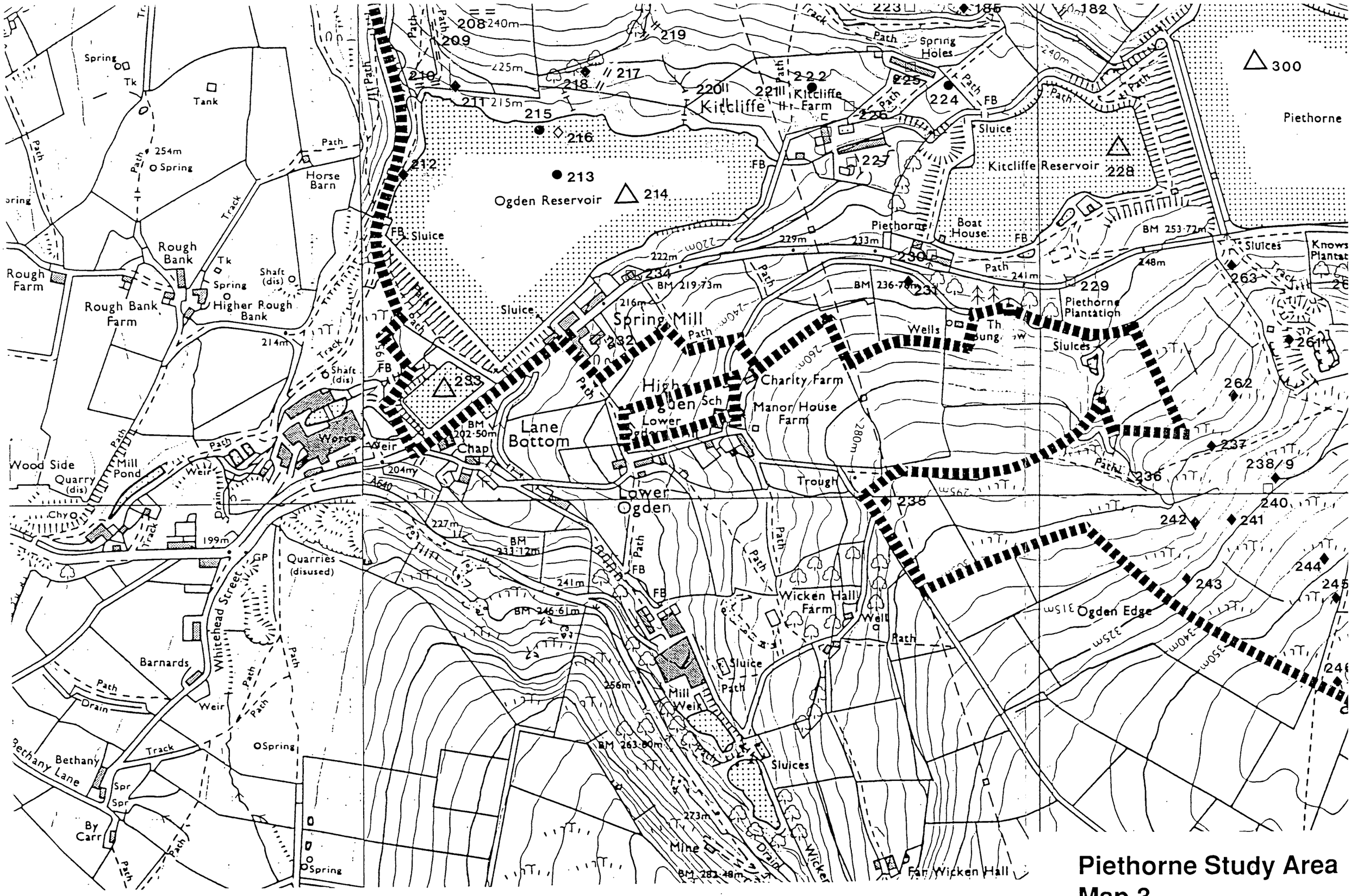
BM 366·64m

BM 283·77m

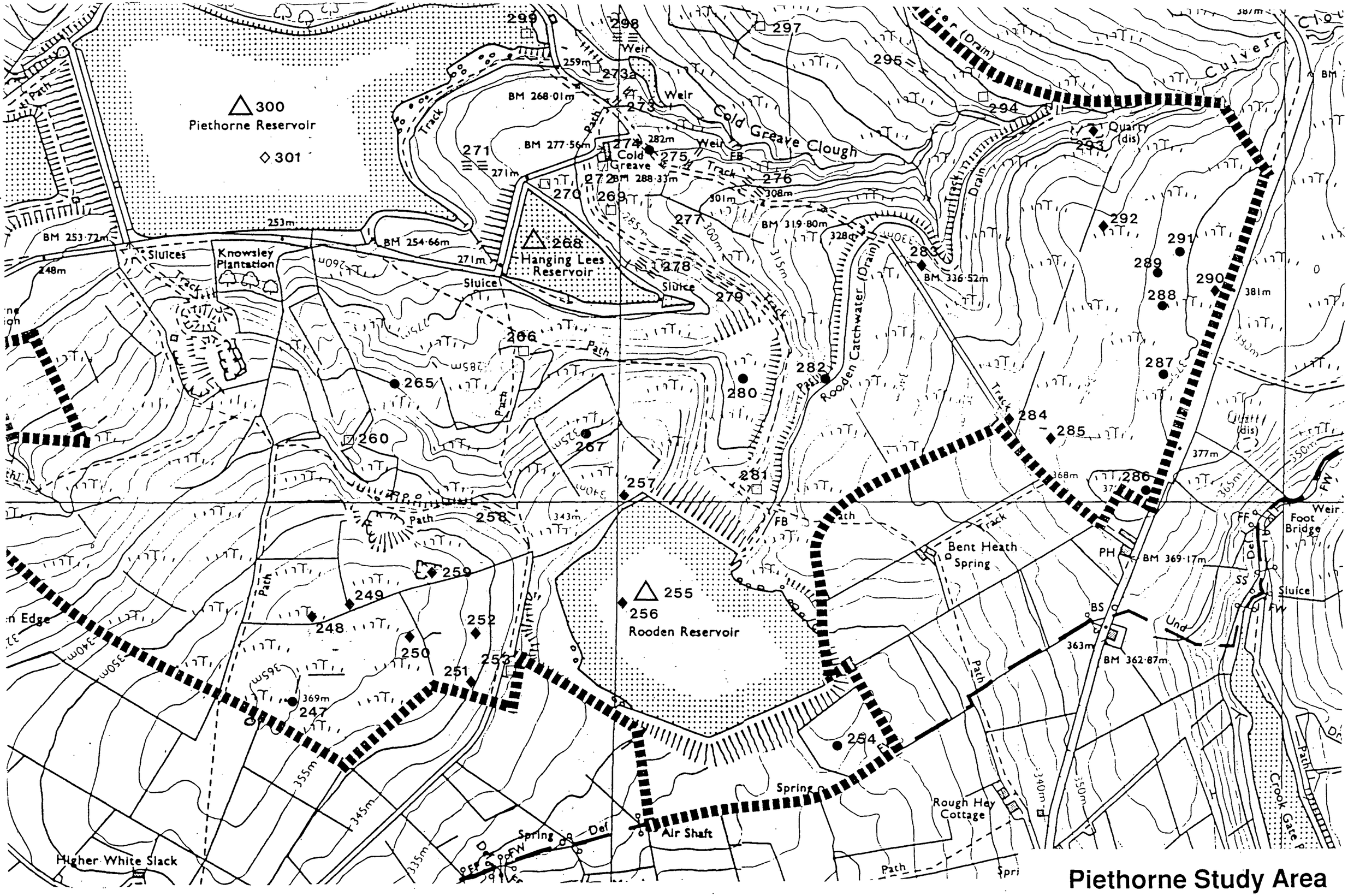
BM 320·41m

BM 402·48m

Piethorne Study Area
Map 2
Scale c 1:5,000



Piethorne Study Area
Map 3
Scale c 1:5,000



Piethorne Study Area
Map 4
Scale c 1:5,000

9. Management and Research Proposals

PREHISTORIC

Mesolithic

Several issues can be addressed with regard to this period. One of the most serious threats to the archaeology of this period is the work of 'flinters' or treasure hunters, who are deliberately removing flint, both from the surface and by digging through the overlying peat. The activities of such individuals has been encountered with devastating results at March Hill and Lominot, and the present survey has noted similar incursions in the upper Piethorne valley. There are clearly difficulties in preventing such activities and liaison efforts by archaeologists working at March Hill do not appear to have been particularly productive. However, as a general principal 'flinting' should be discouraged.

The basic objection to 'flinting', apart from the damage caused to surviving peat, is the fact that archaeological finds are not being reported or in anyway accurately located. This therefore represents a major loss to the general understanding of the period within the area and hampers the ability to formulate research and management strategies for Mesolithic archaeology. Even where finds are reported, the accuracy of their location is often vague, and when it is considered that some of the smaller sites may only measure 2-3m across it may be appreciated the value of accurate provenancing in order to evaluate the importance of the find spot. The work of the West Yorkshire Archaeological Service at March Hill and Lominot has particularly concentrated on high accuracy recording techniques and it is recommended that such initiatives are encouraged within the study areas. Therefore all finds made within the study areas should be reported to the local ranger and the importance of the accuracy of provenance stressed. Clearly this is a two-way process, but where possible liason with known or suspected collectors may assist.

Most Mesolithic finds within the study areas have been recovered from areas of eroding peat (Plates 20 & 21). As a means of assessing potential areas of archaeological remains, and as a general exercise for monitoring peat erosion it is recommended that survey work is carried out in order to map the extent of surviving peat and to monitor rates of erosion. On the same theme it is recommended that where any water authority works affect surviving peat deposits, that such works are subject to an archaeological watching brief.

Plate 20 Peat erosion in Readycon Dean valley

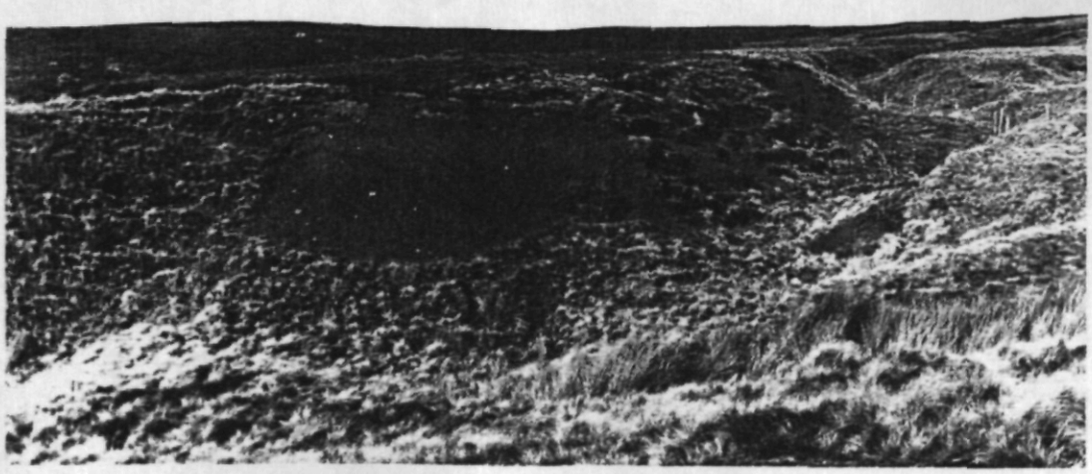


Plate 21 Peat erosion on Castleshaw Moor

Other than the study of specific archaeological sites, one of the other major research areas for the study of prehistory is palaeoenvironmental analysis, which has the potential to build up a picture of the prehistoric environment, including man's impact on it. A small study has already been carried out in the Readycon Dean valley in the context of the Dean Clough I site. However, this work was quite site specific and was also based around uncalibrated radio-carbon dating. In order to improve upon the present level of knowledge it is recommended that pollen cores are taken from Rapes Hill, Cudworth Clough and within the landslip area in the Castleshaw valley, where in all cases the potential for good environmental data appears to be high. In order to make the results of this analysis of any real value samples from these cores should be radio-carbon dated. Analysis of this data could then be used in association with similar work intended at March Hill and Lominot to produce a much clearer picture of the environment during the prehistoric period across this central Pennine area. (For more detailed recommendations concerning palaeoenvironmental work, see Appendix A).

Neolithic and Bronze Age

The major sites associated with these periods are those at Piethorne (99) and Castleshaw (300), with the remaining evidence of activity confined to isolated find spots. Both the main sites are of regional importance, but in both cases their stratigraphic integrity is poor. There is clearly potential for further evidence of settlement from this period within the study areas and it is recommended that should further sites come to light, they receive adequate archaeological analysis. In the case of the Castleshaw site, it already lies within the Scheduled area of the Roman forts and is therefore adequately protected. Unfortunately, as far as the Piethorne site is concerned, discussion with the archaeologist involved has at present proved elusive and until this has taken place any recommendations with regard to research strategies should be delayed.

The enigmatic mounds (172) in the Piethorne area are potentially of regional significance, if they indeed prove to be small cairns. However, a true interpretation of these sites cannot be made without trial excavation.

The recommendation regarding the reporting and accurate locating of finds, as well as the benefits of palaeoenvironmental analysis, which were made for the Mesolithic period can again be made for this period.

Iron Age and Romano-British

This period is poorly represented within the study areas and this lack of evidence makes any management or research proposals difficult at the present time. The recommendation regarding the reporting and accurate locating of finds, as well as the benefits of palaeoenvironmental analysis, which were made for the Mesolithic period can again be made for this period. Additionally any buried ground surface, which may survive beneath the Roman road (317) in the Castleshaw valley, could also retain material suitable for palaeoenvironmental analysis, which may provide information of the immediate pre-Roman period.

ROMAN

Roman Road

It is important to establish the true course of the main highway as it approaches the fort complex. It is anticipated that Evaluation Stage 2 will shed some light on this problem.

Within the study area, and indeed along the whole length of the valley, a detailed earthwork survey should be made of the road. This survey would identify the best preserved sections. It is worth noting that English Heritage have expressed an interest in scheduling part of the road at Castleshaw. Based on our current knowledge, the section just east of Cote Lane is represented by a well preserved earthwork and may be worthy of scheduling. East of the fort complex further good earthworks survive as the road climbs towards Standedge; however, some sections here have suffered from drainage works, quarrying and water erosion and careful assessment is required.

The Fortlet Area

The fort and fortlet are protected as a Scheduled Ancient Monument the boundary of which is marked by a wooden fence erected in 1988 at the end of the GMAU excavations (Fig 20). In more recent times this fence line has been changed slightly at the south-east corner to take in a spring and water trough for the benefit of sheep grazing on the monument; however, this has not altered the scheduled area. Seven years have elapsed since the monument was laid out for public presentation and not unnaturally some repair work is now needed:

-the wooden fencing should be checked and rotten timber replaced, access through the fence is currently restricted and could be improved

-there is some evidence of erosion to the southern rampart above Drycroft Lane, this requires meshing and reseeding as do one or two other patches showing pedestrian damage

-the plinths holding the interpretation boards have been re-built and appear solid, the boards themselves are resisting weathering quite well but should receive regular checks to ensure they are secure

-within the fortlet rushy vegetation and tussocky grass should be removed, the mounds indicating building lines should be re-mounded. The experimental attempt, in 1989, of using a different, lime loving grass for the mounds did not work but perhaps a variation on this theme might.

The Fort

The larger fort has not benefited from conservation measures and therefore still exhibits scars representing old excavation trenches and spoil heaps (Fig 21). A scheme to fill in hollows and remove mounds of spoil and mark out the line of the rampart and ditch has been submitted

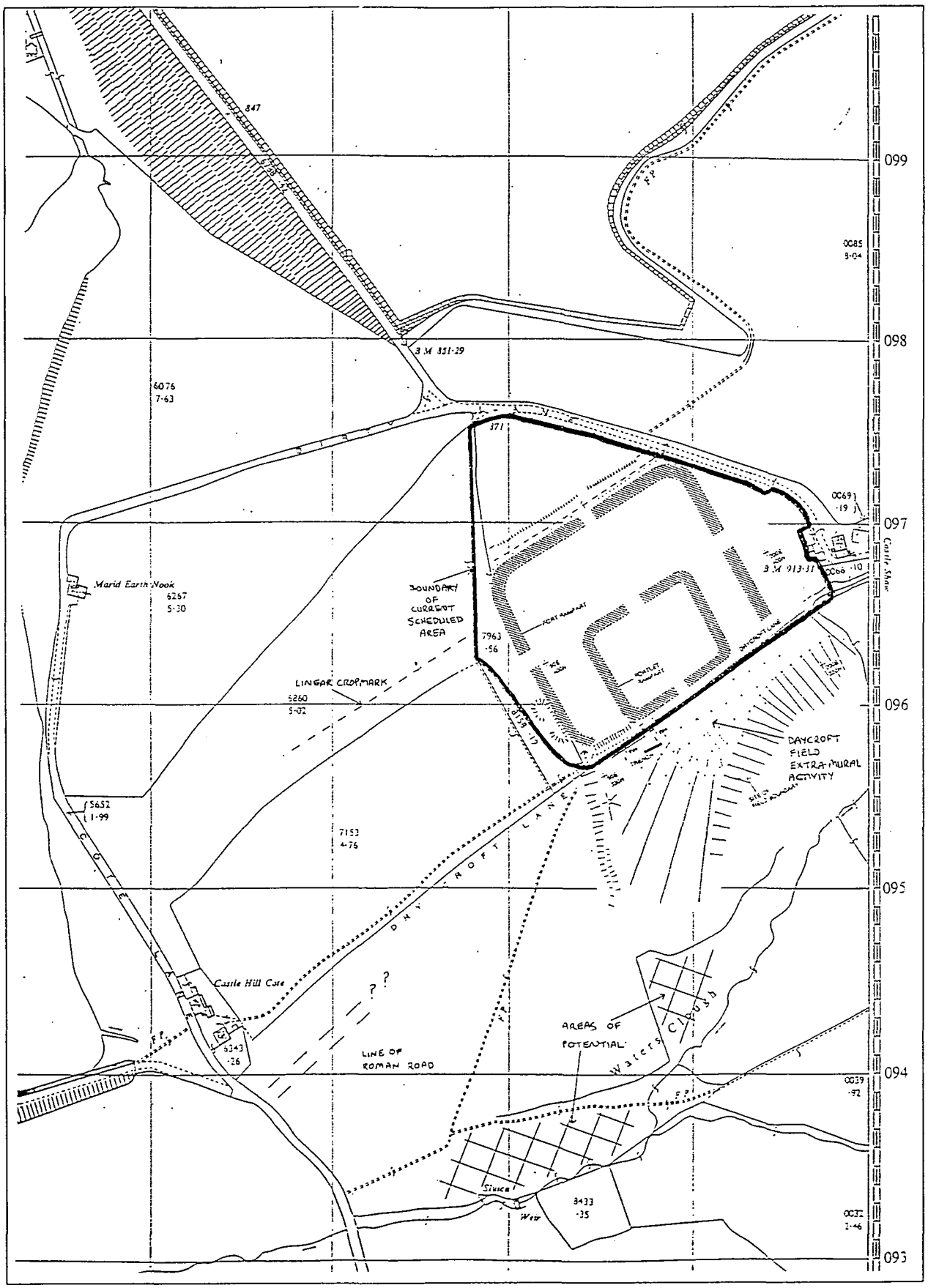


Fig 20 The Scheduled Ancient Monument Area of the Castleshaw Roman forts.

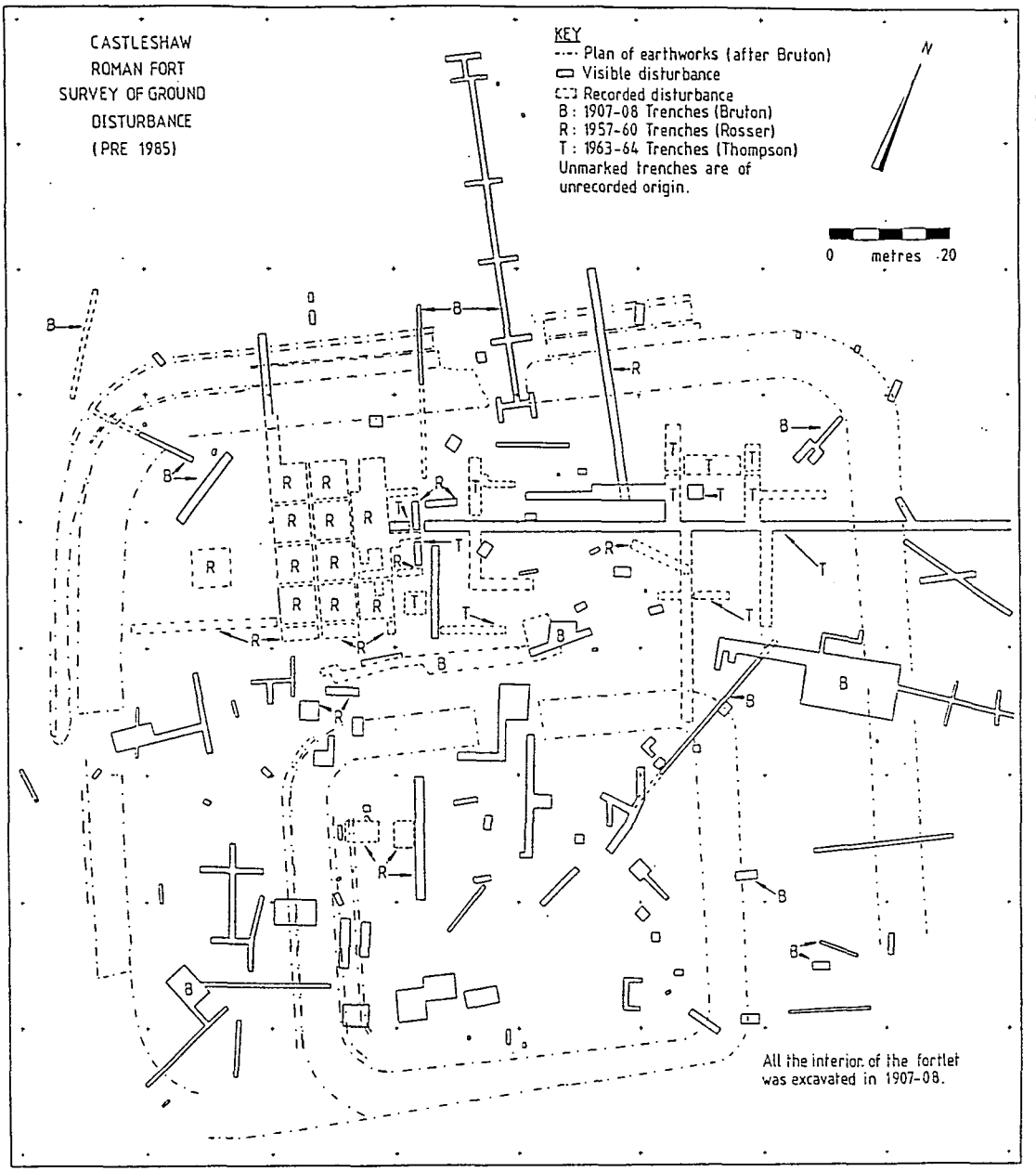


Fig 21 Survey of ground disturbance at the Castleshaw Roman forts.

previously by the GMAU. It was suggested that the landscape project would incorporate an element of research excavation and recording. Essentially, the following elements were proposed:

-re-excavate and extend old trenches across the north rampart and ditches

-mark out line of ditch and rampart around fort

-using a tracked machine, fill in hollows in fort with spoil heaps from old excavation

-scoop out topsoil and ploughsoil from the two fort ditches to use in creating a low bank *c* 0.5m high marking the line of the fort rampart

-smooth, rake and grass seed the disturbed areas

Any works on the fort would require Scheduled Monument Consent. Re-excavation of old trenches would allow a re-assessment of previous archaeological interpretations, an important consideration in view of recent discoveries and research questions. The finished product would allow visitors to understand the site much better, at the moment their attention is focused on

the fortlet defences and internal layout, whereas the fort scheme would facilitate a much better comprehension of the whole site and the relationship of the fortlet to the fort.

Vicus/Annexe

Both the Castleshaw fortlet publication of 1989 and the Castleshaw Working Party, also in 1989, identified the need to establish the presence/absence or extent of a vicus or annexe. It was felt that, pending further research, the scheduled area at Castleshaw should eventually be extended and this could possibly include well preserved sections of the Roman road. More recently English Heritage's Monuments Protection Programme has re-assessed the scheduled area and following completion of the current evaluation programme will include the part of Daycroft Field where Roman deposits have been revealed. The evaluation results will allow:

- an informed review of the acheduled area and assessment of the potential for academic research

- appropriate management and presentation of the site

- a re-assessment of the academic significance and potential of the site within the setting of the Roman occupation of Northern England.

The depth of archaeological deposits inside the fort complex is well attested. The area of extra-mural activity identified in Daycroft Field in the 1995 stage 1 evaluation showed that Roman deposits were sealed by a thick deposit of plough soil, average depth 24cm (ranging from 10 to 52cm deep), with *c* 20cm topsoil on top of this. The ploughing, which probably took place between *c* 1750 and 1900, has smoothed the landscape and effectively masked Roman features. Undoubtedly ploughing has disturbed the top of Roman deposits, as is evidenced by Roman pottery occurring frequently in the lower 10cm of ploughsoil. However, Roman levels have survived remarkably well and it is expected that, generally, negative features and floor surfaces will survive.

Given the acidic nature of the soil, organic remains, other than in basal silts of ditches or similarly deep features, are unlikely to survive. Pottery and metalwork suffer badly and need careful handling and conservation.

It is anticipated that evaluation in the fields west of the fort defences will encounter similar soil conditions to Daycroft Field. Roman levels, if they exist, will be *c* 40-50cm deep under plough and top soil. The area beside Waters Clough is more difficult to predict. Here there is likely to be extensive disturbance (from waterworks related activity) to early deposits. Surviving levels may be sealed under alluvium, derived both from flooding of the stream and plough soil washed downhill.

A second stage of evaluation is planned for August 1996. It has the following main objectives:

- to better define the ditch system encountered in Evaluation Stage 1, thereby improving our understanding of the extra-mural area south of the fortlet defences. It is anticipated that basal silts will survive and could provide suitable material for palaeoenvironmental analysis which will allow a reconstruction of the environment at the time of the Roman occupation

- to increase the sample of stratified ceramic material to secure firmer dating of the extra-mural settlement

- locate the true line of the main Roman highway as it approaches and leaves the military site

- examine the gently sloping area immediately west of the fort for evidence of extra-mural activity

- investigate land beside Waters Clough for Roman deposits.

Archive

Finds from early excavations are held in several museums including Manchester Museum, Saddleworth Museum and the Tolson Museum (Huddersfield). All publications relating to archaeological work at the fort and fortlet are listed in the 1989 Castleshaw publication, the principal ones are noted on p128. A fully catalogued finds and paper archive from the 1984-8 project is held and maintained at Oldham Museum. Finds and paper archive from the current evaluation project and any future excavations should be catalogued and deposited with the museum, providing that appropriate conservation measures exist.

Other considerations

In general terms, the current farming regime of stock grazing and hay meadow does not damage Roman remains at Castleshaw and is to be encouraged.

It is good to see that the car park beside the Castleshaw School Field Centre is now better signposted and that finger posts encourage visitors to use the public footpath up to the fort. A small orientation board is planned for the car park. At an appropriate time in the future a new interpretation board could be devised to include the results of current research and to notify people of the scheduled area.

Future archaeological research

The full extent of extra-mural settlement is not known. Within the scheduled area (marked by the fenceline) it has been identified but not quantified east of the fort. The southern side has now been defined by evaluation, though we do not know if there were structures beside the stream in the bottom of the valley. The western and northern sides are a mystery. Of the two, the western side has by far the greatest potential. The land slopes gently up to the fort defences and it is possible that the main road runs into the eastern gateway. As elsewhere, ploughing has obliterated evidence for earthworks here and this is certainly an area beyond the scheduled site that is worthy of evaluation. Oblique aerial photographs taken in June 1995 show a linear cropmark (295) running westwards from the north west defences of the Agricolan fort (see fig 20). The cropmark may be an ancient field boundary; however, it is not indicated on any published maps and could therefore be of Roman origin. This feature will be examined in Evaluation Stage 2.

Possibilities for future research that may emerge from the evaluation work include:

- re-assessment of all previous excavations within the fort (outside the fortlet area) with potential for re-excavation of old backfilled trenches

- larger scale research excavation of key occupation areas within the extra-mural settlement to understand the site's function, phasing and relationship to the fortlet. Such a project would need to be a collaborative affair involving North West Water plc, English Heritage, Oldham MBC and Manchester University

- it is possible that a major component of the Roman landscape survives in the Castleshaw valley, sealed in many places by plough soil. There is considerable potential for investigating and reconstructing the landscape through field investigation and palaeoenvironmental analysis.

MEDIEVAL

Iron smelting

Most ironworking sites provide little conservation interest, as they are generally inconspicuous. Preservation under pasture provides the optimum conditions for their preservation. Ploughing, drainage works, planting of trees and removal of slag for hardcore should be avoided.

At Cudworth Pasture the iron smelting site (171) is quite well defined. The most important surviving feature at this site is the medieval slag spoil heap, which forms a grassy knoll. The Spa Clough site (167) is more poorly defined. Disturbance in the late 19th century removed a considerable proportion of the medieval site but further pockets of surviving significant deposits will exist. Any water works in the immediate vicinity of the Spa Clough site will have an archaeological implication.

Slag and furnace lining debris encountered on the shoreline of both Ogden and Castleshaw Lower Reservoirs (214; Gazetteer of Sites - Piethorne and 259; Gazetteer of Sites - Castleshaw) are significant and suggest the presence of smelting furnaces either under the slag or close by. These sites are under no threat other than water erosion. Should a thorough archaeological investigation be considered at a future date, a magnetometer or magnetic susceptibility survey would be required first, followed by controlled open area excavation, with laboratory based materials analysis.

It is reasonable to anticipate future finds relating to iron smelting in the study area, in the form of further smelting furnaces, charcoal making sites or iron mining, and the presence of Roman remains should not be ruled out.

Hollow Ways

These represent substantial landscape features and are all potentially of medieval or earlier origin. Preservation of all of these earthworks is recommended, while the examples at Piethorne (site 209) and Castleshaw (231) both offer excellent potential for future survey and excavation work.

Friarmere Boundary

Several sections of the Friarmere boundary lie within the Castleshaw study area, with site 69 a notable landscape feature. The preservation of the various boundary elements is recommended and the potential for future survey and excavation work is again valid.

Field Enclosure and Ridge and Furrow

Substantial earthen banks and ditches survive in both study areas. At present a typology and chronology for these features does not exist. More detailed survey work of these features, together with any ridge and furrow sites, as well as selective trial excavation may help to elucidate questions of type and date, as well as identifying any correlation with the ridge and furrow and the known settlement pattern. Both the boundaries and the ridge and furrow represent significant landscape features and their preservation should be encouraged.

Settlement Sites

Within the study areas there is potential for medieval settlement at several sites, most notably around Lower Castleshaw (315; Gazetteer of Sites - Castleshaw), Ragholes (206; Gazetteer of Sites - Piethorne) and Tanning Holes (189; Gazetteer of Sites - Piethorne). At most of these sites settlement has continued through into the post-medieval period and the impact of later building activity on the medieval archaeology may have been destructive. Where sites appear to have reduced in size, such as at Tanning Holes or where they appear to have been abandoned at an early date, such as site 120 , the potential for medieval deposits is clearly higher. These sites in particular offer very good potential for future survey and excavation. At Ragholes the site of the barn has been excavated by the Littleborough Archaeological Society and the remains conserved (Plate 22). While none of this site is medieval in date, the site, following its conservation would merit some form of interpretive panel and leaflet.

With regard to medieval settlement within the Castleshaw valley a better understanding of the site at Grange, although not lying in the study area, would nevertheless be of enormous value to any future research into medieval activity within the valley as whole.

Pottery

Before attaching too much importance to the pottery and possible associated platforms at site 108 in the Piethorne area, it is recommended that further efforts are made to analyse the pottery, as the site, on topographic grounds would not appear to represent an ideal settlement site.

POST MEDIEVAL

Farm Sites

Most of the farms and other buildings within the study areas now survive as ruined sites (Plate 23). The best surviving of these, in terms of potential for future excavation, conservation, and research and educational value lie within the Piethorne area. Notable amongst these are the three Whiteley Dean sites (51, 78 & 83); the hamlets at Binns (186) and Tanning Holes (189); Piethorne (138); and Norman Hill (297). It is recommended that the condition of these sites is regularly monitored and remedial steps taken to ensure that present ruins are stabilized. The sites at Binns and Tanning Holes have exceptional remains and in both cases pro-active

Plate 22 Part of conserved barn foundations at Ragholes.

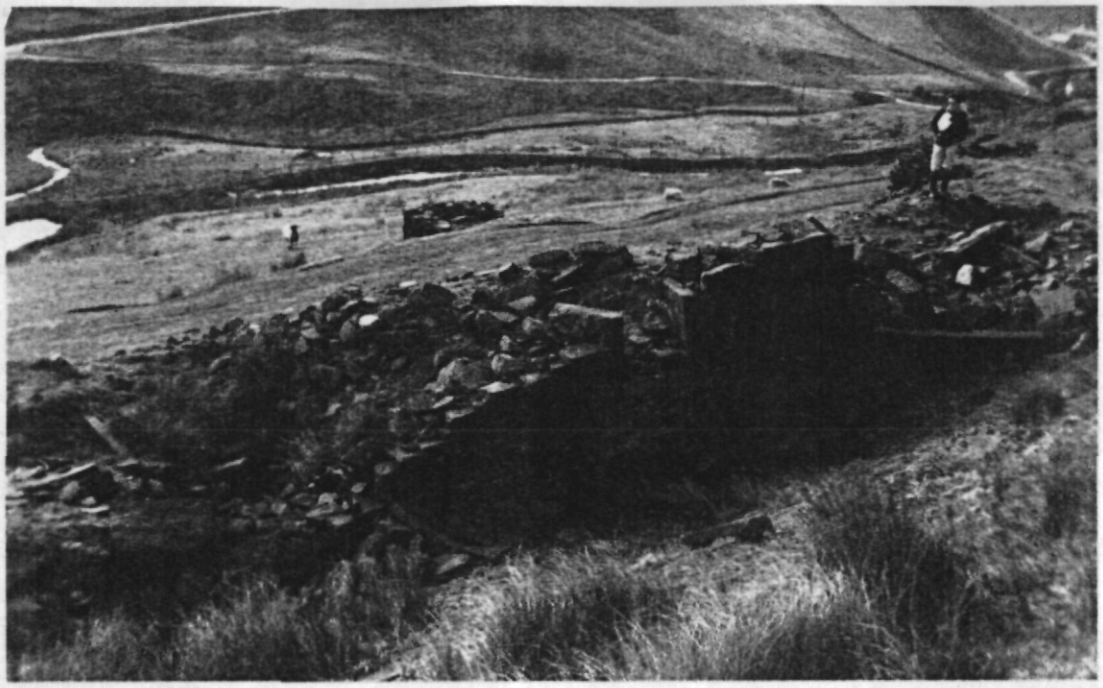


Plate 23
Ruined farm site at Longden End (3), in the Piethorne area. The condition of this site is typical of many of the farms within the study areas.

Plate 24
Triple arched cellar remains at Tanning Holes.

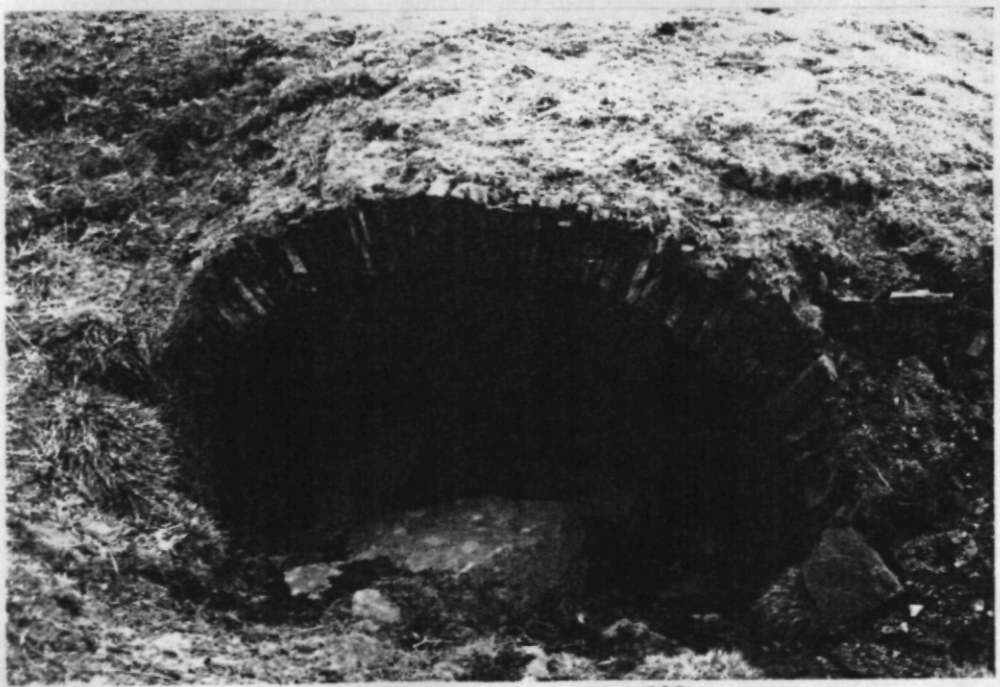


Plate 25
Arched cellar at Binns. This site has also been suggested as a possible kiln site,

conservation measures should be taken in regard to the cellar remains at both sites (Plates 24 & 25). All of these settlement sites offer excellent potential for future survey and excavation work.

The ruined sites within the Castleshaw area, despite their condition, represent tangible remains of the settlement pattern during this period and it is recommended that they are left undisturbed, with all efforts made to ensure that they are not used as stone quarries.

The listed buildings within the Castleshaw area (227, 236, 238 & 277) all have statutory protection and any changes or alterations which are unsympathetic to their architectural and historic character or setting are generally discouraged and would be subject to the requirements of present planning guidelines.

Field Boundaries

The majority of field boundaries within both study areas are formed by dry stone walls. The state of preservation of these characteristic landscape features is variable, ranging from grassed over linear banks, where the walls have completely collapsed to perfectly intact sections. It is recommended that a survey of all boundary walls is carried out in order to build up a typological and chronological sequence as well as assisting monitoring of wall condition over time.

Plate 26 Collapsed enclosure wall on Denshaw Moor. This demonstrates the condition of some of the walling.

The National Trust have developed a recording system for such monuments and this could reasonably be employed within the two areas.

As a general recommendation, maintenance of the dry stone walls is advocated, with particular attention being drawn to the walls on Denshaw Moor (Plate 26) because of their good historical framework. Any repair should attempt to re-use existing material and be re-constructed in a similar style to the original wall.

Extractive Industries

The most prolific extractive site within the study areas is the stone quarry. However, these sites are not easily dated and because they are under no obvious threat, do not really pose any significant management or research issues.

Evidence for coal mining, particularly bell pits, is a potentially more valuable resource and initial survey work of the various sites identified would provide a useful basis for future research. The possible bell pits within the Castleshaw landslip (248; Plate 27) represent just part of what appears to be extensive

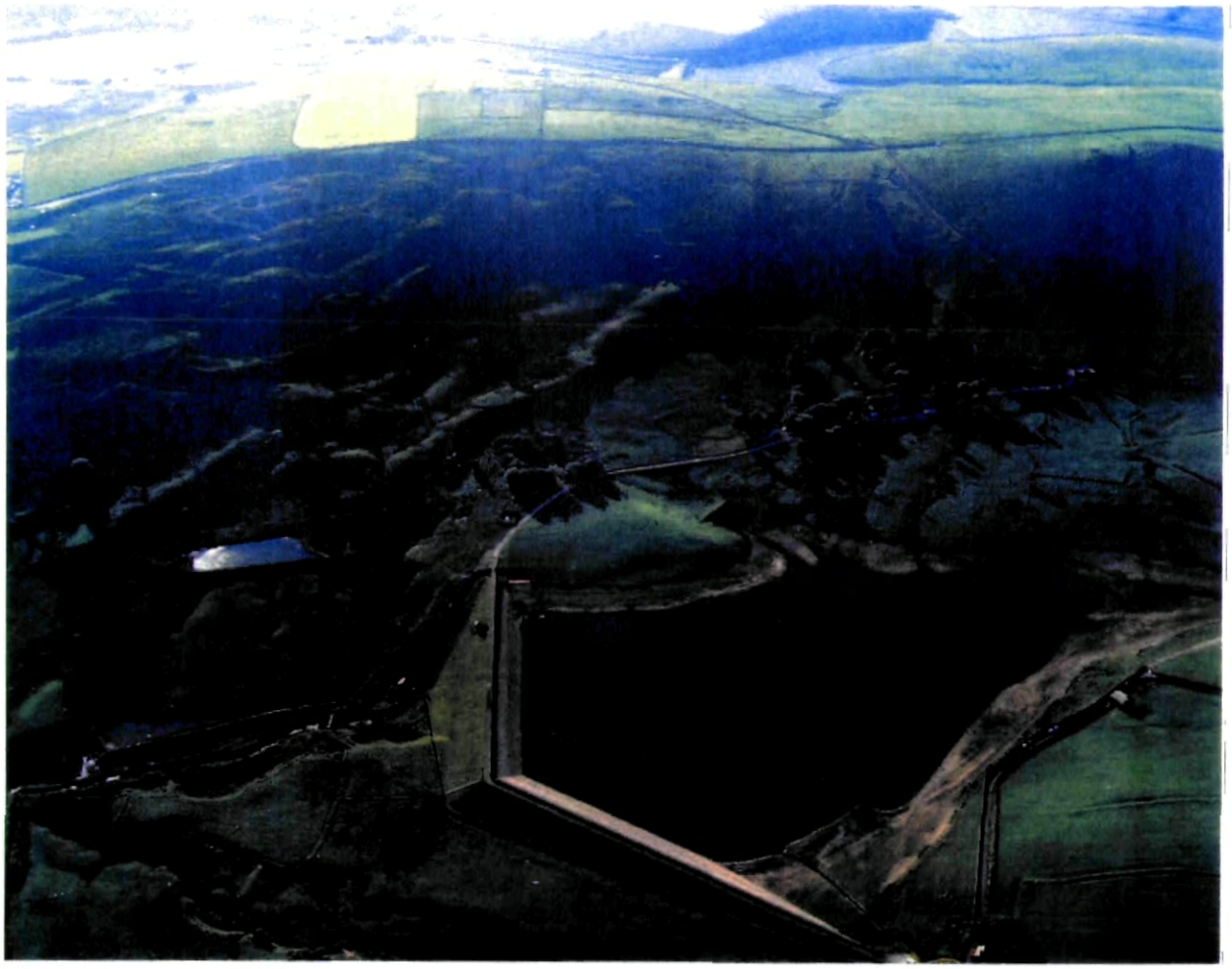


Plate 27 Aerial view of the Castleshaw landslip.

human exploitation of the mineral resources within this natural feature. A full survey of this entire area would represent an important research and training exercise.

INDUSTRIAL

Textile Sites

Within the two study areas the woollen mill sites represent the most important industrial remains. The mill buildings themselves in general do not appear to have survived, although Long Royd Mill (**1**, Plate 28; Gazetteer of Sites - Castleshaw) would appear to be an exception and offers the best potential amongst these sites for future survey and excavation, as well as providing good research and educational possibilities.

The water management features (ie. mill ponds and leats) are the only parts of the other mill sites which have survived. These are attractive landscape features and as well as being archaeological sites are likely to have scientific and biological significance also. These features should be preserved and where breaches in the mill ponds have occurred, such as at Johnny Mill (**252**; Plate 29) and Long Royd Mill (**1**), both in the Castleshaw area, these should be repaired.

The earthwork remains of the tenter field site (**1**) in the Piethorne area represent a rare survival and its position in association with the site of Longden End Mill (**13**), mill pond (**12**) and possible weavers' cottages at New Nook (**4**), make this area an interesting industrial complex, which would certainly benefit from a more detailed survey. The tenter field earthworks in particular should be preserved.

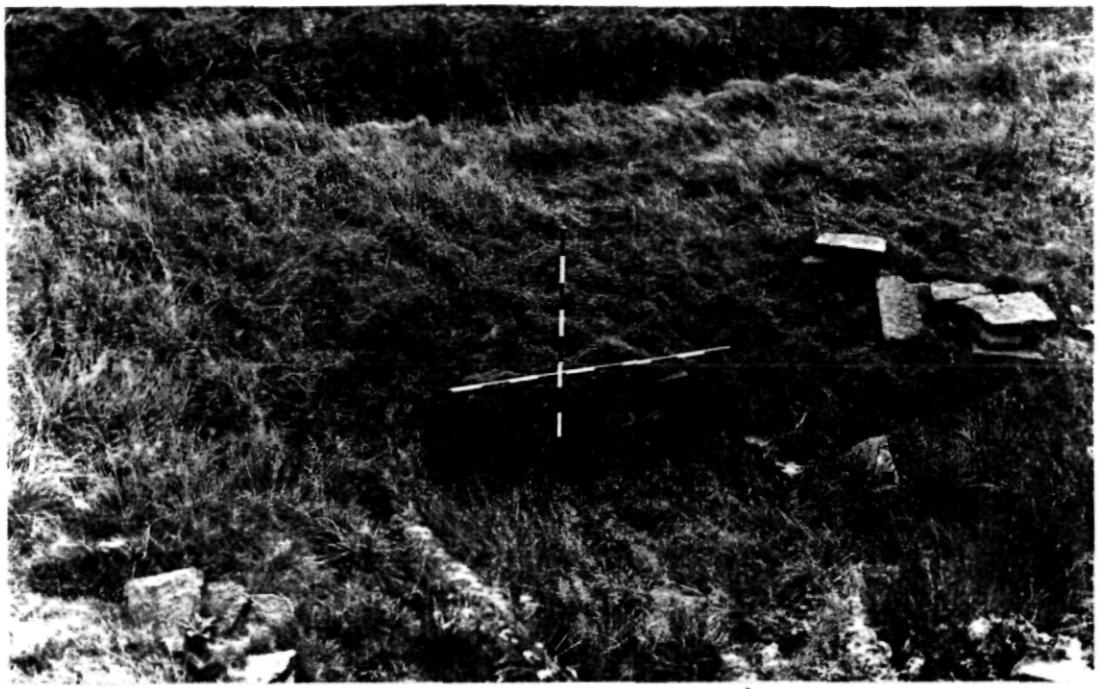


Plate 28 A possible wheel pit within the site of Long Royd Mill. This demonstrates the potential for surviving archaeological features at this site.

Plate 29 The mill pond and leat at Johnny Mill. This is one of the sites where the mill pond has been breached

Water Industry

The various sites associated with the water industry, some of which are now redundant (eg. the pump house **230**, the tramways **168** & **309**; *Gazetteer of Sites - Castleshaw*; and the tramway **109**; Gazetteer of Sites - Piethorne), represent significant historic industrial features and their preservation is recommended. The technology of the industry as a whole is of historic interest and therefore any early features including machinery are all worthy of record. The importance placed on this site type is borne out by English Heritage's inclusion of water industry sites within its Monuments Protection Programme, which is a major archaeological study aimed at increasing the number of Scheduled Ancient Monuments.

GENERAL

It has been identified, with particular regard to the Piethorne area, that archaeological finds from within the study zone could represent an educational facility for North West Water wardens. This remains a matter for further discussion, although it would seem reasonable that copies or

casts of the more important finds could be obtained for these purposes, while less important finds could well be retained, provided suitable conditions were in place.

Other general themes which are open for further discussion include:

An exhibition - the aerial photographs and some of the survey findings might appropriately be exhibited at a North West Water visitor centre

Booklet - a small publication could be produced aimed at heightening local awareness of the archaeology of the areas.

Both of these suggestions clearly depend on North West Water's attitudes to visitor numbers in the valleys.

A large number of sites have been identified where future research, survey, excavation etc. could be carried out and the two study areas therefore represent potentially valuable education/training grounds for students and amateurs alike. Students from Oldham sixth form college and Manchester University, as well as local societies could all possibly benefit. However, this work would be undertaken with NWW's permission and would need to be closely monitored by the wardens and GMAU.

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Aerial Photographs

Photographs held at the Greater Manchester Geological Unit, University of Manchester:

1977-9 Black and white verticals, scale 1:10,000.

1984 Black and white verticals, scale 1:10,000.

1989 Colour verticals, scale 1:10,000

Photographs held at the Greater Manchester Archaeological Unit, University of Manchester:

Colour and black and white obliques of varying dates, including a colour series covering all of the study area taken for the present survey.

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Appendix 1

ARCHAEOLOGICAL ASSESSMENT OF THE CASTLESHAW AND PIETHORN NWW LAND HOLDINGS: AN ENVIRONMENTAL SURVEY

A Report for the University of Manchester Archaeological Unit

Michael Ogle, William Fletcher, Barbara Brayshay, David Shimwell, Michael Robinson

Palaeoecological Research Unit (PERU)
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1.INTRODUCTION

The land holdings of North West Water are included in an area of approximately 1600 hectares of the southern Pennines located to the northeast of Standedge. The area extends to include the Piethorne group of reservoirs (Norman Hill, Piethorn, Kitcliffe, Hanging Lees and Ogden) in the north and the reservoirs of Castleshaw Upper and Lower in the south. Between Castleshaw and Piethorn are the reservoirs of Rooden, Readycon Dean, Crook Gate, Dowry, and New Years Bridge. The eastern margin follows the major Pennine watershedding between streams draining eastward from March Haigh and Close Moss and streams draining westward from Castleshaw Moor towards the River Tame and from Bleakedgate Moor towards the River Roch (Figure 1).

2. TOPOGRAPHY, SOLID AND DRIFT GEOLOGY

The survey area lies to the west of the principal ridge of the South Pennines. The topography consists of dissected escarpments which rise to a maximum elevation of 447 m OD on the east at the head of Cudworth Clough on Castleshaw Moor (SD 00451155). Local relief is generally of the order of 100 to 150 metres. The maximum elevation is considerably below the highest relief of the South Pennines, which rises to well above 600 m OD in places. The dominant regional relief forms are extensive flat plateaux areas, isolated tabular hills, and deep valleys (Johnson, 1985). In the study area, however, the relief is comparatively subdued, dominated by bevelled escarpments, the valleys of small streams draining northeast/southwest, and by a series of interfluves with occasional outliers rising locally above 400 m OD as at Friar Naze End (SD 98901220).

The solid geology consists of fluvio-deltaic clastic rocks of mid-Carboniferous age with the more elevated areas formed of coarse Namurian sediments (Millstone Grit) overlying beds of weak and incompetent mudrocks (Figure 2). The latter have been differentially eroded to form, in places, benches and terraces on the valley floors. To the north and east of Readycon reservoir the grits are of the Readycon Dean and Upper Kinderscout series. Further south, at Ox Hey Top (SD 98700990) and to the west of the Castleshaw reservoirs the rocks are of the Shale Grit series. Landform distribution throughout the area is largely controlled by this local lithology and by the presence of a series of faults trending northeast/southwest. The eastern limits of the landholdings follow approximately the junction of the Millstone Grits with the Lower Coal Measures except to the east of Rooden reservoir where they are overlain by Lower Coal Measures above Ogden Edge (SD 96701150).

Drift geology within the area is probably of Devensian origin and is restricted in the south to boulder clays along the line of Hull Brook below Castleshaw Lower reservoir, generally at an elevation below 225 m OD. In the northern part of the landholding the boulder clay extends from Hanging Lees reservoir, along the eastern and southern margins of Piethorn, masking the Lower Coal Measures around Ogden reservoir

Figure 1

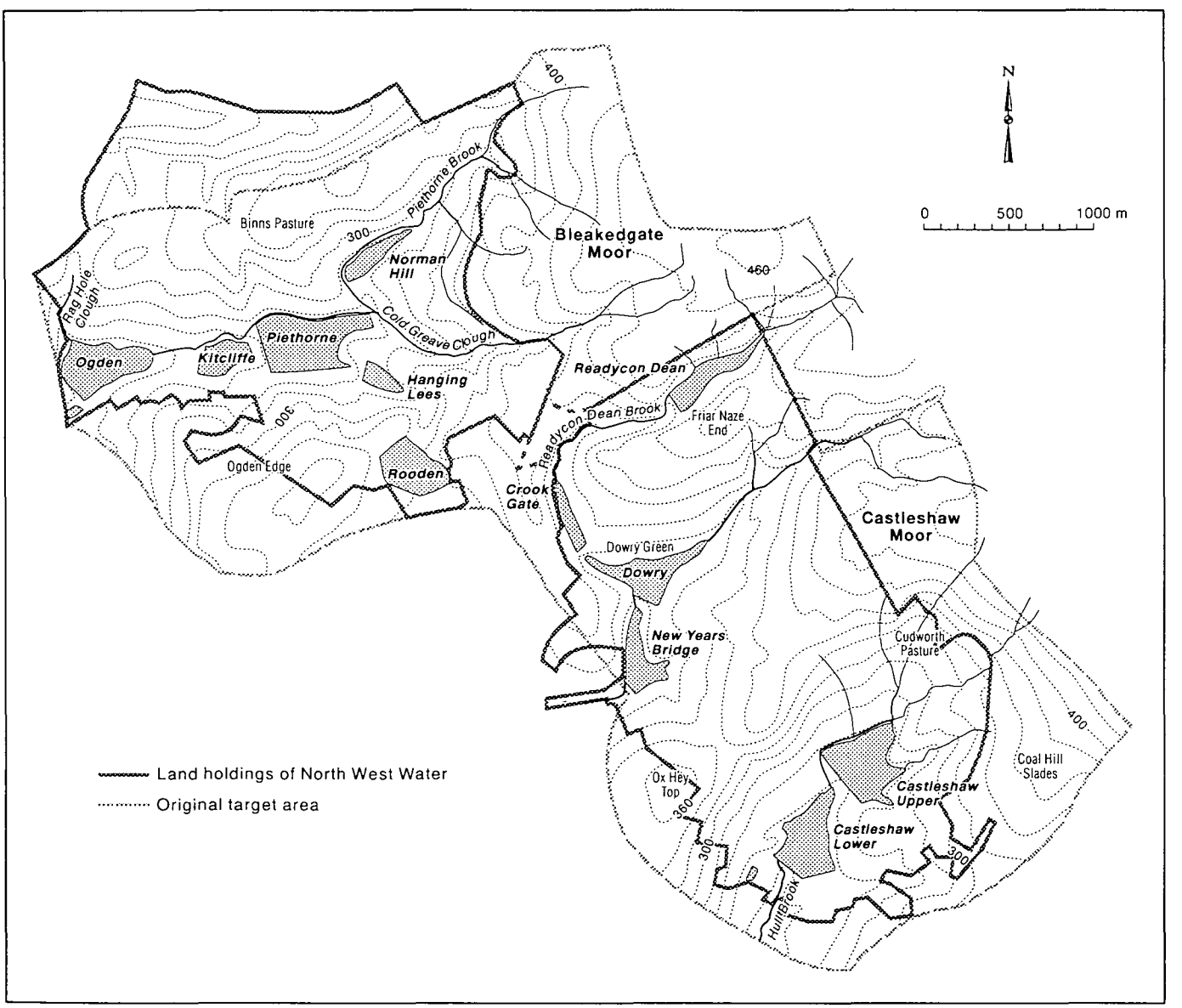

N
0
500
1000 m
400
Piethorne Brook
Binns Pasture
300
Bleakedgate Moor
Norman Hill
460
Rag Hole Clough
Cold Greave Clough
Piethorne
Ogden
Kitcliffe
Hanging Lees
Readycon Dean
Readycon Dean Brook
Friar Naze End
300
Ogden Edge
Rooden
Crook Gate
Castleshaw Moor
Dowry Green
Dowry
New Years Bridge
Cudworth Pasture
400
Coal Hill Slades
Ox Hey Top
360
Castleshaw Upper
Castleshaw Lower
300
300
Hull Brook
Land holdings of North West Water
Original target area

Figure 2


N
0
500
1000 m
RECENT
Peat
Alluvium
GLACIAL
Boulder clay
CARBONIFEROUS
Lower Coal Measures
Millstone grit

except on its western margin and extending in a narrowing wedge north of Ogden along the line of Rag Hole Clough and south of the reservoir along the line of Wicken Hall Clough (Huddersfield Road). Following Hull Brook above the village of Delph towards Castleshaw Lower reservoir is a narrow deposit of recent alluvium.

3. SOIL ASSOCIATIONS AND VEGETATION TYPES

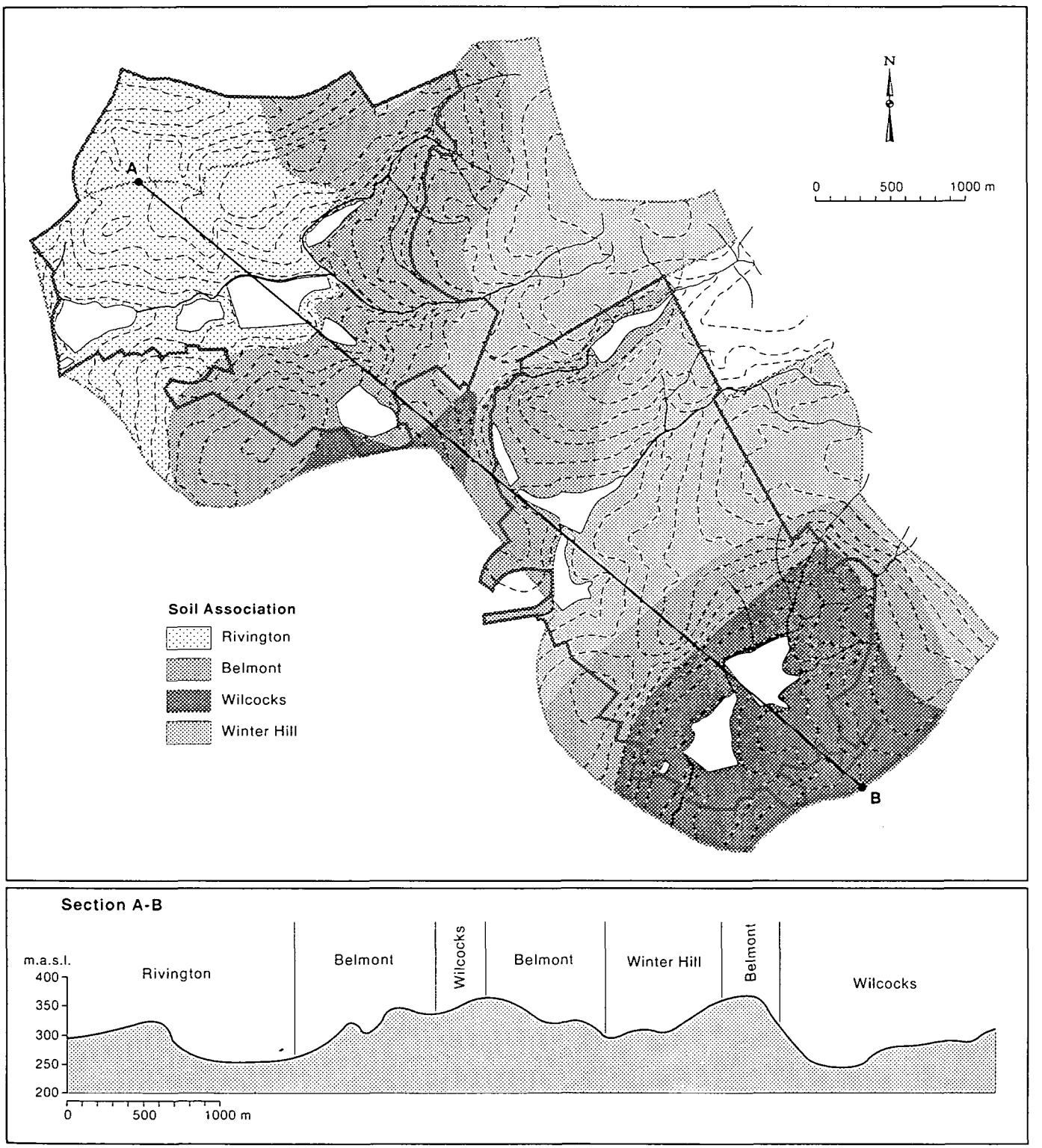
Representative series of four principal soil associations are recognised for the area : the Wilcocks 1 and Rivington 2 Series, and the Belmont, and Winter Hill Associations. Two of them, the Belmont and Winter Hill Associations are developed on the gritstones. Soils of the Rivington 1 Series are developed on the northern boulder clays and glacial tills of the Piethorn/Ogden corridor, while the Wilcocks 1 Series is to be seen in the south facing embayment at the head of the Castleshaw valley (Figure 3).

a. Winter Hill Association

The Winter Hill soils form the bulk of the cover on flat to undulating areas above circa 350 m OD on Bleakedgate Moor and on Castleshaw Moor. They have developed in the areas blanketed in oligofibrous peat growth which began in Atlantic times (c..7500 bp). The peat is therefore the parent material for organicsoil development (Kear, 1985). In some parts of the Southern Pennines the depth of peat accumulation exceeds 4 m, but in this plateau margin area it reaches a maximum depth of 3 m at Hind Hill on Castleshaw Moor (SD 99801140). In this region the dominant peat-forming species have been *Sphagnum* spp., *Eriophorum* spp., and *Calluna vulgaris*, growing under conditions of high rainfall and minimal evapotranspiration and producing conditions of extreme acidity with pH values often below 3.5. In the area of the NWW landholding it is unlikely that modern annual rainfall totals greatly exceed 1200 mm or even reach this level in some places. New peat formation in the area, therefore, must now be extremely restricted, if it is occurring at all. At lower elevations drainage and reclamation with sown grass species and with forestry has occurred (Figure 4). Existing blanket peat is severely eroded. The causes of this erosion, which has been responsible, in parts of the study area, for uncovering scatters of prehistoric flint and other settlement indicators, have been the subject of considerable debate. Bower (1962) considered that climate and topography were the principal agents. But other explanations, including regular burning (Radley, 1962), heavy sheep grazing (Shimwell, 1974), artificial drainage and air pollution (Tallis, 1965; Lee, 1981) have also been strongly canvassed. On balance, biotic agents and especially air pollution seem to be the most favoured explanations (Tallis, 1985; Anderson and Shimwell, 1981).

Uneroded blanket peats are relatively uncommon and are dominated by the hare's-tail cottongrass (*Eriophorum vaginatum*) and the common cottongrass (*E. angustifolium*), with an admixture of the wavy hair-grass (*Deschampsia flexuosa*) in drier areas. Species of bogmoss are generally absent, except in localised soligenous areas, where the principal species are *Sphagnum*

Figure 3


N
0 500 1000 m
A
B
Soil Association
Rivington
Belmont
Wilcocks
Winter Hill
Section A-B
m.a.s.l.
400
350
300
250
200
Rivington
Belmont
Wilcocks
Belmont
Winter Hill
Belmont
Wilcocks
0 500 1000 m

recurvum and *S. auriculatum.* Drying of the eroding peat margins favours the invasion of shrubby plants such as the crowberry (*Empetrum nigrum*) amd bilberry (*Vaccinium myrtillus*). These vegetation types are characterised as Type M20, *Eriophorum vaginatum* blanket mire by Rodwell (1991).

b. Belmont Association

On the steeper slopes at the margin of the upland plateaux the soils that are developed are of the Belmont association. They form on the sandstone and shale bands of the Millstone Grit and Lower Coal Measures. Around the upper slopes of Cudworth Pasture and Coal Hill Slades in the embayment at the head of the Castleshaw valley they describe a narrow, sweeping arc. Further north, they are to be found along the western edge of New Year Bridge reservoir, crossing Dowry Green (SD 98501130), and following the line of Readycon Dean Brook. They also occupy a large swathe of land along the line of Piethorn Brook, Cold Greave Clough, and over the slopes of Ogden Edge between Rooden and Hanging Lees reservoir (Figure 3). The mixing of sandstone and shale, probably through solifluction processes, has produced mineral soils which are medium textured, iron pan stagnopodzols with a peat or raw acid humus overlying a thin horizon of gleyed, bleached, material and a cemented iron pan usually less than 5 mm thick (Crompton, 1956). Free drainage occurs beneath the iron pan and iron staining occurs in the underlying subsoil and is apparent in surface issues and chalybeate springs.
The vegetation tends to be a heterogeneous mixture of patches of *Calluna vulgaris-Vaccinnium myrtillus* heath (H12, Rodwell 1991), *Vaccinium myrtillus-Deschampsia flexuosa* grass heath (H18) and areas dominated by purple moor-grass (*Molinia caerulea*) (M25), or mat-grass (*Nardus stricta*) grassland, referable to acidic grassland type U5 of Rodwell (1992).

c. Wilcocks Association

The Wilcocks 1 series is found in an arc around the more gentle lower slopes of the embayment at the head of the Castleshaw valley, below the soils of the Belmont association. Kear (1985) describes the soils as 'slowly permeable, seasonally waterlogged peaty surface-water gleys with very dark grey clay loam topsoils over grey, distinctly mottled clay loam or clayey subsoils'. In consequence of the relatively favoured aspect of the upper Castleshaw valley the Wilcocks 1 series in this location extends to an elevation of approximately 350 m before the transition to the Belmont and Winter Hill associations occur. With adequate drainage and the application of lime and fertiliser soils of the Wilcocks association are capable of producing good grassland of type U4 (Rodwell 1992), *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland. Where drainage is poor, the same heterogeneous mixture of vegetation types, described for the Belmont Association, H12/H18/M25/U5 occurs, often in association with patches of smooth rush (*Juncus effusus*) in the wetter conditions of surface water flows. Conversely, *Vaccinium myrtillus* is evident where grazing is minimal or where slightly drier conditions obtain as to the west of Castleshaw Lower reservoir at SD 98990950.

d. Rivington Association

On the boulder clay, till and Millstone Grits in the northeast of the landholding, a series of free draining brown earths called the the Rivington 2 series is developed. The soils occupy the moderate slopes of Piethorn Brook from Binns Pasture (SD 96501350) and Town Hill (SD 95501320) in the north to the lower slopes of Ogden Edge below c. 300 m in the south. They have dark brown stony topsoils which pass into a weathered B horizon coloured yellowish-brown. Fragments of the Millstone Grit parent material frequently increase with depth and come to dominate the solum at c. 40 - 60 cms. The vegetation comprises improved acidophilous grasslands of a variety of types, including U4, and also mesotrophic grasslands, such as *Lolium perenne-Cynosurus cristatus* leys and meadows and *Holcus lanatus-Juncus effusus* rush pastures, classified as types MG6 and MG10 respectively by Rodwell 1992.

3. A MASS MOVEMENT PHENOMENON: THE CASTLESHAW LANDSLIP

To the west of Castleshaw Lower reservoir, covering an area of circa 40 hectares, is a landslip. These mass movement phenomena are significant features of the South and the West Pennines occuring on many steep valley slopes particularly where relatively competent but permeable rocks, such as sandstones or gritstones, overlie less competent but impermeable mudstones. The slippage of land is caused as a result of the build up of hydrological pore pressure between the rock types, allied to existing rock deformation during the Pleistocene and and the reduction of hillslopes to critical angles during deglaciation (Johnson and Vaughan, 1989; Tallis and Johnson, 1980). In most cases the landslip is characterised by rotational movements which produce small depressions in the debris.

Some of these depressions are subsequently infilled with peat (Tallis and Johnson, 1980). This creates the potential, from the peat itself and/or from the pollen record which may be preserved in it, to date the period of landslip termination from depressions which occur near the top of the slide. This reveals the *minimum* age of mass movement on the slope. There have been a number of studies of this kind (Johnson and Vaughan, 1983; Tallis and Johnson, 1980; Johnson and Walthall, 1979; Franks and Johnson, 1964) In all these cases, covering landslides from the Charlesworth area, from Longdendale, and from Alport Castles, the geomorphological and pollen evidence has indicated post-Glacial, but pre-Atlantic ages for the phenomena. In the case of the Coldside landslip in the Vale of Edale, however, it has been possible to date not only the minimum age but also the probable *maximum* age of the slip from a charcoal-bearing palaeosol located underneath the toe of the deposit (Redda and Hansom, 1989). In this instance, slide activity appeared to extend over 300 years and to have been contained entirely within the Atlantic period: radiocarbon dates suggest that movement began about 5860 years BP and ended about 5560 years BP at a time close to the *Ulmus* decline which divides the Atlantic from the Sub-Boreal period. A preliminary investigation of the Castleshaw landslip reveals a complex morphology produced by a series of pronounced areas of hummocky terrain

laterally displayed around the slope contours. Ponded behind these hummocks in well-sheltered depressions are poorly drained, rush-dominated areas with peat depths at the margin of up to c.1 m. and referable to mire type M23 *Juncus effusus/acutiflorus-Galium palustre* mire, in which *Sphagnum recurvum* occurs above c. 275 m OD.

The failure of slopes and the consequent slipping of land may be triggered by environmental changes. Amongst these changes, the tendency to greater wetness combined with the extension of forest cover during the Atlantic period has been discussed by Tallis and Johnson (1980) and by Redda and Hansom (1989). In the case of the Longdendale slides, investigated by Tallis and Johnson, this association is discounted since the basal dates for slide peats indicated inception during the earlier and relatively dry Boreal period (10250-7450 bp). Redda and Hansom's data, however, allow them to suggest a combination of high rainfall and rapid infiltration along root channels as a trigger mechanism for slope failure.

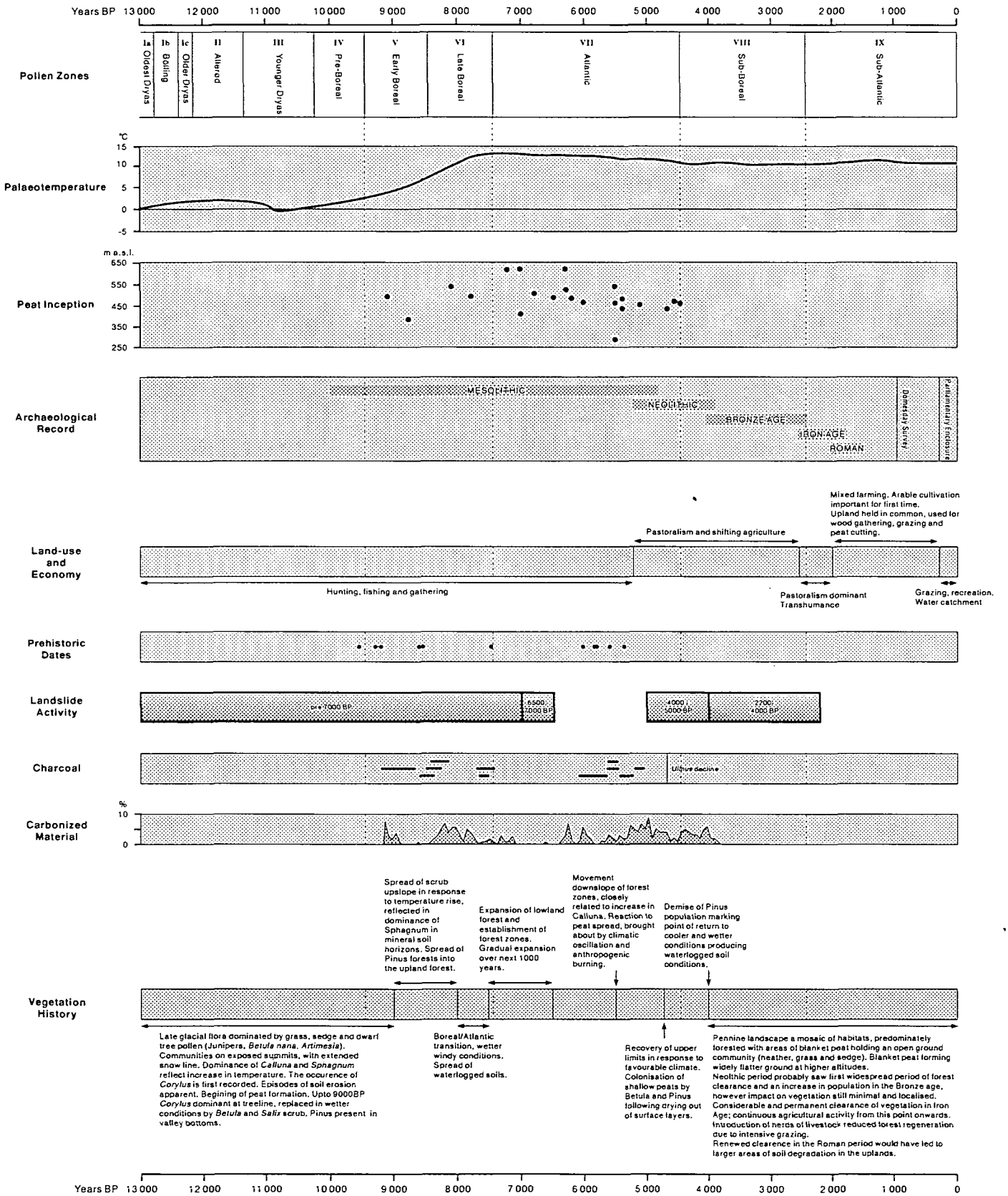
An alternative or additional trigger, certainly for more recent landslides and possibly for landslides extending into the Atlantic period, is anthropogenic interference as a result of the activities of Mesolithic people. Despite the extension of forest cover through the Atlantic, Tallis and Johnson (1980) accept the possibility of 'anthropogenic disturbance by fire at the upper forest margins'. This view is shared by Jacobi *et al.* (1976) and by Redda and Hansom (1989) who, after reviewing the evidence of Mesolithic influence on Pennine environments conclude that 'whilst the forest clearance during the Mesolithic led to peat development on the flat upland plateaux, the adjacent slopes were subject to increased infiltration and slope instability which led to landslide activity'. It may be significant, therefore, that the major Mesolithic sites of the south Pennines, including March Hill, lie in close spatial association with distinctive landslips.

4. DISCUSSION AND RECOMMENDATIONS

Archaeological, paleaoecological, and environmental evidence from the southern Pennines is summarised in Figure 4. Within this context, this assessment of the Castleshaw/Piethorn area indicates four directions for continued archaeological and palaeoecological investigation.

a. Archaeological investigation has revealed clear evidence of iron smelting in the Castleshaw valley which archaeomagnetic and radiocarbon dating has located to the first half of the second millenium AD. Excavation on the western slopes of Spa Clough indicated that the 'source of iron ore was not bog iron but ironstone ... derived from bands within the shales of the Lower Coal Measures which survive on the west slopes of the Castleshaw valley' (Redhead, 1993). The Geological Survey, however, indicates the area of this excavation to lie outside the limits of Lower Coal Measures strata (see 2, above). The area supports soils of the Belmont Association (3 above), which are probably responsible for the widespread staining of mudstones and shales as well as stream issues, and which produce a distinctive iron pan which may be c. 3 cm deep.

Figure 4


Years BP 13 000 12 000 11 000 10 000 9 000 8 000 7 000 6 000 5 000 4 000 3 000 2 000 1 000 0
Pollen Zones
Ia Oldest Dryas
Ib Boiling
Ic Older Dryas
II Allerod
III Younger Dryas
IV Pre-Boreal
V Early Boreal
VI Late Boreal
VII Atlantic
VIII Sub-Boreal
IX Sub-Atlantic
Palaeotemperature
°C
15
10
5
0
-5
Peat Inception
m a.s.l.
650
550
450
350
250
Archaeological Record
MESOLITHIC
NEOLITHIC
BRONZE AGE
IRON AGE
ROMAN
Domesday Survey
Parliamentary Enclosure
Land-use and Economy
Mixed farming. Arable cultivation important for first time. Upland held in common, used for wood gathering, grazing and peat cutting.
Pastoralism and shifting agriculture
Hunting, fishing and gathering
Pastoralism dominant Transhumance
Grazing, recreation, Water catchment
Prehistoric Dates
Landslide Activity
pre 7000 BP
6500-7000 BP
4000-4000 BP
2700-4000 BP
Charcoal
Ulmus decline
Carbonized Material
%
10
0
Vegetation History
Spread of scrub upslope in response to temperature rise, reflected in dominance of Sphagnum in mineral soil horizons. Spread of Pinus forests into the upland forest.
Expansion of lowland forest and establishment of forest zones. Gradual expansion over next 1000 years.
Movement downslope of forest zones, closely related to increase in Calluna. Reaction to peat spread, brought about by climatic oscillation and anthropogenic burning.
Demise of Pinus population marking point of return to cooler and wetter conditions producing waterlogged soil conditions.
Late glacial flora dominated by grass, sedge and dwarf tree pollen (Junipers, Betula nana, Artimesia). Communities on exposed summits, with extended snow line. Dominance of Calluna and Sphagnum reflect increase in temperature. The occurrence of Corylus is first recorded. Episodes of soil erosion apparent. Begining of peat formation. Upto 9000BP Corylus dominant at treeline, replaced in wetter conditions by Betula and Salix scrub. Pinus present in valley bottoms.
Boreal/Atlantic transition, wetter windy conditions. Spread of waterlogged soils.
Recovery of upper limits in response to favourable climate. Colonisation of shallow peats by Betula and Pinus following drying out of surface layers.
Pennine landscape a mosaic of habitats, predominately forested with areas of blanket peat holding an open ground community (heather, grass and sedge). Blanket peat forming widely flatter ground at higher altitudes.
Neolithic period probably saw first widespread period of forest clearance and an increase in population in the Bronze age, however impact on vegetation still minimal and localised.
Considerable and permanent clearance of vegetation in Iron Age; continuous agricultural activity from this point onwards.
Introduction of herds of livestock reduced forest regeneration due to intensive grazing.
Renewed clearence in the Roman period would have led to larger areas of soil degradation in the uplands.
Years BP 13 000 12 000 11 000 10 000 9 000 8 000 7 000 6 000 5 000 4 000 3 000 2 000 1 000 0

It is recommended that further detailed work is conducted on the geology of the Spa Clough area. It is also recommended that the ironstone materials are re-examined by X-ray fluorescence, and that similar work is conducted on local samples of iron pan. Experimental archaeology and statistical assessment of iron yield potential may be of value in the further consideration of this issue. A more detailed examination of exposures in the surviving Lower Coal Measures in the northeast of the landholding should also be undertaken with a view to identifying areas of possible Medieval mining and smelting activity.

b. Pollen analysis has been employed extensively in the study of blanket peats in the South Pennine uplands (Tallis and Switsur, 1983; Tallis and Switsur, 1990; Tallis, 1991, *inter alia,*). Integral to these studies has been the issue of anthropogenic influence on the inception of peat growth and the record of anthropogenic activity contained in the pollen spectra of the peats. In the vicinity of the Castleshaw/Piethorn area, however, there have been no thorough studies of blanket peat, despite the numerous evidences of continuing human habitation at least from Mesolithic times. The nearest location at which a study of upland peats has been undertaken is Soyland Moor (Williams, 1985).

It is recommended that columns of blanket peat are retrieved from the nearest practical vicinities to sites of archaeological interest, such as at Cudworth Clough in the Castleshaw Valley, where over 3m of peat were recorded during the survey; and that these columns are analysed for biostratigraphy, pollen preservation and the record of anthropogenic impact on vegetation and landscape. It is further recommended that, where possible and appropriate, profiles are examined for heavy-metal concentrations and soot contamination arising from industrial activity in the historic past. It is also recommended that provision be made in this work for a suite of radiocarbon dates at locations within the pollen profile that appear to be of potential archaeological significance. ***It is possible that these examinations could form the basis of study towards a higher degree.***

c. The Castleshaw landslide is an area of immediate interest in a variety of different respects: geomorphological; palaeoecological; and archaeological. Of particular archaeological relevance is the evidence which is contained in the peat formations of landslip hollows and flushes at a series of descending elevations. A superficially similar, but emphatically quarried, area on the southern side of Piethorn reservoir can also be identified.

It is recommended that additional expertise is recruited to examine and describe the geomorphological aspects of the landslip and that peat columns are taken from appropriate sites for biostratigraphic and pollen analysis in the laboratory in order to examine the possibility of an anthropogenic contribution to the landslip event. ***It may be appropriate to consider the allocation of this work to a postgraduate student.***

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Appendix 2

Palaeoecological studies in the Pennines.

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Introduction - the regional setting

The modern landscape of the Pennine uplands is characterised by a pervasive cover of blanket peat and impoverished upland heath communities. The area is bleak and marginal in terms of agricultural potential with high levels of peat erosion evident across the region. However the archaeological record demonstrates the presence of people in the area from the early Mesolithic period (c.10,500 BP.) and has prompted questions regarding past environmental conditions particularly with respect to past climate change and human impact on the vegetation and soils of the region - has it always been so bleak and impoverished and if so, what could have attracted people there in pre-history?. Consequently the vegetational history of the Pennines has been the subject of investigations by palaeoecologists and archaeologists for some time. Existing published palynological records from the area fall into two main groups, firstly regional and local scale studies of Holocene vegetational histories, for example those of Williams (1985), Simmons & Innes (1987) and Tallis & Switsur (1990) and secondly site based analysis from principally Mesolithic archaeological contexts (Brown 1982, Brayshay, 1993, 1994, 1995)

The regional and local scale studies have demonstrated that in the past the landscapes of the Pennines were very different to those of today. Pollen and charcoal records indicated a sequence of environmental change which started in the early Holocene with the migration and expansion of trees and shrubs until the area was predominantly wooded. This phase of Holocene woodland expansion was followed by the gradual decline of forest cover and the replacement of hillslope forests with acidic *Calluna vulgaris* (heather) dominated heaths which were further impoverished as a result of sheep-grazing and industrial pollution. Important questions have arisen from these studies regarding the onset and rate of soil deterioration, human presence and vegetational change. These issues are significant not only in the local context of the March Hill and Lominot sites but regionally because similar changes have been documented in Pennine studies (Williams 1985, Simmons & Innes 1987, Tallis & Switsur 1990). These authors have suggested that the sequence Holocene environmental change from woodland to blanket peat can be explained in terms of natural edaphic processes. However the presence of charcoal layers in peat together with Mesolithic archaeology has led to the suggestion that there may be a relationship between environmental change in the Pennine uplands and the food procurement strategies of Mesolithic people.

Environmental impacts associated with this period relate principally to fire management of the upland marginal scrub zone in order to enhance grazing potential during a period when the area of open habitats suitable for grazing was reduced by the spread of closed canopy woodland into the uplands and the contraction of the upper limit of scrub between *c.*7800 and 7000 BP (Tallis & Switsur 1990).. These features of the pollen record and the later spread of *Calluna vulgaris* dominated heaths may be attributed to natural soil degradation processes and water logging as a consequence of a shift to a wetter climate but are also associated with increased amounts of charcoal (macro and microscopic fragments) in sediments and the abundant archaeological evidence for Mesolithic presence concentrated above the 1200' contour.. It seems probable that any human manipulation of the vegetation in such a sensitive / marginal environmental situation with potentially little resilience to even minor perturbations could have accelerated natural degradation processes.

Environmental archaeology.

Environmental sampling from archaeological contexts has provided a number of snapshots of extra-local environments in the vicinity of March Hill. The study by Brown (1982) examined the fossil pollen record from Warcock Hill South (SE 030095), Rocher Moss South (SE 028087) and Dean Clough 1 (SD 987125). All sites have radiocarbon dates from hearth materials associated with broad and narrow blade Mesolithic flint scatters:

Warcock Hill South *c.*9260 BP
Dean Clough 1*c.*7645 BP
Rocher Moss South *c.*5880 BP.

The site at Warcock Hill South was shown to be older than Dean Clough 1 and Rocher Moss South which were associated with a later March Hill narrow blade flint industry. Pollen analysis from these sites indicated woodland regression, soil degradation and erosion at the soil/peat interface.

The results of a preliminary pollen assessment study at March Hill (Brayshay 1993) identified a sequence of three main phases of vegetation development, firstly a phase of upland, marginal open scrub (*sensu* Tallis & Switsur 1990) in which Pteropsida (ferns), *Corylus* (hazel), *Betula* (birch) and *Alnus* (Alder) were the main vegetation elements, followed by a second phase in which *Corylus* became more abundant prior to the development of peat forming ericaceous heath communities. This sequence of vegetation change complimented an interpretation of soil forming processes at the site (MacHugh 1993) which indicated that the sedimentary sequence in which the Mesolithic artifacts were concentrated was characterised by a degraded former mineral soil and iron pan beneath peat.

Pollen and microscopic charcoal analysis was undertaken from two sediment profiles, from March Hill, Marsden Moor (SE 017 131) retrieved during the 1994 field season. The profiles were selected for analysis during the excavation of a hearth. The main priority for this phase of palynological analysis was to undertake close interval sampling of material directly associated with the archaeology. The sampling strategy was designed to investigate in detail vegetation at the soil / peat interface from profiles directly related to the Mesolithic archaeological contexts. These procedures provided detail of the environment in the immediate vicinity of the hearth. and identified potential effects on vegetation resulting from human presence. Three peaks in particulate charcoal abundance were identified in both profiles, one at the mineral soil/ peat interface and two further up the profiles. The results of the analysis reinforced the findings of a preliminary study (Brayshay 1993) but recognised that at present the interpretation of the combined palynological, charcoal and artifactual evidence is limited by the lack of a well defined chronological framework. Radiocarbon dating of the peat / mineral soil interface is urgently required in order to relate the archaeological evidence to the environmental.

The two profiles from the vicinity of the hearths provided a detailed picture of vegetation and by inference the environment of March Hill at the time when they were constructed. The transition to acidic peat forming *Calluna* dominated heaths at the mineral soil / peat interface - where the Mesolithic artefacts were concentrated suggests that there may be a causal relationship between human activity and environmental degradation at this time. However later charcoal peaks which correlate across both diagrams indicated a more significant human presence at later periods Phases of charcoal maxima may correlate with the archaeological sequence of occupation. The palynological evidence from sediments thought to pre-date the hearth correlated biostratigraphically most closely with radiocarbon dated regional pollen spectra which post dated the *Alnus* rise (at Robinsons Moss the *Alnus* rise is dated at 7675 BP - Tallis & Switsur 1990). Provisionally it may be suggested that the oldest pollen spectra in the March Hill sequence may correlate with the early Mesolithic broad blade industry - and that the

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expansion of *Corylus* noted in the pollen diagrams occurred during the same period. Similarly the transition to peat formation, signaled palynologically and sedimentalogically, at the mineral soil / peat interface may correlate with a similar *Calluna vulgaris* rise dated at Robinsons Moss to 5470 BP (Tallis & Switsur 1990) and the narrow blade flint assemblages concentrated in these horizons. However these correlation's remain speculative, interpretation of the pollen data is limited by a lack of radiocarbon dates. For example, it is still not clear if the flint assemblages are located in contemporary deposits or if there has been erosion of sediments as suggested by MacHugh (1993). Dating of the two later periods of charcoal maxima may correlate with clearance phases which are dated and recorded elsewhere in the area (Williams 1985, Tallis and Switsur 1990). Dating would allow the pollen spectra from March Hill to be correlated with other regional pollen sequences using absolute rather than biostratigraphic criteria. Further analysis of these profiles is on-going - more close interval pollen sampling may be required but the selection of appropriate horizons for further analysis would be greatly facilitated by radiocarbon dating. Integration of the palynological and soils analysis (in progress) would help to resolve some of the interpretative problems discussed above. The results of the analysis are proving to be extremely interesting not only in relation to March Hill itself but to previous studies of Mesolithic impacts in the wider Pennine region.

Recommendations

The integration of these site based archaeological records with a full and continuous Holocene sequence from the vicinity of March Hill remains a research priority given the national significance of the site. This discussion has focused on the Mesolithic evidence, however equally important is the elucidation of later Holocene palaeoenvironmental change and the impact of the environment on people (and people on the environment) during cultural periods other than the Mesolithic. These interactions have produced the modern landscape and have bearing on our understanding of ecological processes which in turn may be pertinent to management issues in the future.

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