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The Marches Uplands Mapping Project: A report for the National Mapping Programme

Cathy Stoertz

SURVEY REPORT

Aerial Survey Report Series AER/1/2004

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THE MARCHES UPLANDS MAPPING PROJECT

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SUMMARY

The region of upland which lies along the border between England and Wales has been an important frontier for many centuries. The results of the Marches Uplands Mapping Project (MUMP) have reinforced the impression of an area characterised by small defensive sites, an area which served as both a power base and a buffer zone for different groups of people throughout history.

The source of interest in, and conflict over, the region is its supply of natural resources. Mineral ores and agricultural land alike have been exploited with different degrees of intensity since prehistory. The location of settlements and fortified sites shows that riverine communications routes and the natural defences of hills and vantage points have also been counted among the natural resources of the Marches Uplands.

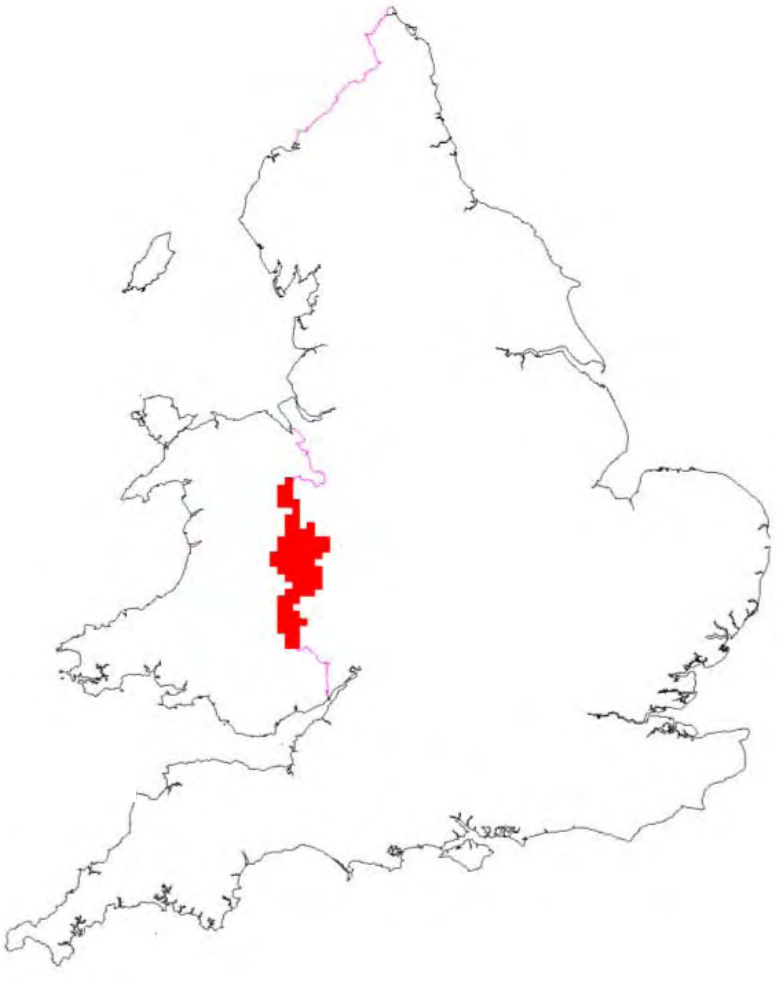


Figure 1 - The location of the Marches Uplands Mapping Project survey

INTRODUCTION

BACKGROUND TO THE PROJECT

This project was carried out by the Aerial Survey section of English Heritage (formerly RCHME) as part of the National Mapping Programme (NMP) (Bewley 1998, 9-17). It was designed to support the Marches Uplands Survey (MUS), a ground-based, multi-disciplinary survey directed by the Archaeology Section of Hereford and Worcester County Council (HWCC) and funded by English Heritage. The MUMP project area reflects the zone of study designated by MUS.

The HWCC survey defined 'upland' as land above the 250m contour; the NMP Marches Upland Mapping Project included upland thus defined, plus any additional areas falling within OS 1:10,000 quarter sheets partially occupied by upland. The final MUMP project area covered 2075km2, on 83 Ordnance Survey quarter sheets. The project area was divided between the counties of Hereford and Worcester and Shropshire, extending between 10km and 30km to the east of the Welsh border, from the River Monnow in the south to just beyond Oswestry in the north.

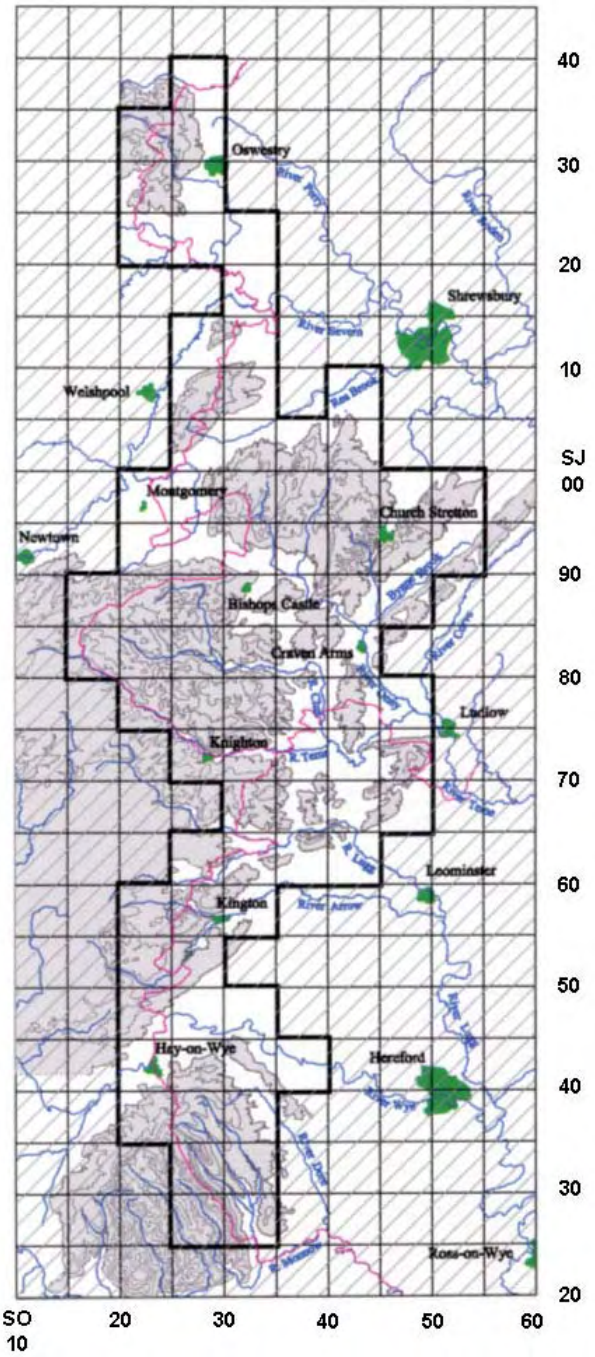


Figure 2 - The topography of the Marches Uplands (Contours at 100m intervals, starting at 200m OD)

ARCHAEOLOGICAL SCOPE OF THE PROJECT

The objective of the MUMP survey, as part of the NMP, was to plot, document and classify, at a common scale and to a common standard, all archaeological information contained on both oblique and vertical aerial photographs. This encompassed all monuments and features, both plough-levelled and upstanding remains, dating from the earliest times to 1945, including industrial and military features but with the exception of standing buildings.

Plough levelled features: all cropmarks and soilmarks representing filled 'negative' features (i.e. ditches and pits) or levelled earthworks were recorded.

Earthworks: all earthwork sites were recorded, whether or not they had been previously surveyed; every attempt was made to depict the condition of the earthworks as seen on the most recent photographs. Extant earthworks such as hillforts, which are shown with hachures on the current 1:10,000 base maps, were depicted with hachures on the project overlays. Previously surveyed earthworks which could be identified on photographs were traced in hachure form, from existing survey plans if possible, or from the base maps, unless photographic evidence showed significantly different or additional detail. Where this was the case, the earthworks were depicted as seen, using stipple. Sites appearing on the base map which had not been photographed, or which were completely obscured by vegetation, were not shown, but were identified on the map note sheet. Levelled earthworks were represented by a stipple.

Ridge-and-furrow: areas of ridge and furrow were recorded. Individual strip fields were not depicted, but a convention was used to indicate the area covered by extant earthwork ridges. Longer furlong boundaries and linear earthworks were shown in stipple as earthworks (see above).

Buildings: only buildings which appeared as earthworks, or as cropmarks or soilmarks representing earthworks or buried foundations were recorded, using the convention appropriate to the form of remains. Standing buildings were not normally recorded.

Industrial archaeology: areas of early mining, lime kilns, and the remains of other industrial processes were recorded where they could be recognised as being of pre-modern character, generally using the industrial complex convention. In general, stone quarries were not recorded.

Military archaeology: Roman and medieval military features fall easily within the range of generally recognised archaeological remains; post medieval features were recorded on the survey overlays, using the convention appropriate to the form of remains.

The standard conventions used in the graphical depiction of transcribed features are detailed in Appendix 6.

SOURCES

Photographic sources

Quantification Assessment reports were commissioned for each county, in order to identify all sources of aerial photographs, and to assess the number of photographs held within each collection, their availability and their potential usefulness for a survey of this type. The assessment for Hereford and Worcester was carried out by HWCC County Archaeological Service; that for Shropshire was compiled by Lancaster University Archaeology Unit.

The main photographic sources consulted during the survey were the National Monuments Record (NMR), Cambridge University Committee for Aerial Photography (CUCAP), and Hereford & Worcester and Shropshire county SMRs. Each of these collections comprised both vertical and oblique photographs; the obliques came from a wide variety of sources, and the verticals were primarily from the RAF and the OS, dating from 1945 onwards.

More complete details of the content and quality of each source are given in Appendix 2.

Archival sources

NMR: copies of record maps and accompanying text records were obtained for the project area. The excavation index was consulted.

County SMRs: County SMR maps and print-outs of SMR data were obtained and supporting visits made to consult the SMRs as required. Core information for the entire MUMP project area was held by the HWCC MUS team at Worcester. Information from HWCC's Central Marches Historic Towns Survey was of some assistance in identifying and interpreting earthworks associated with medieval towns and monastic sites which were once major local centres, but have since been significantly reduced in size and importance.

Ordnance Survey 1st edition 6" maps: early OS maps were consulted for information about earthwork remains and industrial sites.

Other documentary sources such as The Emerging Past, Sir Cyril Fox's Offa's Dyke volume, the Victoria County Histories, parish maps, and excavation reports were consulted for supporting background information only, where it could assist in the identification and interpretation of photographic evidence. NMP projects are not designed to include exhaustive studies or critiques of non-photographic sources.

METHODOLOGY

Mapping methods

Transcription and recording followed the model established for NMP surveys. A graphical record at 1:10,000 scale was created, comprising a pre-printed translucent film overlay onto which all features were transcribed in ink. The transcription was based on the detailed examination and interpretation of all photographs practicably available in the collections identified by the quantification assessment reports (see Appendix 2). Manual transcription methods were chiefly used, but were supported or enhanced by the use of computer-based methods (AERIAL) (Haigh, 1989) where practicable, especially where the archaeological detail was especially complicated or of particular interest for possible later study at a larger scale. A level of accuracy of 5-15m was normally achieved. The depiction of archaeological features followed the standard table of conventions and line widths shown in Appendix 6, and the guidelines described above (page 3).

A map note sheet was used for comments and observations relating to each quarter sheet. The note sheet recorded information about the geology, soils or other physical factors relevant to the understanding of a particular map, along with details of supporting material consulted, map authorship and schedule of completion. Detailed comments about individual sites, which could be useful during MORPH database input, were recorded on site record forms, which are primarily intermediate, in-house documents.

Mapping conventions

The Marches Uplands Project employed the standard conventions established for NMP projects, which are shown in Appendix 6.

Database

Morphologically-based site descriptions were entered on the MORPH2 database, which is complementary to the graphical record. Each map was input by the interpreter; this information will ultimately be used to up-date the main NewHIS database (a process which is in progress at the time of writing).

ARCHIVING AND PUBLICATION DETAILS

The original transcriptions, and other material relating to the project, will be deposited in the archive at the National Monuments Record Centre, Kemble Drive, Swindon SN2 2GZ. A copy of the MORPH2 database will remain with EH Aerial Survey until all information has been transferred to the NewHIS database. Copies of the transcriptions and the Project Report have been forwarded to the respective county SMRs; in addition, an edited copy of the database was given to the HWCC MUS team for incorporation into their own project database. Copies of the Project Report will be distributed to the appropriate offices and sections of English Heritage.

PROJECT DETAILS

Project team structure

The Project team comprised a co-ordinator (Cathy Stoertz) and up to four team members (Moraig Brown, Simon Crutchley, Carolyn Dyer and Fiona Small). The co-ordinator was responsible for ordering maps, photographs and supporting material, organising the flow of work, overseeing the quality control procedures and monitoring and reporting on progress of the project. A system of quality control, as defined in the NMP Specification, was implemented to ensure a consistent standard of interpretation, transcription and description.

Progress was reported on a regular basis to the HWCC MUS steering group, which comprised representatives of English Heritage, RCHME, Hereford and Worcester County Council, Shropshire County Council and the specialist disciplines involved in the ground-based survey.

Timetable

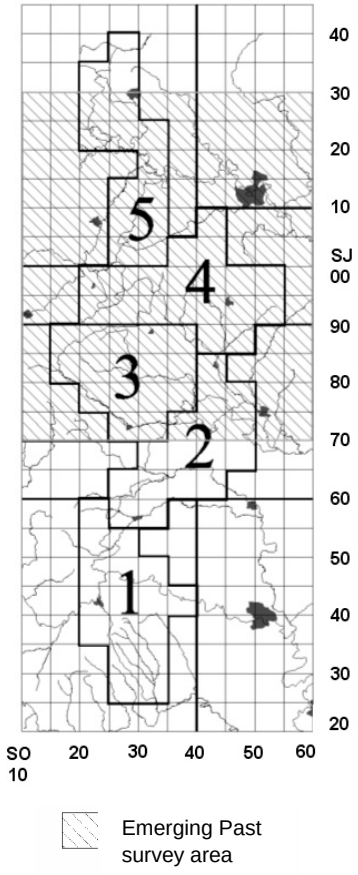
The original 80 sheets were mapped between 4 June 1993 and 31 March 1994; three additional sheets covering the Severn Valley were completed by September 1994. Three of the team members spent 75% of their time during the year on the MUMP survey, with additional assistance from a fourth for about 2 months. At any given time, therefore, the co-ordinator and at least two team members were engaged in MUMP survey tasks.

Order of mapping

The MUMP project area was divided into blocks, which corresponded as nearly as possible to the survey areas identified by HWCC MUS. Mapping proceeded from south to north, following the HWCC MUS survey areas, in numerical Block order.

NMP	*HWCC Survey area*	*Number of maps*
Block 1:	Black Mountains foothills	17 maps
Block 2:	Ludlow Anticline	

Figure 3 - Mapping blocks



Funding
This project was funded entirely by RCHME as part of its National Mapping Programme.

BACKGROUND TO THE ARCHAEOLOGY

PREVIOUS WORK

Transcription

RCHME/SMR plotting, 1977-1981: MUMP encompasses parts of the counties of Hereford and Worcester and Shropshire, which were the subject of early exercises in 1:10,000 transcription by the Air Photography Unit of RCHME (now EH Aerial Survey). Undertaken between 1977 and 1981 (Shropshire 1977-78; Hereford and Worcester 1979-1981), these surveys formed the basis of the newly established county Sites and Monuments Records. Both computer-based and manual transcription methods were employed; interpretation was based on specialist oblique photographs available through the NMR (including photos by C Musson and J Pickering) and CUCAP. Vertical photographs were not generally available for consultation at the time of the early surveys.

The RCHME/SMR survey was carried out to standards similar to those specified by the NMP. The results were transcribed in pencil onto translucent overlays similar to those produced by subsequent RCHME mapping projects, annotated according to source of information and method of transcription, and copied to the county SMRs. No further documentation was compiled, and no morphological description or further landscape analysis was carried out by RCHME. Overlays were produced only for those quarter sheets containing photographic evidence; no mapped information from other sources (such as OS maps) was included.

Additional SMR work: The county SMRs have continued to make additions and amendments to the original RCHME transcriptions, and this work was examined at the SMR offices. Particular attention was paid to the HWCC MUS, which was established specifically to enhance and update the SMRs. The current SMR maps contain information based both on photographs which post-date the original transcriptions, and material held in local photographic collections (see Appendix 2). Additionally, the SMR maps incorporate information from documentary sources, field work and excavation.

A brief preliminary assessment of existing SMR mapping indicated that, while the standard was generally acceptable, there were some inconsistencies of interpretation and presentation. This is inevitable when transcription is carried out piecemeal over a long period, by a number of people with varying degrees of skill and experience.

Published surveys

The Emerging Past: Nearly two thirds of the project area fell within the scope of a cropmark classification project based on detailed aerial photographic analysis and computer-based transcription, undertaken by RP Whimster in 1981-1985 and published in 1989 under the title The Emerging Past. This survey was funded jointly by RCHME, English Heritage and CUCAP. Transcription was carried out at 1:10,000 and 1:2500 scales, using CUCAP obliques and verticals and NMR specialist obliques; the standard of transcription, interpretation and analysis was very high. Most of the area covered by Emerging Past is in Shropshire, within Blocks 3, 4 and 5 of the MUMP project (see Figure 3).

RCHME Roman Camps survey: a 1:2500 scale, computer-based transcription survey with additional fieldwork, using NMR and CUCAP photographs, carried out to a high standard of accuracy, published by RCHME in 1995 (Welfare and Swan 1995). Some of the sites

recorded for Roman Camps fell within the MUMP project area; the MUMP team had access to Roman Camps material prior to publication.

LANDSCAPE

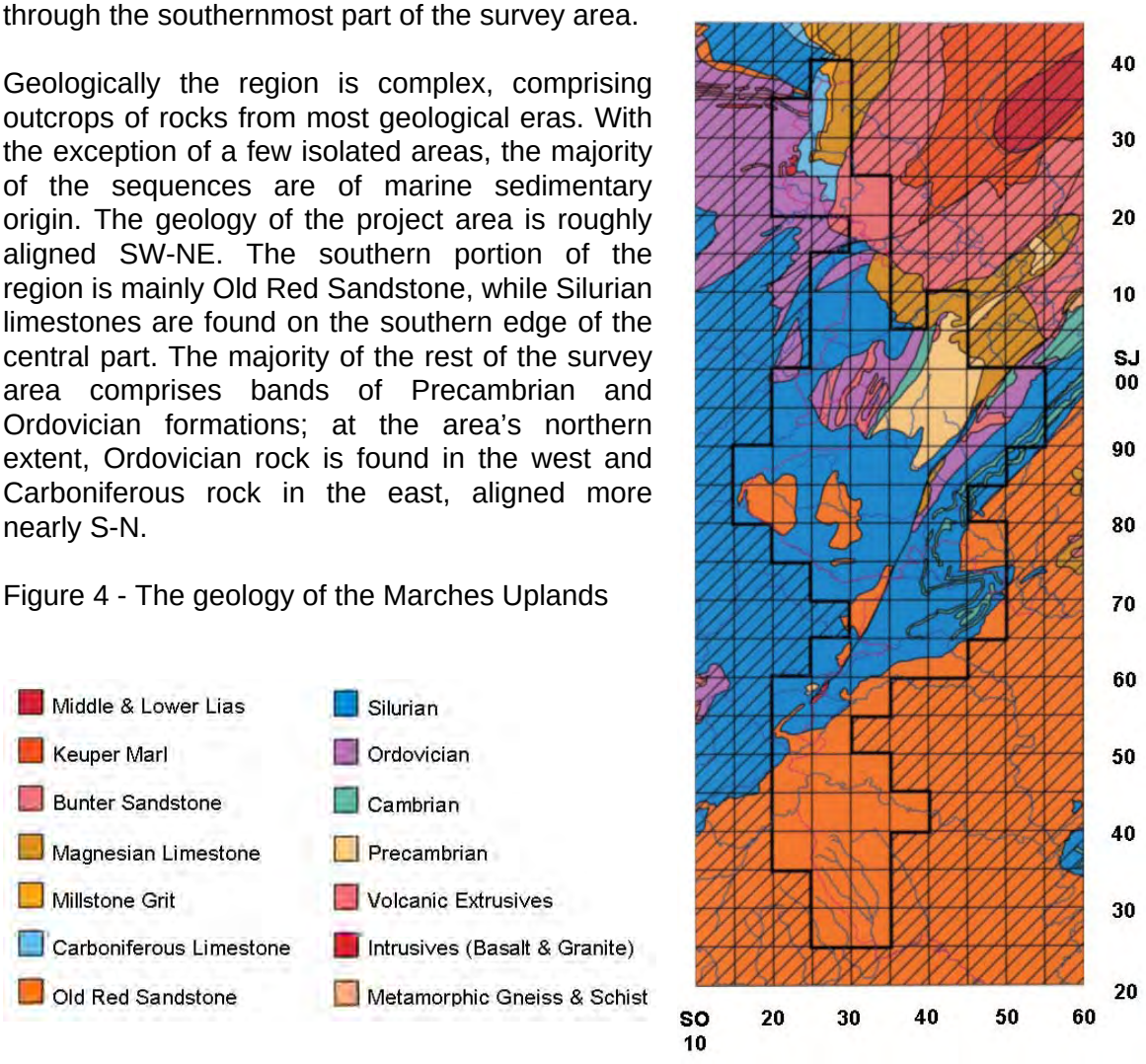
Topography, Geomorphology and Soils

The MUMP survey area comprises a series of generally eastward-sloping bands, separated by valleys bearing rivers and streams which flow from west to east; the greatest elevations are reached on the western side, along the Welsh border. The region includes a mixture of soil types and underlying geology (see Figures 4 and 5), and can be divided into five smaller topographical zones which roughly correspond with the operational blocks defined by this project (see Figure 3 and pages 11-12).

Topographically the Marches represent a transition zone between the low-lying plains to the east and the uplands to the west, characterised by a series of east-west ridges bisected by rivers and streams which rise in Wales and flow eastwards into the Marches. Two major rivers cut through the region. The River Severn rises in central Wales and flows north-east into the borderlands, before curving to the south, flowing the length of the border to the Severn Estuary. The River Wye rises just to the south of the source of the Severn and follows a meandering south-easterly course to Hereford; here it turns southwards through the Forest of Dean in a deeply incised valley, eventually flowing into the Severn Estuary at Chepstow. A tributary of the Wye, the River Monnow, rises in the Black Mountains and flows through the southernmost part of the survey area.

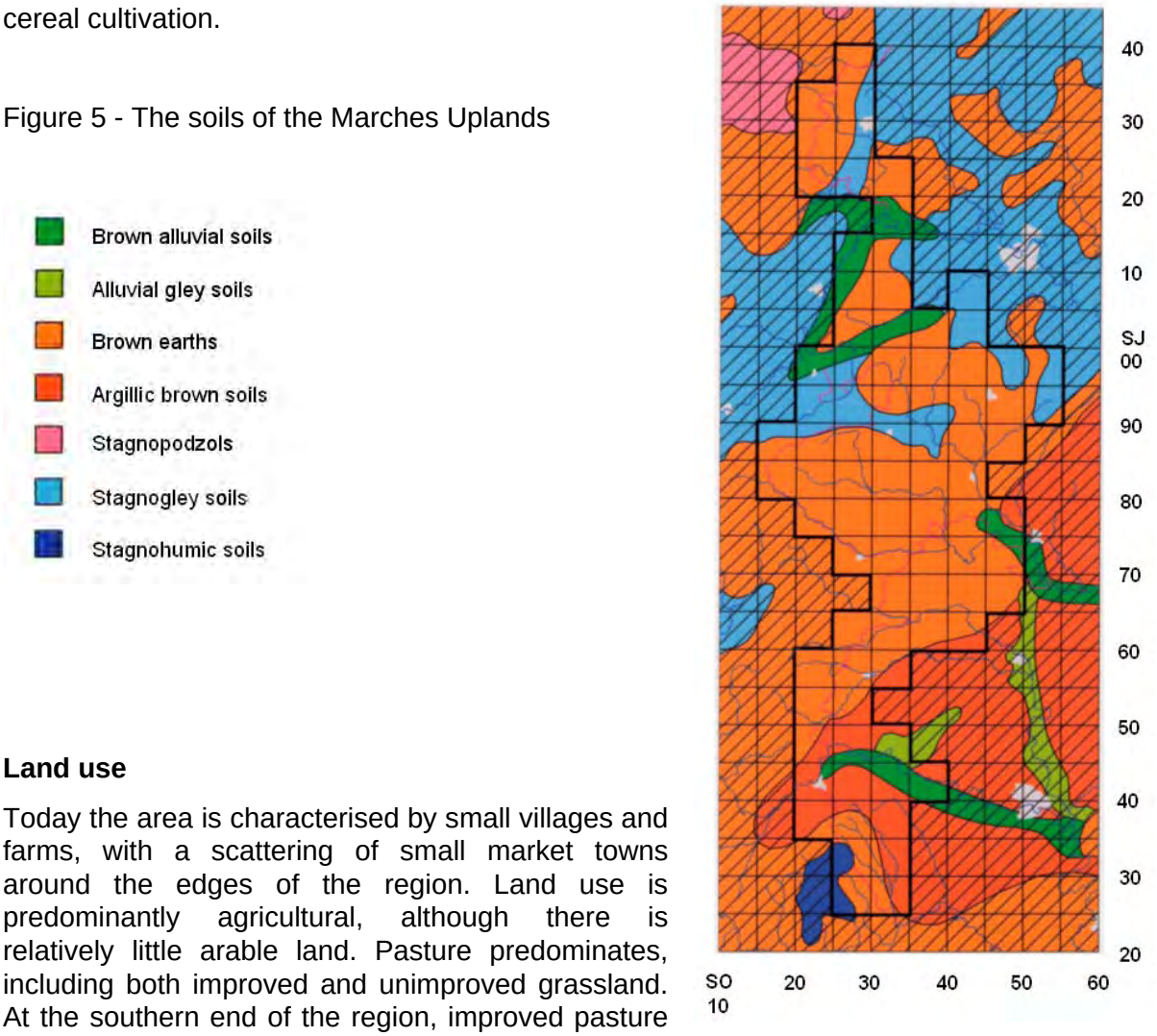
Geologically the region is complex, comprising outcrops of rocks from most geological eras. With the exception of a few isolated areas, the majority of the sequences are of marine sedimentary origin. The geology of the project area is roughly aligned SW-NE. The southern portion of the region is mainly Old Red Sandstone, while Silurian limestones are found on the southern edge of the central part. The majority of the rest of the survey area comprises bands of Precambrian and Ordovician formations; at the area's northern extent, Ordovician rock is found in the west and Carboniferous rock in the east, aligned more nearly S-N.

Figure 4 - The geology of the Marches Uplands



The Marches Uplands soils are similarly mixed, with little pattern to their distribution. The project area includes a high proportion of typical brown earths, represented by a mixture of well-drained loamy, silty and clayey soils and slowly permeable loamy, clayey and fine silty soils. The majority of these soil types are more suitable for grazing and stock rearing than arable farming, although some will also support cereal cultivation.

Figure 5 - The soils of the Marches Uplands



Land use

Today the area is characterised by small villages and farms, with a scattering of small market towns around the edges of the region. Land use is predominantly agricultural, although there is relatively little arable land. Pasture predominates, including both improved and unimproved grassland. At the southern end of the region, improved pasture is in the majority, although some of the land would be suitable for arable cultivation.

The Silurian hills of the Ludlow Anticline (see below, Block 2) are heavily wooded, with some improved pasture and arable. The central part of the Marches is very mixed, comprising mainly improved grassland, with woodland on the lower slopes. In the area of Long Mynd (see below, Block 4) there is open moorland and enclosed rough grazing, although more agriculture can be found on the lower slopes. This region is also given over to recreational use. Arable cultivation is also practised in the northern part of the survey area, although very little occurs north of the River Severn, where the land is mainly improved pasture.

Parts of the north central Marches have been subject to mineral extraction, and lead mining in the Stiperstones area of southern Shropshire has been recorded as far back as the Roman period.

Operational blocks

Block 1: The Black Mountains foothills, at the southern end of the survey area, comprise a series of low hills and ridges delineated by small SE-flowing rivers; the upland moors of the Mountains themselves lie beyond the Welsh border. To the north, the Wye Valley describes an arc running W-E, separating the foothills from the Hergest Ridge.

This southern region is dominated by Devonian Old Red Sandstone sequences (408-360 million years BP) formed during arid continental conditions initiated in the late Silurian period. The soils derived from this geology are generally reddish silty and loamy soils of variable coarseness, prone to waterlogging. They are generally suitable for cereal crops, short-term grassland for stock rearing and some regional vegetable and hop cultivation, especially in the south of the survey area.

Block 2: The Ludlow Anticline, a long, narrow area of high ground running north and east between Kington and Ludlow, is cut by river-formed gorges, with a steep western scarp and more gently-sloping eastern and southern sides.

Block 3: The Clun Forest lies to the northeast, approximately at the centre of the survey area. It is bounded by the River Teme on the south and the River Clun on the north, and is characterised by high, flat-topped hills cut by steep-sided river valleys. The highest hills are in the west; those in the east more isolated and widely spaced.

The middle band of the survey area which straddles the Shropshire -Hereford and Worcester border, is dominated by Silurian sedimentary rocks (438-408 million years BP) which fall into two distinct types. The area of Wales and the borders formed a continental shelf, with a deep marine basin to the west and shallow seas to the east. In the shallow waters, deposits of calcareous silts and reef limestones formed which outcrop as a series of south-east dipping strata aligned on the Church Stretton fault. To the west, where the continental shelf dropped into the deep marine basin, sequences of deep marine sediments such as mudstones known as turbidites formed from slumps of sediments from the shelf area to the east. These dominate the western half of the survey area, stretching farther west to the Welsh coast. The soils are generally thin and silty, of variable depth with some clayey deposits, supporting short-term grassland for dairying and stock rearing. In some of the western upland areas the moorland and woodland is only suitable for moderate grazing.

Within the Silurian deposits of the Herefordshire-Shropshire border are several isolated areas of later Devonian sandstones and mudstones, outcropping in the Clun Forest, around Clun itself and to the south-east of Knighton. The resultant soil types are generally reddish fine loamy soils only suitable for pasture in these upland areas.

Block 4: The Long Mynd area, to the north and east of the River Clun, includes the parallel hill ranges of Stapeley Hill, Shelve Hill, Stiperstones, Long Mynd, Hope Bowdler and Caer Caradoc. This region is bounded on the east by Ape Dale; Wenlock Edge lies beyond this valley outside the project area.

Between Montgomery and Church Stretton lies an area of complex outcrops of heavily faulted Ordovician (505-438 million years BP) strata (older than the Silurian sediments) including siltstones, shales and various volcanic lavas, agglomerates and ash layers resulting from periodic volcanic activity at the end of the Ordovician period. To the south-east of these is an area of the oldest rocks, Pre-Cambrian sandstones, siltstones and mudstones which outcrop as a series of upended faulted strata forming the dramatic ridges

of the Long Mynd and Linley Hill. The soils in this area are characteristically shallow, well drained loamy soils supporting dry moorland habitats only suitable for moderate grazing and stock rearing. These Pre-Cambrian rocks are overlain, at the edge of the survey area, by younger sediments in the form of Carboniferous sandstones and mudstones with interlayered coal measures (360-286 million years BP). The soils are generally fine to coarse silty loamy soils suitable for cereals and grassland for dairying and stock rearing.

Block 5: Long Mountain is an isolated upland whose eastern half lies within the English border. It slopes mainly to the east towards Shrewsbury, and is separated from the Long Mynd area by the valley of the Rea Brook. Selattyn, to the west of Oswestry, is the northernmost part of the project area. The relatively broad, low-lying valley of the River Severn separates this region from the main area of survey, and was not included within the original scope of the project. However, the intervening gap was surveyed at the end of the project, in order to complete the mapping sequence and provide a comparison between upland and lowland parts of the border region.

This northern region comprises Ordovician siltstones and sandstones in the west, with younger (286-213 million years BP) Permian and Triassic sandstones dominating the east in the Shropshire Plain. These areas were scoured by the most recent Pleistocene glaciation, and are covered by a layer of glacial and glaciofluvial sediments forming soils ranging from light sands to heavy loams. Glacial influence is still visible in the form of the numerous remnant glacial pools or meres, hummocks and low wooded hills. The soils, especially in the north, have poor natural drainage and have traditionally been of limited agricultural value, but further south are of variable composition, ranging from river alluvium and glaciofluvial/lacustrine, to sandy coarse loamy soils supporting a variety of agricultural activities including cereals, beet, potatoes, dairying and stock rearing.

THE DISTRIBUTION OF ARCHAEOLOGICAL EARTHWORKS AND CROPMARKS

Earthwork monuments predominate throughout the Marches Uplands Project area, including the barrows and hillforts of prehistory, linear earthworks (of which Offa's Dyke is the best known), and villages, castles and monastic sites of the medieval period. Field systems, presumed to be of medieval or later date, survive on Long Mynd and elsewhere; industrial sites associated with lead mining are known in Shropshire, also in the Long Mynd area.

The majority of cropmark sites recorded during the project represent small, isolated ditched enclosures. The valleys of the Rivers Severn, Clun, Teme and Onny, in the triangle between Knighton, Ludlow and Church Stretton, offered the greatest cropmark concentrations, particularly in the area between Leintwardine and Brampton Bryan, where several Roman camps and associated features were recorded. Even in these valleys the recovery of extensive complexes of cropmarks was rare, due to the relative predominance of pasture over arable farming.

LIMITATIONS OF THE RECORD

Areas of woodland, permanent pasture and heather moorland serve to mask archaeological features, while deeper and damper soils in areas such as river valleys may inhibit the production of cropmarks on arable land. The prevailing weather conditions on the fringes of the Welsh hills reduce the opportunities for reconnaissance, and the isolated nature and relatively small size of sites, particularly enclosures, can make them difficult to see during survey flights.

Recording of sites along the western edge of the survey area was inevitably less complete than in the rest of the region. Photographs and other records of sites in Welsh territory are not held by RCHME, so these 'edge sheets' could not always be completed to the same standard as the rest of the survey.

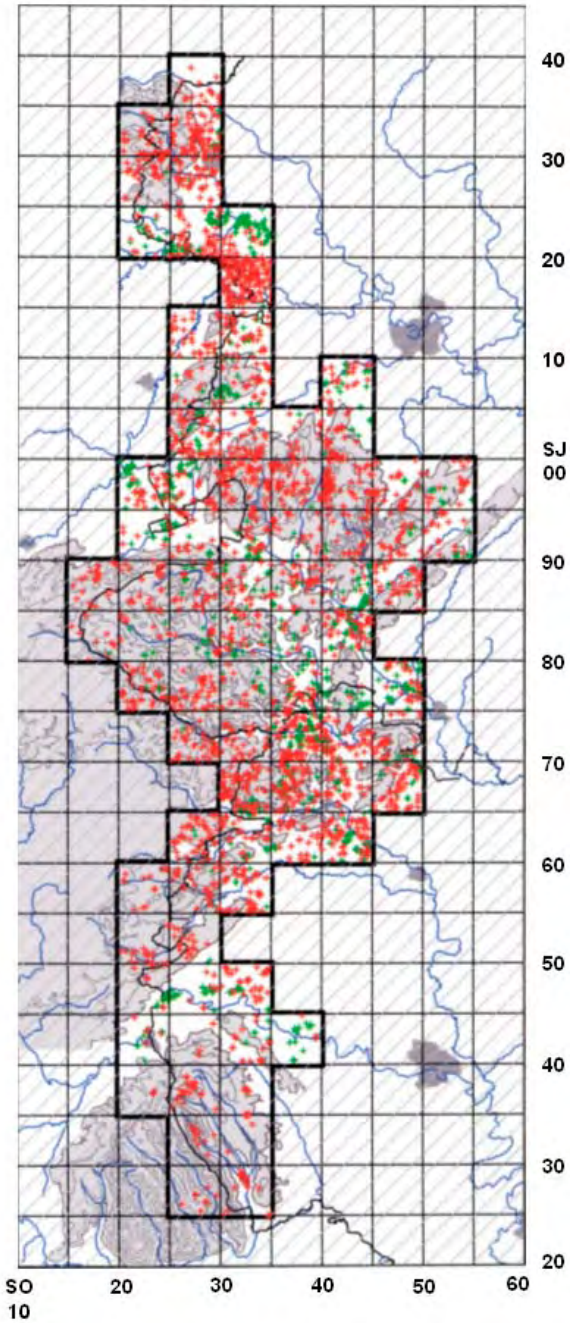


Figure 6 - Distribution of earthworks & cropmarks

RESULTS

INTRODUCTION

The results of the aerial photographic mapping carried out during this project have been analysed primarily through the MORPH2 database, compiled as part of the interpretation process. A limited amount of supporting data were derived from NMR and SMR records and a small number of published sources. The report is designed to present the specialist information resulting from aerial survey; it must not be seen as a compendium of all archaeological and/or historical evidence.

The Marches Uplands Project database contains 4233 records at SITE level (roughly equivalent to an archaeological 'feature' as conventionally understood). Each record is classified morphologically according to five basic SITE TYPES: ENCLOSURES, LINEAR FEATURES, LINEAR SYSTEMS, MACULAE, and INDUSTRIAL COMPLEXES. The proportion of records in each category is shown below.

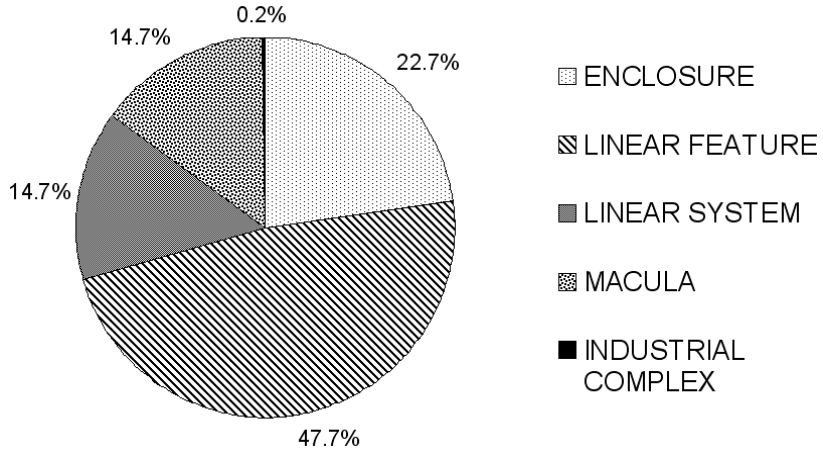


Figure 7 - Proportion of morphological site types

(A more detailed description of the features assigned to each morphological category can be found in Appendix 1, pages 68-75.)

Source of interpretation information

Each record was scored according to the principal source from which its interpretation was derived. The sources were defined as: unconfirmed overlay; poor quality aerial photo (in practice non-specialist, i.e. vertical, photographs); good quality aerial photo (in practice specialist, i.e. oblique, photographs); non-destructive fieldwork (i.e. field walking, surface finds, field survey including information from the OS map); small scale excavation; full excavation.

Aerial photographic evidence was the principal source of interpretive information for 88% of the database records; 34.6% from specialist obliques and 53.4% from non-specialist verticals. This reflects the relative paucity of specialist cover for this area and emphasises the need for continued aerial survey, but also demonstrates the value of vertical cover in areas where obliques are scarce.

Just over 10% of the interpretations were sourced to non-destructive field work, while very few records were supported by excavation evidence.

Validity of records

A validity score was attached to each record, reflecting the interpreter's confidence in either the photo interpretation or the archaeological interpretation, or both. The scores represent: insufficient data; potential interpretation; possible interpretation; probable interpretation; certain interpretation. These figures reflect a reasonable degree of confidence overall, given that the primary source of evidence was aerial photographs (particularly non-specialist), with little supporting information from other sources.

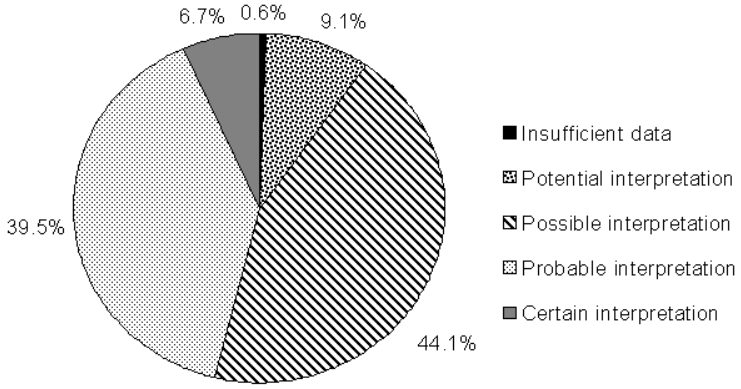


Figure 8 - Validity of records

New records

2757 SITE records, or 65% of all entries in the project database, had no corresponding NMR or SMR numbers, and may therefore represent 'new' records. This figure is perhaps rendered artificially high by the inclusion, for the first time in surveys of this region, of medieval ridge and furrow, and the systematic use, also for the first time, of non-specialist vertical photographs as a source of mapped detail.

If the records of ridge and furrow and medieval field systems are excluded from the calculations, leaving a data set which is more readily comparable with earlier surveys in the Marches, there are still 1588 records (37.5% of the total) which do not concord with either NMR or SMR records. In other words, 57.6% of the 'new' records are not medieval ridge and furrow. 1476 records (35% of the total) can be concorded with either NMR or SMR records, so the Marches Uplands NMP survey can be said to have doubled the amount of non-ridge and furrow information recorded in the region. Furthermore 60% of the 'new' records which were not ridge and furrow were obtained from non-specialist vertical photos, representing a significant increase in the amount of recorded information and emphasising the value of vertical photos particularly in areas where specialist reconnaissance has been lacking.

SITE TYPE	Neither NMR/SMR	Either NMR/SMR
ENCLOSURE	278	683
LINEAR FEATURE	1567	454
LINEAR SYSTEM	583	38
MACULA	323	298
INDUSTRIAL COMPLEX	6	3
Total	2757	1476

CHRONOLOGICAL SUMMARIES

N.B. Unless otherwise indicated, figures showing details of archaeological features are drawn at a scale of 1:10,000.

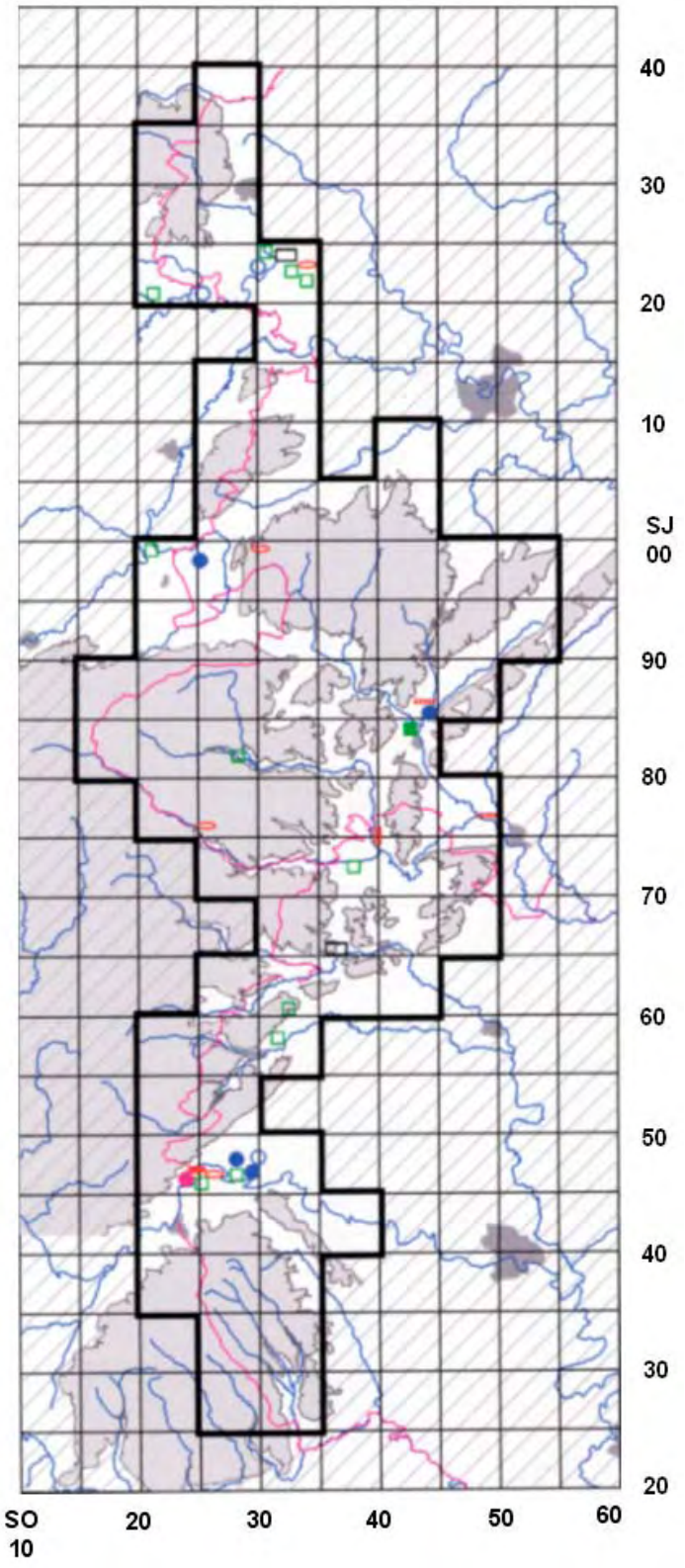
Pre-Neolithic

The survey recorded no features of pre-Neolithic date.

Neolithic

Eleven sites in the Marches were confidently identified as Neolithic in date. All were interpreted as ritual or funerary monuments: one long barrow; one mortuary enclosure with 10 internal pits; one Class II henge with a central pit; one henge with four associated pits; two further henges; one hengiform monument; and one cursus. None of these identifications was supported by material evidence; in all cases NMR/SMR records, if present, were based on aerial photographs.

Figure 9 - Distribution of Neolithic monuments



All of the positively-attributed Neolithic sites were recorded as cropmarks in the lower-lying parts of the survey area, and their identification was based on similarity to features of known interpretation in other regions.

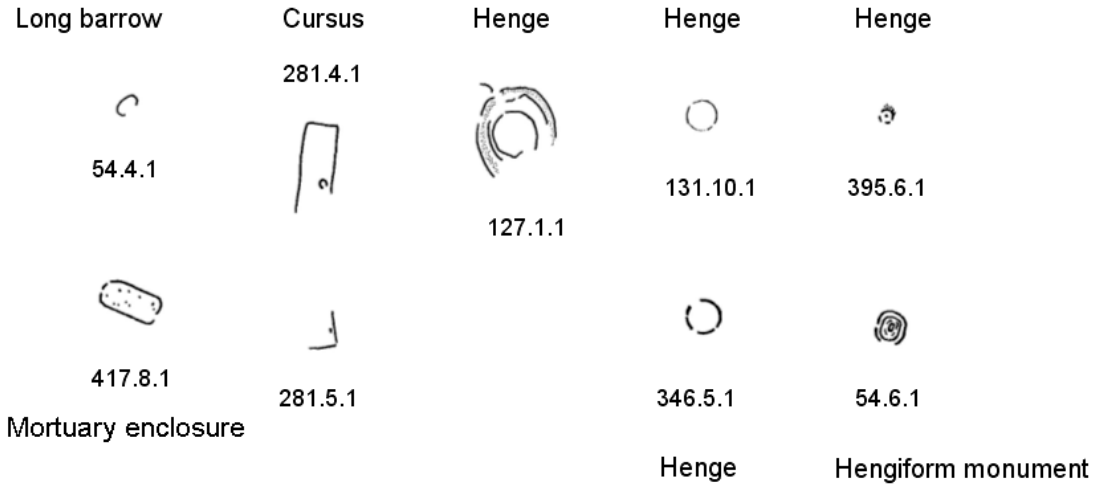


Figure 10 - Neolithic monuments

Long barrow

The long barrow (SO 2475 4689; MU 54.4.1) is situated on a valley floor about 300m east of the River Wye, 560m north-east of the hengiform monument (see below). It appears as an incomplete single-ditched oval enclosure 30m x 16m, visible as a cropmark.

Mortuary enclosure

The one certain example of a mortuary enclosure (SO 4282 8419; MU 417.8.1) is located in the Onny Valley, 750m west of the confluence of the River Onny and Quinny Brook, at the natural meeting point of four valleys from the north, north-east, north-west and south. The site was recorded as a cropmark and comprises a rectilinear, elongated single-ditched enclosure with rounded ends. Its dimensions are 80m x 39m, with breaks or entrances at either end (north-west and south-east). Within the enclosure ten pits were recorded, possibly representing burials or the remains of a post-built structure. The mortuary enclosure, along with two Bronze Age round barrows, lies within a Roman camp.

Cursus monument

The cursus (SO 3958 7544; MU 281.4.1) is incomplete: the visible part is 45m wide and extends for approximately 120m. It has a NNW-SSE alignment, and lies approximately 115m from the River Clun, between 125m and 130m above OD. Within the cursus enclosure was a small round barrow recorded as an incomplete sub-circular ring ditch with a diameter of 9m.

Henges and hengiform monument

The henges varied widely in form and size; three were roughly circular, with diameters of 15m, 40m and 42m, while the fourth was sub-circular with dimensions of 128m x 100m. The hengiform monument was sub-circular with an inner diameter of 9m and an outer diameter of 38-40m.

The smallest henge (SO 2519 9837; MU 395.6.1) is described by the NMR as a possible class II henge. The enclosure is sub-circular with a single inner ditch 15m in diameter and a less complete outer bank giving an external diameter of 22m. The circuits are broken in three places, two of which have been recorded as terminally-defined entrances, one to the

north-west and one to the south-east. Within the enclosure is a central pit which may be a burial.

Two of the henges and the hengiform monument had overall diameters of approximately 40m. Henge MU 131.10.1 (SO 2928 4731) is sub-circular with a single ditch, measuring 40m x 39m. It has two terminally-defined entrances facing north-west and south-east and is situated in the Wye valley, 1km north of the river.

Henge MU 346.5.1 (SO 4444 8590) is circular with a diameter of 42m. It has a single ditch, which is broken in four places, two of which are identified as terminally-defined entrances to the north-west and south-west. It is situated in a valley 400m north-west of the Quinny Brook at around 140m OD. The mortuary enclosure (MU 417.8.1) is located 2.4km to the south-west.

The hengiform monument (SO 2437 4642; MU 54.6.1) is incomplete, sub-circular and has four concentric ditches. The inner-most circuit is a complete oval measuring 10m x 6m, the second ditch is fragmented and measures 18m x 15m, the third circuit is complete and sub-circular, measuring 29m x 22m, and the outer ditch is incomplete, measuring 40m x 38m. It is located on the eastern bank of the River Wye at 70m OD.

The largest henge (SO 2828 4774; MU 127.1.1) (128m x 100m) is a triple-ditched enclosure situated on a gentle south-east facing slope at 180m OD. The site is incomplete: the southern sectors of the outer two ditches are missing. The inner circuit is almost complete, with dimensions of 60m x 56m. It has a terminally-defined entrance to the north-west and a break to the south-east, which could be an entrance. The second ditch is 80m across, but very fragmented: the entire southern and south-eastern sections are missing. The southern section of the outer ditch is also missing. Its visible portion has two breaks, of which the more northerly was identified as a north-west facing entrance aligned with the entrance in the inner circuit. A short curved section of ditch, which may be a structural component of the entrance, extends to the north-west from the southern side of the entrance. Between the second and outer ditch circuits are the fragmentary remains of a bank.

The entrances of the four henges and the mortuary enclosure appear to share a common alignment on a roughly north-west south-east axis.

Possible Neolithic monuments

Morphological details of all features mapped during the project have been recorded in the MORPH2 database (see pages 68-75). By using the database to compare the characteristics of known Neolithic monuments with those of features not given a positive interpretation during the initial Marches survey, a number of features can now be attributed provisionally to the Neolithic period. These include at least two (possibly four) small long barrows; 11 possible mortuary enclosures, three possible henges, two double pit rows or 'pit avenues' and two large enclosures (one possibly 'causewayed').

Long barrows

The most convincing of the possible long barrows (SO 2549 4676; MU 123.3.1) is located 730m to the east of long barrow MU 54.4.1 and 750m south-west of the River Wye. It appears as an elongated rectilinear enclosure 35m x 15m aligned north-west south-east, defined by a single ditch that is broken in four places. The gaps in the ditch appear in the sides of the enclosure rather than the ends, and it is not certain whether any could be described as an entrance. The site was originally recorded as an enclosure of unknown date.

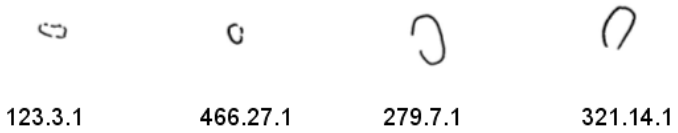


Figure 11 - Possible long barrows

Three further enclosures, all classified as curvilinear, may represent additional long barrows (SJ 344 229; MU 466.27.1, SO 255 760; MU 279.7.1, SO 300 994; MU 321.14.1).

Mortuary enclosures

Eleven possible mortuary enclosures have been identified, the majority (seven) of which are rectilinear, asymmetrical and polygonal. All are illustrated below in Figure 12; their dimensions are 32-70m in length and 15-50m in breadth. The shapes and dimensions of the Marcher enclosures compare closely with similar features in Lincolnshire (Jones 1998), the Yorkshire Wolds (Stoertz 1997) and Wessex. It should also be noted that many of these features are visually similar to oval long barrows known from Lincolnshire, the Yorkshire Wolds and Hampshire.

Figure 12 - Possible mortuary enclosures

Pit rows

Two double pit rows, or paired pit alignments, have been recorded on the eastern edge of the survey area. Both features strongly suggest Neolithic associations.

The first (SO 444 860; MU 346.7.1) comprises 6 pairs of pits arranged in rows 40m long and 8m apart. It is aligned NE-SW and its southern end faces towards the entrance of a henge (MU 346.5.1) lies c.90m to the SSW. The pit 'avenue' lies c.150m to the west of the Quinny Brook and in close proximity to many ring ditches representing Bronze Age round barrows. Pit avenues of this type, similarly associated with round barrows, are known in the Yorkshire Wolds (one example) and Lincolnshire, and have also been recorded in association with the entrances of long barrows. At the western edge of the Marches survey area, a pit avenue was recorded among presumed Neolithic enclosures in the Walton basin in Radnorshire (St Joseph 1980, 54 and Fig 1) and another is known in the Millfield Basin in Northumberland (Harding 1981, 115-9 and Plate 3).

Figure 13 - Pit rows

The second pair of pit alignments (SO 496 768; MU 238.8.1) is longer and more widely spaced: each row comprises over 30 pits (the southernmost has c.50), the rows are 160m and 190m long, and 35-40m apart. The pits here are not obviously paired, so that this feature more nearly resembles a cursus than the type of pit avenue described above. Nor does this feature resemble the type of parallel pit alignment known to be later prehistoric boundary features. This pit 'avenue' is also located near watercourses, being roughly equidistant from the River Teme, to the SW, and the River Corve, to the NE. Round barrows have been recorded in close proximity, in the river valley.

Henges

Figure 14 - Possible henges

Three possible henges have been identified, all on low-lying ground near watercourses. One, in the Wye Valley (SO 297 475; MU 131.4.1) is oval with a single entrance in the western end, and lies close to two other henges whose interpretation is more secure (SO 282 477; MU 127.1.1 and SO 292 473; MU 131.10.1). This feature is 25m x 20m and strongly resembles the henge at Coneybury, Wiltshire to the SE of Stonehenge (SU 134 416: 40m x 35m, entrance to NE).

The other two possible henges are located in the northern part of the survey area, and are larger and more nearly circular. One lies c.1km to the north of the River Vyrnwy (SJ 253 206; MU 471.1.1) and is 54m in diameter, with three breaks in its circuit, two of which are opposed on the eastern and western sides. The second (SJ 305 237; MU 465.3.1) lies in the same broad valley, 1km to the north-west of the River Morda, a tributary of the Vyrnwy. It is 42m in diameter, with three breaks in its circuit, but it is not certain that any represents an entrance.

'Large enclosures'

Towards the northern end of the Marches lies an undated feature resembling part of an interrupted ditch or causewayed enclosure (SJ 327 236; MU 466.14.1). An interrupted linear

ditch, apparently forming part of an enclosure at least 270m across, lies on a NE facing slope between the River Morda, to the west, and the Weir Brook, to the east. There are three breaks in the ditch, and two smaller concentric enclosures within the area defined by the interrupted ditch. The appearance and location of this site are suggestive of Neolithic enclosures such as Windmill Hill and lowland enclosures from the Thames Valley. The close association with several Bronze Age ring ditches, as well as the proximity of watercourses (1km from the site to both west and east) perhaps strengthens the tentative interpretation.

Figure 15 - 'Large enclosures'

A second large enclosure (SO 364 654; MU 225.7.1), of a slightly different form but also with possible Neolithic links, was recorded in the middle third of the region. The enclosure was given a prehistoric date, and is located on a SE facing slope overlooking the River Lugg at Kinsham. It was described as curvilinear and asymmetric, but resembles a much-rounded rectangle 350m x 220m aligned NE-SW, with a single possible entrance in the NE end of its perimeter ditch. Although there are no other ritual or funerary monuments in the vicinity, this enclosure has strong similarities with a large Neolithic enclosure at Godmanchester (TL 258 710) which has a NE facing opening and dimensions of 350m x 230-180m.

Additional support for a Neolithic date for this feature may come from the presence, c.13km to the west along the Hindwell Brook, which flows into the River Lugg in the Walton basin, of a group of Neolithic features including two cursus monuments, a pit avenue, a large pit-defined enclosure and a very large oval enclosure comprising contiguous post pits and measuring c.800m x 500m (Gibson 1996).

Possible ritual complexes

The majority of the possible Neolithic monuments described above occur in proximity to other, later ritual or funerary sites of the Bronze Age and Iron Age, and this topographical association tends to strengthen the proposed interpretation of individual features. Up to ten groups of early prehistoric ritual and funerary monuments have been identified as a result of the Marches Project. They are described more fully in the section on multi-period sites and landscapes (see page 55-57).

The proposed cursus is not closely associated with any other feature, but it is located near a watercourse. One of the ‘large enclosures’ also appears to exist in relative isolation, although it too is situated on a slope above the River Lugg. It must be remembered that the recording of Neolithic features in this region is still very patchy. Further systematic and detailed work will be required to ascertain whether the isolation of these sites is genuine.

NMR records of Neolithic sites

The NMR lists a small number of Neolithic sites that were not recorded during the aerial photographic survey. Five of these were long barrows: two were listed as the remnants of stone chambers (including Arthur’s Seat), which would not normally be expected to appear on the photographs; the others were described as slight mounds, presumably too small or overgrown to be detected during the course of this survey. There were also two possible settlement sites whose identification was based on finds evidence: one Iron Age hillfort (SO

325 924; MU 413.7.1) was thought to have a Neolithic component, probably now obscured by later phases of construction; and a concentration of flints on Dorstone Hill (SO 326 423) was associated with a slight and badly damaged possible earthwork, obscured by trees and not recordable through aerial photography.

Bronze Age

One hundred and seventy three sites within the Marches survey area were given a Bronze Age date, of which almost all are funerary monuments. One hundred and fifty nine round barrows (two specifically described as bowl barrows) and three cairns were recorded. Two stone circles were also mapped during the course of this project.

Round barrows

The majority of Marcher round barrows were constructed as simple mounds. Where a ditch accompanied a mound it was generally slight; NMR records often state that no ditch was visible upon field observation.

Fifty six round barrows (just over one-third of the total) and the three cairns have been recorded as surviving monuments. The remaining 103 round barrows were revealed through cropmark evidence, appearing as ring ditches without any traces of mound material. The round barrows ranged in size from 5-50m across, the majority having diameters of between 10m and 20m. Fourteen levelled barrows showed evidence of a single central burial pit.

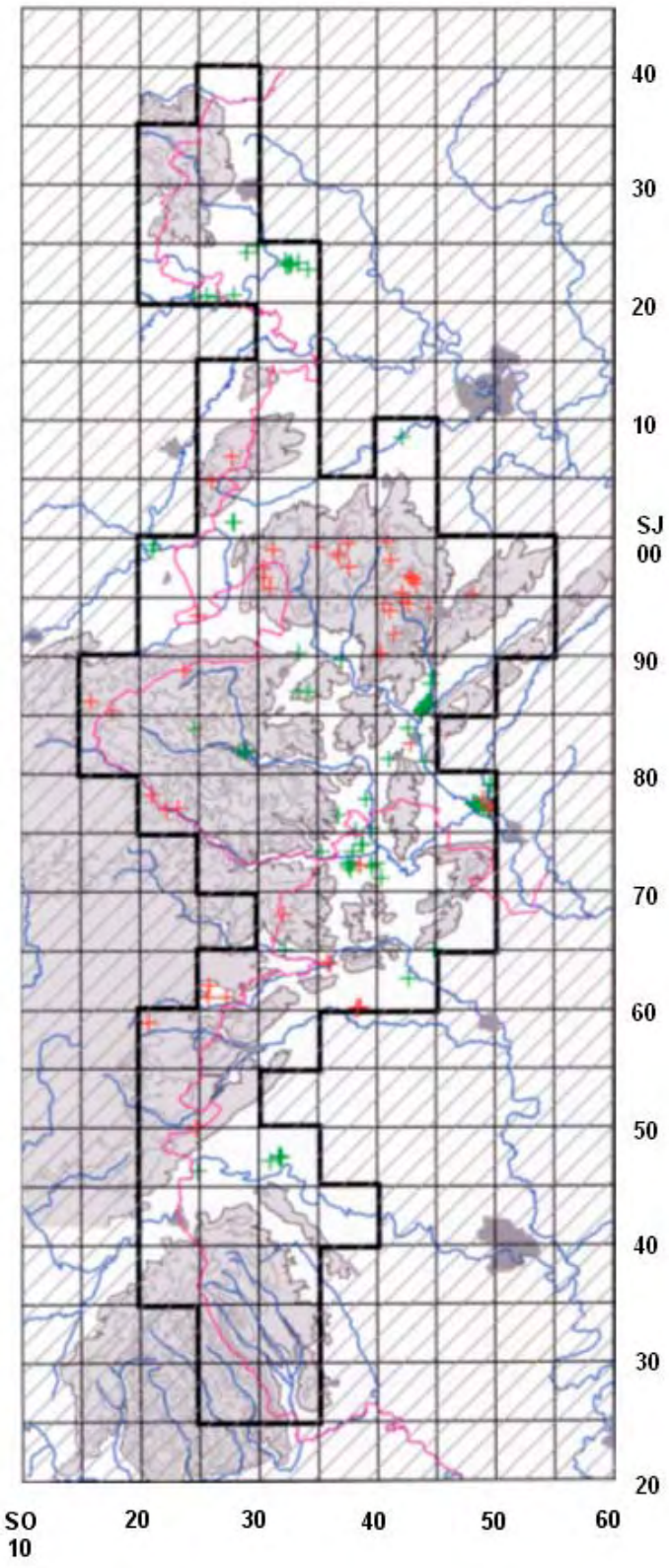


Figure 16 - Distribution of Bronze Age round barrows

+ Earthwork

+ Cropmark

Eleven barrows comprised two or three concentric ditches. All but two multiple-ditched

barrows were situated on flat ground, and six were associated with barrow cemeteries. Three had central pits, presumed to be graves. No special significance for these multiple-ditched monuments could be discerned in their placement within barrow groups or their associations with other monuments.

Just over half of the 162 round barrows and cairns were located on flat ground or on the floors of the river valleys that cut through the Marches from west to east. The rest were on raised ground: slopes, hill tops, ridges and plateaux. Predictably, those barrows at higher elevations were found mainly in areas of pasture and unimproved grassland in the upland areas such as the Stiperstones, Long Mynd and Corndon Hill regions in southern Shropshire. Here, the relative lack of intensive cultivation has allowed a greater proportion of barrows to survive as earthworks and stone cairns.

Round barrow cemeteries

Seven groups of round barrows in the Marches survey area were interpreted as barrow cemeteries, accounting for 44 barrows. Six cemeteries are located in river valleys (two being so close together that they probably should be described as a single cemetery). The seventh is located on Corndon Hill, and is the only cemetery whose barrows survive as earthwork mounds; all of the others have been levelled by subsequent activity and are only visible as cropmarks. The barrow cemeteries are generally small, containing between four and twelve barrows.

The southernmost cemetery (SO 318 475; MU 136.1.1-8) lies on flat land 800m to the north of the River Wye. It comprises a random cluster of 8 barrows closely associated with 4 others (MU 136.5.1, MU 136.6.1, MU 136. 9.1 and MU 136.10.1) ranging in size from 8m to 28m in diameter. The cemetery includes two double-ditched barrows.

A cemetery comprising a tight cluster of four barrows (SO 379 725; MU 222.8.1-4) is situated on flat ground 450m south of the River Teme. The barrows range in diameter from 5m to 10m. At a distance of 350m to the west lies a single triple-ditched barrow (SO 3757 7247; MU 222.10.1) and 390m to the south-west is a small barrow 8m in diameter (SO 3766 7223; MU 222.9.1).

Around Bromfield, on the north side of the River Teme between its confluence with the River Onny (to the west) and the Rover Corve (to the east), lies an extensive group of barrows, including a cemetery (SO 484 774; MU 239.7.1-6) (see Figure 42). Four closely-grouped round barrows (SO 495 769; MU 238.10.1-4) can be seen c.900m to the south-east, and many further barrows are dispersed between the two groups.

A randomly arranged cluster of eight barrows (SO 289 820; MU 266.9.1-8) lies on a low south-east facing spur of land at the meeting point of the River Clun (from the north-west) and the River Unk (from the north).

At Stretford there are two barrow cemeteries (SO 444 860; MU 346.3.1-8 and SO 439 854; MU 346.4.1-5) comprising a loose cluster of 8 ring ditches and a roughly linear group of 5 respectively. The barrows vary in size; two are double-ditched, and three have central pits, presumed to be burials. They occupy flat ground along the bottom of a major river valley in an otherwise hilly region, at the point where a second valley comes in from the north-west. All the barrows lie within 600m of the northern bank of the Bynne Brook, not far from its confluence with the River Onny (see Figure 43).

The most northerly barrow cemetery is a group of surviving mounds on Corndon Hill (SO 304 966; MU 322.4.1) arranged around the summit of a domed hill (350-500 m OD) at the southern end of the Stapeley Hill ridge.

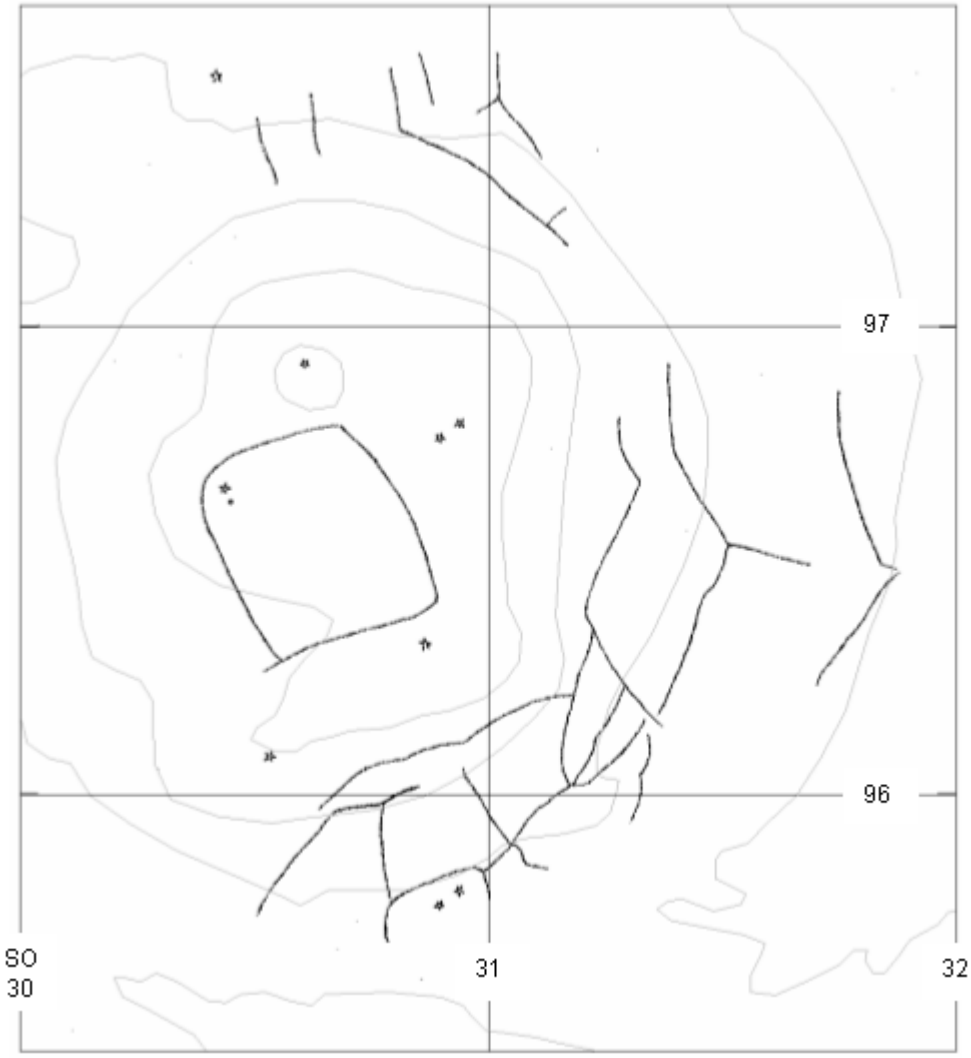


Figure 17 - The round barrow cemetery on Corndon Hill, with a later prehistoric field system

The remaining round barrows can be found singly or in small groups or dispersed scatters on both flat and sloping ground throughout the region.

Stone circles

The two stone circles recorded by this survey are located 2.5 km apart on Staplely Hill in the western part of the region (Long Mynd). Mitchell's Fold stone circle (SO 3042 9837; MU 321.5.1) at is situated on a ridge at 350m above OD. It originally comprised around thirty stones set in a single ring 26m in diameter. Fourteen stones are still standing. The Hoar Stone circle (SO 3240 9991; MU 321.6.1) is situated to the north-east of Mitchell's Fold on a north-east facing slope. This circle has a diameter of 22m and comprises 38 stones and a single central stone. Both stone circles lie within an upland landscape of numerous cairns and barrows. Around the area of Mitchell's Fold there are traces of cultivation marks, which have not been dated. Although the narrow ridges appear to pass between the stones, their relationship to the circle is uncertain.

Linear features

Dykes

Few other features recorded during this survey can be securely attributed to the Bronze Age. Three linear earthworks were mapped, all appearing as cross-ridge dykes on high ground. The Lower Short Ditch (SO 222 881; MU 251.1.1) is located in the Clun Forest – the western part of the central Marches – while the other two (SO 439 941; MU 316.6.1 and SO 426 927; MU 316.1.1) lie on the eastern side of the Long Mynd ridge. In other regions (e.g. the Wessex chalk) similar linear earthworks have been identified as boundaries and territorial markers, and a similar interpretation seems appropriate here. The comparatively short length of early linear earthworks in this region contrasts markedly with the extensive Bronze Age and later systems found in areas of 'low upland' such as Wessex and the Yorkshire Wolds. Such is the nature of the Marches' terrain that dykes were perhaps more readily used to cut off spurs and ridges, making use of and augmenting the natural land divisions of the topography.

The Clun-Clee Ridgeway

The route of a conjectural Bronze Age trackway, the Clun-Clee Ridgeway, is said to cross the centre of the survey area from west to east. Its course has been primarily identified through topographical evidence and finds of flint implements and flint-working debris, and the trackway itself is now largely obscured (if it ever existed as a physical entity) beneath metalled roads still in use. No direct evidence for this routeway has been recovered through aerial survey, with the possible exception of a short length of trackway of unknown date c.7.5km to the west of Clun (SO 226 805; MU 256.2.1). However, it must be noted that this feature lies only 25m away from a similarly aligned lane, which is still in use, and may well represent an earlier course of that lane.

To the east, at the edge of the survey area, the presumed course of the Clun-Clee Ridgeway coincides with a large concentration of round barrows, including one of the cemeteries, at Bromfield (SO 481 774 – SO 497 770; see above). The location of these barrows may give some credence to the supposed routeway, but it must be noted that this area of low-lying ground between the Rivers Onny, Teme and Corve is a natural corridor of access from highland to lowland: this valley is also the location of modern roads, a railway line and the course of a Roman road.

NMR records of Bronze Age sites

Thirty six of the round barrows mapped by the Marches Project had neither NMR nor SMR records, and therefore appear to be new discoveries; all but four of these were seen as cropmarks. Conversely, a number of round barrows, cairns and standing stones appear on the OS base maps and/or in NMR or SMR records but were not identified by this survey. This is probably due either to a lack of photographic cover or to the presence of obscuring vegetation.

NMR records indicate that at least five Iron Age hillforts (Coxall Knoll Camp, Norton Camp, Caer Caradoc and Castel Bryn Amwlwg in the central Marches, and Old Oswestry in the north) have yielded Bronze Age finds which may indicate early phases of occupation. The photo-interpretative survey was unable to distinguish any specific features within these structures which could be attributed to the Bronze Age on the basis of visual evidence alone.

Iron Age

The eighty eight Iron Age features in the region are almost all related to defence, settlement and agriculture. Hillforts and smaller enclosures, field systems and trackways appear to form something like recognisable subsistence landscapes, providing a marked contrast to the ritual monuments and complexes recorded for the Neolithic and Bronze Age periods.

The majority of Iron Age enclosures were constructed on raised ground, in defendable positions. The hillforts, in particular, commanded prominent vantage points, often along river valleys. Features such as field systems were also mainly recorded on slopes.

Iron Age sites were found almost exclusively in the central and northern parts of the survey area. This may be due, in part, to the fact that most of the southern third of the region is occupied by the foothills of the Black Mountains, an extensive area of largely unimproved moorland for which few photographs were available. The relative paucity of evidence in the wide lowlands of the Wye valley, however, has no obvious explanation.

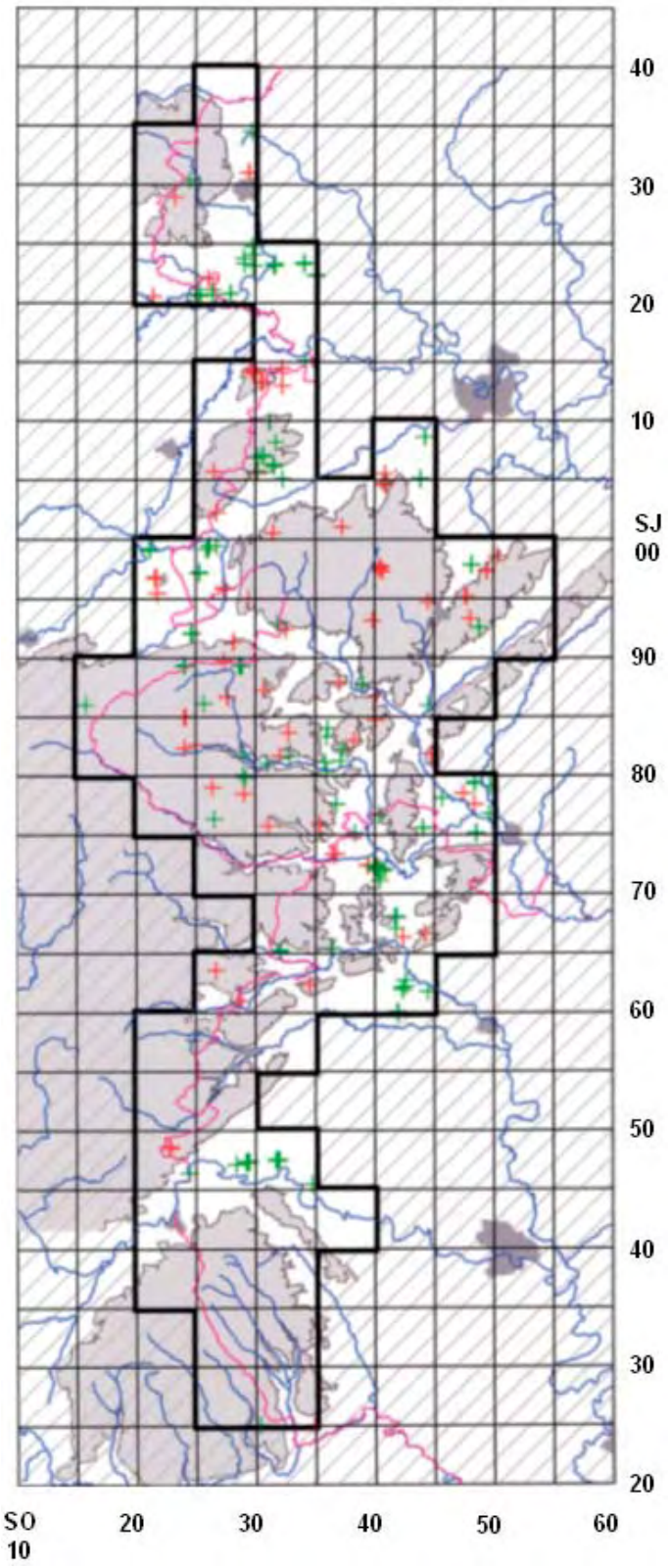


Figure 18 - Distribution of Iron Age and Prehistoric sites

+ Iron Age site

+ Prehistoric site

Seventy seven sites (87.5%) survived as earthworks, while the remainder were recorded as cropmarks. Nearly all have been interpreted on the basis of morphological characteristics or the results of non-destructive field work: excavation information exists for only eight Iron Age sites in this region (seven hillforts and a field system). Fifty one sites have been examined by non-destructive field work, and twenty nine were derived from aerial photographic evidence.

Enclosures

Most of the sites firmly attributed to the Iron Age are enclosures, including 39 hillforts and 19 smaller enclosures. It is also likely that a high proportion of the enclosures assigned an unspecified Prehistoric date, or given no date at all (Unknown), belong to the Iron Age. For this reason, they have been included in considerations of the Iron Age, or Later Prehistoric, landscape (see below).

Hill forts

Figure 19 - Two small uni-vallate hillforts

98.4.1 52.1.1

Hillforts formed the largest category of Iron Age enclosures in the Marches. Located in prominent and easily defended positions such as hilltops, ridges and promontories, their construction and shape were often influenced by the local topography. The largest hillforts, those with lengths or diameters over 200m, are found in the central uplands of southern Shropshire and northern Herefordshire, around the edges of the Long Mynd and Clun Forest regions. Many were apparently positioned so as to command the valleys, which provide natural routes of communication through the uplands. Only two small uni-vallate hillforts were recorded in the southern regions of Herefordshire (SO 3489 2508; MU 98.4.1 and SO 2280 4867; MU 52.1.1-3).

The hillforts range in size from 1609m2 to 153,075m2, and are predominately curvilinear and asymmetrical. The larger forts were generally the most complex, constructed with two, three or four ditches and banks and sometimes elaborate entrances. Although the ramparts are often well preserved, very few hillforts still possess identifiable internal features.

The most complex hillfort, Old Oswestry (SJ 2949 3107; MU 94.8.1), occupies a low glacial hill on the western edge of the Shropshire Plain. It has four banks and ditches, increasing to six and seven ramparts on its north-west and western sides, and elaborate entrances to the west and east. Excavation between 1939-40 by Varley and O'Neil (Varley 1948) revealed occupation evidence from 700 BC to the Roman period: the site had been occupied in the Bronze Age, well before the last phase of rampart construction.

Figure 20 - Old Oswestry

94.8.1

Brandon Camp (SO 4003 7235; MU 173.6.1) is uni-vallate and occupies a hilltop overlooking the confluence of the Rivers Clun and Teme. This hillfort was excavated by St Joseph and Frere in the early 1980s (Frere 1987, 69-71), revealing evidence of both Iron Age and later Roman military occupation within the ramparts. Unusually for this region, many internal features were visible as cropmarks.

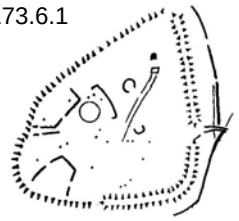

173.6.1

Figure 21 - Brandon Camp

Small enclosures

Over half of the hillforts (21 out of 39) had largest dimensions of 200m or less and single ramparts with simple entrances. These smaller forts provide a morphological link with the many small, simple curvilinear and rectilinear enclosures recorded by the Marches survey.

Figure 22 - Castle Ring

Castle Ring (SJ 3146 0058; MU 113.12.1), although identified as a hillfort, is typical of many Iron Age and Prehistoric enclosures. The small uni-vallate rectilinear enclosure, 170m x 85m, has an entrance to the NE. It is located on a hilltop and apparently associated with a field system.


113.12.1

Castle Ditches (SO 3536 7594; MU 284.8.1) is a simple rectilinear earthwork 100m x 50m; Castle Idris (SO 2402 8242; MU 255.3.1) is similar in form but smaller, with dimensions of 75m x 65m. Robury Ring (SO 3979 9322; MU 384.7.1) is curvilinear and 90m in diameter.

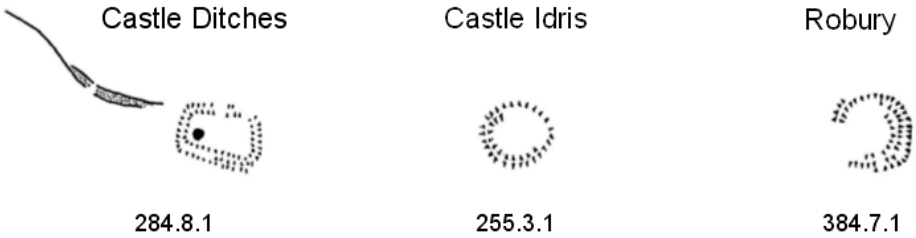


Figure 23 - Small enclosures

The smallest enclosure known to be an Iron Age settlement or farmstead (SO 4836 7765; MU 239.8.1) was recorded as a cropmark near Bromfield. Upon excavation it was found to comprise a square ditch 35m x 35m, enclosing two rectilinear huts, a granary and other domestic remains. It appeared to have been constructed in the period immediately following the Roman conquest and occupied for a short time in the late 1st century AD. From 700 AD to the 9th or 10th century, it was re-used as a Christian Anglo-Saxon burial ground (Stanford 1985, 4-7).


239.8.1

Figure 24

By comparing the shape, form and dimensions of the small enclosures described above with those of the many similar Prehistoric or undated enclosures in the Marches, it may be possible to interpret the latter with more confidence.

'Banjo' Enclosures

Two possible banjo-type enclosures were identified in the Marches, both of which were recorded as Prehistoric in date. The first, c.1km SW of Chirbury (SO 2525 9720; MU 389.2.1-2, MU 389.3.1, MU 389.4.1) is similar in form to banjo enclosures in other regions, with a curvilinear central enclosure surrounded by a second much larger outer enclosure. A funnelled entrance is formed by the inner and outer ditches. A second narrower entrance to

the north, marked by two parallel ditches, cuts through the encircling ditches. The site lies on a ridge to the west of the central uplands.

Figure 25 – Banjo enclosures

The second possible banjo enclosure (SJ 3152 2320; MU 466.48.1-5) is located in gently undulating terrain overlooking the River Morda c.6km SE of Oswestry. It is triple-ditched and curvilinear; an inturned entrance to the ENE is emphasised by further ditched annexes or outworks to the main enclosure, forming a funnelled approach. In the immediate vicinity are many small isolated enclosures of simpler construction, mostly dated Prehistoric or given no date.

Support for the interpretation of these enclosures may be found in the Iron Age enclosure known as Caer-Din Ring (SO 2397 8502; MU 249.1.2), an earthwork enclosure with a single bank 100m x 90m and a hollow way leading from its entrance to a pair of antenna structures beyond.

Conjoined enclosures

Over 20 groups of conjoined rectilinear enclosures were recorded, all defined by ditches and visible as cropmarks. The majority comprised simple pairs of enclosures with a common corner or side. Some sites were more complex, with two or more enclosures, internal features and multiple ditched components.

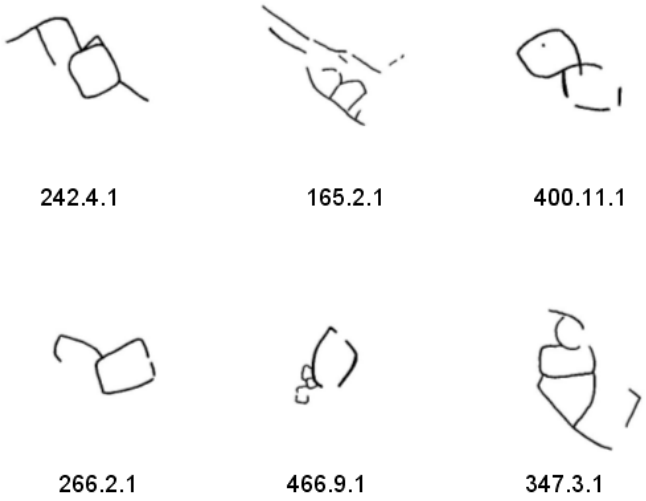


Figure 26 – Conjoined enclosures

None of these sites has been securely dated, but parallels elsewhere in Britain suggest a later prehistoric date. A linear group of three conjoined rectilinear enclosures recorded during the Thames Valley NMP project was found, on excavation, to have a Bronze Age date; on the Yorkshire Wolds, linear groups of conjoined rectilinear enclosures are typical of Iron Age and Romano-British settlement. Twelve of the Marcher sites are morphologically similar to those described above.

Figure 27 – Smaller conjoined enclosures

There were a further 11 conjoined enclosures that had shared characteristics, but were different from the sites described above. These sites generally comprised more compact clusters of smaller enclosures of varying size: some appeared to have developed through accretion. All but three had numerous internal pits, whose presence suggests a possible settlement function. No dated parallel for these sites could be found, so they were all described as Undated or Prehistoric enclosures.

There were three examples of larger conjoined enclosures, all with one or more enclosure with two ditch circuits and internal pits. These are thought to probably be domestic in origin. Again, no dating evidence for any of these sites exists, and all are dated as Prehistoric.

Figure 28 - Larger conjoined enclosures

Hut Circles

Thirty eight ring ditches with diameters of 20m or less were recorded from cropmark evidence, and were interpreted as hut circles of Prehistoric date. Eleven were located within larger enclosures, and twenty one were grouped with other hut circles in pairs or groups of up to eight. All the hut circles were single-ditched, with diameters of 20m or less, and none had evidence of internal or external pits or post holes. Fifteen had gaps in one side, but it was not generally possible to tell whether these were entrances. Finally, six hut circles appeared as isolated sites not associated with any other features; the possibility of confusion between these features and round barrows, the majority of which also have diameters of between 10m and 20m, cannot be discounted.

Figure 29 – Enclosures with hut circles

Square barrows

Iron Age barrows are comparatively rare outside eastern Yorkshire, but isolated examples and small groups have been identified in other regions, mainly through aerial photographic evidence. In the Marches, a group of three square barrows (SO 394 724; MU 222.26.1-3) was recorded at Walford Roman camp, on the banks of a tributary of the River Teme. The very small rectilinear enclosures (6m x 6m, and 8m x 8m) are identical in form to those in the Yorkshire Wolds (Stoertz 1997, 15, 34-39). Their proximity to a watercourse further strengthens the interpretation, as the largest of the Yorkshire square barrow cemeteries were located in valleys bearing seasonal streams (Stead 1991, 5-6).

At least five other rectilinear enclosures recorded during the Marches survey should be considered as possible square barrows. All have dimensions of c.20m x 20m or less and appear as isolated features, rather than in groups as above. One is recorded as prehistoric and the rest are of unknown date.

One of the most convincing examples (SO 4982 7675; MU 238.9.1) lies at the eastern edge of the survey area in the broad valley between the Rivers Teme and Corve. The valley contains other prehistoric ritual and funerary monuments: a possible Neolithic double pit alignment lies 200m NW, and many Bronze Age round barrows were constructed between the two rivers. An Iron Age enclosure, possibly a settlement, was recorded 1.7km to the NW, adjacent to Bromfield Roman camp.

Another possible square barrow (SO 2835 8203; MU 266.4.1), also associated with round barrows, is located on the banks of the River Clun near its confluence with the River Unk.

A group of undated, possibly late prehistoric enclosures overlooking the River Morda in the northern Marches contains a rectilinear enclosure 15m x 12m (SJ 3264 2417; MU 466.12.2). On the gentle hills to the S and SE are many round barrows and one of the possible Neolithic ‘large enclosures’. Two-and-a-half kilometres away, overlooking the Weir Brook, is an isolated enclosure 20m x 20m (SJ 3456 2257; MU 466.38.1) which also resembles a square barrow. On low-lying ground near the River Vyrnwy, adjacent to a short length of pit alignment, a further isolated possible square barrow 22m x 22m was recorded (SJ 2507 2075; MU 471.2.1).

Undated enclosures of similar dimensions have also been recorded in the vicinity of two Roman forts. At Brompton, a feature interpreted as a Roman building with possible funerary

associations (SO 2479 9375; MU 357.11.1) is very similar in appearance to the enclosures detailed above. Two small enclosures just N of the fort at Lavobrinta (SO 206 99915; MU 335.11.1 and SO 2115 9921; MU 335.3.7) may have a Roman date, especially as the latter is adjacent to and perhaps aligned on a Roman road. The presence of late prehistoric enclosures, however, could equally suggest an earlier construction. It may be significant that these enclosures are located within a bend of the River Severn.

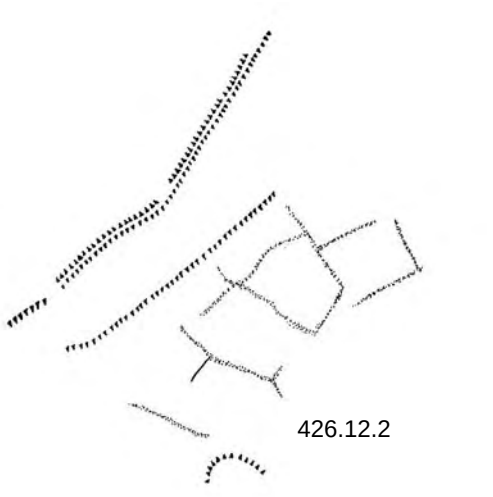
Field systems

Two field systems have been positively identified as Iron Age and a further two have been given an unspecified Prehistoric date. Eighteen were left undated altogether, but by studying common characteristics, it is possible to suggest that at least twelve belong to the late Prehistoric period (i.e. Iron Age or Romano-British). The majority of presumed prehistoric field systems are located on the slopes of the central uplands between the Long Mynd and Stapeley Hill and in the Herefordshire hills above the River Lugg. Two groups are situated on the more gently undulating ground of the northern Marches, near the Shropshire Plain, and one lies in the southern part of the survey area at Parc y Meirch, in the foothills of the Black Mountains.

The two Iron Age field systems are situated near the edges of the survey area. On Hope Bowdler Hill, just to the south of Wenlock Edge, lies a compact group (SO 4795 9337; MU 329.7.1) defined by low earthworks; there is a fragmentary curvilinear enclosure 700m to the east which may be associated with the fields, although it has been given no date.

The second group of Iron Age fields overlooks the River Severn at Breidden, in the northern Marches. These fields (SJ 2986 1428; MU 426.12.2) are also defined by earthworks, and are situated on a slope between two rather fragmentary hillforts: Breidden Hill (SJ 2967 1440; MU 426.13.1) and a smaller defended enclosure (SJ 2976 1406; MU 426.12.1).

Figure 30 - Breidden Iron Age field system



Several less securely-dated field systems are associated with hillforts or smaller enclosures. An undated group (SO 4819 9585; MU 402.3.1) lies c.500m to the north of Caer Caradoc (SO 4770 9528; MU 402.7.1), a hillfort dramatically sited above the Church Stretton Gap 2km to the north of Hope Bowdler. On the western side of the Long Mynd at Rattlinghope, undated fields and lynchets (SO 4098; MU 40.7.1, MU 40.10.1, MU 40.11.1, MU 40.13.1, MU 40.15.1-4) lie all around a hillfort (SO 4046 9782; MU 40.2.2) and an Iron Age enclosure (SO 4064 9732; MU 40.3.1).

An extensive field system on Black Knoll, at the southern end of the Long Mynd ridge (SO 3894 8784; MU 314.10.1-2) was recorded in the original project database as Prehistoric. Detailed field survey by RCHME in 1995 (Ainsworth, 1995) has determined that the earthworks were Iron Age or Romano-British, and were associated with a settlement which the aerial photographic survey had not been able to identify. A curvilinear enclosure 60m in diameter (SO 3874 8777; MU 314.5.1) lying within the field system and previously thought to be a contemporary feature, was discovered to overly the field banks, indicating a later date. It is now thought to be associated with post Medieval rabbit warrens in the immediate vicinity: its size, shape and revised interpretation should be borne in mind when attempting to interpret similar enclosures in the region.

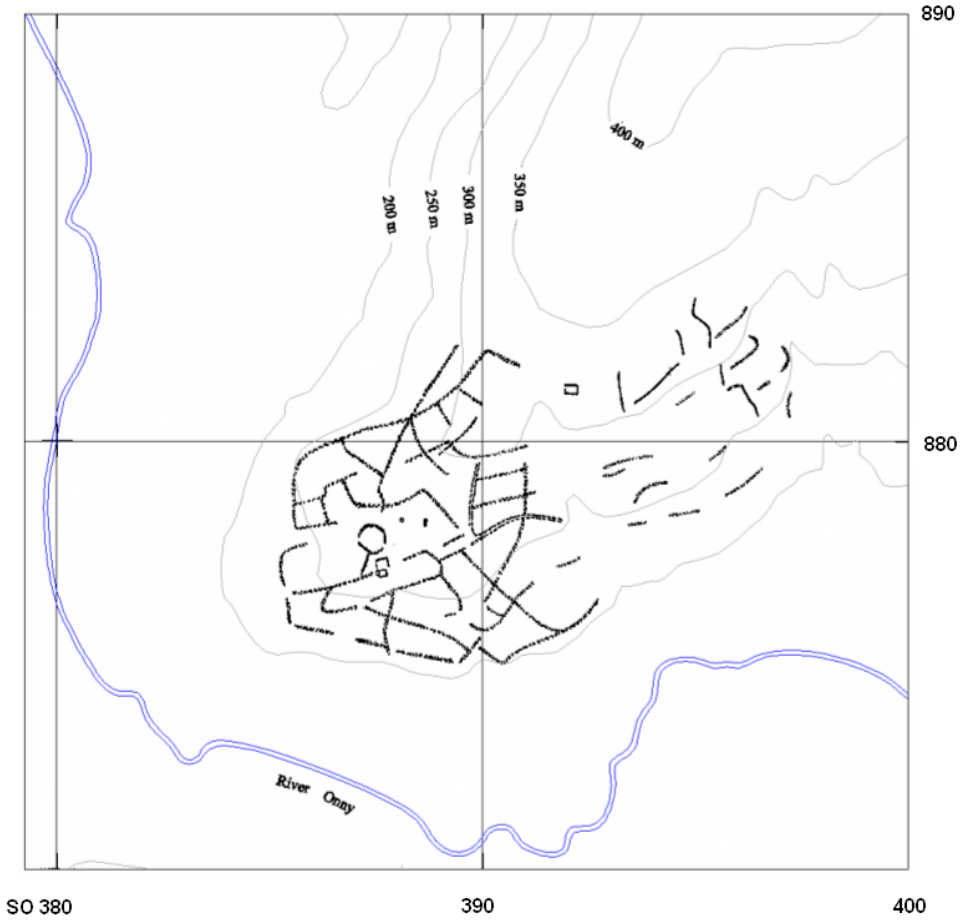


Figure 31 - The later prehistoric field system on Black Knoll

Pit alignments

Fifteen pit alignments were recorded during the survey, all described as Prehistoric or of unknown date. Two have been tentatively identified as Neolithic monuments (see page 20), but the remainder, visible as cropmarks in the northern lowlands, may be associated with later prehistoric fields. The use of pit alignments as boundary features in the Late Bronze Age and Iron Age is known on the Yorkshire Wolds and elsewhere; an example in the vicinity of the Marches (but outside the survey area) was dated, on excavation, to the Late Bronze Age (Rowley 1986, 31).

Near the River Vyrnwy, pit alignments resembling field boundaries (SJ 2626 2085; MU 471.9.1 and SJ 2528 2109; MU 471.16.1-2) associated with an undated field system (SJ

2522 2120; MU 471.15.1) and a prehistoric enclosure (SJ 2635 2115; MU 471.10.1) may represent a fragment of the lowland agricultural landscape. Another lowland group of pit alignments and ditches, associated with four prehistoric enclosures, can be found c.3km to the north-east in the same valley (SJ 2823-2923).

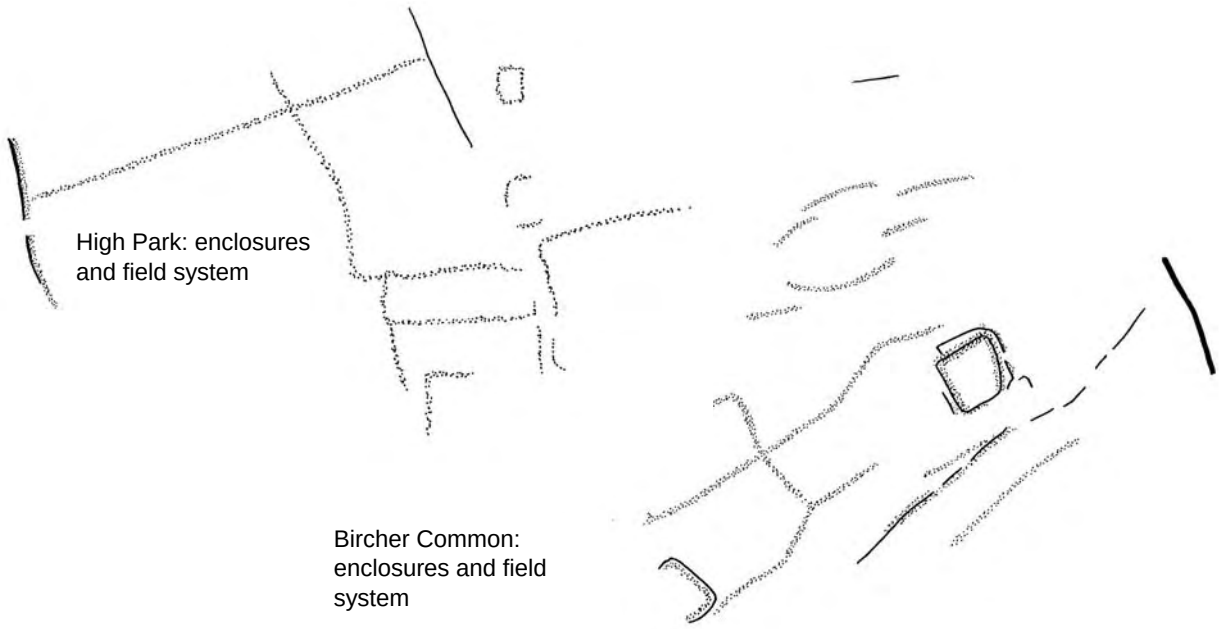
Cultivation ridges

Narrow cultivation ridges of unknown date, which do not resemble conventional Medieval ridge and furrow, have been recorded at several locations in the central uplands of Long Mynd, Shelve and Stapeley Hill. It has been suggested that the ridges on Stapeley Hill (SO 3134 9919; MU 321.9.1), which seem to be associated with linear earthworks, are prehistoric (Watson and Musson 1993, 23), but further investigation is required to determine the true nature and date of these and similar features.

Late prehistoric landscapes

The groups of enclosures and field systems described above afford fragmentary glimpses of agricultural landscapes belonging to the Iron Age and Romano-British periods. Clusters of small enclosures, whether securely dated or not, can be found especially in the Clun Forest region of the central Marches, the lower-lying area to the west of Stapeley Hill and Corndon Hill and the lower hills in northern Herefordshire, to the south-west of Ludlow. Groupings of enclosures less than 1km apart may provide further clues about the landscapes of the later prehistoric Marches.

Figure 32 - Groups of enclosures and field systems suggesting later prehistoric landscapes: High Park and Bircher Common



Prehistoric

Two hundred and sixteen features, including 102 enclosures, 39 hut circles, four field systems, five pit alignments and nine trackways, were simply assigned a ‘Prehistoric’ date (see Figure 18). Because the unspecified Prehistoric designation is most frequently used to identify later Prehistoric (i.e. Iron Age) or Romano-British features, consideration of the majority of Prehistoric features has been included in the Iron Age section.

Figure 33 - Prehistoric enclosures

Twenty-five enclosures were included in groups interpreted as farmsteads, and thirty-three enclosure sites (including hut circles) were included in groups interpreted as settlements.

Almost all Prehistoric features (204 out of 216) were recorded from specialist aerial photographs, the vast majority appearing as cropmarks. Three sites had been the subject of non-destructive, and inconclusive, fieldwork.

Roman

During the second half of the 1st century AD, the Marches became the base from which the Romans sought to control the Welsh tribes to the west (Rowley 1986, 44); virtually all of the Roman features recorded during this survey appear to be military in nature. Eight forts and 11 camps were recorded, as well as four enclosures, one bathhouse, five buildings and 31 lengths of road. Four of the buildings and the bathhouse were associated with the fort at Buckton (see below).

Most Roman sites were recorded through cropmark evidence; only two combined cropmarks and earthworks, and two appeared solely as earthworks. Earthwork ramparts are still visible at the forts at Forden Gaer, Hindwell Farm and Clyro.

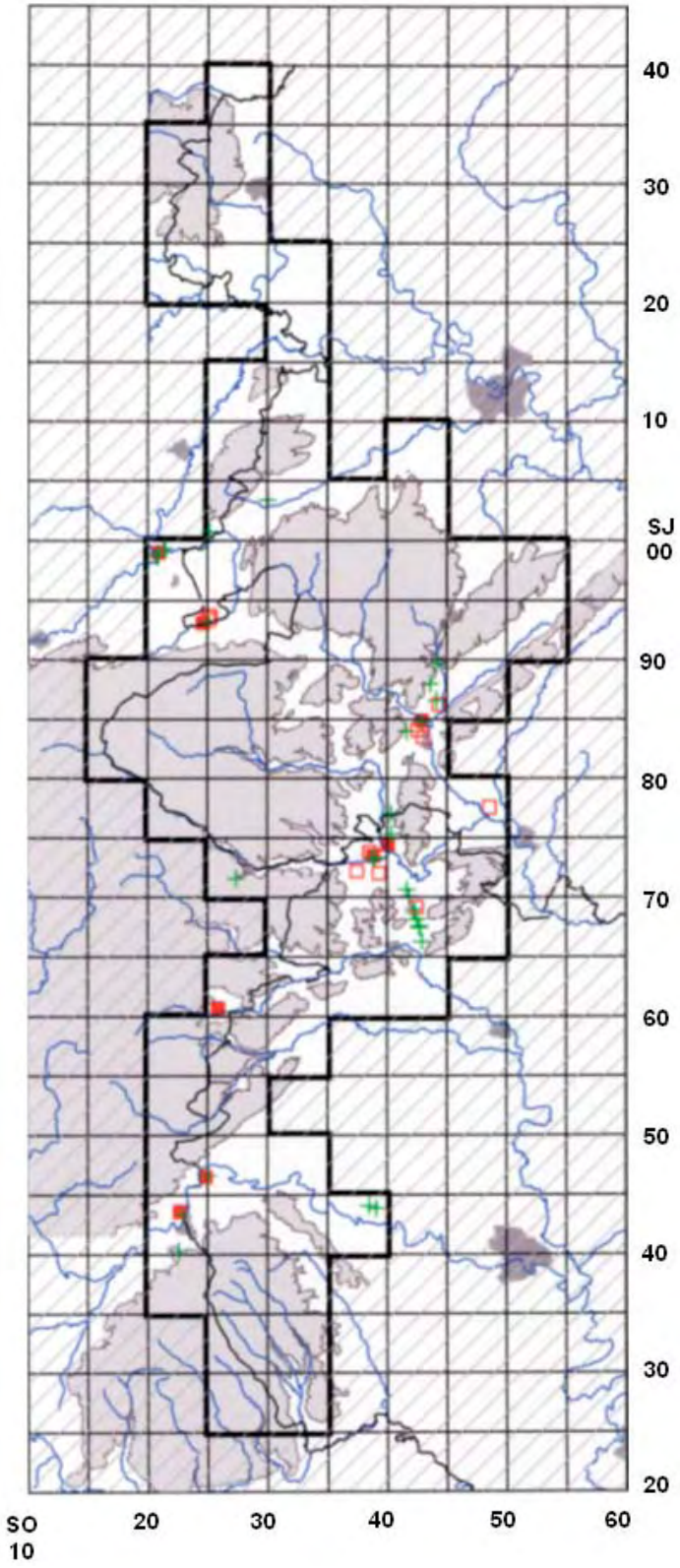


Figure 34 - Distribution of Roman sites

Camps and Forts

The Roman military sites recorded during the Marches survey appear to focus on the eastern and western edges of the region.

The eastern group is associated with Watling Street, whose course runs between Wroxeter

(Viroconium) in the north, and Kenchester (Magnis) in the south, through the eastern fringes of the upland region. The forts and camps are located at points that command views along access routes from the eastern lowlands into the central Marches.

At Stretford, to the north of Craven Arms, a small fort and two camps overlook the confluence of the River Onny and Byne Brook (see Figure 43) , commanding four major routes. To the north-east, Byne Brook flows through Ape Dale, at the foot of Wenlock Edge; to the south, the Rivers Onny and Teme flow past the southern end of Wenlock Edge towards the lower hills around Ludlow; to the north-west, the Onny valley defines the southern limit of the Long Mynd and Stiperstones uplands; and at Craven Arms a pass through low hills gives access westwards into the valley of the River Clun, which roughly parallels the Onny and Teme valley.

The fort at Stretford (SO 4277 8470; MU 417.19.1), located on a low rise 400m to the west of the point where Watling Street crosses the River Onny, is rectangular and relatively small (150m x 100m). Cropmark evidence reveals the complete inner ditch with three entrances to the south, west and east, and fragments of an outer ditch. Traces of internal roadways and possible buildings can be seen within the fort.

The larger of the two camps (SO 4269 8411; MU 417.12.1) lies 400m to the south-east, on the same alignment as the fort. The western side appears complete, and is 380m long; the southern side is visible for 460m, indicating that the camp enclosed an area of over 17.48ha. Part of the northern side was recorded, but the eastern side is obscured by a railway and other modern development; the present course of Watling Street, now represented by the A49 trunk road, cuts through the south-eastern corner of the camp. No contemporary Roman structures were recorded within the camp, but there are three prehistoric monuments: a small incomplete ring ditch in the south-western corner; the denuded remains of a probable barrow in the eastern half of the camp; and an elongated Neolithic mortuary enclosure with internal pits in its north-western quadrant.

Immediately to the south is a smaller camp (SO 4300 8369; MU 417.10.1). The western ditch, the rounded north-west and south-west corners, and most of the northern and southern ditches are visible; the eastern side has probably been destroyed by the railway. The western side is 125m long with a possible entrance gap midway along its length, while the southern side is visible for 105m. The northern part of the enclosure is crossed by a broken linear ditch that extends beyond the western ditch, and a second ditch extends westwards from the south-western corner of the camp. These features may relate to a possible annex or a different phase of construction. The camp is located on the eastern side of Watling Street, directly opposite the point where another Roman road branches off to the north-west. The camp's western entrance appears to face the road junction. A 580m length of the branch road (SO 4161 8403; MU 415.9.1) was recorded as a hollow way about 1km to the west of the fort.

Two rectilinear enclosures of unknown date, to the south of the camps and close to Watling Street, may also be Roman in origin. The larger enclosure (SO 4303 8322; MU 416.26.1) is 80m x 56m, rectangular and double-ditched, with sharply angled corners. It lies 330m east of the Roman road and 340m south of the smaller of the Stretford camps. The second enclosure (SO 4249 8282; MU 416.20.1-2) lies less than 30m east of Watling Street, less than 1 km SSW of the Stretford complex. It is smaller and has an inner, almost square enclosure and other possible internal structures. The outer enclosure is complete, with a single ditch 50m x 48m. The inner enclosure is 22m x 19m and has an entrance to the west

(towards the road).

Approximately 2.5km north-east of the Stretford group, a camp at Upper Affcot (SO 4444 8631; MU 346.2.1) was built on a low spur just to the west of the confluence of Byne Brook and the Quinny Brook, with views to the south and access to the north towards the Church Stretton Gap (between the Caer Caradoc ridge and the Long Mynd) (Welfare and Swan 1995, 165-166 and figure 138). Watling Street passes 1km to the west of the site; a second road, from Weston Under Penyard and Gloucester, was located 350m to the south-east of the camp (Welfare and Swan 1995, 165). This road was located through excavation (Houghton 1966,188) but has not been recorded from aerial photographs. Only the south-eastern corner and part of the southern and eastern sides of the camp were visible as cropmarks. The southern side comprises a single ditch 280m long; the visible portion of the eastern side is 105m long, with a second outer ditch. To the north of the hamlet of Upper Affcot, a field boundary that parallels the camp's southern side at a distance of 200m may mark the northern side of the camp. Within the camp, a short length of double-ditched roadway was recorded, aligned WNW-ESE and running parallel to the southern side of the enclosure.

The easternmost site in this eastern group is the camp at Bromfield (SO 4834 7741; MU 239.5.1: see Figure 42), located in a broad valley which bears the River Corve to the east and the junction of the Rivers Teme and Onny to the west (Welfare and Swan 1995, 150-3, and figures 128 and 129). The gravel terrace on which the camp was built allows views towards Corve Dale, in the north-east (at the eastern side of Wenlock Edge), and the Onny valley route towards the Long Mynd in the north-west. The course of the River Teme gives access to the south-east towards Ludlow and the Herefordshire lowlands, and to the south-west towards the central Marches. Watling Street is 9km away in this direction, between Leintwardine and Wigmore (see below), and 8km distant along the River Onny. The camp measures 323m x 260m, and has a gate on the north-western side, offset to the west. No contemporary internal features were mapped, although a number of Bronze Age round barrows have been recorded, both within and outside the camp.

A second cluster of camps and forts c.10km to the south of the Stretford group is associated with Watling Street and the confluence of rivers in the vicinity of Leintwardine. Two forts were recorded by the Marches survey, at Jay Lane and Buckton, while a third is concealed beneath the town of Leintwardine. Three associated camps are situated at Brampton Bryan, Buckton Park and Walford.

This group commands a broad valley where the Rivers Teme and Clun meet among the hills of the Shropshire-Herefordshire border. The complex spans both sides of the Teme, overlooking access routes in three directions: to the north along the Clun towards Stretford via the Craven Arms pass (see above) or into the central and western hills along the course of the Clun; to the south-east along the Teme, giving access eastwards to Bromfield and Ludlow in the lowland region, or southwards to the River Lugg and Magnis; and to the west along the Teme into the central Marches and eastern Wales.

The fort at Jay Lane (SO 3989 7447; MU 219.3.1), on the east bank of the Clun, is a double-ditched rectilinear enclosure 175m x 135m, visible as a cropmark. It has two entrances, in the north-west and south-east sides, and an external annex close to the southern corner on the south-western side.

At Buckton (SO 3899 7337; MU 220.8.1), on the north bank of the Teme, the cropmark

shows the outer ditch in its entirety, with dimensions of 162m x 128m. Traces of internal roadways and the foundations of several blocks of buildings, including a bathhouse, were recorded both inside and outside the fort.

These sites represent successive moves of a single fort which was first constructed at Jay Lane, then moved 1.2km south-west to Buckton, and finally relocated 1.3km ENE to Leintwardine (Bravonium) at the confluence of the rivers, commanding the Watling Street crossing (Johnson 1983, 38). Excavations at Leintwardine have indicated a long period of occupation from the late 1st century AD extending into the 4th century, perhaps suggesting that it was a defended civilian settlement during part of its history (Webster 1975, 53).

The forts are accompanied by three camps of varying size. The smallest, Buckton Park (SO 3879 7356; MU 220.4.1), is 165m north-west of the Buckton fort (Welfare and Swan 1995, 63-4, and figure 52). The camp is trapezoidal, with a single ditch 122m long on its southern side; the eastern and western ditches are visible for c.100m.

The other two camps are larger. The largest, at Brampton Bryan (SO 3798 7238; MU 222.6.1) (Welfare and Swan 1995, 61-3, and figure 50), situated 1km south-west of Buckton fort, measures 535m x 460m. The perimeter ditch is fragmented, with a possible entrance in the western side (and another on the eastern side perhaps suggested by the position of the modern road). On the inner side of the western ditch is a small incomplete rectilinear enclosure 45m in width. The third camp lies 1km to the east of Brampton Bryan at Walford (SO 3941 7227; MU 222.24.1) (Welfare and Swan 1995, 65-6, and figure 55) and has dimensions of 390m x 250m.

The camp at Walford is overlooked by the Iron Age hillfort of Brandon Camp (SO 4003 7235; MU 173.6.1), which lies on a hilltop 350m to the east. Excavation of the hillfort revealed secondary Roman occupation during the early Neronian period (55-60 AD), with foundations of a range of buildings including a possible administrative block, a substantial granary, three two-roomed buildings and one, or perhaps two, barrack blocks. Later excavations in 1984 revealed a number of small buildings, one of which may have been the centurion's house. Brandon Camp is thought to be one of the earliest locations of Roman occupation prior to and during the construction of forts and camps in the area. It is thought to have been a campaign supply base, having very little barrack accommodation in comparison to its storage and supply capacity (Frere 1987, 69-71).

The southernmost site in this eastern line is a possible small camp (SO 4225 6905; MU 236.3.1) c.5km south of Leintwardine, just to the east of Wigmore. This fragmentary site is located in a tributary valley of the Teme on the eastern side of Watling Street, with views to the Teme valley in the north and a pass towards the River Lugg and the Herefordshire lowlands to the south. Only the eastern ditch and the north-eastern and south-eastern corners are visible. The western side of the enclosure may have been cut by, or abutted, the Roman road.

The western group of Roman military sites are located below the higher hills of the Welsh border, commanding routes into Wales from the east.

At Forden Gaer, or Lavobrinta, a well-preserved fort (SO 2079 9897; MU 335.3.3) is situated on the south bank of a loop of the River Severn, along a major access route from the Cheshire and Shropshire plains in the northeast. Within the fort are traces of internal metalled roads. Approach roads are visible to the north-east, in the direction of Wroxeter, and south of the fort, to the bank of the Severn. Small side roads (SO 2065 9872; MU 335.3.6) associated with the latter indicate possible vicus development outside the southern gate, between the fort and the river.

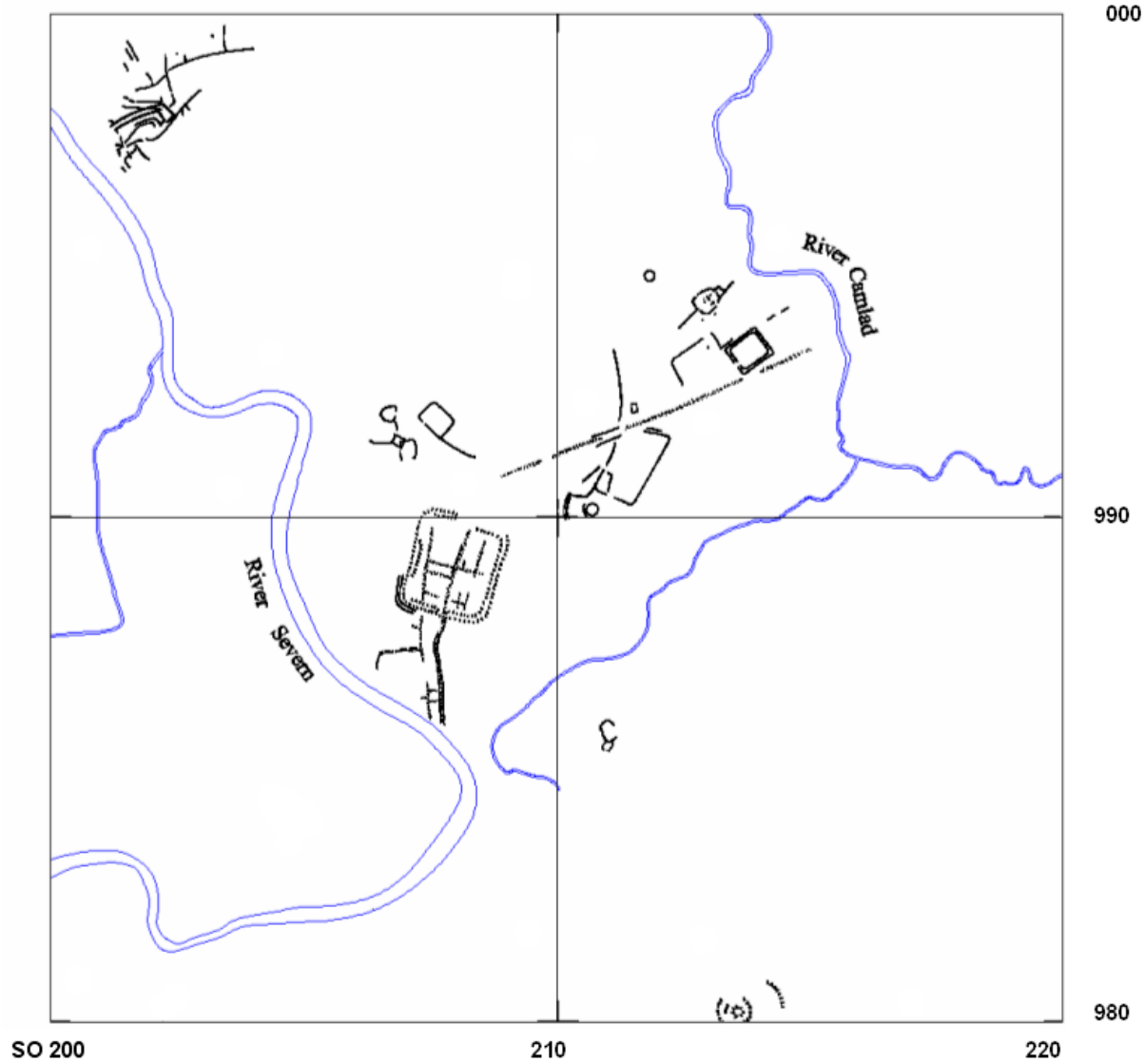


Figure 35 - The Lavobrinta complex

No camp has been recorded in the vicinity of Lavobrinta, but two features adjacent to the north-eastern road, which leads towards Viroconium, may be associated with the fort. A small double-ditched enclosure 60m x 50m (SO 2138 9933; MU 335.3.1), to the north-east of the fort, is aligned on the road. The enclosure's entrance faces the fort. Between this enclosure and the fort, also aligned on the road, is a smaller rectangular enclosure 15m x 10m (SO 2115 9921; MU 335.3.7) which resembles the so-called mausoleum at Pentreheyling (see below).

A multi-phase site of at least two, (possibly three or four) superimposed camps is located at Brompton, 6.5 km to the south-east of Lavobrinta, with an adjacent fort at Pentreheyling

(Welfare and Swan 1995, 154, and figure 130). The camps are located on a slight east-facing spur on the north bank of the River Caebitra, commanding views eastwards to the confluence of the Caebitra and the Camlad at Churchstoke, and ESE down the Camlad valley between the uplands of the Clun Forest and the Stapeley Hill and Long Mynd region. This group may have been connected with the lead and silver workings around Linley Hill, c.10km to the east, along the Camlad valley (Rowley 1986, 54, 221).

The camps are visible as cropmarks, whose southern and south-eastern parts are obscured by the buildings of Brompton Hall. Both camps were later cut by Offa's Dyke. The largest (SO 2495 9347; MU 357.7.1) measures at least 330m N-S; its northern side is visible for 375m. The second (SO 2486 9330; MU 357.6.1) lies on the same alignment as the first and is also incomplete; 150m of the northern ditch and 200m of the western ditch are visible. Linear ditches parallel to the eastern and western sides of the larger camp (including SO 2465 9358; MU 357.9.1 and SO 2476 9341; MU 357.10.1-2) may represent traces of a third camp. A ditch, which lies between the northern ditches of the two certain camps, may be part of yet another camp (SO 2484 9351; MU 357.8.1). The line of this ditch is interrupted by a triple-ditched round barrow (SO 2488 9351; MU 357.14.1).

Immediately to the south-west, in a slightly elevated position, is the fort of Pentreheyling (SO 2454 9312; MU 357.4.1). Cropmarks reveal the western side and part of the northern side. Part of an inner ditch on the western side is also visible. Geophysical prospection and excavation between 1978 and 1990 (Welfare and Swan 1995, 154) revealed a two-phase fort dating from the late 1st to early 2nd centuries AD, measuring approximately 180m x 150m (150m of the western side and 60m of the northern side appear as cropmarks). The first phase was a timber fort with an annex on the south side. The second phase was apparently dominated by industrial activities within the fort, with a substantial vicus extending to the north, east and south-east of the fort. The only possible traces of the vicus recorded during the aerial photographic survey were a 70m length of road (SO 2479 9318; MU 357.4.2) to the east - possibly lying just outside the eastern gate - and a small rectangular building to the north-east (SO 2479 9375; MU 357.11.1), measuring 12m x 8m and said to be a mausoleum. The fort is thought to have been abandoned in the 2nd century, but re-occupied on a small scale in the late 3rd-4th centuries (Welfare and Swan 1995, 154).

Three possible signal stations are located on the hills of the western central Marches. On Linley Hill, above the Camlad valley between the Brompton group and the Long Mynd, an earthwork enclosure 37m x 37m (SO 3619 9545; MU 398.11.1) occupies a hill top position. Two similar enclosures were recorded in the Clun Forest uplands, lying a few kilometres to the south between the river valleys of the Camlad and the Clun. The first (SO 2657 8800; MU 49.4.1) appeared as a levelled earthwork 43m x 37m, on a south-east facing slope; the second (SO 2563 8619; MU 43.4.1) was double-banked, c.60m x 52m, also on a south-east facing slope. Although the first was not given a date and the second was identified as prehistoric their similarity, in size, form and location, to the more confidently interpreted enclosure is notable.

In the southern third of the survey area, a group of military sites seems to have been constructed in order to control east-west access routes between the Herefordshire lowlands and the mountains of south central Wales.

At Hindwell Farm, on the northern side of Summergill Brook, are the incomplete earthwork remains of a fort (SO 2586 6055; MU 214.2.1). The rather fragmentary ramparts are 150m

long on the eastern side; only about 80m of the northern and southern sides are present. This fort is located in a broadened valley between the Radnor Forest to the north and the Hergest Ridge to the south. Summergill Brook flows east into Hindwell Brook and thence to the River Lugg, which is crossed by Watling Street 3.5km south of Wigmore and c.17km from Hindwell Farm.

Farther to the south, the valley of the River Wye provides a major route into the west and south-west from the Herefordshire lowlands, past the formidable terrain of the Black Mountains, which rise immediately to the south. Two forts have been recorded on the Wye, at Clifford and Clyro.

Clifford (SO 2484 4669; MU 54.10.1) lies on the southern bank of the river, where the valley makes a broad sweep from east to south around the foothills of the Black Mountains. A Roman road follows the river's northern bank, leading westwards along the Wye valley from the town of Magnis.

The fort was recorded as a fragmented cropmark showing a triple-ditched enclosure 260m x 250m. The northern, western and eastern sides are visible, but most of the southern side and the south-eastern corner have been destroyed. The inner two ditches lie very close together, separated by a distance of 20m. The only feature recorded within the fort is a short length of possible metalled road (SO 2496 4664; MU 54.10.2).

To the north of the fort at a distance of 270m is a single linear ditch, 220m long, whose western end suggests a curved corner (SO 2478 4712; MU 54.2.1). This has been recorded as a Medieval field boundary, but could possibly represent a previously undetected Roman camp.

At Clifford, the valley bends to the south-west towards the Brecon Beacons. About 4km upstream the road passes the vexillation fortress at Clyro (SO 2285 4343; MU 120.2.1.), which lies on a hilltop on the western bank of the Wye, on the opposite side of the river to Clifford. Both cropmark and earthwork remains 400m x 270m were recorded at Clyro. About 450m to the south-west, on a spur overlooking a bend in the Wye, lies another fragmentary possible camp (SO 2246 4290; MU 120.1.1). A ditch 260m long, with a slight bend at the eastern end, has been recorded as a Roman field boundary, but may be the northern side and part of the north-eastern corner of a camp. A possible length of Roman road (SO 2257 4046; MU 120.1.2) extends to the north just beyond the eastern end of the field boundary/camp.

Roads

The principal Roman road in the region is Watling Street, which runs the length of the eastern Marches from Chester (Deva) in the north, through Whitchurch (Mediolanum), Wroxeter (Viroconium), Leintwardine (Bravonium) and Kenchester (Magnis). It now lies beneath the tarmac of modern trunk roads for most of its length, although stretches have been recorded by aerial photography in the vicinity of Leintwardine and Upper Affcot.

The two main westward roads follow the valleys of the River Severn in the north, and the River Wye in the south, leading towards the Welsh interior from Viroconium and Magnis respectively. NMR records suggest other routes into Wales along the river valleys commanded by the forts and camps; in most cases, these are now concealed by modern roads, tracks and field boundaries.

Industry

One of the reasons for Roman interest in the Marches was the availability of lead ore, particularly in the Shelve and Linley Hill region in Shropshire. An Industrial Complex recorded to the north of Shelve (SO 333 999; MU 320.13.1) has been interpreted as a Roman lead mine, and other pits and spoil heaps in the region may also be associated with this very early phase of the exploitation of natural resources. The existence of Roman industrial activity at other sites in the region is known from other sources; without supporting field evidence, it is virtually impossible correctly to identify specifically Roman industry through aerial photographs alone.

Non-military sites

Features recorded in the vicinity of the forts at Forden Gaer and Pentreheyling have hinted at the presence of vicus development, but it is likely that most of the Romanised civilian domestic and agricultural settlements (e.g. villas) were concentrated in the lowland areas to the north and east of the Marches. The main foci for this type of settlement were probably Viroconium to the north-east and, to a lesser extent, Magnis to the south-east.

Early Medieval

In common with most other regions in Britain, the Marches' history in the early post-Roman period is somewhat shadowy and has left few traces that can be identified readily on aerial photographs. Early Medieval (i.e. post-Roman and pre-Norman) sites are notoriously difficult to identify through aerial photographic evidence without supporting finds or documentary information. The Marches were incorporated into the kingdom of Mercia, which became the most powerful Anglo-Saxon kingdom in England, but only forty eight records within the survey database could be dated to this important phase of historical development.

Offa's Dyke

The most dramatic monument to the establishment of Anglo-Saxon control in the region is Offa's Dyke, the great linear earthwork which extends along the western part of the survey area. Its construction, on west-facing slopes with a ditch on its western side, doubtless provided a visible boundary between Saxon and Welsh territories, and may have followed an agreed or negotiated frontier (Rowley 1986, 80).

Offa's Dyke probably represents several phases of boundary construction during the 8th century AD: similar shorter, roughly parallel, linear earthworks in the same region are thought to be more or less contemporary (Rowley 1986, 79). Wat's Dyke, which lies 4-5km to the east, near Oswestry, is attributed to Offa's predecessor Aethelbald (716-757 AD). The Rowe Ditch, c.5km to the east near Leominster (and outside the survey area), and the Upper Short Ditch, c.6km to the west, near the western edge of the area, may also be associated with the frontier which bears the name of Offa of Mercia (757-796 AD).

The lowland hillfort at Old Oswestry (SJ 2949 3107; MU 94.8.1)- appears to have been re-occupied at this time (Rowley 1986, 40). Its rampart was incorporated into line of Wat's Dyke, perhaps in order to provide extra strength in lowland of Shropshire Plain.

Early Medieval fortifications

Burhs, or fortified towns, were created in the Marches, but most have been obliterated by later development and leave little visible trace today. Only fragmentary and rather circumstantial evidence can be gathered without excavation: although Caus Castle and Chirbury are both known to have been burhs, no distinctive Saxon features can be seen on aerial photographs.

The exact site of the burh at Caus Castle is somewhat unclear. The large motte and bailey earthwork (SJ 3375 0791; MU 31.6.1-2) located at the NE end of a ridge above the Rea Brook may originally have been an Iron Age hillfort. The castle seems to have been built some time after 1200 AD, and attained 'borough' status in 1349. The earlier burh may have been 1km to the east at Hawcocks Mount (SJ 3492 0779; MU 24.1.1-2), a medieval mound and moat situated at the foot of the ridge, abandoned c.1200 AD (Barker 1981, 34).

The burh at Chirbury, overlooking the River Severn below the western edge of the central uplands, is represented by a square earthwork enclosure 60m x 60m (SO 2586 9847; MU 395.2.1) and a 70m length of boundary bank (SO 2582 9839; MU 395.2.2). The enclosure is said to be a fortress built by Aethelflaed in 915 AD; it is virtually indistinguishable in form from the many other rectilinear earthwork enclosures recorded by this survey, most of which have been given Iron Age or Prehistoric dates, or have been left undated.

The motte and bailey at Richard's Castle (SO 4832 7027; MU 243.9.1-2) can perhaps be taken to signal the next influx after the Saxon colonisation. The castle was built upon land

which had been granted to a Frenchman, Richard Scrope, in c.1050 AD, immediately prior to the Norman Conquest (Brown 2000, 2), and thus appears to represent Edward the Confessor's practice of 'planting' Norman lords in the border region (Rowley 1986, 95). The Richard's Castle estate was also the site of a failed Medieval borough (Brown ibid, 1-2, 7-8) and was associated with a later moated site and fishponds to the south (SO 4969; MU 22.7.1-7).

NMR records of Early Medieval sites

The NMR database contains nearly two dozen records of Early Medieval sites in the Marches, the vast majority of which refer to ecclesiastical buildings. These records are based on either documentary or architectural evidence and could not be verified by aerial photography.

Late Medieval and Medieval

The Marches database contains 732 records of sites belonging to the Late Medieval period (1066-1540 AD) and 1239 sites that were given an unspecified Medieval date: both groups (1971 sites in total) are discussed in this section.

<u>Defended sites</u>

The political upheaval around the time of the Norman Conquest is reflected in the Marches, as elsewhere in Britain, by the appearance of many small fortified sites: 135 records in the project database refer to defensive features. Mottes, baileys, ramparts and ringworks were built on both sloping and flat land throughout the Marches, and were especially common in the rolling hills and small valleys of the more remote border areas. Many of the small, quickly constructed 'castles' must have been built to meet immediate needs, and perhaps were not in use for very long. This may account for their number and the fact that, in several locations, two or three such sites appear within a relatively short distance.

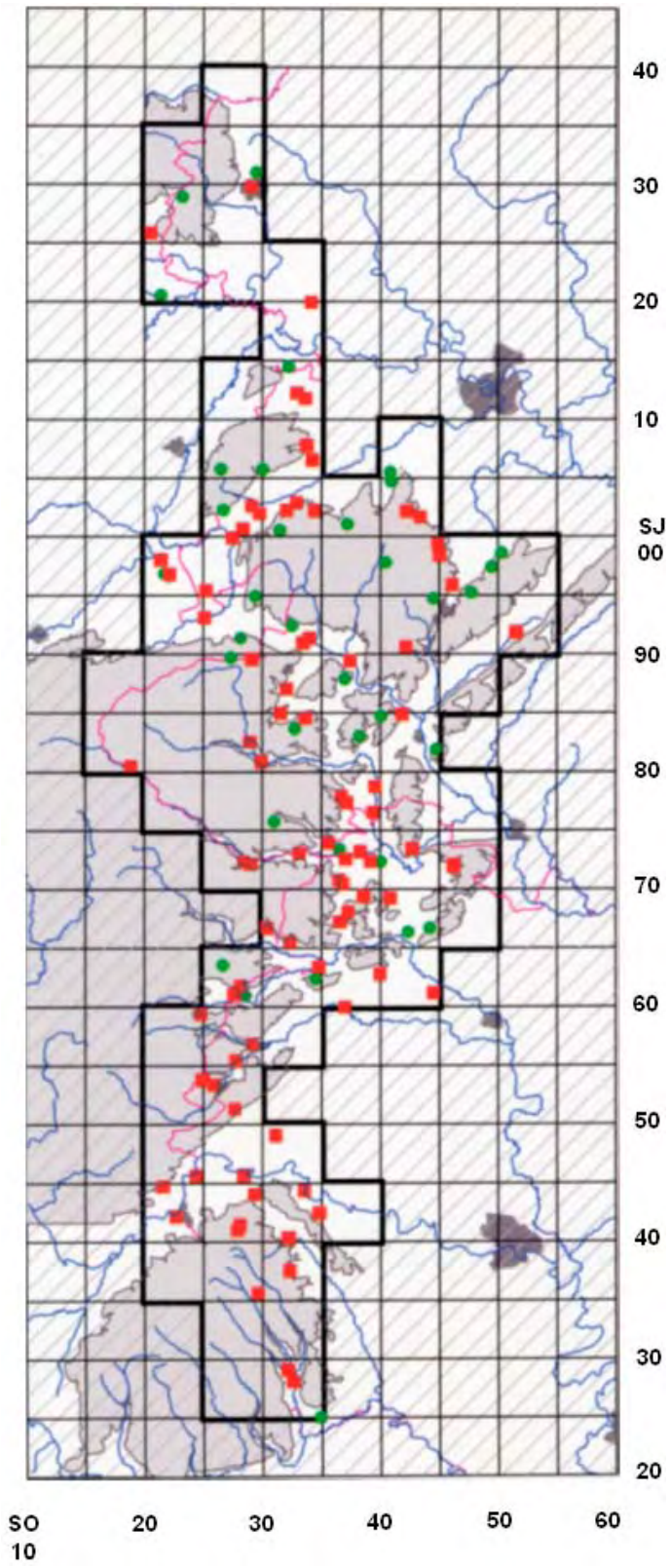


Figure 36 - Distribution of Medieval fortifications compared with Iron Age hillforts

Medieval fortification

Iron Age hillfort

Beginning about a decade before the Conquest, many Norman lords were 'planted' in the region; early mottes, perhaps constructed as a result of this practice, can be found at Richard's Castle (see above, page 45-46) and Wigmore (SO 408 692; MU 237.6.1-2) in the eastern Marches, and Bicton Mound (SO 2893 8258; MU 265.4.1-2) in the Clun Forest (Rowley 1986, 103).

Evidence of the fragmentation of earlier land holdings can be seen in two adjacent villages, Lydham and More, in the Onny Valley (Rowley 1986, 111). More was built on land carved out of the Saxon manor of Lydham, and each village has a motte and bailey castle, separated by only 600m (SO 3394 9140; MU 410.10.1-7 and SO 3342 9103; MU 410.3.1-2).

Perhaps a similar disintegration of territories may account for other pairs of castles in the Marches. At least six additional locations can be identified where small fortifications were constructed within 1000m of each other, for example Upper and Lower Pedwardine (SO 3648 7082; MU 224.3.9 and SO 3680 7047; MU 224.3.18-19), Mynyddbrydd and Nant-y-bar (SO 2805 4147; MU 57.1.1 and SO 2784 4102; MU 57.2.1), two mottes at Knighton (SO 2902 7218; MU 277.15.1 and SO 2841 7234; MU 277.16.1), Bretchel and Wollaston (SJ 3363 1182; MU 424.6.1 and SJ 32901228; MU 424.11.2), Wilmington and Marton (SJ 2974 0203; MU 418.24.1-2 and SJ 2907 0265; MU 419.10.1), and Smethcote and Woolstaston (SO 4486 9938; MU 35.1.1-2 and SO 4502 9847; MU 405.1.1-2).

More than a dozen pairs of fortified sites were constructed between 100m and 200m apart. In some cases, it appears that small motte and bailey sites may have been succeeded by more substantial castles (Hen Domen and Mongomery Castle; Hawcocks Farm and Caus Castle; Ponthendre and Longtown). Finally, circumstantial evidence suggests that certain locations naturally presented themselves as defensive positions to many successive communities (see Figure 36). Medieval mottes were constructed within 1000m of the Iron Age hillforts of Burfa Camp (SO 2856 6102; MU 215.10.1), The Warren (SO 3451 6245; MU 9.1.1), Ffridd Faldwyn (SO 2169 9687; MU 339.1.1) and Brandon Camp (SO 4003 7235; MU 173.6.1); at Brandon Camp and Ffridd Faldwyn (Montgomery), Roman forts and camps are also present.

Twenty eight moated sites have been recorded by the Marches survey, frequently in close proximity to motte and bailey castles. Such juxtaposition, seen at Snodhill (SO 3240; MU 78.1.1-3 and MU 78.2.1) above the River Dore in Herefordshire, may indicate that moated houses were 'domestic' successors to the more strongly defensive castle sites. A number of moated houses, such as Gretton, Cheyney Longeville and Stokesay Castle, and mottes such as Clun Castle and Richard's Castle, appear to be associated with water features and landscaped gardens, making them perhaps the fore-runners of the grand country houses of later centuries (see pages 60-61).

Towns

Towns developed in the Marches during the Medieval period; most continue in existence to this day, although many are little more than villages now. At Bishop's Castle (SO 3289-3287), in the Clun Forest, the present-day street pattern reflects a compact, planned layout, with the remains of a castle (SO 3232 8909; MU 275.4.1) at the north end, parcels of ridge and furrow all around, and a small motte to the south at Colebatch (SO 3201 8710; MU 274.5.1).

Longtown, in Herefordshire (SO 3229-3228), has a linear layout, with village earthworks and extant house plots stretching between two castles (SO 3207 2918; MU 99.1.1 and SO 3256 2812; MU 99.3.1-2).

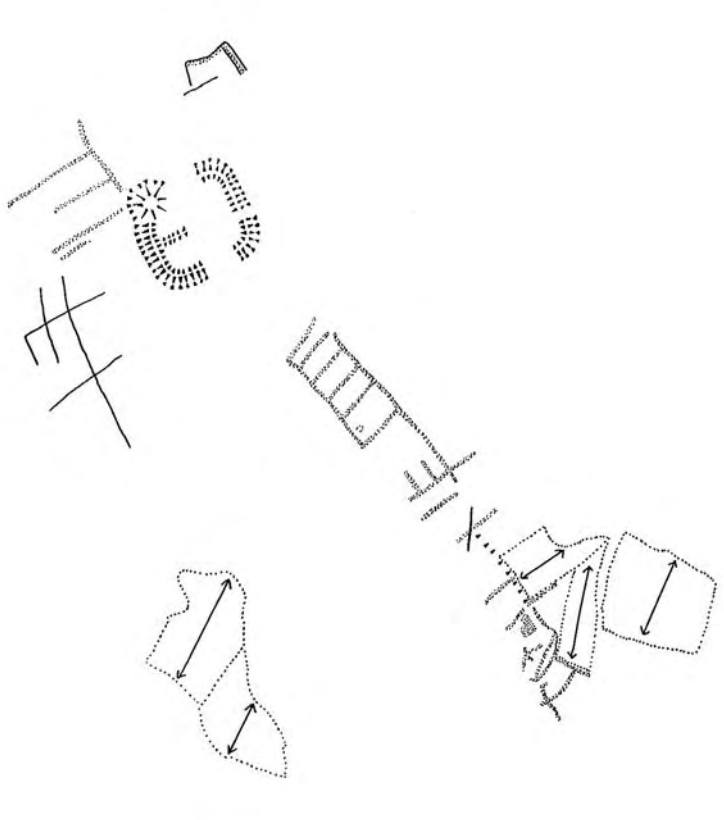


Figure 37 - Longtown, Herefordshire

Settlement

Smaller settlements are represented by eighty-two records of tofts, crofts, enclosures, buildings and seventeen groups of features described as deserted or shrunken villages. The appearance of these features in the archaeological record indicates settlements that have since failed; it must be remembered that most existing Marcher villages are medieval in origin.

Agriculture

Over half of the records of medieval features in the Marches refer to ridge and furrow. Groups of strip fields can be seen on both flat and sloping ground, on all but the highest moorland. In the southern and central regions these are interspersed with villages and farms, and in some places fairly widely scattered. On the low-lying land of the Severn Valley the strip fields are nearly continuous, with a few extant small farms perhaps indicating dispersed settlement rather than village development.

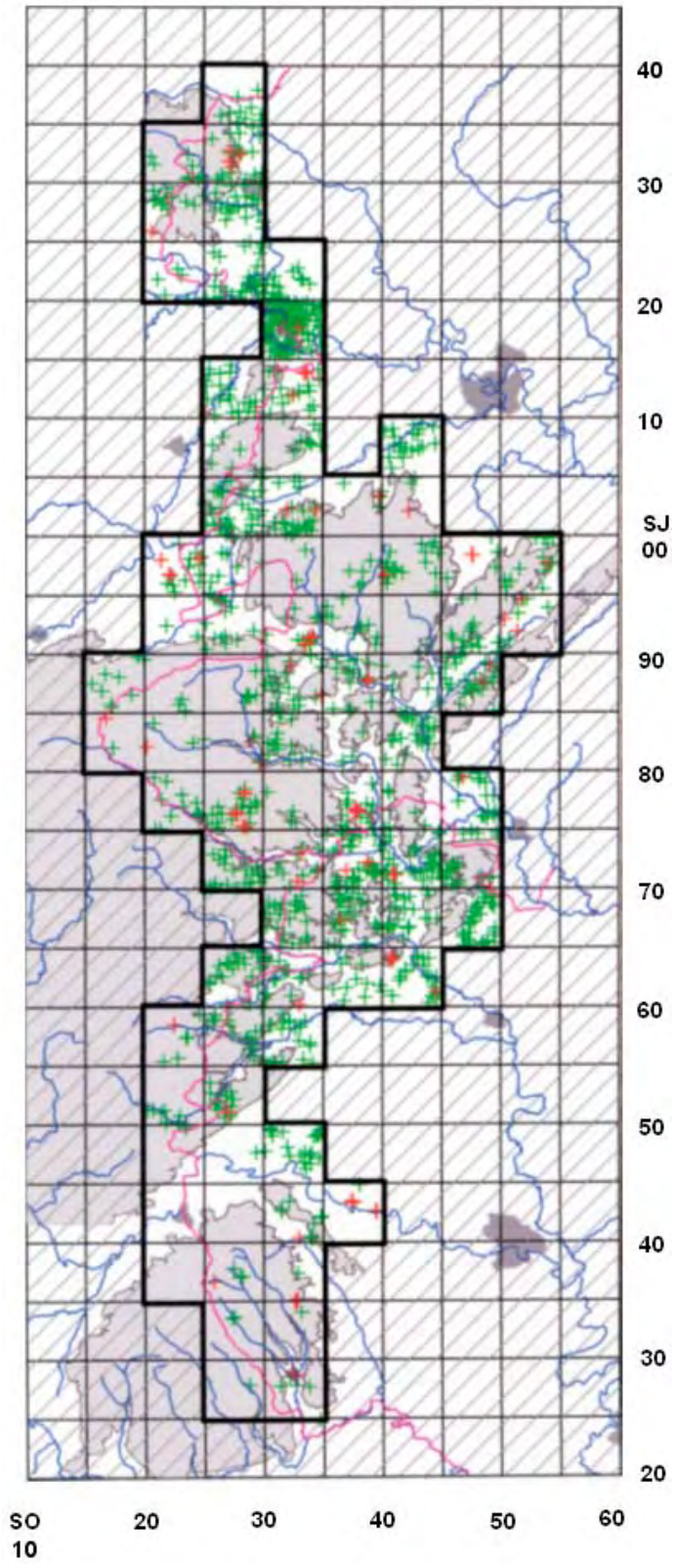


Figure 38 - Medieval settlement & agriculture

+ Settlement site

+ Ridge and furrow

Other forms of subsistence activity are indicated by fishponds and water meadows in lower lying areas (sometimes associated with mottes or moated sites), and pillow mounds on more marginal hillsides.

Industry

The development of Medieval industry is indicated by a mill pond and mill race, and a small number of leats, all in the Long Mynd region, lime kilns on the hills to the west of Oswestry, and charcoal burning platforms near Lingen, north east of Presteigne. In the central and northern uplands, particularly in the Clun Forest region and on the hills to the west of Oswestry, quarries, bell pits, coal mines and spoilheaps provide evidence of the extractive industries which were carried out on a fairly small scale.

Figure 39 - Medieval charcoal burning platforms, near Lingen - SO 3567/6 (NMR 15071/25) 17-AUG-1993 © Crown copyright. NMR

Post Medieval

Three hundred and thirty post Medieval features were recorded during this survey. Just over half of the records (178 - 53%) were associated with agriculture and subsistence, including later forms of ridge and furrow. Pillow mounds and stack stands provide further evidence of farming practices no longer in general use.

Figure 40 - Small-scale Post Medieval lead mining on the Long Mynd - RAF 543/1913 0081 17-OCT-1962 (detail) © Crown copyright. MoD

One-third of the post Medieval features are related to the development of the region's industries, particularly lead mining and quarrying. Three industrial complexes and numerous prospecting trenches, shaft and spoil heaps are located predominately in the Long Mynd-Stapeley Hill region of the central upland. Within this area, the sites are relatively small and dispersed, reflecting a small-scale form of operation that belies the industries' importance.

While most of the Marches' mining industry has now ceased, the majority of post medieval agricultural sites continue in use in some form, and so do not form a part of the archaeological record.

A degree of decline in the area's wealth and social status may be indicated by a small number of earthworks associated with landscaped parks and gardens, now disused. Two relict tree avenues, at Harpton Court (SO 2428 5945; MU 147.1.1) and Eywood House (SO 3242 5931; MU 200.12.1-2), both near the River Arrow in Herefordshire, are reminders of the large country houses of the post medieval period whose importance has diminished over the past decades.

20th century

The five 20th century 'archaeological' features recorded by the Marches survey were found at two locations, and all relate to recent military history. The first group, a system of aircraft obstruction trenches (SO 4049 9101; MU 66.3.1-2), was constructed across the runway of the Midland Gliding Club on the Long Mynd during the Second World War. The back-filled trenches are visible on RAF vertical photographs of 1951, a reminder of the need to defend open moorland against air-borne invasion.

Figure 41 - Aircraft obstruction trenches at the Midland Gliding Club - RAF 540/523 3051 04-JUN-1951 English Heritage (NMR) RAF photography

The second group of 20th century features comprises the later phases of Old Oswestry's

long defensive history, represented by a system of crenellated slit trenches and enclosures recorded as cropmarks within the area of the hillfort (SJ 296 310 ; MU 94.9.1-3) that reflect the site's more recent role in military training (see page 28, Figure 20).

Sites of unknown date

Nearly one-third (1315 = 31%) of the sites mapped during this survey were not assigned to any chronological period. This reflects a lack of both diagnostic data and interpretative confidence: 17% of records in this category were given a validity rating of 1 (insufficient data) or 2 (potential).

More than half (674 = 51%) were linear features (ditches, field boundaries, banks, lynchets and hollow ways) which are very difficult to date in the absence of supporting evidence. The many pits, shafts, spoil heaps and quarries associated with abandoned areas of mineral and stone extraction are also virtually impossible to date where there are no associated structures.

About one-third of the undated sites (436 = 33%) were interpreted as ‘enclosures’. There is little doubt that, with the benefit of the experience gained during the project, many curvilinear and rectilinear enclosures whose largest dimensions are 200m or less could now be identified more confidently as later prehistoric settlements typical of this region (see Iron Age and Prehistoric sections and Figure 18). However, in the absence of any supporting evidence, most interpreters have preferred to exercise caution in ascribing a date to simple enclosures that appear in isolation.

Multi-period sites and landscapes

Many of the early prehistoric ritual and funerary monuments recorded during this survey are geographically grouped in a way which suggests the creation of 'ritual landscapes' or zones devoted to ritual and burial during the Neolithic and Bronze Age periods. At least eight locations have been identified where many monuments of different types are situated within 1.5km to 2.5km of each other. All of these sites lie adjacent to one or more watercourses.

Three possible ritual complexes are located in the southern Marches, along an 8km stretch of the Wye Valley. Near Clifford (SO 247 468 – 254 467), the hengiform monument, the long barrow and another possible long barrow are accompanied by two possible mortuary enclosures and three round barrows. Approximately 2.5km to the east, on the north side of the river between Stowe and Winforton (SO 282 477 – 297 475), are two henges, a possible hengiform monument and a possible mortuary enclosure, along with a number of small circular enclosures which may be round barrows or the hut circles of an unenclosed settlement. A Bronze Age round barrow cemetery at Willersley, c.2km farther to the east (SO 309 475 – 319 475), includes two double-ditched barrows, two square enclosures (one apparently enclosing a round barrow), and many pits.

Around Brampton Bryan, Buckton and Walford along the north bank of the River Teme, and to the south between the Teme and a smaller brook (SO 375 724 – 396 721) are more than a dozen round barrows, including one triple-ditched and one double-ditched barrow and a small barrow cemetery. Between the two watercourses is a possible mortuary enclosure, and a group of three square barrows is located on the bank of the brook.

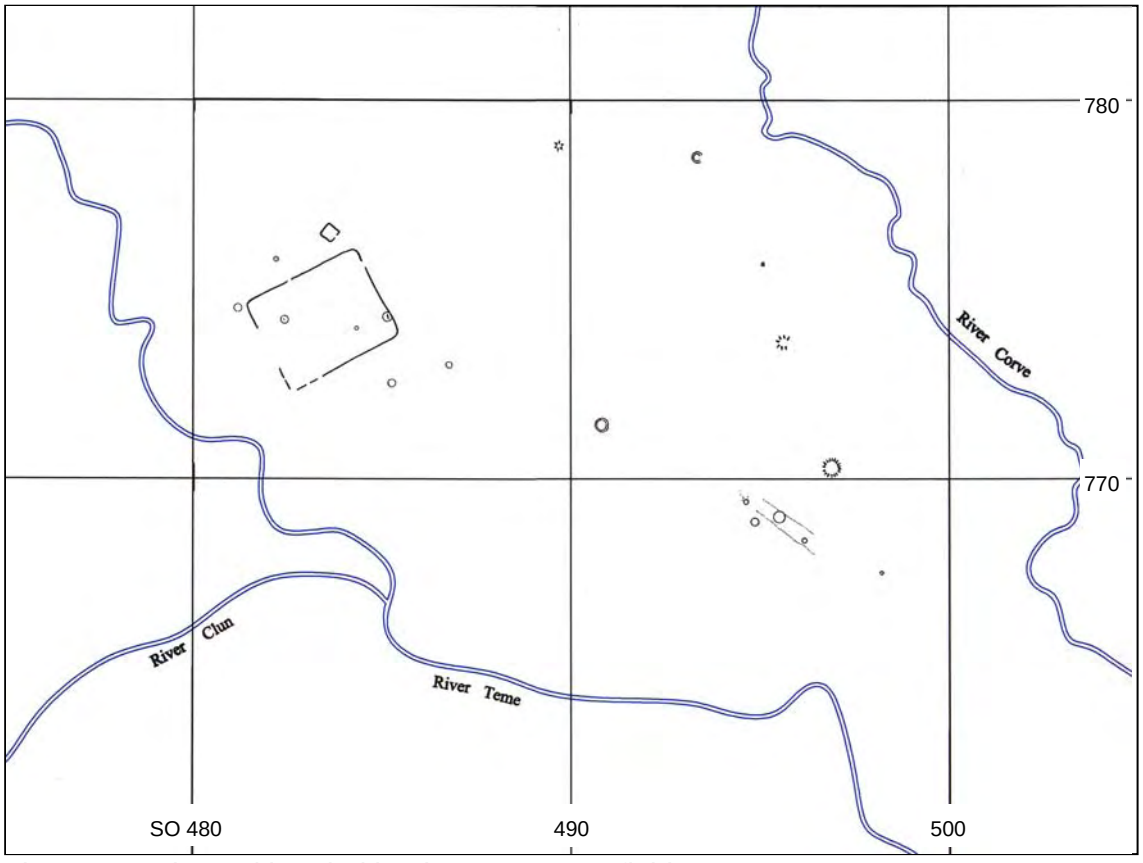


Figure 42 - The multi-period landscape at Bromfield

Farther downstream along the River Teme, at its confluence with the River Corve near Bromfield (SO 496 768 – 481 775) lies one of the possible Neolithic pit avenues, a round barrow cemetery and many other round barrows, a possible square barrow, and an Iron Age settlement enclosure which was re-used as a Christian Anglo-Saxon cemetery.

A possible mortuary enclosure, a round barrow cemetery and scattered round barrows (including at least one double-ditched), and a possible square barrow are located below the southern slopes of the Clun Forest region (SO 283 819 – 290 820), between the River Clun and the River Unk, 1km northwest of their confluence.

The most impressive of the possible ritual complexes is that located along the Quinny Brook and its tributaries, in the vicinity of Stretford (SO 428 841 – 444 860). The oval mortuary enclosure lies at the south-western end of the group, and a henge and the paired pit avenue at the north-eastern end; between and around these Neolithic monuments are at least fifteen round barrows, including two with double ditches.

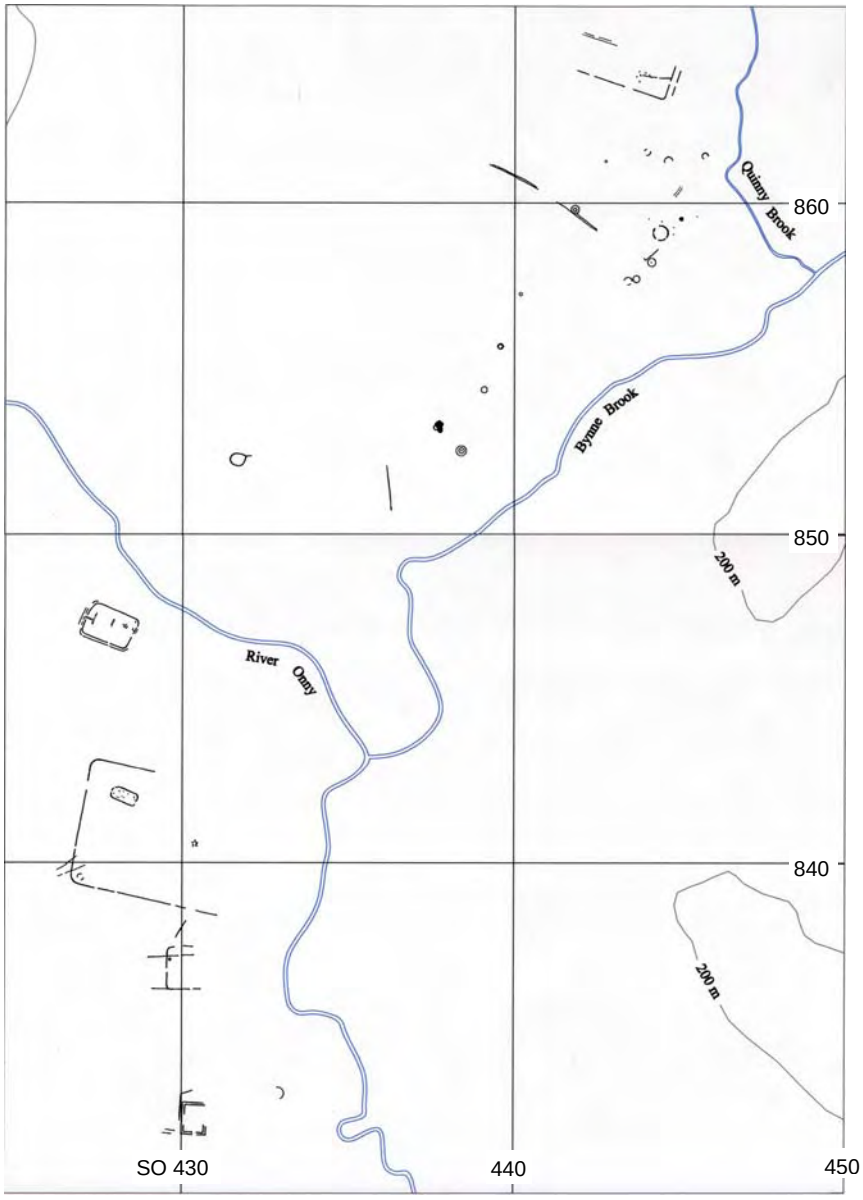


Figure 43 - The multi-period landscape at Stretford

One of the possible large Neolithic enclosures is situated in the northern part of the Marches, on a gentle slope almost equidistant from the River Morda, to the west, and the Weir Brook, to the east. In close proximity to this large enclosure (SJ 305 237 – 334 232) can be found a possible mortuary enclosure, several round barrows, and a possible square barrow. On the other side of the Morda, c.2km to the west of the large enclosure, lies a possible henge, and a possible long barrow is located 1.6km to the east of the large enclosure.

The co-location of so many features of disparate date and only tentative interpretation may simply attest to the ease of recording cropmarks along river valleys. However, anecdotal evidence from other parts of Britain suggests that ritual and funerary monuments of different periods are often grouped together, and the significance of water in siting early prehistoric monuments is not disputed. Each of the monument groups described above must be investigated further in order to confirm the interpretation of individual features and to explore the relationship between them.

THEMATIC REPORT

Agriculture and subsistence

No clear traces of early prehistoric agriculture have been recorded by this survey, although the number of ceremonial and burial monuments from these periods indicates the presence of Neolithic and Bronze Age populations. It is reasonable to assume that some habitation, and therefore some form of subsistence activity, must have taken place in the Marches during the time that these monuments were being constructed.

The first certain indicators of agricultural activity in the region are field systems and farmsteads ascribed to the Iron Age or more generally to an unspecified date covering the prehistoric period. The field systems on Hope Bowdler Hill (SO 479 933; MU 329.7.1) and Breidden Hill (SJ 298 142; MU 426.12.2) have been attributed to the Iron Age and those on Black Knoll (SO 389 878; MU 314.10.1) and at Stapleton (SO 320 652; MU 383.6.1) to the prehistoric period. Many field systems that remain undated at present may be linked to the later prehistoric periods on morphological grounds, and by their associated features. The majority of these systems are located on the lower, gentler slopes of the central and eastern parts of the Marches.

In addition to the arable farming suggested by the remnants of field systems, it is probable that the Marches' prehistoric economy also involved a pastoral element. Evidence for this may be provided by 'banjo' enclosures such as Caer Din Ring (SO 2397 8502; MU 249.1.2), and the enclosures at Chirbury (SO 2525 9720; MU 389.2.1-2, MU 389.3.1, MU 389.4.1) and Morton (SJ 3152 2320; MU 466.48.1-5) (see Figure 25), whose funnel-like entrance structures may have been constructed in order to facilitate the protection and control of grazing animals.

No specifically Roman or Early Medieval agricultural remains have been identified; the Roman military occupiers may well have relied upon the local population for their subsistence, and Early Medieval evidence has almost certainly been obscured by later developments.

A much more extensive pattern can be identified for the Medieval period (recorded as Late Medieval or Medieval). Cultivation marks and ridge and furrow, with associated headlands, field boundaries and lynchets appear in abundance throughout the region. Fishponds can be found in the vicinity of several Medieval settlements. Pillow mounds, for rabbit warrening, were also introduced after the Norman Conquest, and their use continued into the post-Medieval period. They were generally constructed on higher marginal land; many can be identified on the moorland slopes of the Long Mynd region.

A form of ridge and furrow, typified by narrow ridges, has been identified as Post-Medieval. This form may be associated in part with agricultural expansion onto higher marginal land (e.g. on the Long Mynd) in order to meet demands for increased production during the Napoleonic Wars, or may be more generally attributed to the 19th century.

The results of post-Medieval land enclosure can be seen primarily in the existing pattern of field boundaries depicted on the OS maps, which have generally been excluded from this survey.

Inevitably there are many field boundaries, field systems, cultivation marks and clearance

cairns which cannot be dated. Simple ditches and banks could belong to any period, and without associated features to clarify their context they require further investigation. It must also be remembered that pasturage for animals, although a significant component of any agricultural regime, seldom leaves traces which can be recorded by an aerial photographic survey.

Defence

The Welsh Marches, extending from the Severn Estuary to the Dee Estuary and encompassing the transition between eastern lowland plains and western ranges of hills and moors, have represented a historical and geographical border zone since at least the Iron Age.

Perhaps the most dramatic evidence of this is the region's concentration of large hillforts. The impressive earthen ramparts of forty-one Iron Age defensive sites occupy hilltops, ridges and promontories especially in the central part of the survey area. The seemingly defensive nature of the many smaller late prehistoric enclosures implies that a degree of protection was required for domestic or pastoral sites as well.

In the latter half of the 1st century AD the region became the north-western boundary of the Roman Empire in Britain, prior to later incursions into Wales. The many camps, forts and lengths of Roman military road recorded during this survey attest to this period of occupation.

The name ‘Marches’ is derived from the Anglo-Saxon ‘Maerc’, meaning boundary, although the name apparently did not come into common use until after the Norman Conquest. In the late 8th century AD Offa, King of Mercia, ordered the construction of a physical boundary between the Kingdom of Mercia and the Welsh Kingdoms. Offa’s Dyke, the massive earthwork stretching 226km from the North Wales coast to the Severn Estuary, served to regulate access into Mercia from Wales. The dyke still survives as a substantial earthwork for most of its length, in places retaining a height of up to 2m. The present-day border between Wales and England still coincides with this early boundary at certain points along its course.

An earlier boundary dyke known as Wat’s Dyke extends from the Morda Brook south of Oswestry to the Dee Estuary. It is thought to have been constructed during the reign of Offa’s predecessor, King Aethelbald (AD 716-757). Wat's Dyke lies to the east of Offa’s Dyke, running on a roughly parallel course to the south, but is thought to have been re-used in the north for the construction of the later dyke by Offa.

After the Norman Conquest the area became a distinctly separate zone under Norman control, serving as a buffer zone between the Welsh and the English. Numerous motte-and-bailey castles, moated sites and fortified manor houses provide much evidence of the area's instability during this time. The Marches possessed England’s greatest concentration of these small castles, although many were in use for a relatively short time (Rowley 1986, 101-2). One or two castles have yielded traces of pre-Conquest construction, although this phase cannot readily be identified through aerial photographic survey alone.

The only post-Medieval defensive structures recorded during this project were constructed in the first half of the 20th century. A small system of aircraft obstruction trenches was built on the Long Mynd during World War II (see Figure 41). The slit trenches and enclosures within Old Oswestry hillfort (see Figure 20), itself incorporated into the line of Wat’s Dyke, are

evidence of the ramparts' long history of adaptation for a variety of defensive purposes.

Domestic

Domestic structures in this region are not easily separated from other forms of activity; most 'domestic' sites in the Marches are associated with either agricultural remains (as in the tofts of shrunken or deserted Medieval villages) or defensive structures (such as motte-and-bailey castles, moated sites, and fortified manor houses). Large Iron Age hillforts probably contained an element of settlement while the small later prehistoric 'enclosures', although unclassified in thesaurus terms, probably represent defended settlements belonging to agricultural families or communities. The 39 hut circles recorded during the project give only a hint of the extent of early domestic construction in the region.

The Marches were the location of many large estates with country houses from the Late Medieval period onwards, although only one country house ('The Moor' to the north-east of Hay-on-Wye, demolished in the mid-1960s: SO 242 432; MU 119.1.1-9) was recorded under the terms of this survey. Most of the rest are still extant, and so fall beyond the remit of aerial photographic transcription; this aspect of the region's history is best studied by other means.

Gardens and parks

Aerial photographic survey has been able to record only a few small features belonging to some of the Marches' many parks and gardens. The pales which surrounded deer parks are not always easily recognised (and sometimes obscured by trees), while formal gardens and landscaped parks belonging to country houses are often still in use to some extent. The details of these features are best recovered through documentary and map evidence; however, a few remnants have been mapped during this project.

The site of a formal garden was visible alongside the remains of a demolished country house and buildings at 'The Moor' (see above). To the north, near Kington, long linear earthworks that once delineated an avenue of trees are associated with the early-18th century Eywood House (SO 324 593; MU 200.12.1-2). Eight kilometres to the east, another relict tree avenue was recorded leading towards Harpton Court (SO 242 594; MU 147.1.1). Three tree-enclosure rings have been recorded in the central part of the region (two on the Long Mynd) which may also represent landscaping features, although none appears to be associated with parkland or formal gardens.

Examples of Medieval and early post-Medieval formal gardens can also be seen in the Marches. At Clun Castle, the 13th century motte-and-bailey castle is associated with fish ponds and a moat-like feature which has been interpreted as a Medieval 'pleasance' or formal pleasure garden with water features (Castle SO 299 809; MU 267.3.1-4. Water features SO 296 810; MU 267.2.7-9).

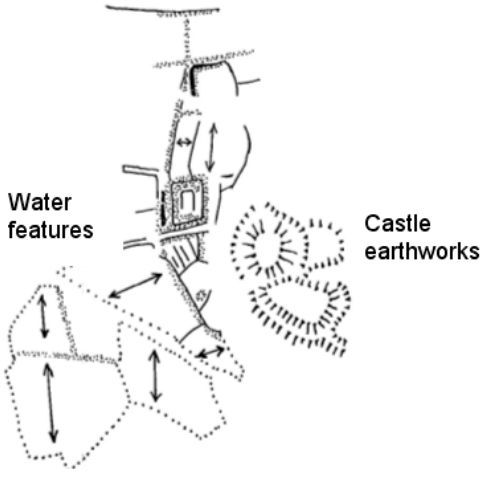


Figure 44 – Clun Castle

Stokesay Castle, the well known fortified manor house, also possesses a late 13th century designed landscape incorporating a moat, a lake, water channels and ponds (Castle SO 435 816; MU 414.7.1. Water features c.SO 436 814; MU 414.8.1-3). These works were commissioned by

Lawrence of Ludlow, the region's richest wool merchant at the time, who may have been inspired by Leeds Castle (Taylor 1998, 4-5).

The 14th century castle at Cheyney Longville possesses an inner and an outer moat and fishponds (c.SO 417 847; MU 417.18.1-4) and is associated with a ringwork (SO 4185 8494; MU 417.17.1). The whole group was presumed to be primarily defensive in nature but, in view of the Medieval use of water features, perhaps the interpretation of this site should be reconsidered.

A site at Gretton, previously described as 'manorial earthworks', has recently been reinterpreted as a series of water features associated with a 17th century garden (SO 517 947; MU 375.1.1-4 and MU 376.5.1).

More Castle (SO 339 914; MU 410.10.1-9) is also associated with features interpreted as water meadows (SO 339 915; MU 410.11.1), which might bear re-examination in light of this medieval use of water features; perhaps other large groups of presumed fish ponds should also be reassessed.

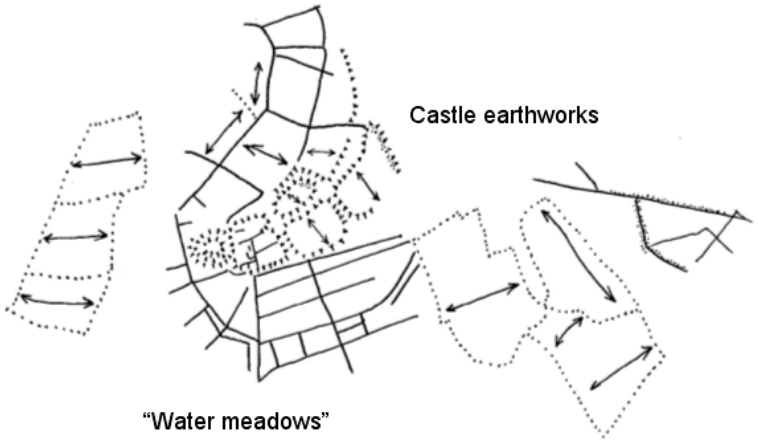


Figure 45 – More Castle

Industrial

Industry in the Marches has been concerned mainly with mineral extraction, especially lead and coal mining and limestone quarrying. Pits, adits quarries, spoil heaps and prospecting trenches provide evidence of lead and coal mining and limestone quarrying of Medieval and later date. One lead mine, on Shelve Hill to the west of Stiperstones, coincides with an area which was mined for lead in Roman times. Leats, lime kilns, chimneys and tramways are associated with the processing and transport of raw materials.

There were six main areas of concentrated mineral extraction. The most northerly, in the vicinity of Oswestry, has numerous quarries, shafts, spoil heaps and extraction pits. Here the main activity was limestone quarrying for various purposes including lime production; many of the lime kilns were recorded in the vicinity of quarries (for example, to the south and west of Oswestry, around the Whitehaven quarry – SJ 2621 - 2724 and near Pant – SJ 2327 - 2328, and south west of Pulverbatch, on Cothercote Hill – SJ 4000 - 4100). In the same region, there was also some lead mining with associated spoil heaps and shafts.
In south-central Shropshire, in the vicinity of the Stiperstones, Long Mynd and Corndon Hill, the dominant rock formations range from Pre-Cambrian to Upper Carboniferous. The Pre-Cambrian and Ordovician rocks contain barytes, galena (lead sulphide) and copper, while

the carboniferous rocks to the east contain thin coal measures. The largest and oldest areas of lead extraction appear in this part of the Marches.

To the north of Presteigne and north-east of Knighton lies another concentration of quarries, spoil heaps, shafts and extraction pits (OS quarter sheets SO 36 NW, SO 37 SW and SO 37 NW).

Quarrying and extraction also took place in the vicinity of and to the north-east of Hay-On Wye, where the dominant geological components are the Upper and Lower Old Red Sandstone.

Most of the mining and quarrying remains recorded during this survey appear to represent activity on a fairly small scale, although covering some large areas, taking place over a long period. A single post-Medieval brickworks, and a millpond, a millrace and a group of charcoal burning platforms, all of Medieval date, represent other small-scale local industries.

Recreation

A building identified as a bathhouse was recorded immediately to the east of the Roman fort at Buckton (SO 3917 7330; MU 220.8.9).

Many Medieval deer parks are known to have existed in the Marches, but their traces are extremely difficult to identify on aerial photographs. The only hint of such areas to be recorded during this project was a hunting lodge in Haye Park Wood, near Bringewood Chase, to the south-west of Ludlow. The lodge appeared as rectangular enclosure measuring 85m x 83m, defined by an earthwork bank and ditch (SO 4921 7228; MU 245.1.1).

Religious, ritual and funerary

The majority of ritual and funerary monuments identified by the Marches project are prehistoric burials and other ritual monuments, which are discussed in more detail in the relevant chronological summaries (see especially pages 17-25, 32). Many Neolithic monuments and Bronze Age round barrows were co-located near water courses, in what appear to have been ‘ritual landscapes’ (see pages 55-57). Three positively-identified Iron Age square barrows were recorded, as well as a number of small rectilinear enclosures that may prove to be additional square barrows. These features were also associated with round barrows, possibly providing another example of ‘ritual complexes’.

Medieval monastic houses were active in the region, but their remains are more readily traced by other types of survey. The only features recorded at the site of Strata Marcella, a destroyed Cistercian monastery on the banks of the Severn near Welshpool, were the earthwork remains of a single small building and a patch of ridge and furrow (SJ 2514 1044; MU 427.6.1-2). A group of enclosures and field boundaries identified as a grange was located adjacent to the ruins of Wigmore Abbey (c.SO 409 712; MU 171.11.1-12), near the River Teme in northern Herefordshire. These sites represent the only abbey structures recorded during the aerial photographic survey. A few field boundaries and pillow mounds were all that could be recorded at Craswell Priory, in southern Herefordshire, and a fishpond recorded near Lingen (SO 3732 6599; MU 226.10.1) may be related to Limebrook Priory, an Augustinian nunnery.

Many churches in the Marches contain pre-Norman building remains or are dedicated to

Celtic or Welsh saints (Rowley 1986, 125-148), but standing buildings are not generally within the remit of NMP surveys, and the history of post-prehistoric religious development is best derived from documentary and other sources.

Transport

Most transport features exist as integral parts of other landscapes. Trackways, hollow ways and drove roads are associated with agricultural and domestic groups (settlements, enclosures, boundaries and field systems) of the later prehistoric and Medieval periods.

Roman roads in this region are primarily associated with military features such as forts and camps. Because many Roman roads lie beneath the course of roads still in use today, it has not been possible to record more than a few fragments during this survey.

Railways and tramways in the Marches have been recorded in association with industrial features, specifically those belonging to the lead mining industry, and have been mentioned in the Industrial section.

Water and drainage

Fishponds and the single example of a water meadow have been mentioned in connection with the Medieval agricultural landscape, while leats, a millrace and a millpond are more properly associated with industrial activity.

Drainage systems and flood defences from the Medieval period onwards have been recorded along the river valleys, particularly the broad valley of the Severn in the northern part of the survey area. A 4500m stretch of the Elan Aqueduct, built to carry water from the Welsh hills to Birmingham, was also recorded in the centre of the survey area near Brampton Bryan.

Unassigned, Civil, Commemorative and Commercial

Most of the features described by the MONARCH thesaurus as ‘Unassigned’ can be identified fairly easily with other groups. Banks, boundary features, pit alignments and ditches are probably associated with the agricultural landscape of various periods. Platforms, pits and shafts are most likely to indicate industrial activity.

The largest group of ‘Unassigned’ features (43%) comprises those simply identified as ‘enclosures’. In the context of the Marches (and most other archaeological landscapes) this interpretation is most commonly attached to features which appear to represent later prehistoric, semi-defensive agricultural settlements.

Medieval enclosures are also associated with more readily-named structures such as motte-and-bailey castles, deserted villages and field systems.

CONCLUSIONS

The MUMP survey has been able to extend and update the work carried out during earlier air photographic interpretation projects in the Welsh borders, chiefly the county SMR mapping programs and RP Whimster's Welsh Marches survey, published in 1989 as part of The Emerging Past. Writing of work carried out during 1981-1985, Whimster stated that "routine reconnaissance will continue to yield large amounts of new archaeological information throughout the next decade" (Whimster 1989, 88), and this has indeed proved to be the case.

The northern two thirds of the MUMP survey area was covered by Whimster's project: 53 maps (2075km2) and 2926 records, comprising 64% of the land area and 69% of the database. This gives ample scope to assess the contribution of both an extra decade of aerial photography and MUMP's slightly different project specification.

Because both the SMR and NMR records are largely based on Whimster's survey, a comparison between these and the MUMP database provides an indicator of the amount of information added by MUMP. No existing NMR or SMR numbers were recorded for 1774 sites (60%) within the Emerging Past (EP) area. If the 812 records related to ridge and furrow are discounted from the comparison (these remains were not included in the EP remit), this leaves 962 'new' features: nearly one third of the total for this part of the survey area.

The EP survey focused primarily on cropmark evidence, while the MUMP project encompassed both cropmarks and earthworks. Approximately one third (336 or 35%) of the 'new', non-ridge and furrow, sites recorded by MUMP in the EP area were cropmarks. The remaining sites (626, or 65%) were earthworks (or a combination of earthworks and cropmarks); this high proportion may reflect a broadening of survey interest beyond cropmarks in the decade since Whimster's survey.

A further difference between the two surveys is that the Welsh Marches (or EP) survey had consulted only specialist oblique photographs, whereas MUMP made use of verticals as well. Half of the records in the MUMP database for the EP area (1497 records, or 51%) were derived from vertical photographs (listed in the database as Source 1). Although very many of these records refer to ridge and furrow, which was beyond the remit of EP, 536 'new' sites were mapped from verticals. In other words, 58.5% of all 'new' (non-ridge and furrow) information was obtained from a source not consulted at the time of the EP project.

RECOMMENDATIONS

Aerial reconnaissance

The high proportion of sites recorded in the decade since Whimster's survey suggests that aerial reconnaissance will continue to be rewarding for some time to come. One of the lessons learnt in the comparison between EP and MUMP data is that both cropmark and earthwork evidence must be sought; plough-levelled sites are not the only ones still to be recorded.

Because photographic coverage of the area is still relatively poor, and the sites are fairly small, discrete and widely spaced, the Marches Uplands could well benefit from a programme of systematic block reconnaissance. In any case all regions - river and stream

valleys, lower slopes and high uplands - are likely to continue to yield further information, as they have in the decade since Whimster's survey. Particular attention should be paid to the areas around and between clusters of enclosures and possible field systems, in the hope that they may gradually reveal indications of larger patterns and systems.

Close liaison with local field workers will be essential in identifying any changes in land use or agricultural regimes, which may assist the recovery of, buried evidence.

Other survey work

Programmes of excavation and geophysical survey should be designed to target the many sites whose interpretation has been based on morphological characteristics alone, in an attempt to supply more concrete evidence upon which future interpretation can be based. Of particular interest are the prehistoric ritual and funerary monuments, both certain and possible: the proposed Neolithic monuments, the ritual complexes and the possible square barrows (see pages 18-25, 30, 55-57).

Similar programmes of investigation should focus on the small enclosures, both curvilinear and rectilinear, whether situated in isolation or associated with other features. It is still not known whether there is any difference in function or date between curvilinear and rectilinear enclosures, and their association with other features such as field systems, while visually interesting, is so far only circumstantial.

Research

Although the Marches Uplands have acted as a frontier for approximately three millennia the purpose and location of any 'border', and the nature and definition of the zones on either side, must have undergone many changes during that time. The present study was confined to sites which are now in England, and for that reason must, in some ways, be incomplete. Further research in this region should include evidence from the Welsh side, especially when considering the small enclosures presumed to date from the later prehistoric and Romano-British periods.

Writing of the Marches' cropmarks, Whimster said "With few exceptions, they are seen in isolation and hence rarely emerge as parts of elaborate systems of the kind familiar in some eastern and southern counties." (Whimster 1989, 4). In this region, landscape systems are more likely to emerge in more subtle ways, through the examination of relationships between features rather than through physical linkage. Hints of archaeological landscapes can already be seen where clusters of enclosures occur, or where enclosures exist in proximity to field systems. Detailed spatial analysis, coupled with more concrete dating evidence, is required to establish a better understanding of any landscape systems which may have existed in the Marches Uplands, particularly during later prehistory.

ACKNOWLEDGEMENTS AND BIBLIOGRAPHY

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BIBLIOGRAPHY

Ainsworth, S 1995. *Black Knoll, Shropshire*. RCHME Survey Report

Bewley, R H (ed) 1998. *Lincolnshire's Archaeology from the Air* (Occasional Papers in Lincolnshire History and Archaeology 11). Lincoln: Society for Lincolnshire Archaeology. 'England's National Mapping Programme: A Lincolnshire Perspective.', 9-17

Brown, G 2000. *Richard's Castle, Herefordshire*. English Heritage Survey Report

Dinn, J L (ed) 1991. *The Marches Uplands Survey: research design and project proposal*. Archaeology Section, Hereford and Worcester County Council, Worcester.

Dinn, J L 1992. *The Marches Uplands Survey: sampling strategy*. County Archaeological Service, Hereford and Worcester County Council, Worcester.

Everson, P 1998. ' "Delightfully Surrounded with Woods and Ponds": Field Evidence for Medieval Gardens in England.' In Pattison P 1998, 32-38.

Frere, S S 1987. 'Brandon Camp, Herefordshire'. *Britannia* **18**, 49-92

Gibson, A M 1996. 'A Neolithic Enclosure at Hindwell, Radnorshire, Powys'. *Oxford Journal of Archaeology* **15** (3), 341-348

Haigh, J G B 1989. 'Rectification of aerial photographs by means of desk top systems'. In Rahtz and Richards 1989, 111-19.

Institute of Geological Sciences, 1979. *The Geological Map of the United Kingdom South: 3rd Edition Solid*

Johnson, A 1983. *Roman Forts of the 1st and 2nd Centuries AD in Britain and the German Provinces*. London

Jones, D 1998. 'Long barrows and Neolithic elongated enclosures in Lincolnshire: An analysis of the air photographic evidence'. *Proceedings of the Prehistoric Society* **64**

Pattison, P (ed) 1998. *There by Design: Field Archaeology in Parks and Gardens.* RCHME, Swindon

Ragg, J M, Beard, G R, George, H, Heaven, F W, Hollis, J M, Jones, R J A, Palmer, R C,

Reeve, M J, Robson, J D and Whitfield, W A D 1984. 'Soils and their use in Midland and Western England'. *Soil Survey of England and Wales Bulletin* **12**

Rahtz, S and Richards, J (eds) 1989. *Computer Applications and Quantitative Methods in Archaeology*. BAR Int Ser **548**, Oxford

Rodwell, R and Rowley, T (eds) 1975. *The 'Small Towns' of Roman Britain: Papers presented to a Conference,* Oxford 1975. BAR British Series **15**, Oxford

Rowley, T 1986. *The Landscape of the Welsh Marches*

Soil Survey of England and Wales 1983. *Sheet 2: the Soils of Wales*.

Soil Survey of England and Wales 1983. *Legend for the 1:250,000 Soil Map of England and Wales*

Stanford, S C 1985. 'Bromfield excavations from Neolithic to Saxon times'. *Transactions of the Shropshire Archaeological Society* **64** (1983-4), 1-7

Stead, I M 1991. *Iron Age Cemeteries in East Yorkshire*. English Heritage Archaeological Report **22**, London

Stoertz, C 1997. *Ancient Landscapes of the Yorkshire Wolds*. RCHME, Swindon

Taylor, C 1998. 'From Recording to Recognition'. In Pattison, P 1998, 1-6.

Varley, W J 1948. 'The Hill-Forts of the Welsh Marches'. *Archaeological Journal* **105** (1948), 41-66

Watson, M and Musson, C R 1993. *Shropshire from the Air*. Shropshire Books, Telford.

Webster, G 1975. 'Small Towns Without Defences'. In Rodwell and Rowley, 53-66

Welfare, H and Swan, V G, 1995. *Roman Camps in England*. RCHME, London

Whimster, R P, 1989. *The Emerging Past: Air Photography and the Buried Landscape*. RCHME, London

APPENDICES

1 MORPHOLOGICAL REPORT

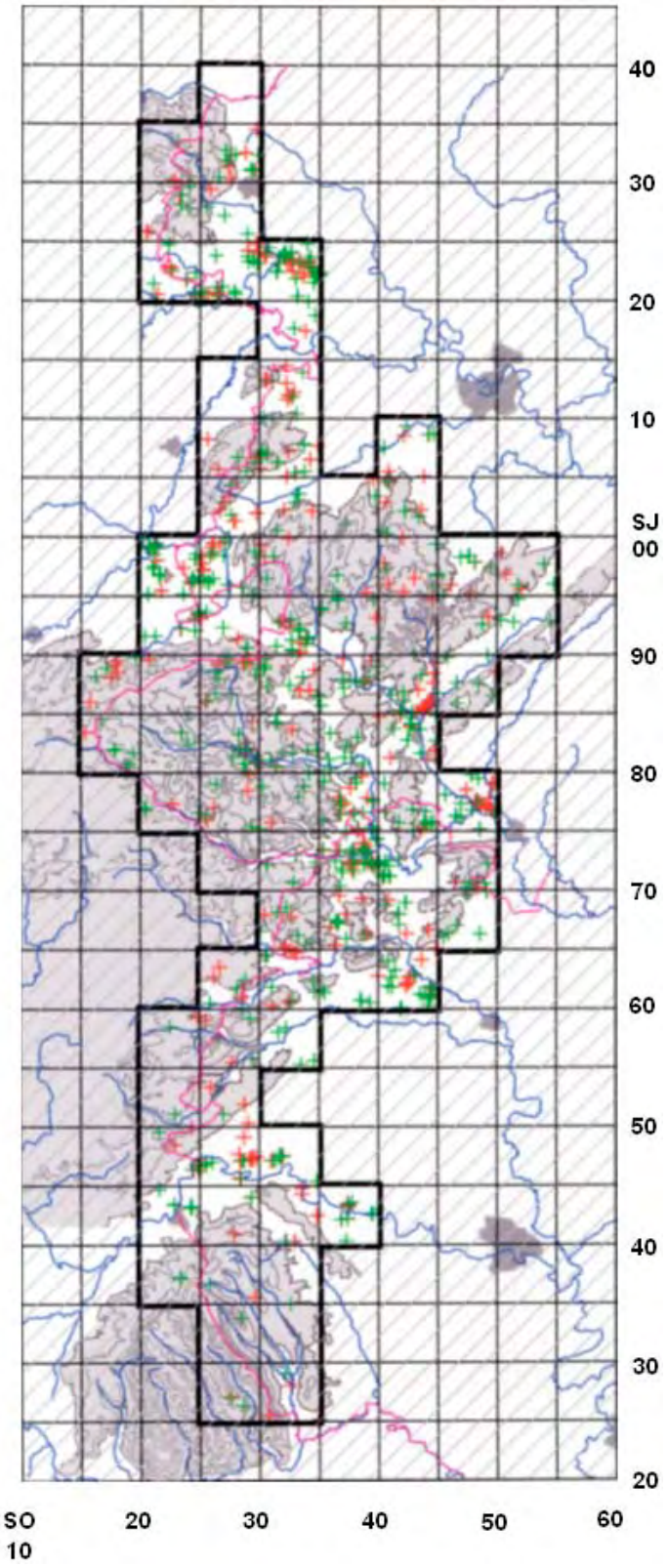
ENCLOSURES – 961 records.

Enclosures are defined as “single or multiple linear cropmarks or soilmarks, earthworks or stoneworks, which clearly define and surround an area, which may or may not include internal features” (RCHME 1993).

This morphological class encompasses perhaps the widest range of archaeological features and periods. It includes ritual and funerary sites, domestic, defensive and industrial features, barrows, hut circles, hillforts, Roman camps, buildings, moats and limekilns. The largest number of undated features fall within this category, i.e. features whose visible form can be identified, but whose date and function cannot be more precisely defined without further investigation.

The ENCLOSURE table contains 961 records, 29% of which had no previous NMR or SMR records.

Figure 46 - Distribution of enclosures



+ Curvilinear enclosure

+ Rectilinear enclosure

Location of enclosures

The topography of the Marches Uplands survey area dictates that the majority of enclosures were located on slopes. The rest are located in the river valleys or, particularly in the case of hillforts and other defended sites, on the hilltops, ridges and promontories of the high ground.

Enclosure Linearity

All records in the ENCLOSURE table were classified as either Curvilinear or Rectilinear, with further sub-classifications that refine the description of shape. There were more rectilinear enclosures than curvilinear enclosures. Although early prehistoric dates appear to predominate among curvilinear enclosures (many of which were round barrows), and a greater number rectilinear enclosures were described as Iron Age to Modern in date, it is difficult to discern any meaningful correlation between an enclosure's shape and its function or date.

CURVILINEAR ENCLOSURES – 390 records

1.Circular Enclosures

Eighty seven sites were recorded as circular. Of these, 72.4% were Bronze Age round barrows, and the remainder comprised 7 Medieval sites, 1 Post Medieval, 2 Bronze Age stone circles, a henge and 13 sites which were thought to be Prehistoric.

2. Regular Enclosures

Thirty sites were recorded as Regular, comprising 1 Bronze Age round barrow, 3 Iron Age hillforts and one Iron Age enclosure, 11 enclosures and 2 annexes of unknown date, a hut circle, a Prehistoric enclosure, a moat and enclosure of Prehistoric date, 5 baileys and a moat of Late Medieval date, and a Post Medieval enclosure.

3. Oval Enclosures

Thirty three sites were classified as Oval, comprising a Neolithic long barrow, an Iron Age enclosure and 6 hillforts, 10 undated enclosures, 5 Prehistoric enclosures, 1 Early Medieval bailey, 7 Late Medieval sites and a Medieval pillow mound and plantation.

4. Curvilinear Asymmetric Enclosures

Eighty eight sites were curvilinear and asymmetric in form. These comprised a Neolithic henge, 20 Iron Age sites, including 16 hillforts, 18 Prehistoric sites, 32 undated enclosures, 13 Late Medieval enclosures, 3 Medieval enclosures, and 1 Post Medieval enclosure.

RECTILINEAR ENCLOSURES – 571 records

1. Rectangular Enclosures

There were 203 enclosures classified as rectangular. Over half, 54.7% (111 sites) were enclosures of unknown date, 2 were Neolithic (a cursus and mortuary enclosure), 2 Iron Age enclosures, 22 were Roman (including 8 forts and 6 camps), 17 were Late Medieval, 27 Medieval, 8 Post Medieval and 14 Prehistoric enclosures. There were no Bronze Age or Early Medieval enclosures classified as rectangular.

2. Square Enclosures

There were only twenty two sites that were described as square. These were represented by a small number of sites from each historical period except the Neolithic and Bronze Age. The sites included 3 Iron Age square barrows and an Iron Age enclosure, a Roman building and enclosure, 2 prehistoric enclosures, an Early Medieval castle, 3 Late Medieval tofts, a Medieval moat and 2 lime kilns, a Post Medieval lime kiln and a chimney, and 5 enclosures

of unknown date and function.

Ten of the square enclosures had rounded corners. Two were Medieval (one Early, one Late), three were undated, one was Roman and the rest were Iron Age in origin.

Twelve square enclosures had angled corners, comprising 2 Prehistoric, 2 undated, 1 Roman and the remaining 7 of Medieval and Post-Medieval origin.

3. Polygonal Enclosures
Polygonal enclosures formed the largest single morphological sub-group. Of the 336 sites, nearly two thirds (62%) were of unknown date and function, and 15% were thought to be Prehistoric (46 enclosures and 4 annexes to enclosures). Limited morphological comparison suggests that a large number of polygonal enclosures whose date is not known are likely to be Prehistoric, and more specifically, Iron Age in origin.

There were 21 polygonal Iron Age sites, comprising 9 hillforts, a promontory fort, 7 enclosures and 4 annexes. There were 2 Roman camps and foundations of a bathhouse, 26 Late Medieval sites, 22 Medieval sites, and 4 Post Medieval sites. There were no Neolithic or Bronze Age sites represented within this group. Most were amorphous and irregular in form, but there were a few sites that did exhibit some form of symmetry. For example, there were two pentagonal enclosures consisting of an outer ditch and inner bank. Both were of a similar size; one was thought to be Iron Age.

Eight enclosures were recorded as polygonal but only had two sides present, and must be presumed to be incomplete. Eighty-two were recorded as three sided, and 194 were four sided.

Fifty-one of the polygonal enclosures were recorded as having 5 or more sides in varying combinations of straight, concave and convex. These comprised 2 hillforts, 27 undated enclosures, 1 Prehistoric enclosure, and 2 annexes, a Late Medieval bailey and enclosure, and a moat. Thirty-nine enclosures had five sides, of which 27 consisted of 5 straight sides.

Ten enclosures had six sides. Of these enclosures, eight were straight sided, and the remaining two comprised combinations of straight, concave and convex sides. The sites included a hillfort, eight enclosures of various periods, an annex and two buildings.

In addition there was one undated enclosure with seven sides (5 straight and 2 concave), one 8 sided Post Medieval limekiln with 7 straight and 1 concave side, and one 10 sided enclosure of unknown date, with 8 straight and 2 convex sides.

4. Triangular Enclosures
There were only ten sites recorded as triangular. There were no Neolithic, Bronze Age, Roman, Early Medieval, Post-Medieval or Modern sites represented. The group included an Iron Age Hillfort and enclosure, two Prehistoric enclosures, three Late Medieval baileys and a Late Medieval toft, one Medieval bailey, and one enclosure of unknown date.

Enclosures with entrances
220 (22.9%) enclosures (142 rectilinear and 78 curvilinear) had entrances. Additionally, many enclosures were incomplete or masked, and the presence of entrances could not be confirmed.

Almost all of the entrances (193) were terminally-defined (the simplest form), 13 were inturned, 9 were structurally defined, 3 had antennae/funnel entrances and two enclosures had entrances defined by pits, presumably originally occupied by post-built structures.

The form of the entrance and the complexity of the enclosure construction were investigated to assess any relationship between the two factors. It was found that of the 193 enclosures with simple terminally-defined entrances, only 25 examples (12%) had more than one bank or ditch element. Of the 27 enclosures with more complex forms of entrance, 11 (40.7%) had more than one ditch or bank elements, and nine of these were multi-vallate Iron Age hillforts.

The position of the entrances was investigated to ascertain whether there was any pattern or significance in their location. The greatest number of entrances faced to the north-east, east and south-east, with very few facing either directly north or south. Where enclosures were located on slopes (50.5% of enclosures), the main entrance invariably opened down-slope, with the exception of the six sites located on north-facing slopes. Within this group, only one example had an entrance opening down-slope.

LINEAR FEATURES – 2021 records

Over half of the linear features recorded during this survey (1091 or 53%) were clearly associated with fields and cultivation. Six hundred of these cultivation-related features were ridge and furrow, accounting for 30% of all LINEAR FEATURE records, and 55% of all cultivation remains.

Linear features also include communications features, from Iron Age trackways through Roman military roads to medieval hollow ways and industrial tramways. These linear features represent 10% of the total.

Defensive features are also represented; the fragmentary remains of hillfort ramparts and the perimeter ditches of Roman camps and the partial remnants of Medieval baileys (or any feature which is too incomplete to be classified as an enclosure despite its probable interpretation) have been recorded as a linear feature.

Defensive features can also take a linear form in their own right; many segments of Offa's Dyke have been recorded, as the Saxon boundary runs the length of the Marches Uplands survey area. Modern aircraft obstruction ditches have also been recorded on the Long Mynd.

Leats and water channels associated with drainage and water management (as well as field demarcation) fall within this class.

It must also be noted that, according to the conventions of MORPH2 database entry, fragmentary traces of larger features such as enclosures and round barrows are initially classified as linear features even though it may be clear that they are actually part of some other type of feature. 632 linear features (31% of the total) have been ‘flagged’ as part of another type of archaeological feature; 221 were ‘flagged’ as partial enclosures, 377 as parts of linear systems, and 34 as both enclosures and linear systems.

<u>Pattern and shape</u>

The largest group of linear features (973, or 48%) comprised those described as single in pattern and straight in shape, which is the most common description for boundary ditches,

field edges and trackways or roads. Ridge and furrow is typically described as parallel and straight, a combination applied to 39% (790) of the records in this class. Linear features with one or more right-angled junctions (e.g. field boundaries) are described as perpendicular and straight (191, or 9.5%). The catch-all description of 'disordered' and 'mixed' was only applied to 2% (44) of linear features.

LINEAR SYSTEMS – 621 records

Field systems and cultivation-related features account for 608 (98%) of the records in this category; 540 were ridge and furrow, which represents 89% of all cultivation features or 87% of the total Linear System records. The vast majority of these cultivation features were Late Medieval or Medieval in date, but 11% of the ridge and furrow was described as post-Medieval.

Most of the remainder of the records in this group are also associated with other forms of agriculture and land management (e.g. water meadows and sites described as ditch systems) although the category of Linear System also encompasses two buildings.

Fourteen Linear Systems have been described as 'enclosure complexes', including late Prehistoric and Medieval settlements and field systems, and two shrunken medieval villages.

Pattern

Almost all of the Linear Systems were described as ordered' in pattern, which is typical of the layout of Medieval fields. Only 11 were not interpreted as cultivation-related, including two settlements, two crofts, a building, a country house and a system of water meadows.

MACULAE – 621 records

The term 'Macula' is used to describe 'area' features of any shape or size surviving as cropmarks, soilmarks, earthworks or stone. This category includes features ranging from pits and mounds to large areas of quarrying. During the course of the survey 621 sites were identified and classified as maculae, comprising 42 separate classes of site ranging from the Neolithic to the Second World War. The largest single group of features represented were pits, the majority of which were random features of unknown origin. The largest thematic group represented features associated with industrial activity, especially quarrying and mineral extraction. These included quarries, spoil heaps, mine shafts, extraction pits and adits.

Religious, ritual and funerary sites form a large group of features within the 'Macula' class. All date to the Bronze Age; the group comprises fifty five round barrows, two bowl barrows, and two cairns.

There were 191 Medieval sites, of which seventy one were defensive in nature, comprising sixty five mottes, five baileys and one motte and bailey. The remaining sites were either domestic or related to subsistence e.g. tofts, building platforms, fishponds, pillow mounds and quarries.

An individual macula site may contain one or many separate maculae, but the maculae recorded within a single site will be of similar appearance, size and presumed date. This report, in the main is concerned with the sites rather than the individual features.

Form

Of the 621 macula sites, 320 were positive maculae, 293 were negative or cut features, and 8 were flat features which had never been cut or built-up features. Positive maculae are features that were originally built-up, and include such features as round barrows (54), mottes (62), tofts (7), pillow mounds (26) and spoil heaps (54). Mottes formed the largest single type of site (62), followed by round barrows (54). The negative features included such sites as pits (86), ponds, fishponds (11), quarries, shafts, adits and extraction pits. Of these negative features, pits of unknown origin formed the largest single group (77 sites), followed by quarries (68) and mine shafts (46).

In general, small round maculae were interpreted as pits in the absence of any other evidence. Of the 77 such sites, only three sites had any supporting information obtained from non-destructive field, and none had been excavated. The remaining 74 sites are only known from aerial photography.

478 maculae appeared as earthworks, 134 as cropmarks, one as a cropmark/earthwork, 5 as stoneworks, and 3 as earthwork/stonework. The fact that a relatively high percentage survive as earthworks is probably due to the location in marginal upland areas which have not generally been subjected to ploughing.

There are only three Neolithic macula sites, and these are all pits visible as cropmarks. The majority of the Bronze Age macula sites (95%) were earthworks. 53 were round barrows, 3 were cairns and 2 were pits. The low number of Bronze Age maculae is due to the fact that most round barrows which have been plough-levelled leaving ring ditches which are recorded as enclosures rather than maculae. There are very few Iron Age and Roman maculae. Medieval sites survive predominantly as earthworks, with 186 earthwork, and only 6 cropmark sites. Most of the Post Medieval earthwork sites are related to mining and quarrying activity represented by such sites as adits, mines, pits, prospection pits, quarries, shafts and spoil heaps.

Size

The database divides macula sites five size ranges: very small, small, medium, large and very large.

Very small

These were defined as maculae with a diameter of less than 1m. Only 7 sites were recorded as such, including 5 pits and a shaft. They were dated as 3 Prehistoric, 3 Undated and one Post-Medieval site.

Small

These were sites measuring 1-4m in diameter, of which there were 105 sites. The majority were (77 sites) pits, the remainder were related to mineral extraction and quarrying, including 17 shafts, 3 extraction pits, 1 bell pit and 2 quarries. Over 50% of these were undated, and 25% were medieval in origin.

Medium

These ranged in size from 4-15 metres in diameter. Of the 204 sites, 31 were shafts, 26 stack stands, 23 pits, 22 round barrows, and 12 mounds. 34% were undated, 30% were Post-Medieval 12% Bronze Age and 11.8% Medieval.

Large

These numbered 226, and represented the largest single size group. These ranged in size from 15-50 min diameter. 31.9% of these were Late Medieval, 20.8% undated, 18.6% Medieval, 14.6% Bronze Age, 12% Post Medieval. There was also one Roman, one Iron Age and one Early Medieval site. There were 28 separate site types representing a wide variety of domestic, defensive industrial and religious sites. The largest single type of site was the motte, of which there were 52; there were 32 round barrows and 26 spoil heaps.

Very Large

These represented maculae over 50 metres in diameter. There were 79 sites recorded, mostly related to quarrying and mineral extraction, (67%) – including 24 quarries and 25 spoil heaps. There were smaller numbers of domestic defensive and industrially related features, including 7 mottes, 4 baileys, 3 fishponds, 4 platforms, a brickworks and a toft.

Pattern and shape

The maculae were categorised on the basis of the shape of the individual sites and the patterns of their occurrence. Five shape categories are used in the database: Amorphous, Mixed, Oblong, Rectangular, and Round. Four pattern categories are used: Linear, Ordered, Random, and Single. Of the 621 maculae sites, 348 (56%) were recorded as round, 128 (20.6%) oblong, 81 amorphous, 34 rectangular and 30 mixed. Of the round maculae there were 26 site types, the dominant types being pits, round barrows, mottes and shafts. There was no apparent pattern in the shape on the maculae in relation to the period and function of the sites.

Pattern refers to the pattern of occurrence and distribution of the sites. The majority of the maculae recorded were single isolated sites (418 records), comprising 35 separate site types, dominated by six main types: mottes (15.5%), round barrows (12.2%), pits (10.3%), quarries (10.7%), spoil heaps (8.4%) and shafts (6%). Of these isolated maculae, 60% were round in shape, and 22% were oblong.

There were 156 sites of random scatters of maculae representing 972 individual maculae. Most of these sites were simple pits (35%), and features associated with quarrying or mining such as shafts, spoil heaps, quarries and extraction pits. There were also 12 pillow mounds and 12 stack stands. 89 were round maculae.

There were 39 linear arrangements of between 2 and 15 individual maculae, most of which were undated or Post Medieval industrial sites associated with mining and quarrying. 18 were round maculae. It is interesting to note that there were no linear arrangements of surviving round barrows. Linear barrow cemeteries were recorded in the valley bottoms, but these were only visible as cropmark ring ditches. This appears to indicate that such linear groupings are confined to lower location, close to the rivers and main communication routes rather than on the upper slopes and hilltops.

Eight sites comprised ordered arrangements of features. Five were Medieval and three were undated, relating to a variety of site types.

INDUSTRIAL COMPLEXES – 9 records

Nine Industrial Complexes were recorded in the project database, all representing large areas of industrial activity, mainly concerned with mineral extraction.

In the Marches survey area, this class has been used chiefly to describe large areas of working where individual features are either too widely dispersed or too difficult to record individually or describe specifically, but where the general character of activity can be suggested.

Industrial Complex records include lead mining sites in the Shelve area of south Shropshire (one of which is known to have its origins in Roman times), the southern end of the Shropshire coalfield, a limestone quarry in the same general region and an unspecified area of mining near Wenlock Edge, where a wide variety of minerals have been exploited over many centuries.

POSSIBLE NEW CLASSES

No new classes of feature have been identified during this project.

2 AERIAL PHOTOGRAPHIC SOURCES CONSULTED

NMR Air Photographs
National Monuments Record Centre
Kemble Drive
Swindon SN2 2GZ

University of Cambridge Unit for Landscape Modelling (UCULM: formerly CUCAP)
Mond Building
Free School Lane
Cambridge CB2 3RF

Herefordshire Sites and Monuments Record
Herefordshire Archaeology
Planning HQ
PO Box 3
Leominster HR6 8LU

Shropshire Sites and Monuments Record
Environment Department
Shropshire County Council
The Shirehall
Abbey Foregate
Shrewsbury SY2 6ND

Worcestershire Archaeological Service
Woodbury Hall
University College Worcester
Henwick Grove
Worcester WR2 6AJ

Details of Photographic Sources

National Monuments Record (NMR) – obliques from a wide variety of sources, including RCHME reconnaissance, C Musson, J Pickering, and some CUCAP. A number of C Musson photos were examined prior to accessioning. Verticals primarily from RAF and OS, dating from 1945 onwards.

University of Cambridge Unit for Landscape Modelling (UCULM) (formerly Cambridge University Committee for Aerial Photography – CUCAP) – specialist, often low-level obliques, and a few high quality verticals. Collection contains only CUCAP photographs.

County SMRs
Hereford & Worcester – the majority of obliques in the SMR collection have been copied from NMR and CUCAP. A number of OS enlargement verticals are held.

Shropshire – the majority of obliques in the SMR collection have been copied from NMR and CUCAP, although the SMR also possesses some C Musson photographs not held by NMR (taken on behalf of the Clwyd Powys Archaeological Trust). Vertical surveys commissioned by the County Planning Department were examined through the SMR. The photographs taken in 1983 are of high quality and proved very useful.

Other photographic collections

The Quantification Assessments indicated that many NMR and CUCAP obliques, and RAF, OS and CUCAP verticals, were duplicated in smaller collections, such as those of English Nature and the Shropshire Local Studies Library. These collections were therefore not consulted.

A large number of photographs had been taken as part of a survey of historic hedgerows in Hereford & Worcester, but consultation was impracticable because they had not been fully catalogued.

Vertical photographs held by the National Rivers Authority (NRA), the Agricultural Development and Advisory Service (ADAS), the Welsh Office and the Edinburgh University Department of Geography proved impracticable to consult. The collections of NRA and ADAS in particular existed in negative form only, and their content and quality could not easily be assessed.

3 OTHER SOURCES CONSULTED

AMIE (formerly NewHIS) Database
English Heritage
National Monuments Record Centre
Kemble Drive
Swindon SN2 2GZ

Herefordshire Sites and Monuments Record
Herefordshire Archaeology
Planning HQ
PO Box 3
Leominster HR6 8LU

Shropshire Sites and Monuments Record
Shropshire County Council
Environment Department
The Shire Hall
Abbey Foregate
Shrewsbury SY2 6ND

Worcestershire Archaeological Service
Woodbury Hall
University College Worcester
Henwick Grove
Worcester WR2 6AJ

4 ARCHIVE DETAILS

Contents of the MUMP archive

The archive for the MUMP NMP project is lodged at the NMRC in Swindon and comprises the following items:

83 ink overlays to 1:10,000 OS base map showing archaeological features.

83 pencil overlays to 1:10,000 OS base map showing archaeological features (working drawings including annotations).

83 “MORPH” sheets showing the site numbers allocated to each drawn feature.

Site Record Forms (SRF) – used to record such details as the main photographs used for the transcription and any other information which might prove useful when entering the feature on the database.

Map note sheets (MNS) – used for each quarter sheet to note problem areas for more detailed investigation, built up regions, areas with no photographic cover etc.

Backup copy of the MORPH2 database.

Copy of the MUMP specification.

Copy of the MUMP final project report.

5 STATUTORY BODIES

English Heritage
23 Savile Row
London W1S 2ET

Herefordshire Archaeology
Planning HQ
PO Box 3
Leominster HR6 8LU

Environment Department
Shropshire County Council
The Shire Hall
Abbey Foregate
Shrewsbury SY2 6ND

Worcestershire Archaeological Service
Woodbury Hall
University College Worcester
Henwick Grove
Worcester WR2 6AJ

6 NATIONAL MAPPING PROGRAMME: CONVENTIONS FOR 1:10,000 SCALE MAPPING

Ditches: extant or plough levelled.
Variable line thickness.

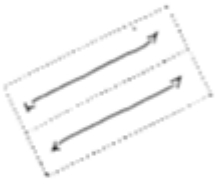
Stone and/or earth banks/mounds: extant or plough levelled.
Heavy stipple.

Hollow ways and un-surfaced trackways not defined by other depicted features.
(1mm dashes. Single line per track where braided)

Area features (small): storage pits, grubenhaüser, clearance cairns, standing stones.
Drawn solid as seen.

Compacted or made stone surfaces/spreads: paved areas, surfaced roads
Medium stipple.

Ridge and furrow: units are defined by dots (1mm spacing) if not bounded by headlands, banks, ditches, or any other feature with a specific convention.
Double headed arrow to show shape and direction of rig.



Water meadows: Units are defined by the extent of feature *(1mm dashes at 0.5mm spacing)* if not bounded by banks, ditches, or any other feature with a specific convention. Within each area the main drains are depicted as ditches together with a sufficient number of subsidiary drains to give an impression of the form.

Negative features (large): extant or back filled fishponds, quarries etc.
"T" hachure 0.5mm.

Railway/tramway: This convention should be used even if the only visible remains are embankments/cuttings.
2mm spacing for crossing lines.

Extent of feature: A hard boundary marking the outline of a feature (e.g. the runways of a disued airfield)
1mm dashes at 0.5mm spacing.

Extent of area: A soft boundary marking the perceived limit of an activity (e.g. a lead mining area)
3mm dashes at 1mm spacing.

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