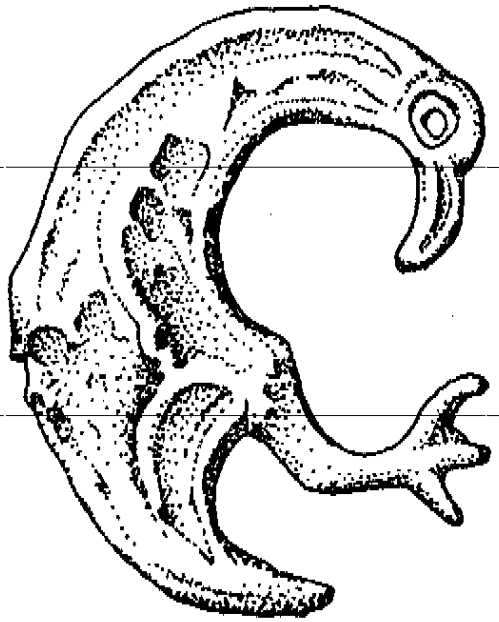
RPS Planning, Transport and Environment

| INDEX DATA | RPS INFORMATION |
|---|---|
| Scheme Title<br>M1 Junction 19<br>Stages 1 & 2 | Details<br>Archaeological Evaluation |
| Road Number M1 | Date July 1993 |
| Contractor Leicestershire Archaeological Unit. | |
| County Leicestershire. | |
| OS Reference SP57 | |
| Single sided ✓<br>Double sided | |
| A3 0<br>Colour 0 | |

# Leicestershire Archaeological Unit

## AN ARCHAEOLOGICAL EVALUATION OF JUNCTION 19 OF THE M1 MOTORWAY STAGES 1 & 2

Final Report
Volume 1



LEICESTERSHIRE COUNTY COUNCIL
MUSEUMS, ARTS AND RECORDS SERVICE

# AN ARCHAEOLOGICAL EVALUATION OF JUNCTION 19 OF THE M1 MOTORWAY STAGES 1 & 2

Final Report
Volume 1

July 1993

MARS AST 93/5

# TABLE OF CONTENTS

Volume 2: List of Figures



List of Tables

**ABSTRACT**

In 1992 Leicestershire County Council Museums, Arts and Records Service Archaeology Survey Team carried out an Archaeological Desk Study and a Preliminary Field Evaluation around Junction 19 of the M1 Motorway on behalf of the Department of Transport and their consultants Ove Arup & Partners.

The Archaeological Desk Study identified fifteen areas of archaeological potential in an area 500 metres either side of the M1 and M6 motorways.

The Preliminary Field Evaluation was undertaken to confirm and assess the existence and nature of areas identified in the Desk Study. Also previously unrecorded archaeological sites were to be located by gridded walking over ploughed fields with the intention of finding scatters of archaeological material.

Based on the findings of the Desk Study and the Preliminary Field Evaluation a list of eighteen areas of archaeological potential was compiled. Four areas have, however, been excluded from the further study due to their location outside the Preliminary Field Evaluation area limits or because they were considered to be of low archaeological potential based on the information collected to date.

After these exclusions there are nine areas which contain archaeological sites of high potential and six which contain alluvial deposits potentially preserving archaeological layers.

Recommendations for further investigations of these areas of archaeological potential have been made in this document.

## 2.0 AIMS AND METHODS

2.1 The Desk Study involved the examination of relevant documentary records in order to identify sites of potential archaeological interest. A full list can be found in Section 8.

2.2 The aims of the Preliminary Field Evaluation were to:

- Note features of interest;
- Locate further archaeological features and artefacts;
- Identify and report upon recognisable archaeological features and artefacts;
- Identify sites of potential national significance requiring further investigation; and
- Determine the extent to which further field investigations would be appropriate.

2.3 All fields within the study area have been visited. Grass fields have been inspected for evidence of earthworks and any other previously unrecorded features.

2.4 Arable fields have been surveyed using the local standard non-intensive sampling method, known as 'traverse and stint fieldwalking'. This method (described in Liddle 1985) involves walking traverses across fields 20m apart and collecting all visible archaeological material. Material is recorded by 60m long sub-divisions, known as stints (Fig.10). All material which has been collected is washed and identified. This is a cost-effective rapid survey technique which gives an approximate 10% sample of material on the surface of fields and allows identification of a large range of sites and activities.

2.5 Intepretation of fieldwalking results, however, is not straightforward. The material culture of each period of the past is different and results must be interpreted in the light of this. For example, in the Roman period high quality pottery was widely available and survives well. In contrast, in the Iron Age and Saxon periods less pottery was produced and, for technological reasons, was relatively soft and easily destroyed by plough and frost. A dense concentration of Roman pottery must be recovered during fieldwalking to suggest occupation, while only one or two fragments of Iron Age and Saxon pottery can be highly significant. It is fortuitous therefore, that Iron Age sites, which are difficult to find on the ground, are sometimes highly visible from the air, because they are often surrounded by broad ditches (enclosures) which affect growing cereal crops to produce dark marks when the crop ripens (Fig.3). However other 'unenclosed' Iron Age sites, or those on subsoils not conducive to the production of cropmarks, may remain archaeologically invisible.

## 3.0 THE ARCHAEOLOGICAL SETTING

3.1 The archaeology of the study area must be interpreted against the background of the archaeology of the region as a whole.

3.2 Prior to c.5000BC, in the Palaeolithic and Mesolithic periods, inhabitants of this area would have been hunter gatherers. The landscape would have been thickly wooded at this time and the people would tend to live in clearings or by rivers. They used tools of flint, stone, wood, bone and antler for their tasks. Usually wood and often bone and antler tools do not survive to the present day, except in very wet or very dry conditions. Scatters of flint tools and the debris caused by their production are usually the only evidence archaeologists find of occupation in this period.

3.3 After c.5000BC, in the Neolithic period, the practice of cultivation from a settled occupation site came into use. The enclosures of Neolithic occupation sites can be seen as cropmarks but are best identified by the material found within them. Again, tools of the materials mentioned above were used, but the flint and stone tools are typologically different to their predecessors. In this period the dead were often buried under mounds called barrows. These sometimes survive as earthworks, especially in traditional pasture areas, but most barrows have been ploughed out. The location of flint knives can often be an indication of potential burial sites from the ground. From the air, however, ploughed out barrows can take the form of ring ditches showing as cropmarks. These shapes reflect the form of the extraction ditch from which the soil for the burial mound came.

3.4 Burial mounds continued in use throughout the Bronze Age and the Iron Age. Flint and stone tools were used throughout the Bronze Age but were probably obsolete by the Iron Age. Metal objects from the Bronze and Iron Ages, for example knife blades and brooches, can be found during excavation of settlement sites but are rarely found by fieldwalking. In this period the ditches of settlement enclosures can be seen from the air as cropmarks where the geology permits and when the crops are ripening. Very occasionally the banks of these enclosures survive as earthworks but there are no such remains recorded in the study area. The dwellings tended to be round and are presumed to have had conical thatched roofs over a framework of wood with walls of wattle and daub. None of these materials survive to the present day but the eaves-drip trenches dug for drainage can be seen as cropmarks.

3.5 Another feature of the Bronze and Iron Ages was the wider use of pottery. Pottery was first used by the Neolithic farmers but very little survives from that period. By the Iron Age its use was widespread. The pottery itself is hand-made, bonfire-fired ware which is very soft and easily eroded, limiting its survival in ploughed fields. However, sites of former settlements can be found through the location of such pot sherds by fieldwalking.

3.6 In the Romano-British period (AD43-c.410) there was a great increase of durable material which survives well. The pottery, much of which was factory made and wheel thrown, was relatively hard-fired in kilns, therefore increasing its chances of survival in the ground. Also, high status buildings such as villas were built of stone, brick, tile and slate which survive as debris scatters even after centuries of ploughing. Lower status dwellings were often built of dried mud bricks (cob walling) with thatched roofs and therefore do not survive to the present day. However, even low status dwellings would have considerable amounts of pottery, the broken sherds of which can easily be found by fieldwalking. Excavation on high or low status sites should reveal further evidence such as coinage, brooches, rubbish pits and, particularly in the case of villas or temples, large foundations. West of Shawell, on the Leicestershire/Warwickshire border, there is the site of the Roman small town of Tripontium straddling the Watling Street Roman road. Large quantities of Roman material have been recovered from this site and the foundations of buildings and surfaces of streets have been recorded. It is common for such small towns to have satellite farmsteads and villas surrounding them. Such dwellings would provide some of the agricultural goods required by the small town. It is therefore likely that such minor settlements would potentially be found in the M1 Junction 19 Study area.

3.7 From the early part of the Anglo-Saxon period (c.410-600AD), less material survives as dwellings were again constructed of timber and thatch and the pottery was hand-made and bonfire fired. Coinage also went out of use, reflecting a reversion to a barter economy. Pottery scatters from this part of the period can represent the remains of settlement or burial sites. Cremation and inhumation were popular forms of disposal of the dead. Cremated remains would be buried in a pottery vessel which was often highly decorated with stamped and incised motifs. Complete bodies seem to have been buried fully clothed with dress accessories such as brooches and buckles attached. Weapons, particularly spears and knives were commonly buried with males - with only the metal parts surviving today. Beads, knives and tweezers are associated with female graves. Pottery vessels containing food and drink were also buried with the dead. Usually only the pottery is found by fieldwalking. Excavation, however, can uncover the complete assemblage. There have been finds indicating an Anglo-Saxon cemetery north-west of Tripontium, along the line of Watling Street in Cotesbach parish.

3.8 The later Anglo-Saxon period saw a conversion to Christianity and the construction of churches. Some Anglo-Saxon churches no longer exist but there is sometimes documentary evidence for them. More commonly the Medieval churches absorbed and expanded the sites of their Anglo-Saxon predecessors. In this period, dwelling houses were still constructed of biodegradable materials but the pottery was once again fired in kilns and survives well. The typical local pottery of the late Anglo-Saxon period is called Stamford Ware. At this period, nucleated settlements were more common. Coinage started to be produced again in the late Saxon period.

3.9 After the Norman invasion in 1066, a strong military role was employed to keep law and order. There are three Norman motte and bailey castle sites near the Study area, one at Shawell and two west of Lilbourne (Northants). The motte was a large mound of earth on top of which a wooden palisade, or occasionally a stone tower, was built as an early form of castle keep. The bailey was a semi-circular bank and ditch which enclosed and protected an area next to the fortified motte which often accommodated a hall and retainer's dwellings. The villages that surround the study area, namely Swinford, Catthorpe, Shawell and Lilbourne (Northants), are all of early Medieval origin. The ridge and furrow which covered practicallly all of the fields of these parishes and now only remains in patches, is the result of the Medieval arable farming system. In the 13th and 14th centuries over population was a problem and very intensive farming was necessary to produce the quantity of food required. To fertilize this arable land, animal and household waste, which would have been collected together, was scattered over the fields. Any broken pottery included with this manure would survive to the present day. Fieldwalking can produce evidence of land use in the Medieval period by dating the manuring scatters of pottery. If there is no Medieval pottery from a field then it can be concluded that the land was pasture meadow, wood or waste in the Medieval period.

3.10 During the late 14th and early 15th centuries widespread warfare and the Black Death vastly reduced the population of Britain. This led to the abandonment of house plots within villages, some of which have not been re-used to this day. Earthworks survive in Shawell of abandoned house enclosures.

3.11 Windmills and watermills were another feature of the Medieval and, indeed, Post-Medieval landscape. These were listed in the Domesday Book but often cannot be found. Occasionally remains of watermills are located having been buried by alluvial deposits. Catthorpe is listed as having a mill worth 2 shillings in 1086AD which was owned by Mainou the Breton. The mill has not yet been located.

3.12 During the Post-Medieval period outlying farmsteads grew up around villages. After the enclosure ofthe open field system (dividing up of the Medieval ridge and furrow landscape), much of the land in this area was turned over to pasture until the early 20th century.

## 4.0 GEOLOGY AND TOPOGRAPHY (see Figure 2)

4.1 The Study Area comprises approximately 3.25 sq. kilometres of land bordered to the south by the River Avon and to the east by a tributary of that river. Another tributary runs from a point north-east of Catthorpe village in a south-westerly direction to join the Avon west of Catthorpe.

4.2 The River Avon and its tributaries have left alluvial deposits covering over half of the Study Area. The larger part of these alluvial deposits comprises sand and gravel terraces formed by inter-glacial river flood plains. The lighter weight river deposit, alluvium or silt, has been deposited closer to the present courses of the river and its tributaries.

4.3 The land rises out of the river terraces onto glacial till, or boulder clay. This was deposited by retreating glaciers in the Middle Palaeolithic (Old Stone Age) period. Also from this period is an area of glacial lake deposit formed by a pool of trapped melt water. The presence of the boulder clay indicates that any Lower Palaeolithic sites (the Lower Palaeolithic being the oldest part of the Old Stone Age) will have been erased by glacier movement. Stone implements from this period are occasionally found residually in gravel deposits having been carried by the ice movement.

4.4 Catthorpe village and Manor are situated on a prominant island of boulder clay rising some 20 metres above the flood plain of the River Avon. To the north of this area the two tributaries have cut a shallow valley into the boulder clay beyond which the land rises again on to boulder clay reaching a height of 40 metres above the Avon flood plain in the north-eastern stretch of the Study Area.

## 5.0 RESULTS

5.1 The evaluation has produced a considerable amount of information on the archaeological potential of the study area. Areas of archaeological potential can be divided into cropmarks, alluvial areas, earthworks and fieldwalked sites.

Cropmarks

5.2 Six cropmark sites (Areas 1, 3, 5, 6, 14 and 15) have been identified. These are shown on Figures 4, 5 and 6. They are as yet uninterpreted and undated but may represent sub-soil featrues such as ditches and foundations from early settlements. Cropmarks are markings, visible from the air, which result from the differing rates of growth and ripening of farm crops. The production of cropmarks is a complex and only partly predictable process. The majority of cropmarks result from moisture in the soil falling short of the amount required for optimum plant growth. In these cases the crops grow stunted and ripen quickly. Alternatively, where a man-made ditch cuts a free draining subsoil, such as gravel, and then is allowed to silt up, the silt fill tends to retain moisture better than the surrounding subsoil, thereby making the affected crop grow taller and ripen later. Most of the County's best cropmarks are to be seen in areas of alluvial or glacial gravel (see Fig.2, 3, 4, 5, 6 and 7). It should be emphasised that only a small proportion of archaeological sites appear as cropmarks.

5.3 Although cropmarks can often represent settlement boundary ditches, it is not always the case that the limits of the cropmarks will define the limits of the archaeological sites. Features such as rubbish pits, kilns and burials are often found outside settlement boundaries. In the light of this the Area of Archaeological Potential may cover a larger area than that of the cropmarks themselves.

Alluvial Areas

5.4 Several areas have been identified as having potential for the survival of significant archeological features beneath alluvial and colluvial deposits. In recent years investigations of three sites in Leicestershire have identified the importance of alluvial areas in preserving archaeological features. These were at Shipley Hill, Ratcliffe on the Wreake (Beamish, 1992a), Croft (Cooper, 1992) and Wanlip (Beamish, 1992b). At Shipley Hill and Wanlip, colluvium, or plough-wash, was identified and interpreted as material which was the result of deforestation and ploughing, probably in the Bronze Age. In both cases earlier features of Neolithic and Early Bronze Age date were found sealed by alluvium which again may be the result of deforestation and ploughing.

5.5 Although the archaeological features would be buried below alluvium, any major works such as the construction of roads or junction supports, would severely damage or destroy them.

5.6 The Desk Study identified six areas of potentially important alluvial deposits (Areas 2, 4, 7, 8, 9 and 11) (Fig.9). While all areas of alluvium may possibly conceal archaeological features, the areas of particular importance are likely to be those areas where fieldwalking has identified flint scatters running down to, and thus possibly continuing below, alluvium. These sites could preserve artefacts and structures made of organic materials (wood, leather etc.) which are rarely found in Mesolithic or Neolithic sites. For this reason Areas 8, 11 and the northern tip of 4, each of which has flint material on the hill slopes above alluvium, have been identified as having high potential. Areas 2, 7 and 12 could not be properly assessed and their archaeological potential remains uncertain. Areas 9 and 13 have produced no evidence which would suggest high potential. These sites have been excluded from recommendations for any further work (see Figs.9 and 23).

Earthworks

5.7 All grass fields were surveyed for earthworks and other features, mainly from adjacent arable fields, footpaths and roads. This generally confirmed the findings of the aerial photograph review which had failed to indicate the presence of previously unknown earthworks. The only possible site was north-east of Catthorpe Manor (Figs.9 and 23, Area 15) where a pond and possible terraces were noted in an area without ridge and furrow. These are probably best interpreted as garden features associated with the house, which appears to be of Georgian style.

Fieldwalking Results

5.8 Fieldwalking was undertaken in 19 fields. The irregular sequence of the field numbers reflects the order in which the fields were surveyed. The layout of traverses and stints is shown in Fig.11. In each case complete fields were walked, although several lie across the boundary of the study area. The results are summarised in Table 1 and assessed by period. Comparison with other data, especially aerial photographic information, is made and, finally, recommendations for future work are given.

Prehistory

5.9 The earliest in situ human artefacts in Britain date to c.4-500,000BC. The commonest finds on all pre-Iron Age occupation sites are flint tools and flint manufacturing waste. It has recently been argued that flint may have been used even in the Iron Age (Young & O'Sullivan 1992, 58). The interpretation of flint scatters is notoriously difficult. Flint was recovered from literally every field searched. Most of this does not, in all probability indicate occupation. Rather the flint was scattered by the process of middening (spreading of largely organic debris, collected at occupation sites from both the human and animal occupants, on to ploughed fields as fertilizer), contingency knapping (when flint flakes or tools would be produced for a specific job away from base and then discarded), and, in the case of arrow heads, hunting.

5.10 Flint can be broadly dated on morphological criteria. There is a tendency for groups of Mesolithic and Early Neolithic flint to have a high proportion of long thin pieces ('blades'), with later (Late Neolithic and Early Bronze Age) groups having mostly shorter and broader flakes (Pitts & Jacobi 1979). There are characteristic tools and flint working debris associated with these groups. Some sites produce exclusively knapping debris, such as cores, flakes and blades, while others have a range of implement types. The latter type are generally interpreted as settlement sites.

Palaeolithic and Mesolithic/Earlier Neolithic Periods (pre-3,000 BC)

5.11 Three flakes of Palaeolithic characterwere found, which are unlikely to be of significance, as they may have been deposited by glacial processes during the Ice Ages.

Mesolithic people were hunters and gatherers who lived in a largely wooded Post-Glacial environment. They existed by gathering naturally available foodstuffs (fruits, berries, roots etc.), hunting deer and other wild animals. They did not have permanent settlements but exploited wide areas by moving camp. However, some areas were clearly favoured for repeated visits and produce pits and other earth-fast features. In the early Neolithic period, farming was introduced and more permanent occupation sites founded as woodland was cleared and fields laid out.

5.12 There are several areas with possible groups of Mesolithic/Early Neolithic material, notably an area straddling Fields 7, 8 & 10 (SP558785c; Area 14; Figs.16 and 23), which included 5 blade cores, 3 end scrapers and 14 blades (2 retouched), an area of Field 2 (SP566781c; Area 6; Figs.14 and 23), Field 14 (SP562788c; Area 20; Figs.17 and 23), probably an area of the first scatter detached by the motorways), and Fields 17 & 15 (SP761793c; Area 3; Figs.17 and 23 comprising 5 blades, 4 of which are retouched, and a blade core).

The Later Neolithic/Early Bronze Age Periods (c.3,000-1,000BC)

5.13 The later Neolithic/Early Bronze Age flint scatters, comprising mainly flakes and characteristic tool types, can be seen to occupy similar areas as the blade scatters.

5.14 Fields 7, 8 & 10 (SP558785c; Area 14; Figs.16 and 23) show a concentration of finds, which extends into Field 9. This presents a classic (if larger than usual) occupation site consisting of clear evidence of widespread flint knapping in the form of 64 cores and 426 flakes. The presence of finished tools, including 29 scrapers, 3 piercers, 1 awl, 2 arrowheads and 27 other retouched pieces point to occupation. Most tools are not closely dateable within a broad Neolithic to Bronze Age bracket, but the arrowheads are of 2 different types. These are a leaf-shaped arrowhead of conventional Early Neolithic date and a barbed and tanged arrowhead of conventional Early Bronze Age date.

5.15 A small concentration of 4 cores, flakes, 2 scrapers and 4 retouched pieces was found in Field 2 (SP566781c; Area 6; Figs.14 and 23).

5.16 Fifteen cores, 44 flakes, 1 scraper, 1 piercer, 1 retouched piece and a burnt object were found in Fields 15 and 17 (SP761793c; Area 3; Figs.17 and 23). This object may be the remains of a dagger or spearhead. The burning would suggest that it was included in a cremation burial.

5.17 Material has also been found on areas which have not produced finds of significant scatters of earlier flint. Fields 12 and 13 (SP547787c; Area 21; Figs.18, 20 and 23) have produced 22 cores, 60 flakes, 4 scrapers, 9 other flint tools, 1 flint axe fragment and 4 blades. Clearly this site is bigger than has presently been defined and must extend into the field south of Field 12. The 6 cores in Field 16 (SP748790c; Area 11; Figs.20 and 23) may represent the north-east edge of the scatter.

5.18 The only other possibly significant material was found in Fields 4 and 19 (SP556792; Area 1; Figs.19 and 23) where a small concentration of 4 cores, 2 scrapers and flakes was found.

5.19 Over all, the very large amount of prehistoric flint material produced by the survey shows a landscape that was, apparently, cleared early and used throughout the Neolithic and Bronze Age periods.

Iron Age (c.600BC-43AD)

5.20 In the Iron Age flint was certainly used less and may have ceased to be used completely. Iron Age pottery can be found in field survey in favourable conditions, although it is relatively soft and often does not survive well. Only one sherd from Field 15 (SP761793c; Area 3; Figs.17 and 23) seems relatively certain to date from this period, with possible sherds from Field 14 (SP561788c; Area 20; Figs.17 and 23) and Field 12 (SP547787; Area 21; Figs.20 and 23). A subrectangular enclosure cropmark identified from aerial photographs of Field 14 could also be of Iron Age date. The Field 15 sherd shows little damage and has probably not been on the surface very long. This may suggest recent disturbance from a deep feature.

5.21 The lack of surface Iron Age material from the cropmark sites does not preclude the possibility that they may date to that period.

Roman Period (43-c.450AD)

5.22 In contrast to Iron Age pottery, Roman pottery typically survives well in the soil because it was fired to much higher temperatures. A high proportion of Roman occupation sites would therefore be found by traverse and stint fieldwalking. In addition, pottery survives well enough to give indications of activity other than on an occupation site, especially where material (mostly organic but including all household refuse) was being spread as manure onto arable land.

5.23 One potential Roman occupation site was found in Field 8 (SP561783; Area 19; Figs.16 and 23) where a concentration of 21 sherds, mostly of greyware was found. The field was in a poor condition for fieldwalking when surveyed as it had only been roughly ploughed. This concentration, however, represents a reasonably substantial scatter, which approximately corresponds to a very faint cropmark enclosure observed on the aerial photographs (Fig.6).

5.24 A second, less certain, possibility is in Field 12 (SP547787; Area 21; Figs.20 and 23) where 17 sherds were recovered. Most is very abraded and appears to be part of a manuring scatter. The least abraded sherds occur on the western edge of the field (outside the Survey Area) and it seems likely that this represents arable land associated with a site situated immediately to the west of Field 12.

5.25 Roman pottery was found in 6 other fields, but only as a light scatter. There seems little doubt that this all represents manuring activity and requires no further study.

Anglo-Saxon Period (c.450-1066AD)

5.26 No material from this period was found. Two sherds from Field 12 (SP547787; Area 21; Figs.20 and 23) are undated but could be from either the Iron Age or Anglo-Saxon period.

Medieval Period (1066-1550AD)

5.27 Around 40 sherds of early Medieval pottery and over 60 sherds of late Medieval pottery were recovered during the survey. This material survives well in the plough and the period had high pottery use. The sherds are well scattered and represent manuring scatters.

5.28 There is documentary evidence that the parishes of Catthorpe and Swinford both had 3-field open-field systems of the normal Midland type. Catthorpe was enclosed in 1655. Its Great Fields in 1606 were called Mill, Tomley and Street (renamed Biggin in 1625) Fields. Mill Field lay south-east of the village, Tomley Field presumably lay north-east, where Tomley Hall Farm now stands and Street Field must have been north-west of the village towards Watling Street. Swinford was enclosed in 1783. The fields were called East, West and North Fields in 1601 (and renamed Towards Stanford, Towards Lilbourne and Towards Shawell in 1674).

5.29 Apart from the manuring scatters noted in 3.18, there is evidence in the form of ridge and furrow of these open fields (Fig.8). A small amount of this remains as earthworks but much more can be reconstructed from early aerial photographs and from soil and crop marks.

Areas of No Archaeological Interest

5.30 Three areas of no archaeological interest have been identified. These are Area 17 (SP555787), Area 10 (SP563787) and Area 18 (SP551787). All three sites have been used in the past for either landfill, dumping or as borrow pits (see Figs.9 and 23).

## 6.0 AREAS OF ARCHAEOLOGICAL POTENTIAL

6.1 Areas of archaeological potential are summarised inTable 2.

6.2 The Desk Study of Junction 19 (MARS AST 92/7) identified fifteen areas of archaeological potential (see Figure 9). In the light of the findings of the Preliminary Field Evaluation this was modified to fourteen areas (see Figure 23).

6.3 Based on the findings of Stage 2, six areas of archaeological potential have been extended (Areas 1, 3, 4, 6, 11 and 14) (see Table 3) to include areas where significant flint scatters have been identified. Three new areas of archaeological potential have been identified (Areas 19, 20 and 21). A further four sites have been eliminated from the need for further consideration (Areas 5, 9, 13 and 16).

6.4 The fourteen areas of archaeological potential identified as a result of Stages 1 and 2 are shown in Table 3 and include Areas 1, 2, 3, 4, 6, 7, 8, 11, 12, 14, 15, 19, 20 and 21 (see Figure 23 and Table 3).

6.5 Each area has been assigned a ranking according to its relative potential archaeological importance (high, medium, low and uncertain/negligible). These rankings are shown in Table 3. It is important to note that Areas 2, 7, 12 and the majority of Area 4 are of uncertain archaeological potential as a full survey could not be undertaken. The northern tip of Area 4 is considered to be of high archaeological potential.

## 7.0 RECOMMENDATIONS

7.1 This report has identified 14 Areas of Archaeological Potential within the study area (para 4.3), based on the findings of the Desk Study and subsequent Preliminary Field Evaluation (PFE). A large proportion of the total study area was examined in the PFE but areas north of Shawell Road and east of the M1; south of the B6414 and east of the A1/M1 link; an area close to Tomley Hall Farm, and one or two other small areas have not been examined because they are under permanent pasture or have not been ploughed this season (because of "set-aside" arrangements).

7.2 It is recommended that further work should be undertaken in the form of geophysical and auger surveys where appropriate; assessment by archaeologists of DoT consultants' borehole and trial-pit data; and detailed, gridded, fieldwalking, to characterise and assess the archaeological importance of Areas 1, 3, 6, 14, 19, 20 and 21. More detailed fieldwork would provide evidence with which to assess the nature of the sites and target any excavation more closely. The recommended method of detailed gridded fieldwalking would have an approximate 40% retrieval of surface material.

7.3 This should be part of a staged campaign of work which would then lead, in appropriate cases, to limited sample excavation to define buried remains of potential importance and enable the proposal of suitable mitigation measures in the Environmental Statement. The recommended method of sample excavation would entail the removal of topsoil by machine in strips running across the proposed road line covering between 2 and 5% of the designated road area. Hand excavation of any archaeological features revealed would then be undertaken in order to assess their quality, date and degree of survival.

7.4 It is further recommended that borehole and trial pit data should be archaeologically assessed, auger survey be commissioned and limited sample excavation should be undertaken on Areas 2, 4, 7, 8, 11 and 12 to assess the potential for important archaeological remains surviving, sealed by alluvium. In the event of the borehole data showing shallow deposits of alluvium it is recommended that a geophysical survey should be undertaken, prior to any evaluation excavation. Geophysical survey can indicate the presence of below-ground disturbances such as ditches and foundation walls. Such data can allow targetted evaluation excavation. A resistivity and/or magnetometer survey would also be appropriate. In the case of deep alluvial deposits a geophysical survey is not appropriate since any archaeological features would be out of the machine's range.

7.5 It is recommended that Area 15, where there are upstanding earthworks, should be surveyed in detail to allow the site to be properly assessed.

7.6 It is recommended that, when the preferred route has been identified, other areas likely to be affected by the road scheme that have not been fieldwalked in the preparation of the PFE, (i.e. pasture and "set-aside" areas) should be sampled by limited trial excavation (unless any of these areas are ploughed in the future so that fieldwalking can be arranged). On the recent A41 Berkhamsted and Kings Langley Bypass in Hertfordshire (McDonald 1992) a high concentration of hitherto undetected important prehistoric sites was only revealed by such trial trenching survey of previously unexamined areas of the route.

7.7 It is requested that details of all ancillary works (e.g. borrow pits, services re-alignments, temporary roads etc.) should be made known to the archaeological contractor as these can have significant impact on areas of archaeological importance. Evaluation of areas designated for such ancillary works is necessary prior to their construction.

## 8.0 BIBLIOGRAPHY


| | | |
|---|---|---|
| Beamish, M | 1992 a | Shipley Hill Archaeological Evaluation (Leics. Museums, unpublished) |
| Beamish, M | 1992 b | Wanlip, Leics. Survey Report (Leics. Museums, unpublished) |
| Cooper, L | 1992 | An Archaeological Evaluation at Croft (Leics. Museums, unpublished) |
| Liddle, P | 1985 | Community Archaeology - A Fieldworkers Guide to Organisation and Techniques (Leics. Museums) |
| McDonald, T | 1992 | Rescue Excavations on the A41, Hertfordshire Rescue News No.56, 6. |
| Pitts, M W & Jacobi, R M | 1979 | Some aspects of change in flaked stone industries of the Mesolithic and Neolithic in Southern Britain J. Archaeol. Sci. 6, 163-178 |
| Young, R & O'Sullivan, D | 1992 | 'The Flint' in 'An Iron Age Farmstead at Grove Farm, Enderby, Leicestershire by Clay, P N; Trans. Leics. Archaeol. Hist. Soc. 66, 54-58 |

## 9.0 SOURCES CONSULTED FOR THE DESK STUDY

The National Monuments Record

The Leicestershire Sites and Monuments Record (SMR)

Leicestershire Museums, Arts and Records Service Accession Files

All available Ordnance Survey Maps from the County Records Office

1817 1" to 1 mile

1866 1st Ed. 6" to 1 mile

1904 2nd Ed. 6" to 1 mile

1886 25" to 1 mile

1904 25" to 1 mile

1950 Revised 6" to 1 mile

1955 Provisional 1:10,000

1988 1:10,000

Geological Map 1" to 1 mile

Catthorpe Tithe Map 1848

Catthorpe Altered Apportionments 1st Feb 1924

East Midlands Archaeological Bulletins

Transactions of Leicestershire Archaeological & Historical Society

Aerial photographs 1940s, 1964, 1968, 1976, 1978, 1981, 1990, 1991, 1992

County Council Minerals Section records of borrow pits and landfill

Nichols, J. 1807 History and Antiquities of Leicestershire Vol.4 No.1

Victoria History of the County of Leicester

Table 1: Summary of Fieldwalking Results

| Field | Early Flint Tools | Early Flint Waste | Later Flint Tools | Later Flint Waste | Ia/As Pot | Roman Pot | E. Med Pot | L. Pot Pot | Post MedPot | No of T&S | Fig. No. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | - | 1 | - | 7 | - | - | 3 | 3 | 30 | 40xC | 13 |
| 2 | - | 6 | 5 | 46 | - | - | 1 | 10 | 46 | 34xI | 14 |
| 3 | - | - | 1 | 13 | - | 4 | - | 4 | 8 | 16xI | 19 |
| 4 | - | 1 | 1 | 16 | - | - | 3 | - | 5 | 13xG | 19 |
| 5 | - | 1 | 5 | 21 | - | - | 2 | 2 | 15 | 26xC | 21 |
| 6 | - | - | 1 | 4 | - | - | 1 | - | 7 | 11xC | 15 |
| 7 | 2 | 3 | 9 | 119 | - | - | - | - | 18 | 22xB | 16 |
| 8 | 3 | 10 | 31 | 262 | - | 25 | 2 | 6 | 27 | 32XC | 16 |
| 9 | 1 | 1 | 12 | 95 | - | 4 | 2 | 1 | 7 | 10xF | 16 |
| 10 | 2 | 4 | 13 | 82 | - | - | 5 | 3 | 9 | 12xE | 16 |
| 11 | - | 3 | 1 | 28 | - | - | - | 11 | 57 | 20xF | 18 |
| 12 | - | 5 | 7 | 59 | 2 | 16 | 11 | 9 | 40 | 24xE | 20 |
| 13 | - | - | 7 | 52 | - | 3 | 1 | 5 | 20 | 18xD | 18 |
| 14 | - | 5 | 1 | 21 | 2 | 1 | - | 3 | 12 | 10xD | 17 |
| 15 | - | 2 | 1 | 12 | 1(IA) | 2 | 2 | 5 | 17 | 22xC | 17 |
| 16 | 1 | - | 1 | 13 | - | - | 1 | 2 | 3 | 16xD | 20 |
| 17 | 3 | 1 | 3 | 75 | - | 5 | 2 | 10 | 44 | 24xE | 17 |
| 18 | - | 2 | 1 | 9 | - | - | 3 | - | 12 | 15xE | 22 |
| 19 | - | - | 2 | 35 | - | - | - | 1 | 10 | 22xD | 19 |

TABLE 2: AREAS OF ARCHAEOLOGICAL POTENTIAL SHOWN ON FIG.23

| AREA No. (SEE PLANS) | LEICS.SITES & MONUMENTS RECORD SITE REFERENCE | FIELDWALKING FIELD No. | GRID REFERENCE | PARISH | DESCRIPTION & NOTES | RECOMMENDATIONS |
|---|---|---|---|---|---|---|
| 1 | 57NE.P | Fields 4 & 19 | SP556792 | Swinford | Undated rectangular enclosure, another possible circle: cropmarks. Small concentration of flint cores. | Survey if affected. |
| 2 | - | - | SP557793c | Swinford | Area of alluvial deposits potentially covering and preserving archaeology. Area could not be assessed by fieldwalking. | Survey if affected. Assess borehole data. |
| 3 | 57NE.C | Fields 15 & 17 | SP561793 | Swinford | 3 undated sub-rectangular enclosures: cropmarks. Flint scatter to south & east of original area. | Survey if affected. |
| 4 | - | Part of Field 15 | SP564789c | Swinford | Area of alluvial deposits potentially covering and preserving archaeology, expanded from Desk Study area to PFE area. Most of area could not be assessed by fieldwalking. Potential of flint scatter going under alluvium at north-west corner. | Survey if affected. Assess borehole data. |
| 5 | - | Field 1 | SP564784 | Swinford | Uncertain ring ditch: cropmarks. No significant field data collected. Cropmarks almost certainly represent a former pond. | No further work required. |
| 6 | 57NE.R | Field 2 | SP566781c | Swinford | Undated rectangular enclosure: cropmark. Flint scatter to West of original area. | Survey if affected. |
| 7 | - | - | SP561776c | Catthorpe | Area of alluvial deposits potentially covering & preserving archaeology. Not possible to assess by fieldwalking. | Survey if affected. Assess borehole data. |

| AREA No. (SEE PLANS) | LEICS.SITES & MONUMENTS RECORD SITE REFERENCE | FIELDWALKING FIELD No | GRID REFERENCE | PARISH | DESCRIPTION & NOTES | RECOMMENDATIONS |
|---|---|---|---|---|---|---|
| 8 | - | Field 2 | SP566788c | Swinford | Area of alluvial deposits potentially covering & preserving archaeology. Flint in Area 6 may extend under this. | Survey if affected. Assess borehole data. |
| 9 | - | Field 2 | SP567782c | Swinford | Area of alluvial deposits originally defined as potentially covering & preserving archaeology. Fieldwalking suggests low potential for this area. | No further work required |
| 10 | - | - | SP562786c | Swinford | A1/M1 link. Borrow pit. | No further work required |
| 11 | - | Field 16 | SP548790 | Catthorpe | Area of alluvium potentially covering & preserving archaeology. Field Survey suggests high potential with flint scatter on edge of Field 16. | Survey if affected. Assess borehole data. |
| 12 | - | Part of Field 4 | SP552790 | Catthorpe | Area of alluvium potentially covering & preserving archaeology. Field Survey produced little to east, but fields to west not surveyed as potential needs assessing. | Survey if affected. Assess borehole data. |
| 13 | - | Parts of Fields 11 & 13 | SP552785c | Catthorpe | Area of alluvium originally defined as potentially covering & preserving archaeology. Part disturbed by Area 18. Field Survey in Fields 11 & 13 suggests low potential. West end outside PFE survey area. | No further work required |
| 14 | 57NE.G<br>57NE.Q<br>57NE.T | Fields 7,8,9 and 10 | SP556784?<br>SP558785c | Catthorpe<br>Catthorpe | Iron Age or Roman quern<br>4 undated cropmark enclosures.<br>Field Survey shows that a large area around the hilltop is covered with Prehistoric flint material. | Survey if affected. |

| AREA No. (SEE PLANS) | LEICS.SITES & MONUMENTS RECORD SITE REFERENCE | FIELDWALKING FIELD No | GRID REFERENCE | PARISH | DESCRIPTION & NOTES | RECOMMENDATIONS |
|---|---|---|---|---|---|---|
| 15 | 57NE.B | - | SP559781 | Catthorpe | 3 possible ring ditches. Possibly a Second World War searchlight battery. The area has earthworks, probably formal garden features. | Survey if affected. |
| 16 | - | - | SP559776c | Catthorpe | Area of alluvial deposits potentially covering & preserving archaeology (outside PFE survey area). | No further work. |
| 17 | - | - | SP555786 | Catthorpe | M6 Borrow Pit | No further work. |
| 18 | - | - | SP551787 | Catthorpe | M6 topsoil dump, shown on 1969 air photos. | No further work. |
| 19 | 57NE.V | Field 8 | SP561783 | Swinford | Roman occupation site & possible rectangular enclosure: cropmark. | Survey if affected. |
| 20 | 57NE.U | Field 14 | SP561788 | Swinford | Early Prehistoric flint scatter and hand-made pottery; and sub-rectangular enclosure cropmark | Survey if affected. |
| 21 | 57NW.D | Fields 12 and 13 | SP547787 | Catthorpe | Prehistoric flint scatter and possible Roman pottery scatter. Mostly but not entirely outside PFE survey area. | Survey if affected. |

Table 3: Modifications to the Archaeological Sites Between Stages 1 and 2 of the Evaluation

| Site Number | Type of Site | Site Identified in Stage 1 | Modification to Site in Stage 2 | Archaeological Potential |
|---|---|---|---|---|
| 1 | Cropmark | Yes | Area extended | High |
| 2 | Alluvium | Yes | Unchanged | Uncertain |
| 3 | Cropmark | Yes | Area extended | High |
| 4 | Alluvium | Yes | Area extended | High (northern part only) |
| 5 | Cropmark | Yes | Eliminated from further evaluation | Outside study area |
| 6 | Cropmark | Yes | Area extended | High |
| 7 | Alluvium | Yes | Unchanged | Uncertain |
| 8 | Alluvium | Yes | Unchanged | High |
| 9 | Alluvium | Yes | Eliminated from further evaluation | Negligible |
| 10 | Former Borrow Pit | Yes | Eliminated from further evaluation | Negligible |
| 11 | Alluvium | Yes | Area extended | High |
| 12 | Alluvium | Yes | Unchanged | Uncertain |
| 13 | Alluvium | Yes | Eliminated from further evaluation | Low |
| 14 | Cropmark | Yes | Area extended | High |
| 15 | Ring Ditches | Yes | Unchanged | High |
| 16 | Alluvium | Yes | Eliminated from further evaluation | Outside study area |

| | | | | |
|---|---|---|---|---|
| 17 | Former Landfill Site | Yes | Eliminated from further evaluation | Negligible |
| 18 | Former Topsoil Dump | Yes | Eliminated from further evaluation | Negligible |
| 19 | Cropmark | No | Identified | High |
| 20 | Cropmark | No | Identified | High |
| 21 | Flint Scatters | No | Identified | Uncertain |