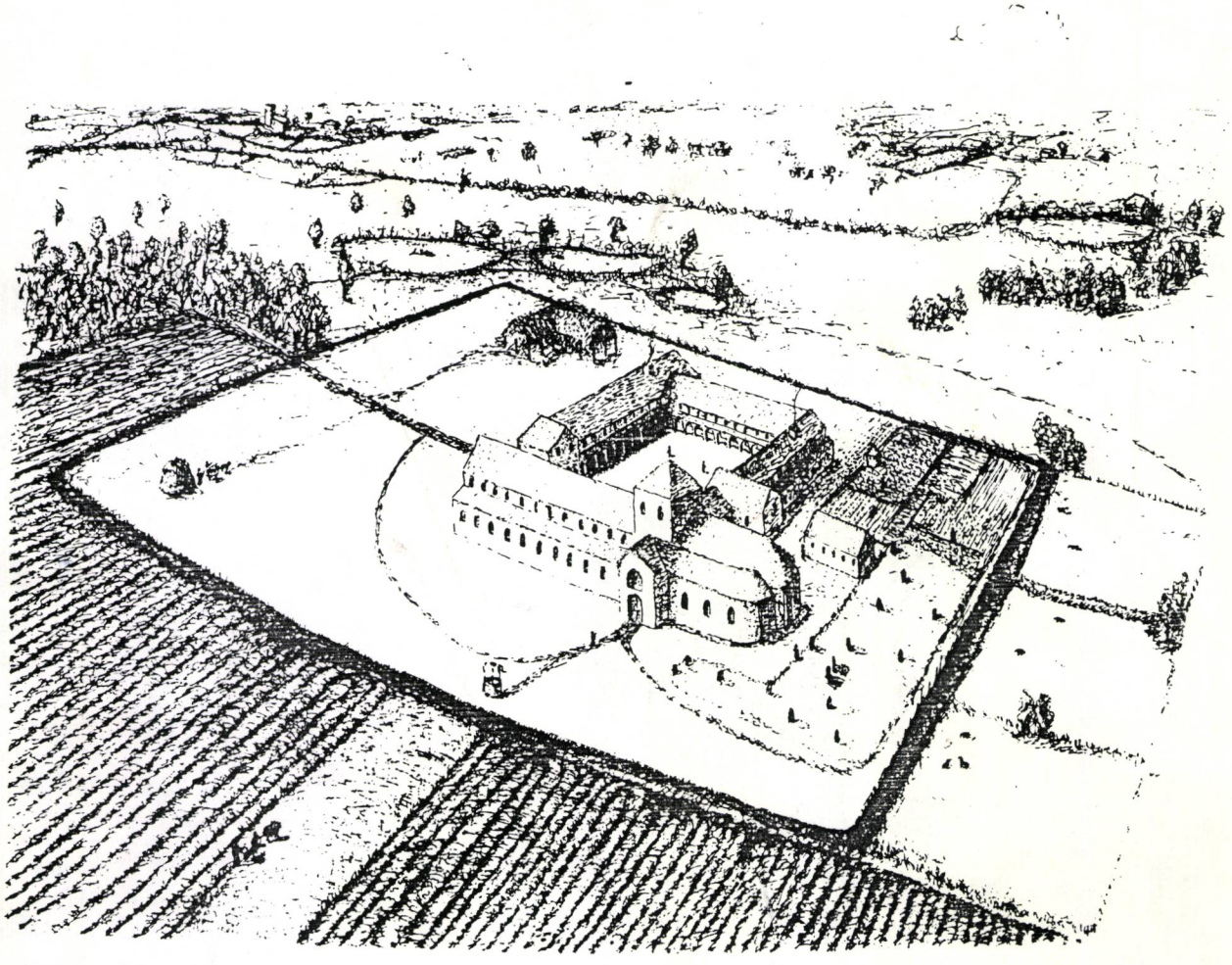

West Midlands Archaeology
Twenty Seven 1984
Council for British Archaeology Group Eight

COVER ILLUSTRATION

SANDWELL PRIORY AND ITS LANDSCAPE c. 1250

A RECONSTRUCTION BASED ON EXCAVATED REMAINS, SURVIVING FEATURES AND DOCUMENTARY EVIDENCE, SHOWING THE PRIORY CHURCH, CLOISTER AND OTHER BUILDINGS, BARNS, GARDENS INFIRMARY, CEMETERY, ENCLOSURE DITCH, FISHPONDS AND ARABLE LAND.

DRAWN BY CATHERINE FLOOD,
SANDWELL VALLEY ARCHAEOLOGICAL PROJECT.

WEST MIDLANDS ARCHAEOLOGY 27

West Midlands Archaeology
Twenty Seven 1984
Council for British Archaeology Group Eight

Edited By
Susanne Haselgrove

Coventry (Lanchester) Polytechnic

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EDITORIAL

My comments as editor of West Midlands Archaeology number 27 must be prefaced by my sincere apologies for its late appearance due to illness and production difficulties. Despite these problems it has been a pleasure to be involved with a publication which demonstrates such a lively and varied range of archaeological activity within the CBA 8 area. It is evident that both full and part-time archaeologists are active in researching and investigating the whole spectrum of past human activity. It is encouraging to note how 'landscape archaeology' is now accepted as the norm for studying the evolution of human settlement in an area with the automatic use of archaeological, documentary, botanical and environmental evidence alongside each other to reconstruct the most complete picture possible of past human activity.

Another most encouraging trend is the evident recognition of archaeologists' responsiblities to make their discoveries accessible to a non-specialist audience. Perhaps it is too optimistic to assert that the days are finally gone when the final outcome of archaeological investigations was the production of a specialist monograph. However many of the projects reported in this volume demonstrate the belief that the presentation of the results of archaeological investigations to the public who often paid for their research and excavation must be a prime concern of archaeologists.

The development of scientific methods for the investigation of archaeological artefacts has helped to further our understanding of prehistoric communities considerably; however their use for analysing artefacts of the protohistoric and historic communities of the post-Roman periods has been limited to date. Therefore Roger Brownsword's investigations are a particularly welcome demonstration of what analyses can be done. It is now for the arcahaeological community to evalate the behavioural context of the production of these artefacts.

I should like to close this introduction by expressing my thanks to those who have helped in the production of this volume : Phil Talbot for typing the text, Lisa Scott for laying out the cover design based on Mike Hodder's illustration and the Visual Aids and Reprographics Section of Coventry (Lanchester) Polytechnic for printing and producing the volume.

Susanne Haselgrove
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Priory Street, COVENTRY, CV1 5FB

SUMMARY OF WORK REPORTED

SITE * Reported in Part One		PAGE	WORK REPORTED	PERIODS REPRESENTED Mes	Neo	BA	IA	RB	EM	Med	PM	Mod
ALCESTER Bleachfied St	WA	54	Urban excavation					———		———		
ALCESTER Stratford Rd	WA	102	Anglo-Saxon brooch analysed						———			
ALDMINSTER Knaven Hill	WA	54	Survey of presumed hillfort									———
ALVESTON MANOR	WA	102	Anglo-Saxon brooch analysed						———			
BAGINTON	WA	102	Anglo-Saxon brooch analysed						———			
BASCHURCH The Berth	SH	54	Survey of previous investigations				———					
BENTHALL	SH	55	Four excavations of industrial sites								———	
BIDFORD ON AVON	WA	102	Anglo-Saxon brooch analysed						———			
BIRMINGHAM Deritend	WM	56	Salvage							———		
BIRMINGHAM King's Norton	WM	119	Ridge and Furrow survey							———		
BIRMINGHAM Northfield	WM	57	Salvage at St. Laswrence Church									———
BIRMINGHAM Northfield	WM	117	Ridge and Furrow survey							———		
BISHOP'S TATCHBROOK	WM	57	Field Survey	———	- - -	-		———		———		
BLISTS HILL	SH	57	Mine engine excavation								———	
BRANSFORD BRIDGE	WA	102	Anglo-Saxon brooch analysed						———			
BRIERLY HILL The Old Wind	SH	58	Standing building survey of canal building								———	
BROOKHAMPTON Kineton	WA	58	Field survey of a Roman villa	- - - - - - -				———		———		
BROSLEY WOOD	SH	58	Salvage of kiln waste								———	
CHESTERTON & KINGSTON	WA	59	Field survey after deep ploughing							———		
COALPORT	SH	59	Standing building survey of bottle kiln								———	
DUDLEY *	ST	†	Excavation & survey of castle site							———		
DROITWICH 32-8, High St	HW	60	Urban excavation					———			———	
DROITWICH Old Bowling Gr.	HW	83	Chronology of a salt-working site				———					
DRITWICH Upwich	HW	61	Excavation of a salt-working site						———			
EASENHALL	WA	62	Spearhead found		———							
EMSCOTE	WA	102	Anglo-Saxon brooch analysed						———			
HENLEY IN ARDEN	WA	64	Archaeological and documentary survey of BEAUDESERT							———		
IRONBRIDGE	SH	64	Standing building survey of slaughterhouse								———	
JACKFIELD	SH	65	Excavations of tile and iron works and of kiln waste								———	
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KINGSBURY *	WA	41	M42 survey - no archaeological traces								———	
LIGHTMOOR FURNACES	SH	66	Trial trenches at furnace sites							———		
LEEK WOOTTON	WA	67	Field survey of moadted site							———		
LITTLE DAWLEY	SH	67	Excavation and standing building survey							———		
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MANCETTER Cherry Tree Fm	WA	67	Excavation of pottery kilns					———				
MANCETTER Nuneaton Rd	WA	69	Urban excavation					———		———		
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MYTON	WA	69	Salvage collection of pottery							———		
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PERSHORE	HW	70	Trial excavations around abbey						———			
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SEDGEBARROW	HW	89	Interpretation of unstratified pottery and landscape features						———			
STAFFORD	ST	122	Excavation and display of castle site						———			

SITE * Reported in Part One			WORK REPORTED	Mes	Neo	BA	IA	RB	EM	Med	PM	Mod
STRETTON ON FOSS	WA	102	Anglo-Saxon brooch analysed						-----			
STOKE ON TRENT	ST											
Dudson's Bakery, Hanley		70	Excavation of pottery kiln debris								-----	
Hanley		71	Trial excavation along bypass route								-----	
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WOOTTON WAWEN	WA	72	Standing building survey of church and field survey						----------			
WROXETER	SH	73	Excavation of Roman town and fortress					-----				

KEY

COUNTIES

SH	SHROPSHIRE
ST	STAFFORDSHIRE
HW	HEREFORD AND WORCESTER
WA	WARWICKSHIRE
WM	WEST MIDLANDS

PERIODS

Mes	MESOLITHIC	8000 - 5000 BC
Neo	NEOLITHIC	4000 - 2000 BC
BA	BRONZE AGE	1900 - 800 BC
IA	IRON AGE	700 - 1 BC
RB	ROMANO-BRITISH	1 - 400 AD
EM	EARLY MEDIEVAL	400 - 1000 AD
Med	MEDIEVAL	1000 - 1500 AD
PM	POST-MEDIEVAL	1500 - 1700 AD
Mod	MODERN	1700 - 1984 AD

NOTES FOR CONTRIBUTORS

WEST MIDLANDS ARCHAEOLOGY VOL. 28 1985

Contributions for Part One (max. 2000 words, 10 figures) on topics of general interest or major excavations should reach the Editor by FRIDAY 10th JANUARY 1986.

Contributions for Part Two (max 300 words, 1 figure) containing notes of research work or field survey relatiing to individual projects should reach the Editor by FRIDAY 10th. JANUARY 1986. These contributions should follow the format as set out in this volume.

Wherever possible reports should be accompanied by their NATIONAL GRID REFERENCE and, preferably, their SMR number.

Contributions for Part Three (max 600 words, 1 figure) on general surveys or putting forward hypotheses, commentaries or reviews should reach the Editor by FRIDAY, 31st. JANUARY 1986

CONTRIBUTIONS SHOULD BE SENT TO

The Editor,
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Birmingham Museum and Art Gallery,
Congreve Road
BIRMINGHAM B3 3DH

DUDLEY CASTLE ARCHAEOLOGICAL PROJECT - FIRST INTERIM REPORT (1983-1984) - P. BOWLAND

1. INTRODUCTION

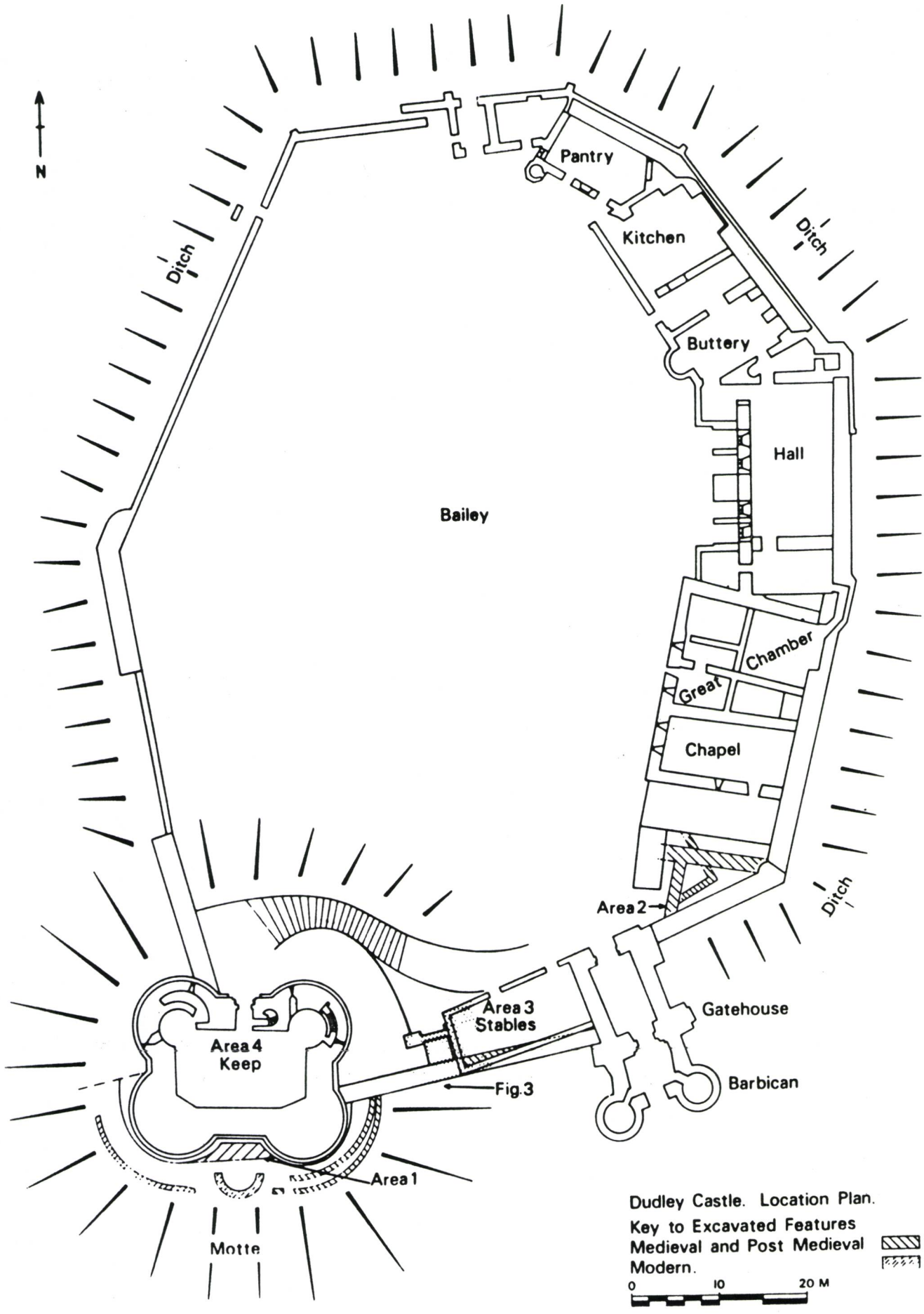
Dudley lies in the heart of the Black Country, ten miles west of Birmingham and six miles south of Wolverhampton (SO 93 90) and its Castle dominates the town from a hilltop position at the northern end of the medieval market place.

The castle is now situated within the environs of Dudley Zoo and in 1981 began to give grave cause for concern since the natural weathering of the stone, in particular the sandstone, was being further aggravated by modern pollution, to the extent that some structures were in danger of collapse. Accordingly, in 1982, Dudley Zoo Development Trust co-ordinated the first stages of a massive repair and consolidation programme supported by local and central government and by public subscription.

Dudley Castle Archaeological Project was set up in August 1983 on the advice of Philip Barker in his capacity as archaeological consultant to the Development Trust. The Project is designed to work on several levels, not only functioning as a research excavation but also supplying information and material to enhance the Monument's tourist potential and providing worthwhile work for the long-term unemployed on a Manpower Services Commission Community Programme.

To these ends architectural survey and area excavation is being carried out on several areas of the Castle with the eventual aim that the excavated remains by consolidated and the finds and information displayed within an on-site museum. On a more day to day basis the information gained is made generally available by information boards, displays and guided tours and by illustrated lectures and interim publications.

For a month previous to starting work on the site, the fifty-strong team of adult workers undergo training in archaeological technique and are given an introduction to the historical context of the castle and excavations. Training is continued on site throughout the year enabling all aspects of basic recording to be understood and accomplished by previously unskilled workers who may then feel better equipped to rejoin the jobs market.


N
Ditch
Pantry
Kitchen
Ditch
Buttery
Hall
Bailey
Chamber
Great
Chapel
Area 2
Ditch
Area 3
Stables
Gatehouse
Area 4
Keep
Fig.3
Barbican
Area 1
Motte
Dudley Castle. Location Plan.
Key to Excavated Features
Medieval and Post Medieval
Modern.
0
10
20 M

MAIN BUILDING PHASES (see Location Plan opposite)

Late 11th century	Fitz Ansculph	A Motte and Bailey castle of which the earth-works survive.
Early 12th century	De Paganel	The timber castle re-fortified in stone but demolished in 1175 on the orders of Henry II, very little extant masonry survives. Later occupied as an undefended Manor?
Late 13th century	De Somery	Construction of the Keep, Gatehouse and main defensive walls. Licence to crenellate granted in 1264 and work in hand by 1273. However much of the surviving work, the Keep and Gatehouse especially, can probably be attributed to John de Somery (d. 1321).
Late 14th century	De Sutton	Refinement of the defences by the addition of the Barbican and possibly the provision of new entrance arrangements from Bailey to Keep associated with the new defensive wall concentric to that Tower. Alteration of the domestic arrangements with the construction of the surviving Chapel and Great Chamber.
Early 16th century	John Dudley, Duke of Northumberland	Construction of the main domestic range in the new 'Renaissance' style. Designed by William Sharrington during the 1530's, this incorporated the Sutton Chapel and Great Chamber and consisted of a Great Hall, Services area, Kitchen and Servants Quarters.
Mid 17th century	Ward	Dudley Castle slighted in 1647 after the Civil War, leading to the reduction of the south side of the Keep to foundation level, the destruction of stretches of curtain wall to leave these key points isolated and breach the rest of the defensive circuit.
Late 17th century		Repair of the breaches with thinner 'blocking' walls and construction of of the 'Stables' or 'Lodgings' between the Keep and Gatehouse. Domestic occupation continued.
1750		A great fire destroyed the Domestic Accommodation and occupation ceased.

2. CURRENT EXCAVATION

.1 Area 1 - The motte Top - Figs 1 and 2

The clearance of scrub and removal of turf and topsoil and more modern layers revealed the foundation of a semi-circular brick structure some 3m in diameter, which had been cut into the centre of the side of the Motte. This feature is certainly modern and may relate to either the First or Second World Wars, perhaps being a pillbox or the base of the searchlight battery or small AA gun. Interestingly parts of the top course of foundation consist of small roughly cut limestone blocks which may suggest that the superstructure was designed with camouflage in mind to merge into the backdrop of the Keep.

A further post-medieval element was a wall which ran around the eastern drum of the Keep, cutting back the Civil War desctuction levels. This wall was crudely constructed and may be associated with laying out of this elevated area as a "Prospect" after the Castle was no longer occupied; alternatively it could be related to the semi-circular feature described above.

Over most of the area, however, excavations exposed the top of dense rubble spreads (1 to 1.5 metres deep) probably resulting from the demolition of the Keep in 1647. Interspersed amongst the mainly limestone rubble are concentrations of cut sandstone blocks, including carved and highly decorated stones which no doubt represent the remnants of the fine ashlar dressings used to delineate the doors and windows of the Keep. Similarly, at the base of the rubble, many cut sandstone blocks were found embedded into the earlier ground surface. These blocks included a high percentage of coping stones and fragments of decorated windows similar to those in the surviving crenellations such a distribution is incompatible with the unstructured dispersal of material produced by an explosion; therefore it seems likely that the Keep was picked down from its top.

All worked sandstone from the rubble has been recorded in situ and removed for detailed recording and drawing; to date this material amounts to over six hundred architectural fragments from which it is already proving possible to reconstruct architectural features.

Within and just below this rubble, on the pre-demolition ground surface, was a high concentration of finds including over 2000 pot-sherds and nearly 3000 small finds. The deposition of these can be closely dated to within

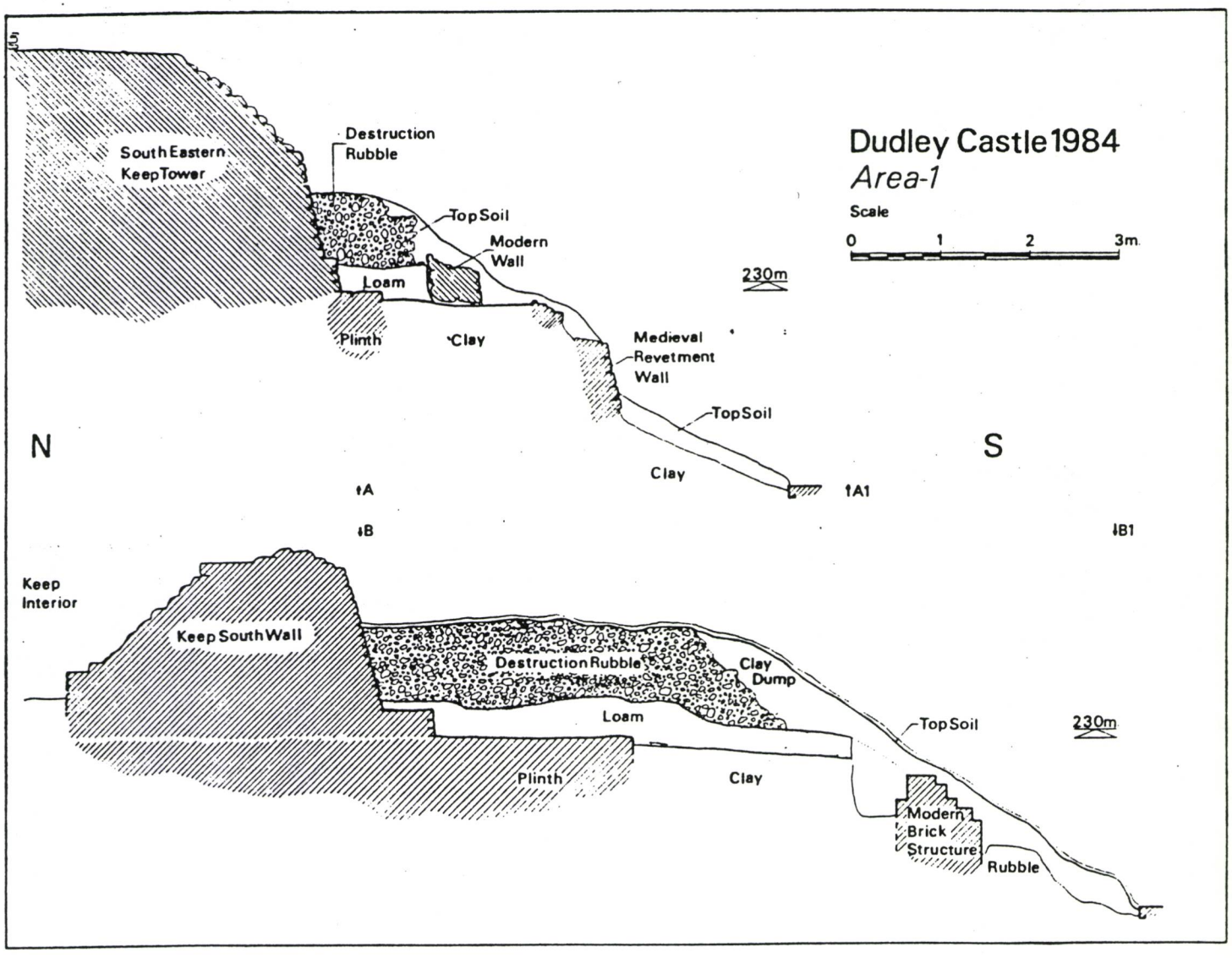


Fig. 1 Area 1 Main Building Phases

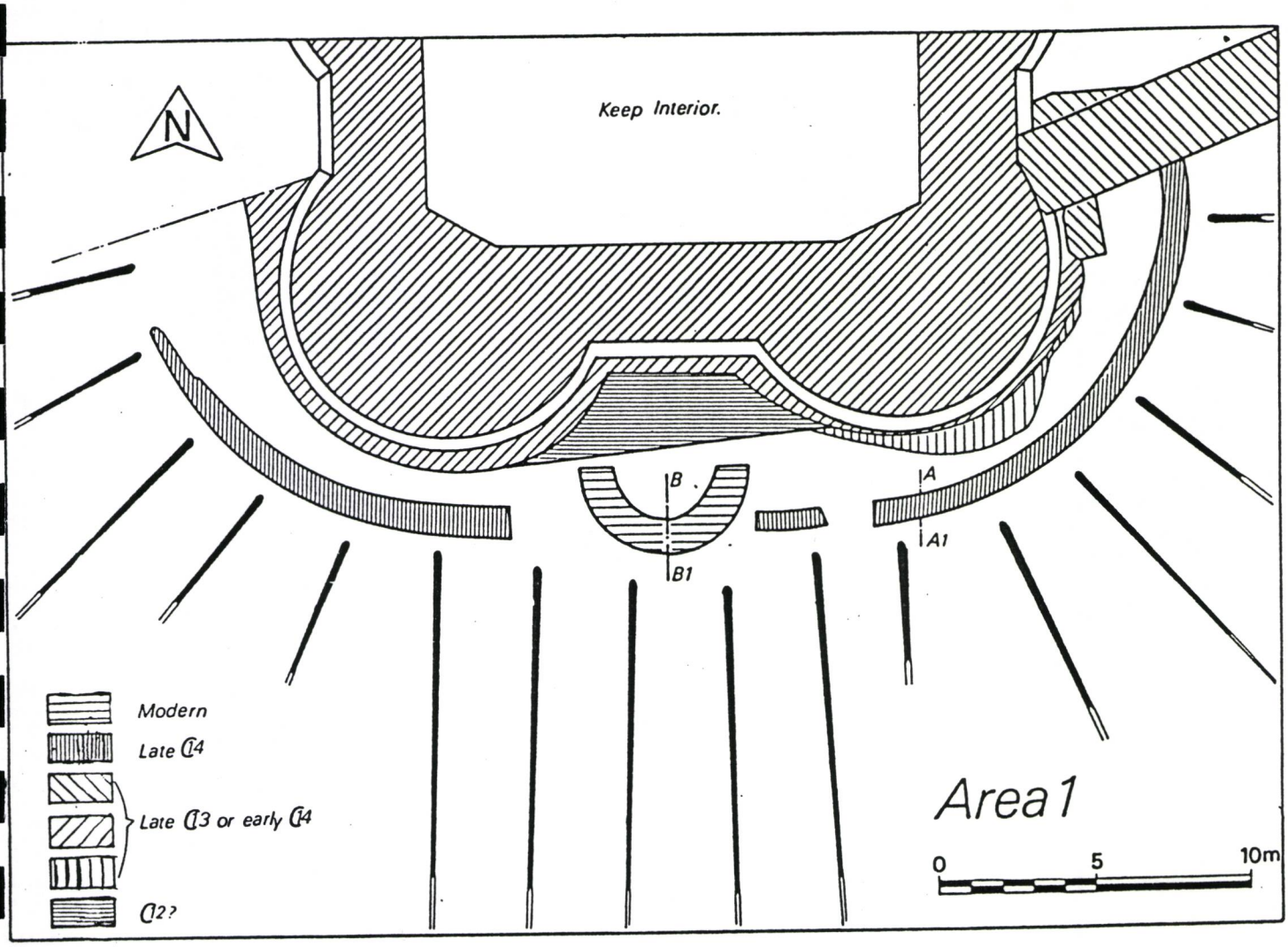


Fig. 2 Area 1 Sections N - S

a few years of the slighting of 1647 which has its obvious implications as regards cross dating with other sites and will enable a reappraisal of some of the accepted date-ranges for post-medieval pottery.

The ground-surface sealed beneath the destruction rubble was made up of a dark brown loam some 0.3m deep which was excavated in a series of spits. The loam appeared entirely homogenous and there was thus no clue in its physical make-up as to whether it was deposited as a single event or was the result of graduat accumulation of material. The finds also seem ambivalent since although there is a very high incidence of iron nails, window glass, window lead and roofing tile throughout, the layer; perhaps suggesting a single phase clearance of some structure, on preliminary analysis the pottery evidence would suggest that earlier fabric types become proportionately more common deeper in the layer, possible arguing for a slower accumulation.

Certainly, by the time the loam was first deposited the defensive arrangements around the Keep which the loam post-dated, were to an extent decayed and may even have been derelict, perhaps due to the general decline in maintenance which is well documented on similar sites during the later sixteenth century. Alternatively the loam could have accumulated as a topsoil as the features fell into disuse or may have been deposited expressly to level over and refurbish the area, perhaps in advance of the Civil War.

Of those features sealed by the loam the latest consisted of a wall revetting the side of the Motte and enclosing a narrow area roughly concentric to the Keep. The wall survived to an average height of 1.5m externally and was around 1.0m in width; it was built of a roughly squared limestone facing on a heavily mortared rubble core. The revettment had been constructed as a series of very short (approx. 1.2m) straight sections giving the wall as a whole a slightly facetted appearance. The area between the revettment and Keep seems at one point to have been covered with a thick and smooth pad of plaster which may also have overlain the offset foundation of the Keep. However the spread was fragmentary and mainly survived against the revettment itself, having apparently been scoured out nearer to the Keep by a series of scoops or gouges of unknown purpose.

Originally the revettment was no doubt designed to thrust the onus of defence away from the base of the Keep, by forming when at its full height a protected corridor giving access to the defenders. The "corridor" appears to have been floored with plaster (although this may have been overlain

foundation level. The masonry is mainly of well coursed and faced limestone which is slightly battered at this level although large single blocks of red sandstone have been used to quoin the junctions between the drum towers and the southern side of the Keep.

The removal of the brown loam which made up the pre-destruction ground surface exposed a second stage of masonry upon which the main batter of the Keep was founded. This feature was of a similar faced and coursed limestone construction to that of the Keep proper but formed a flat ledge whose vertical southern face was offset from the main structure from 1.0m around the south-western drum to 0.1m around the south-eastern.

This initial offset was however only some four courses deep and was itself founded upon the flat top of another and much wider bed of masonry which was faced on its southern side and which ran between the drum towers at an angle very much askew of the alignment of the Keep. At present only the top of this lower footing is visible, on a level with the clay which stretches from its southern margin. Its alignment is such that at its eastern limit the footing runs beneath the offset at the side of the south-eastern drum, however here it is abutted by a further foundation of cruder construction which is partly sealed by the clay level and then sweeps out and around the curve of the drum tower before returning towards its eastern side.

Final interpretation of the various offsets and their associated layers is no doubt premature since further excavation seems likely to provide more information, however some tentative suggestions may be offered. For instance it seems likely that the uppermost offset is contemporary with the main battery of the Keep since although its varying width makes it appear somewhat assymetrical when compared directly to the paln of the overlying structure, it nevertheless faithfully reflects that structure's basic layout with a straight side flanked by semi-circular drum towers. The same may be said of the lower offset around the south-eastern drum since this exhibits a pronounced curve around that tower suggesting both were planned in concert. It could then be further suggested that since this offset is partly sealed by the clay layer external to the Keep this layer was deposited at or after the time of construction of the Keep. In contrast the lower offset running between the drum towers lies at an acute angle relative to the Keep and is abutted by the curved footing around the south-eastern drum, suggesting that it is a part of some earlier structure re-used as a ready-made foundation.

By inference any earlier structure is likely to have been a part of those twelfth century arrangements slighted in 1175 and in this scenario the re-used foundation could well represent a remnant of the southern side of an earlier Keep. Such an interpretation could explain the quantities of destruction rubble visible beneath the clay, south of the present Keep, as having been generated by the demolition of the twelfth century structure, the resultant broken surface having been levelled with dumps of lay to create a firm surface for use with the new Keep. The abuttal of the lower foundation around the south-eastern drum and its relatively crude construction could then also be explained by its having been inserted to give a basic foundation of consistent width and depth where the new Keep extended beyond the alignment of the earlier structure.

3. POSSIBLE ENTRANCE ARRANGEMENTS (Figs 3 and 4)

Limited excavation has also been undertaken in an area on the eastern edge of the Motte, between the Keep and the "Stables" and these investigations have revealed at least two phases of entrance arrangements. This access from the Bailey to Keep was destroyed by the slighting of 1647 and by the subsequent construction of the later seventeenth century stables within whose western gable-end much medieval masonry was incorporated.

Much of the information as to sequence has been gained from detailed recording and analysis of the standing fabric from which it appears that the earliest masonry is that of the eastern curtain wall which was allied with a further wall 4m in length running north at right-angles to the curtain. This north-south wall was of coursed and faced limestone construction similar to that of the curtain wall and was pierced by a large doorway visible as an arch incorporated in later blocking. No other extant masonry can be associated with the doorway, however a vertical wall scar just north of the arch in the fabric of the wall's eastern face (Fig 4A) and a stub of masonry in a similar position at the foot of the arch on the wall's western face may represent the remnants of return walls lying on an east-west axis. The northern end of the main wall projects beyond the line of this return and is fair-faced with a slight limestone chamfer towards the base. Taken together these elements indicate that the doorway may originally have been contained within a rectangular building which ran parallel to the curtain wall and was provided with an external buttress.

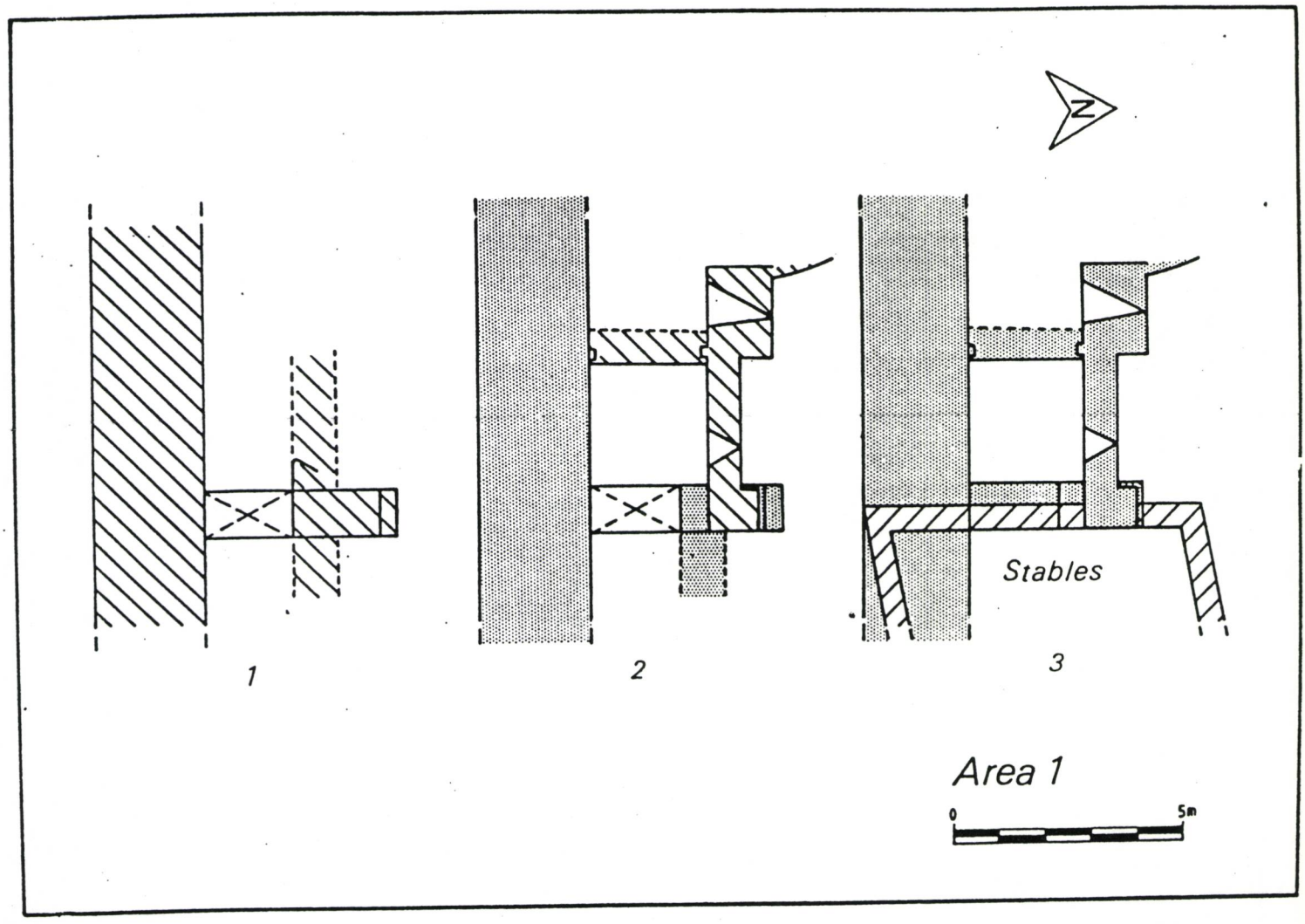


Fig . 3 Area 1 Development of Entrance Arrangements (see location plan).

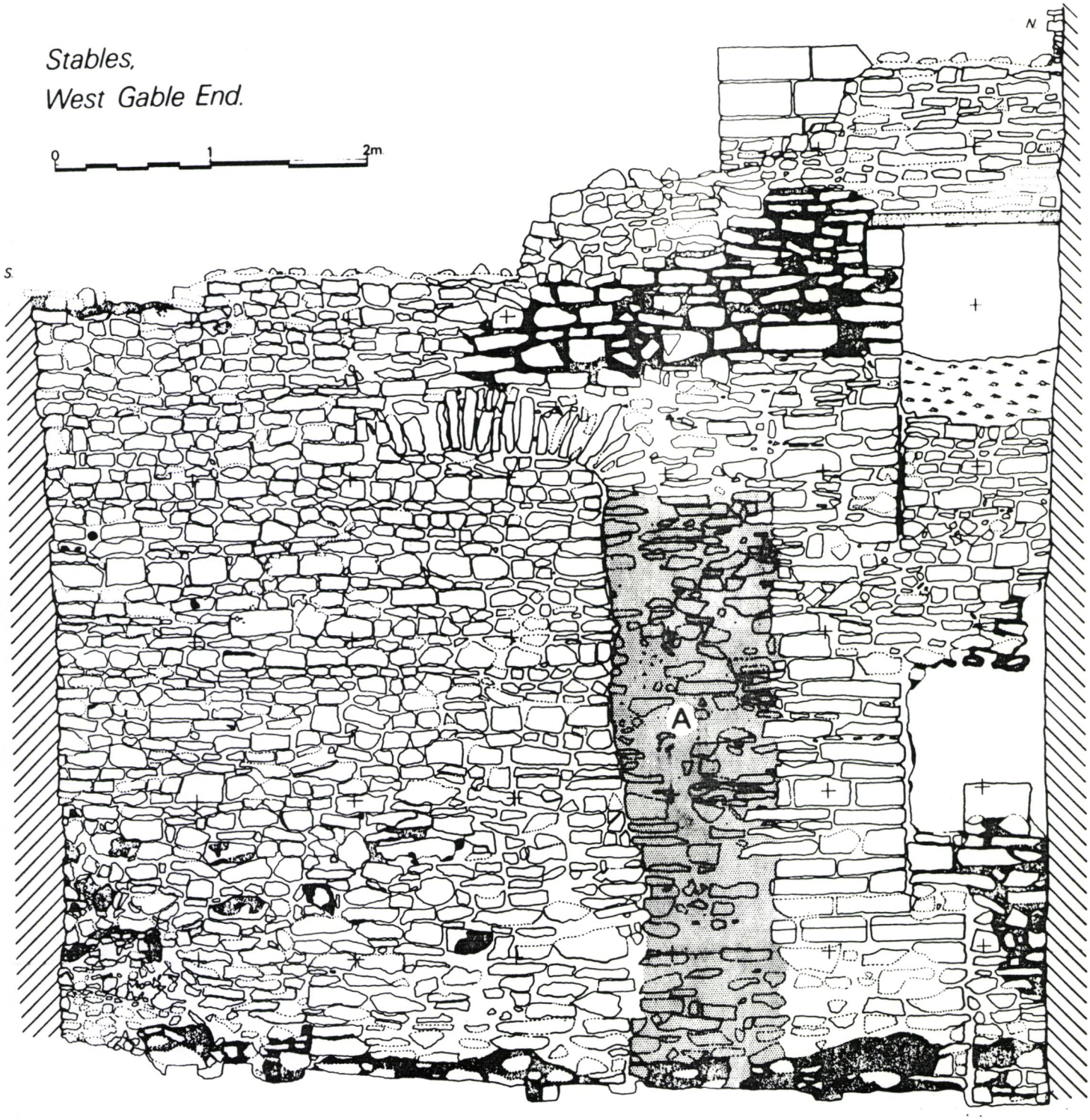


Fig. 4 Area 3 Elevation of stables' western gable end showing arch and wall scar (A)

Given the close proximity of the side of the Motte, it seems highly unlikely that such a substantial door led into a ground floor room, and the best interpretation may be that it was a door at the foot of a flight of stairs giving access to the Motte top adjacent to the Keep, although no trace of any such arrangements survived later rebuilding.

The primary entrance arrangement appears to have been completely superceded by a new build founded at the level of the Bailey and this feature abutted and overtopped the arch fabric running west of it parallel to the eastern curtain wall before returning in bond to the south to meet the curtain wall in a butt joint. A small rectangular area measuring 3m x 2.5m was thus enclosed by a shaft of masonry some 4m in depth rising from the level of the Bailey to that of the Motte top. Apparently of the some build was a wall bonded to the northern side of the new structure which revetted the side of the Motte and curved north and west around the front of the Keep towards its main entrance. The new build was almost entirely constructed using faced and coursed limestone but at a high level in its northern side green sandstone ashlar had been used for two deeply splayed arrow loops, the better preserved of which was cruciform, and for a door jamb which lay adjacent to the western edge of the masonry shaft and opposite the remnant of a similar jamb set into the eastern curtain wall. Both jambs sprang from the flat top of the western side of the new structure which was on a level with the Motte top and lower than the walls around it.

The western side of the structure had thus apparently acted as a "landing" area enclosed by the surrounding walls and giving access from the edge of the masonry shaft through a widely spaced set of doors onto the Motte top and thence around the outside of the Keep to the main entrance. Doubtless the eastern side of the access would have been protected by the revetting wall which although now slighted to a low level may originally have carried on the arrow loops surviving in the rest of the structure.

It is not clear how access was gained from the Bailey to this "landing" area. However, the continued use of a stair from the original arch must be considered unlikely as any stairs would have had to rise at an extremely acute angle given the height of the western wall of the new structure and its proximity to the arch; furthermore there is no trace in the sides of the shaft of any provision for the treads of a stair. A likely alternative which would fit the new configuration would be a planked access bridging the masonry shaft from the "landing area" to the top of the original arch from whence stairs presumably led either into the Bailey or onto the wall walk of the eastern curtain wall, however, no trace of any stair has survived the Civil War slighting and subsequent alteration of the area.

This interpretation accords with the position of the arrow loop high in the northern side of the shaft since this feature could only have been used effectively from such a level. Similarly two shallow opposed sockets set in sandstone within the northern and southern sides of the shaft adjacent to the top of the "landing" could be interpretated as having housed the ends of a pivot bar enabling any planked access to be raised and lowered.

The dating of the entrance arrangements can only be tentative until more excavation can be carried out. However it is likely that the eastern curtain wall at least dates from the general refortification of the late thirteenth and early fourteenth centuries and the associated primary entrance arrangement can probably also be dated to this period. The date of the second phase of entrance is more problematic but its general layout argues for a link with the revettment around the southern side of the Keep. Such refinements in the Keep's defences would seem to be plausibly associated with the Sutton refurbishment of the later fourteenth century.

Excavation at the base of the walls of the masonry shaft isolated an extensive layer of mortar and small stones which can be associated with the construction of the second phase of entrance arrangements. This construction deposit was directly overlain by 0.5m of various loams which were rich in pottery, bone and other finds indicating the clearance or accumulation of rubbish. A proportion of the finds seem to be of sixteenth century date although admixed with seventeenth century material and it may be that the deposit resulted from a clearance of material which had accumulated elsewhere, perhaps in areas required for use by the Civil War Garrison. Further weight is given to the inference of a planked feature by the absence of fourteenth or fifteenth century finds above the construction since this would effectively seal the area until the disrepair or dereliction of the planking allowed material to be deposited beneath it.

The rubbish deposits were sealed by a mass of destruction rubble 1.0m in depth which almost certainly resulted from the slighting of 1647. The entrance arrangements were presumably abandoned at this date, if not previously, but were, in any case, rendered completely unusable by the construction of the stables late in the seventeenth century. This building incorporated the surviving medieval masonry within its western gable end and it seems to be at this stage that the present blocking of the original arch was inserted. Where the blocking backed onto the material within the masonry shaft it consisted merely of a skin of masonry which was only faced internally to the stables; however, above those deposits, where the blocking would have been visible and exposed, it was of a double thickness and faced on both sides.

Once the stables were built there was constant and rapid accumulation of rubbish within the masonry shaft and this continued virtually to the present day with the result that at the start of excavation the whole area was covered almost to the level of the Motte top.

Excavation continues in this area but is now concerned with levels pre-dating the extant masonry and these cannot as yet be interpreted.

4. AREA 2 - BETWEEN THE CHAPEL AND MAIN GATEHOUSE (Figs 5 and 6)

This small area contained no visible trace of structures prior to excavation: it is bounded on the north by the late fourteenth century Chapel and on the south-east by a late blocking wall reinstating a Civil War breach.

However, after the removal of more modern layers, parts of the foundations of a very substantial building (Building A Fig 5) were revealed. The most substantial wall running east/west sat in a robber trench and was constructed of roughly faced limestone rubble over which copious amounts of mortar had been poured to form a 1.8m wide foundation raft. This wall was linked with another which ran north to south along the western edge of the area; it was of similar construction but was slightly narrower at 1.6m and also slightly curving.

The robber trench of the northern wall containing finds of seventeenth century date, ran beneath the present slight eastern boundary wall, presumably towards a medieval curtain wall now reduced. Therefore it seems likely that the demolition of building A was a part of the general slighting of 1647. The date of construction is more problematic since no occupation or construction levels survived post-medieval disturbance. However it seems unlikely that any structure existed in the area during the early life of the later fourteenth century chapel since this building's southern wall incorporated a first floor entrance with elaborate ogee arch, a string course and at least two windows, suggesting an original intention for it to be free-standing and visible. On this evidence it seems not improbable that Building A was a part of the mid-sixteenth century Sharrington range, certainly a building in this position would have logically continued the sweep of the new facade up to the gatehouse, eliminating what may otherwise have been considered an unsightly gap.

The northern wall of Building A cut two irregularly shaped scoops, some 0.3m deep with sloping sides which were associated with charcoal, burning and iron slag, suggesting that they were crude hearths used for iron smelting.

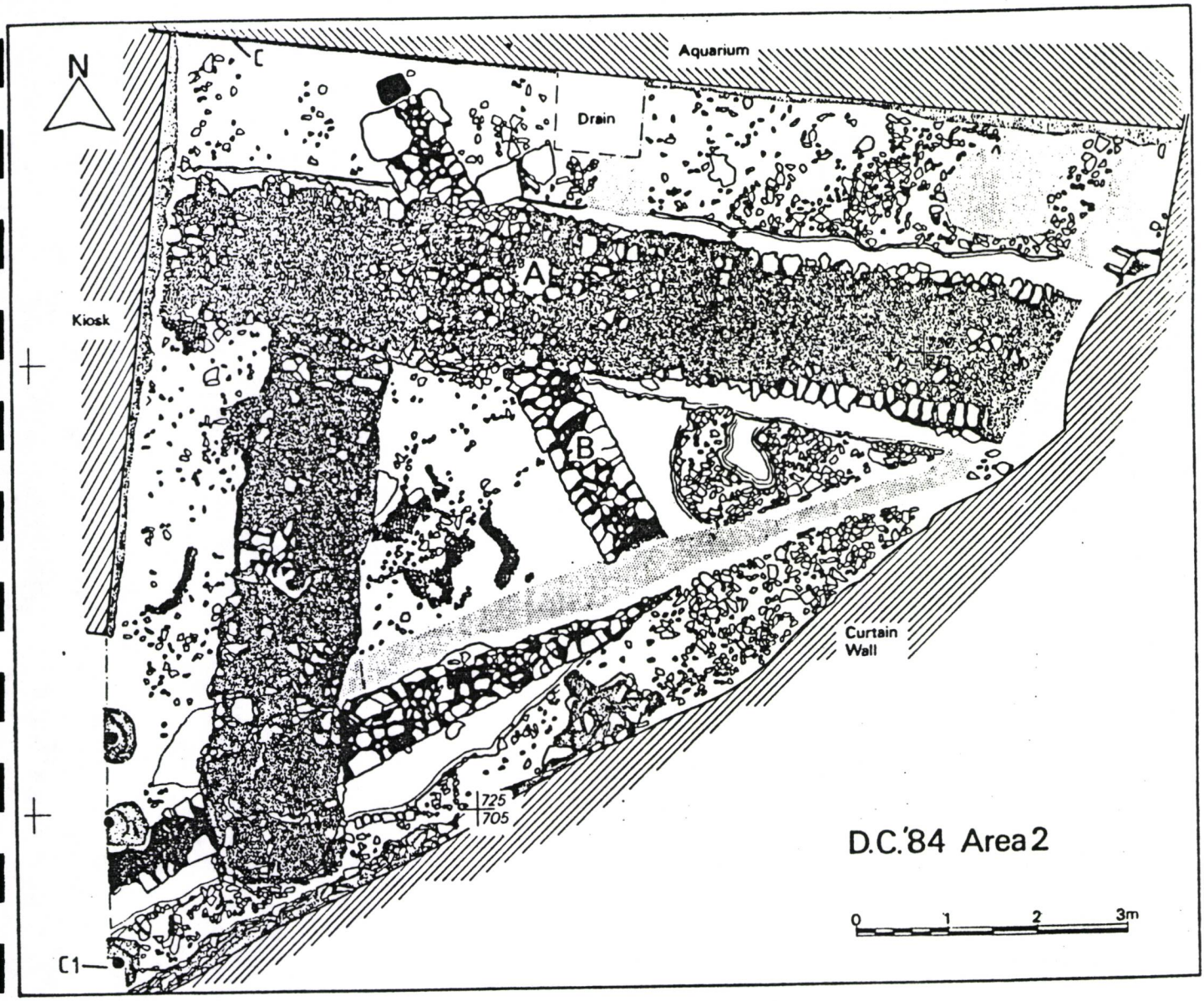


Fig. 5 Area 2 Buildings A and B

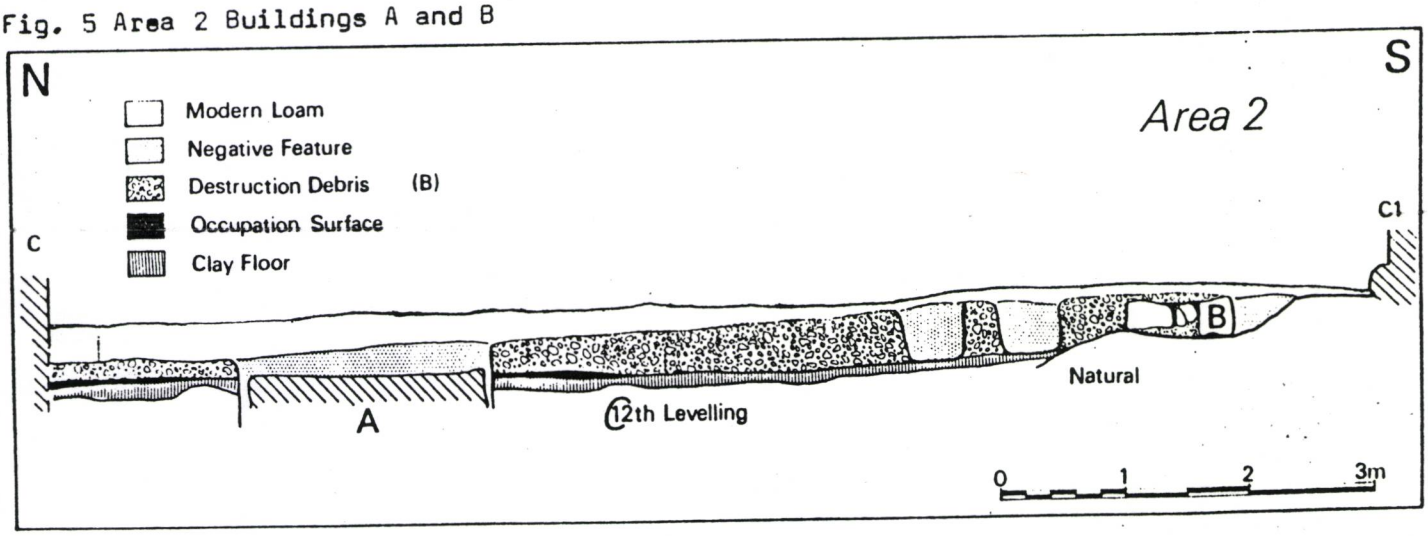


Fig. 6 Area 2 Section North - South

Both hearths post-dated the general surface through which Building A had cut and as excavation continued it became apparent that much of this surface had been created by the destruction and levelling of an earlier building laid out on a completely different alignment. The footings of this structure (Building B Fig 5) were visible as a number of sections of rough limestone walling, none more than three courses in height, which were cut through by the much more massive foundations of Building A and by modern pipe trenches. A facing off of the northern end of the eastern wall adjacent to a substantial post-hole some 0.5m in depth may represent one side of an entrance with a door post.

The interior of Building B was slightly lower than the surrounding area but had been levelled up to the top of the wall footings, the general area thus presenting a fairly flat surface after the building's demolition. The levelling material consisted mainly of rough limestone rubble in a matrix of sandy mortar probably deriving from the destroyed building itself.

The occupation surfaces within the building seemed mainly to relate to its destruction and consisted of thin spreads of loam, charcoal and burning. However traces did survive of a layer of clay, some 0.1m in depth which may have been a floor surface; it had been baked hard and fired a deep red. This intense burning, taken with burning on the internal face of the southern wall, strongly suggests that Building B was destroyed by fire.

The date and function of Building B is difficult to assess at this early stage in the excavations. However, it is noticeable that although the building is totally askew of the alignment of Building A, it aligns perfectly with a ragged masonry offset visible at the base of the eastern curtain, a post Civil War blocking wall. This offset can be identified as a remnant of a large defensive wall pre-dating the fourteenth century Gatehouse and thus presumably relating to the twelfth century stone castle slighted in 1175. If this is the case it may be logical to assume that the destruction of Building B is also associated with this slighting and its position next to the site of the main Gatehouse may further suggest that it was used as a Guardhouse.

Excavation is now concerned with layers pre-dating the construction of Building B and these are composed of levels tipping from the back of the natural clay towards the courtyard. Essentially they seem to be levelling layers consisting of clay with some unworked limestone rubble and their removal revealed a slight terracing or scarping of the normally sloping

natural clay along the western and southern limits of the area. A level surface was revealed running into the Bailey and an initial examination of this area has demonstrated traces of a turf line and post-pits running in a slight curve alongside and internal to the scarping, suggesting a timber building.

More work needs to be done before conclusions can be drawn; however, it seems likely that these are features associated with the eleventh century timber castle, later superceded by some re-arrangement of the castle's interior, perhaps associated with the twelfth century stone refortification.

5. AREA 3 - THE STABLES

At the western end of the stables the limited excavations to assess the damage caused by the modern insertion of large metal water tanks established that stratified deposits survived in a strip some 1.5m in width around the tanks but that they were badly cut about by service pipes.

Enough survived however to suggest that despite its ornate facade the building was indeed used for stabling, since there existed a pitched brick floor on the southern side of the building sloping to the centre where it met a level floor of limestone flags. Presumably the bricked area was used for stalls, sloping to aid drainage, possibly towards a central drain.

Excavation also exposed part of the southern curtain wall which had been reduced to a low level in 1647 and on top of which sat both the southern wall of the stables and its brick flooring.

Of great potential interest was a small area of limestone flagging which ran beneath the brick and limestone floor adjacent to the stable's western gable end, since this may be associated with the blocked archway and entrance arrangements described previously.

6. AREA 4 - THE KEEP

Very recently excavation has commenced within the Keep and is at present concentrated on modern deposits. However it can already be stated that there is a relative lack of destruction rubble, perhaps due to eighteenth century clearance and that there are indications that floor levels and traces of the internal arrangements do survive.

7. ARCHITECTURAL SURVEY

As a necessary adjunct to excavation, recording of the standing fabric has been undertaken by detailed elevation drawing. To date work has concentrated on the complete recording of the stables in advance of restoration. Work on the gatehouse and Motte entrance arrangements continues and is nearing completion and it is hoped to obtain a record of the whole southern building range.

8. CONCLUSION

As can be appreciated from the 'Main Building Phases' the potential of Dudley Castle for archaeological investigation is unusually great. This potential has now been confirmed by excavation which has revealed both in the Bailey and on the Motte, well preserved stratification, which is capable of providing a sequence from the foundation of the 11th century earthwork castle to the present day. In 1985-86 work will continue to complete the current excavations and in the medium term it is intended that the whole Motte-Top area should be investigated so that fourteenth century arrangements can be consolidated and laid out for public display. The architectural survey will also continue with a view to completely recording the Chapel and Great Chamber in advance of consolidation.

9. ACKNOWLEDGEMENTS

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Much of the success of the Project is due to the Site Supervisors, S.J. Linnane (Senior Supervisor), Wayne Cocroft, Stephanie Ratkai, Sue Reynolds (Supervisors) and C.H. Kelland, and to adult workers both past and present.

The Project also gratefully acknowledges the assistance of:-

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R. Bridgeman and Sons Limited
The Concord Venture
Dudley and West Midlands Zoological Society
Dudley Metropolitan Borough Council
Historic Buildings and Monuments Commission
S.T. Walker and Partners, Consultant Architects
Dave Symonds, Birmingham Museum
Dave Barker, Stoke Museum
Mike Hodder, Sandwell Valley Archaeological Project

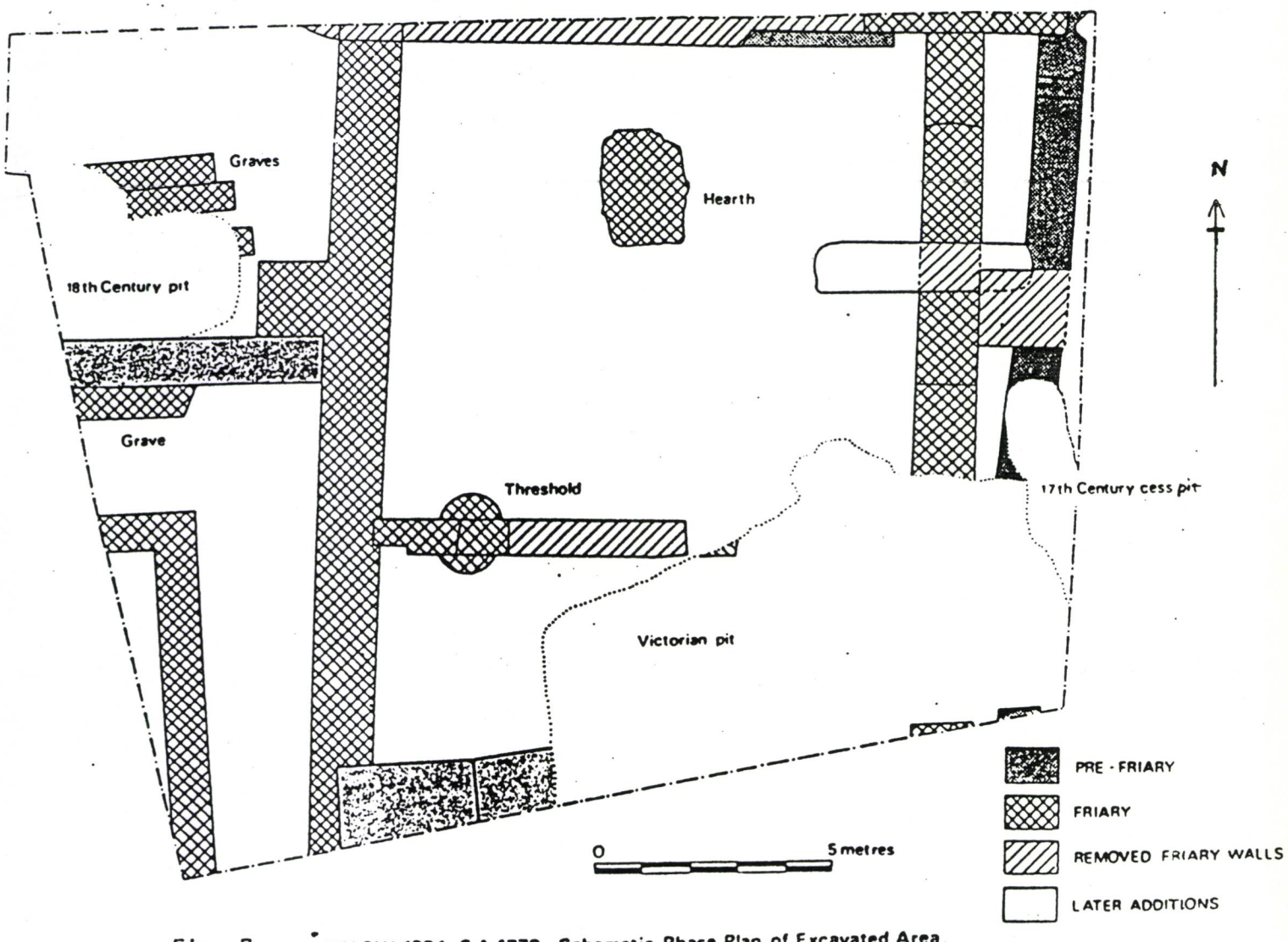


Fig. 7 LUDLOW 1984. S A 1772 Schematic Phase Plan of Excavated Area

EXCAVATION OF THE CARMELITE FRIARY, LUDLOW, SHROPSHIRE - AN INTERIM REPORT -

ANNETTE ROE

1. INTRODUCTION

Following preliminary investigations (Roe, 1983), excavations were carried out on the site of the Carmelite Friary in Ludlow from February to September 1984 (SO511752). The documentary history of the site has been extensively studied by Peter Klein of the Ludlow Historical Research Group and it seemed likely that a good sequence of occupation from the twelfth to eighteenth century could be studied in a town where very little archaeological evidence has previously been recovered.

The town of Ludlow was founded in the late eleventh century and the area between the inner and outer town gates on Corve Street is thought to have been burgaged by the late twelfth century. Eight of these plots were later taken over for the construction of the Carmelite Friary in 1350. The Friary was a "fayre and costlie thing" (Leland: 1538) and waxed and waned in fortunes until the Dissolution in 1538. About fifty years later a wealthy lawyer built a house called "The Friars" on the site probably reusing some of the surviving foundations of the friary buildings.

2. RESULTS (Fig 7)

Pending analysis of the finds and stratification from the first season's excavation, the following results can be reported:

The earliest occupation levels, belonging to the twelfth and thirteenth century tenements suggested by documentary sources, have so far only been glimpsed in deep features and in a narrow area immediately outside the east wall of the later friary building where features include a hearth of burnt stones set on edge and three scoops containing twelfth and thirteenth century pottery. The function of these features cannot be determined from the small area so far excavated but it is hoped that further information for this phase will be forthcoming in the 1985 season.

These earliest features are sealed beneath the floor surface of a stone building, again only contacted in the eastern side of the site, between the present street frontage and the eastern friary wall. This stone building has walls c. 1m wide, constructed from limestone rubble bonded with clay and faced on the inside with a layer of white plaster, and a ceramic tiled floor the remains of which can be seen at the base of the wall.

Documentary evidence for the pre-friary period suggests that of the tenements on the site, one was worth substantially more in rent and belonged to the wealthy merchant Lawrence de Ludlow who was responsible for the foundation of the Friary in 1350. It is known that he donated this house to the friars and it was probably left standing and used during the construction of the main friary complex. It is possible that further investigations may allow the early stone building contacted during the 1984 excavation to be identified as this house.

The friary complex was extensive with buildings covering a large area; in the excavated area there is evidence for one large building, the function of which is not yet clear but which appears to be a tall single storied hall, with a cemetary and other buildings to the west. The hall is constructed in limestone from Whitcliffe on the river Teme in Ludlow and bonded with mortar. The construction layers excavated suggest that the majority of mortar mixing and stone working was undertaken in the northern half of the site and there are many shallow stake holes in this area which may represent the impressions left by scaffolding. The building is c. 11m wide and c. 17m of its length has been excavated. It may have been a great deal longer than this as the southern wall was not contacted in the excavated area. A partition wall runs east/west across the building with a stone threshold either side and two large square projections which may be buttresses or supports for an external staircase.

Inside this building on top of the construction levels is a layer of compacted clay with itself is not clearly a floor surface but would have made a suitable base for a wooden floor. Cut into this clay layer are a series of drainage trenches (one of which contained a piece of lead pipe in situ) and a large sandstone hearth. Other features cut into the clay are thought to be associated with activities undertaken after the removal of the wooden floor at the time of the Dissolution; these could include melting down of lead from the windows, roofs and pipes, and other metalwork.

Part of an inhumation cemetery belonging to the friary lay to the west of the main building. There were three complete burials and the remains of two others truncated by a later pit. Of the complete skeletons one was an elderly male with bad arthritis in the lower spine and osteoporosis in the legs; one was a young female of about thirty years, and the other a girl of about twelve. These may have been members of one family who wished to be buried within the friary precinct.

The layers sealing all the friary levels are mainly rubble from the destruction of the buildings and it is from this rubble that a clearer picture of the architectural detail can be gained. There are several fragments of finely worked stone, both sandstone window tracery and work in a very fine limestone, again natural to the Whitcliffe area. Some of the stone and plaster-work has traces of red and gold paint as do a number of window glass fragments.

Later the area was levelled with imported topsoil and buildings, thought to belong to Thomas Blashfield, a lawyer of the late sixteenth century, were constructed using earlier friary walls for foundations.

3. CONCLUSION

From the results so far there is evidence for four main phases of occupation. The earliest is the twelfth century tenements, followed by the stone house thought to belong to Lawrence de Ludlow, neither of which have yet been fully excavated. The third phase is represented by the hall belonging to the friary, and the fourth by the Dissolution activities and the construction of Thomas Blashfield's house.

The 1984 season was extremely successful in obtaining a sequence of occupation over a period of 800 year but because the preservation of strata was much better than expected and the structures more complicated, it was not possible to excavate the earliest layers in the available time. The 1985 season will provide an opportunity to investigate the pre-friary stone house and occupation evidence for the twelfth and thirteenth centuries which have not been well tested archaeologically in Ludlow before.

4. BIBLIOGRAPHY

Roe, A. 1983 : Ludlow, Shropshire West Midlands Archaeology XXIII, 107-108.

5. ACKNOWLEDGEMENTS

The Birmingham University Field Archaeological Unit wishes to thank the Manpower Services Commission, the University of Birmingham, the Walker Trust, the Douglas Turner Trust, and all the subscribers who made the project possible. Thanks are also due to all those who provided equipment, machinery, accommodation and help in organising fund-raising events, manning the public viewing platform, and excavation and finds work, particularly members of the Ludlow Historical Research Group and to Peter Klein for his unfailing support in all aspects of the project.

METROPOLITAN BOROUGH OF SANDWELL

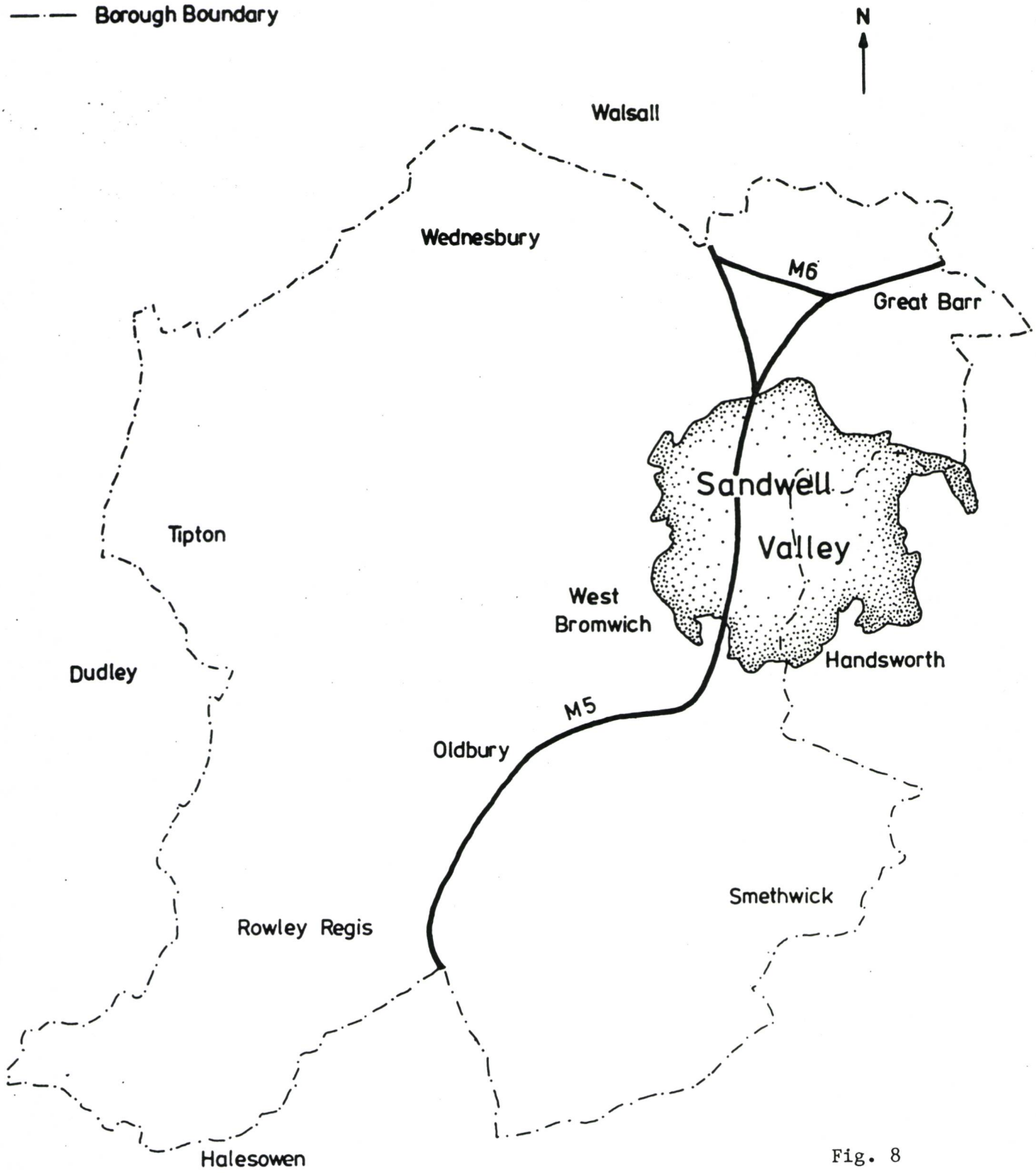


Fig. 8

MH/AC

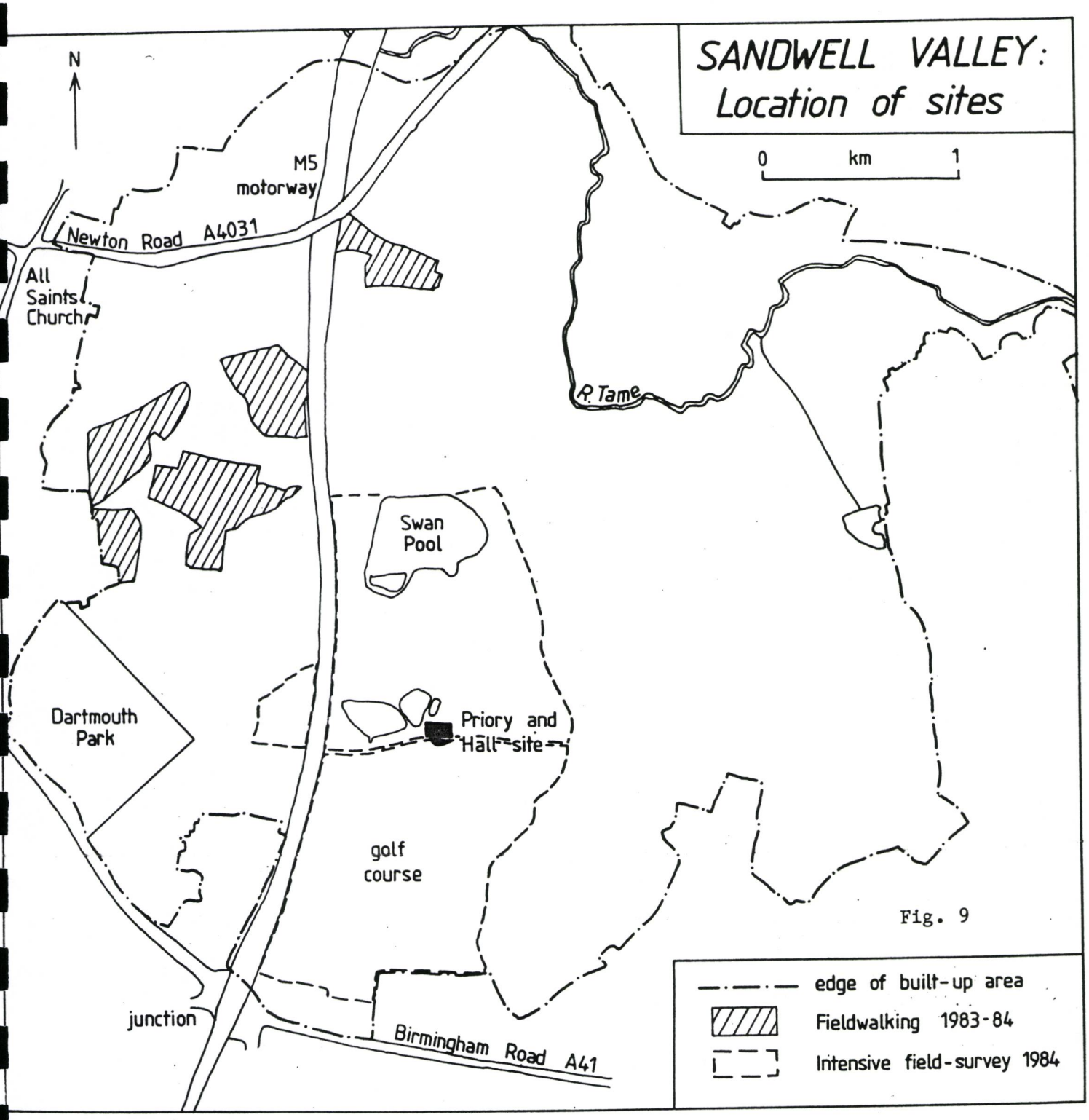

SANDWELL VALLEY:
Location of sites
N
0 km 1
M5
motorway
Newton Road A4031
All
Saints
Church
R. Tame
Swan
Pool
Dartmouth
Park
Priory and
Hall site
golf
course
junction
Birmingham Road A41
edge of built-up area
Fieldwalking 1983-84
Intensive field-survey 1984

Fig. 9

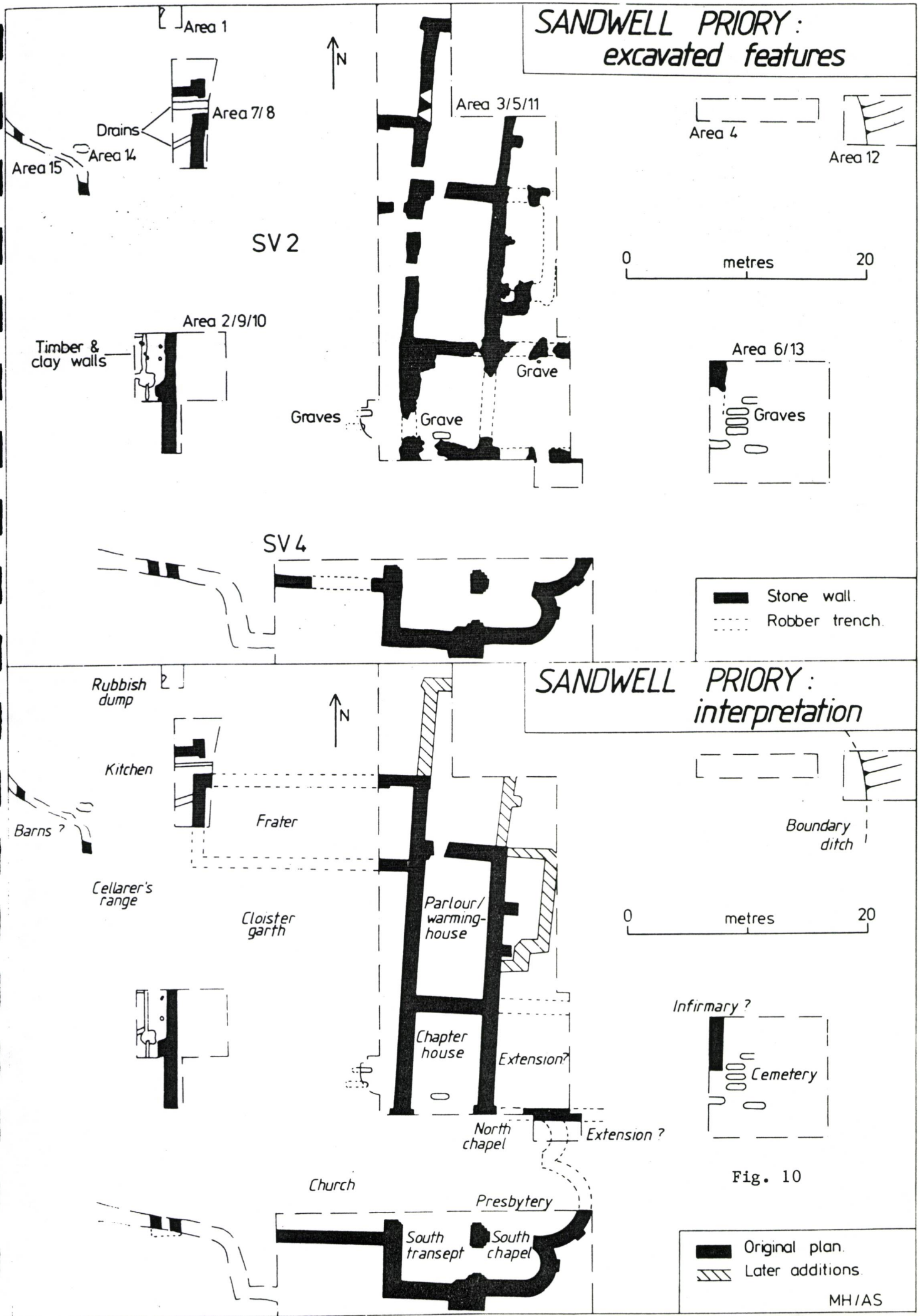

SANDWELL PRIORY:
excavated features
Area 1
N
Area 7/8
Drains
Area 14
Area 15
Area 3/5/11
Area 4
Area 12
SV 2
0
metres
20
Area 2/9/10
Timber &
clay walls
Grave
Graves
Grave
Area 6/13
Graves
SV 4
Stone wall.
Robber trench.
SANDWELL PRIORY:
interpretation
Rubbish
dump
N
Kitchen
Frater
Barns ?
Cellarer's
range
Cloister
garth
Parlour/
warming-
house
Chapter
house
Extension?
North
chapel
Extension ?
Boundary
ditch
0
metres
20
Infirmary ?
Cemetery
Church
Presbytery
South
transept
South
chapel
Original plan.
Later additions.
MH/AS

Fig. 10

SANDWELL VALLEY ARCHAEOLOGICAL PROJECT - M.A. HODDER

1. INTRODUCTION (Figs 8 and 9)

In 1982 the Sandwell Valley Archaeological Project began with the aim of recording and preparing for public display the archaeology and history of the Sandwell Valley, one of the few open spaces of any size in the West Midland conurbation. This project has involved documentary research, archaeological survey and excavation, as well as field botany; work has also been undertaken elsewhere in Sandwell Borough. The Project is wholly financed by the Manpower Services Commission as part of its Community Programme, and sponsored by the Technical Services and Education Departments of Sandwell Metropolitan Borough Council. Brief reports of the Project's work have appeared in the past two years (Hodder 1982; 1983 a and b). In 1984 excavations on the site of Sandwell Priory and Hall, and a field survey of the Sandwell Valley continued and an archaeological survey of Sandwell Borough was begun.

2. SANDWELL PRIORY AND HALL EXCAVATIONS (Fig 10)

Documentary sources reveal that Sandwell Priory was a Benedictine monastery founded c. 1180 near to a hermitage adjacent to the spring known as the Sand Well; it was suppressed in 1524, and parts of the priory buildings were subsequently occupied as a dwelling known as 'Priory House'. In 1705-11 Sandwell Hall was built on the site, partly incorporating earlier walls; the Hall was demolished in 1928. Excavations began in 1982 and to date have revealed four main phases of occupation on the site. It is hoped to complete work on this part of the site in 1985.

.1 Mesolithic

About eighty worked flints, including finished tools, blades, cores and waste flakes, have been found both in later contexts and in a layer directly above the subsoil, where this is preserved. These artifacts probably indicate seasonal occupation around the Sand Well spring, Heat-cracked quartzite pebbles may also be associated with prehistoric activity.

.2 The Medieval Priory

The layout and development of Sandwell Priory can now be reconstructed with some confidence from the results of excavations and from documentary evidence, particuarly the information contained in a survey made in 1526,

after its suppression. The plan and dimensions of the church and claustral buildings are very similar to those of Dudley Priory, a Cluniac house 8km to the west, which was founded some twenty years earlier than Sandwell, under the same overlord, Gervase Pagnell (Radford 1940).

Current excavations have explored part of the church, the east range, parts of the north and west ranges, the cemetery, boundary ditch and possible barns. The church, to the south of the cloister, has an apsidal presbytery and apsidal south chapel. The south transept, part of the south wall of the nave and the probable west end of the church have also been located. No evidence has yet been found for the south aisle, which is mentioned in the 1526 survey. The northern half of the church lies under a modern track and is at present not available for excavation. A small area excavated to locate the apse of the north chapel, which was expected to mirror that of the south chapel instead revealed a straight length of wall running to the east. This feature may represent a later extension to an original apsidal chapel to create the two north chapels mentioned in the 1526 survey.

The small rectangular room at the south end of the east range has been interpreted as the chapter house which may also have been subsequently extended eastwards. To the north is a larger rectangular room, the parlour and warming house. The east wall and the eastern ends of the north and south walls of the north range (frater) have been located. There were two later additions to the east range; at its north end a room with narrower walls built on a different alignment to the rest of the range, and to the east, a room built across earlier external buttresses. One of these rooms is probably the 'newly-built chamber next to the dormitory' mentioned in 1330. At the north-west corner of the cloister, walls and two sandstone drains have been found to the south of a rubbish dump located in trial excavations. These features are interpreted as parts of the kitchen.

The west (cellarer's) range is represented by a stone wall (with a possible buttress on its western side) (Area 2,9,10) at right angles to the projected line of the north range. To the west is a timber and clay structure consisting of clay walls built around a post and plank framework, with larger posts at wall corners. Working on the lower part of a large waterlogged post suggests that originally it may have been a horizontal beam reused here as a vertical member. This feature could be a partition inside a stone west range, but the size of the large waterlogged post suggests that it was a freestanding building constructed and used before all the stone priory buildings were completed.

To the west of the main claustral buildings, two sandstone wall footings revealed in a cable trench (Area 15) may belong to the outlying barns mentioned in the 1526 survey. Moving eastwards (Area 6, 13) a stretch of sandstone wall may be part of the infirmary and to its east at least six graves, from the priory cemetery, were found. To the north-east (Area 12) a large ditch at least 2.5m deep and at least 7m wide may have been the original precinct boundary of the priory. It had been deliberately backfilled with clean clay, and the greater parts of a green-glazed jug and a Deritend Ware jug, both dateable to the thirteenth or fourteenth centuries, were found above the backfill. The backfilling may have taken place when the priory buildings were extended in the fourteenth century (see above).

3. Early Post-Medieval

In the Priory House period (1530-1705) the main occupied area apparently consisted of the east range and the church's north and south transept, with the crossing. The entrances to the presbytery, nave, and south chapel were blocked off. The partitioned interior of the east range had earth floors, later replaced by brick, and a brick fireplace. A rough sandstone wall was built parallel to the east wall of the east range with a cobbled walkway and laid between the two. In the former church area, a garden wall was built across the site of the nave. A cobbled yard was laid to its south, and to its north post holes cut into demolition rubble from the priory may well represent a timber building. Later, the wall across the south chapel entrance was levelled, drains were laid, and the area made into a garden. The post-built structure was replaced by another timber building based on beams recessed slightly into the ground surface. A brick garden wall was built to its west, with a series of chambers on its western side. This wall and the brick floors in the east range probably belong to the documented refurbishment of Priory House following acquisition of the site by Lord Dartmouth at the beginnning of the eighteenth century.

4. Later Post-Medieval

In the eighteenth century there was extensive landscaping associated with the construction of Sandwell Hall. To the south of the Hall clay was dumped onto the church area to create a terrace, and in the north-east (Area 4) earlier deposits were totally removed and to the east a garden terrace was created (Area 12) by dumping earth over the Hall's construction debris. The Hall buildings incorporated the walls of the east range and the level of the interior of the range was raised with rubble from the demolition of Priory House.

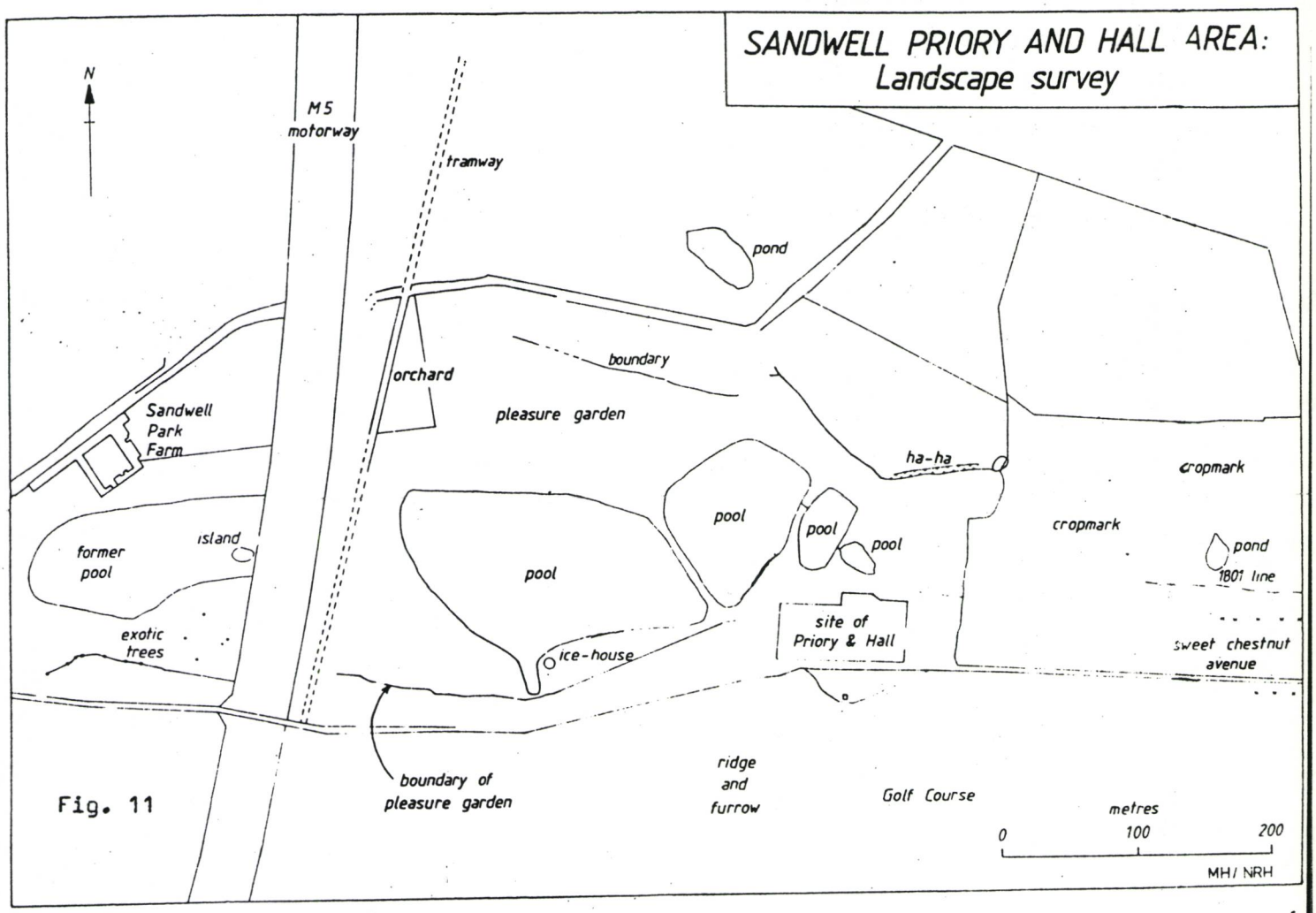

SANDWELL PRIORY AND HALL AREA:
Landscape survey
N
M5 motorway
tramway
pond
boundary
orchard
pleasure garden
Sandwell Park Farm
ha-ha
cropmark
cropmark
pool
pool
pool
pool
former pool
island
pond
1801 line
exotic trees
site of Priory & Hall
ice-house
sweet chestnut avenue
boundary of pleasure garden
ridge and furrow
Golf Course
metres
0
100
200
MH/ NRH

Fig. 11

Excavations on the church area and east range continue and will be completed during 1985.

3. SANDWELL VALLEY SURVEY (Figs 9, 11)

.1 Background and Previous Work

The purpose of this survey is to trace the development of the landscape of the Sandwell Valley and to assess its future archaeological potential by studying maps, written documents and aerial photographs, recording of earchworks, trees, vegetation and grazing patterns, searching stream banks and fieldwalking ploughed land. The survey began in 1982 with a documentary study and the recording of the most prominent earthwork features (predominantly ridge-and-furrow) and a study of vegetation and horse grazing patterns on the cropmark of a filled-in ha-ha ditch to the east of the priory and Hall site. In 1983 fieldwalking ploughed land in the north-west of the valley yielded prehistoric flints and Roman, medieval and post-medieval pottery. In searches of stream banks two 'burnt mounds' of probable Bronze Age date were found. On the ha-ha cropmark the grazing activities of horses were monitored and surveys of vegetation showed fluctuations in the numbers of different species along transects across the cropmark. In late 1983 the species and location of the older trees around Sandwell Hall were recorded, and their ages estimated, in order to detect planting patterns. In the garden area to the north and east of the Hall site several ornamental trees were discovered, including a locust tree, evergreen oak, swamp cypress and Lucombe oak. Further east, the remains of an eighteenth century avenue of sweet chestnut trees lining the approach to the Hall were found.

.2 Work in 1984

In 1984 further fieldwalking in the northern part of the Valley produced flints and medieval pottery, as well as traces of ridge-and-furrow. In the field containing cropmarks the study of horse grazing was completed and a detailed plan was made of the length of the sward in the field. These showed clearly that grazing was heaviest on the line of the fill-in ha-ha ditch. Further vegetation surveys were carried out in the field and computer analysis of the results has shown that each of the sample areas surveyed, on the western cropmark, the eastern cropmark, heavily-grazed parts of the field other than on the cropmarks, and lightly-grazed areas, is characterised by distinct associations of species.

A map of c. 1801 shows a boundary line following the northern part of the western cropmark turning east to run parallel with the northern side of the sweet chestnut avenue. This feature is best interpreted as the original line of the eighteenth century ha-ha, dividing both the garden and the avenue from the park beyond. The western cropmark continues south beyond this line and may therefore mark an earlier boundary line, possibly that of the outer precinct of Sandwell Priory. Excavations planned for 1985 will investigate the relationship between the 1801 line and both cropmarks.

An intensive field survey of the area around the site of Sandwell Hall and Priory was begun in late 1984, and has shown that the ha-ha ditch continues north-west beyond the surviving section; a brick wall has been located on the side of a feature here which was formerly thought to be a drainage ditch. To the west, remains of the eighteenth and nineteenth century pleasure garden were discovered; the garden extended from Sandwell Hall to its eighteenth century home farm, Sandwell Park Farm, and surrounded a series of pools. Probably originally the fishponds of Sandwell Priory, these pools were landscaped and enlarged in the eighteenth century after the construction of Sandwell Hall. The pleasure garden is bounded by woodbanks in the north and south-west, and by a waterfilled channel in the south-east. In the south-west, a group of exotic trees was recorded, undoubtedly relicts of the pleasure garden. The group included a cut-leaved beach, a cut-leaved hornbeam, a Lucombe oak and several turkey oaks.

To the north of the Hall and Priory site, the main features discovered were ponds, field boundaries and former trackways. The ponds may have originally been pits dug for clay for tiles and bricks for the Priory and Hall. The boundaries and trackways can be related to maps which indicate a reorganisation of the field system here in the early nineteenth century.

The area to the south is now occupied by Sandwell Park golf course. Broad ridge-and-furrow immediately south of the Priory and Hall site and elsewhere on the course is probably the result of medieval cultivation; a sandstone quarry may have provided stone for the priory buildings. In the eighteenth century this area became a deer park and the stone boundary wall, some isolated sweet chestnut trees and boundary earthworks of woodland survive from this landscape; an old bunker marks the site of a temple marked on an 1837 map. In the nineteenth century the area was used as a military training ground, and there are remains of targets. Much of the former parkland was let out in 1891 and extensive areas of narrow ridges, some of which are contained in small field enclosures, are probably the result of ploughing at this time. The golf course was first laid out in 1897, and old tees remain, together with the quarry pits dug to obtain sand and gravel for their construction.

The intensive field survey will continue in 1985, with the aim of covering the whole of the present open area of the Sandwell Valley. More fieldwalking and stream bank searches will be undertaken.

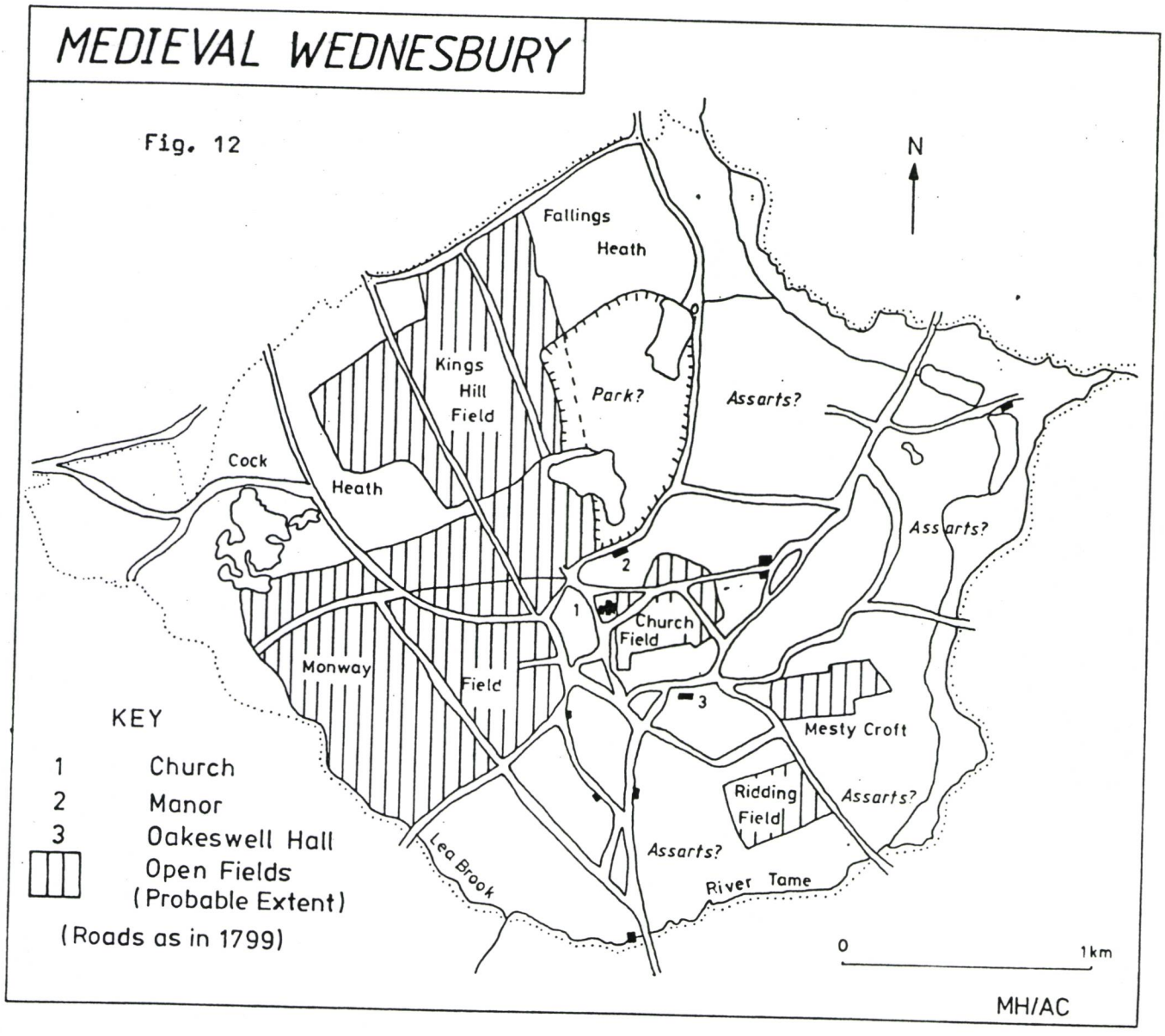
Although just outside the Sandwell Valley 1799-1801 enclosure maps have been used to plot the open fields of West Bromwich which then lay to the north and west of All Saints Church. The name 'Warstone Fields' to the south-east of the church on a map of 1837 suggests that there may have been another open field here. The remainder of the Sandwell Valley, beyond the open fields and extending to the parish boundary of West Bromwich in the east, may have been woodland and rough pasture in the early Middle Ages, providing a suitable location for a hermitage and appropriate land to be given to a monastic community.

4. WORK IN SANDWELL BOROUGH (Figs 8, 12)

In 1983 excavations on the site of Oakeswell Hall in Wednesbury revealed the remains of a late medieval timber building. Documentary research has since been carried out in order to reconstruct the topography of medieval Wednesbury. The probable original extent of the open fields was plotted from a 1799 map which marks the surviving parts of the open fields named in medieval documents and field enclosures which are clearly blocks of former open field strips. Field names and the lines of field boundaries suggest that the park, mentioned in 1484, encroached on part of Kingshill Field. The open fields are all in the western part of the parish, around the church and manor house; in the east there are small irregularly-shaped fields, probably produced by documented medieval assarting and enclosure. The assarting including the creation of two small open fields, Mesty Croft and Ridding Field.

In early 1984 the Project assisted Birmingham Science Museum in recording the remains of the housing of an eighteenth century steam engine which was used to pump water between two levels on the canal system, at Bridge Street/ Rolfe Street, Smethwick.

The Project is now undertaking an archaeological, historical and topographic survey of the whole of the Metropolitan Borough of Sandwell to trace its development from earliest times to the Industrial Revolution and to assess its future archaeological potential. The first stage of the survey involved the collection of records of sites and finds from the West Midlands County Sites and Monuments Record and other sources. A catalogue, distribution


MEDIEVAL WEDNESBURY
Fig. 12
N
Fallings Heath
Kings Hill Field
Park?
Assarts?
Cock Heath
Assarts?
2
1
Church Field
Monway Field
3
Mesty Croft
Ridding Field
Assarts?
Assarts?
Lea Brook
River Tame
KEY
1 Church
2 Manor
3 Oakeswell Hall
Open Fields (Probable Extent)
(Roads as in 1799)
0
1km
MH/AC

maps and a commentary are being produced for each period. A search of maps and written records is now in progress, concentrating on the major settlements. During the survey, flints found in a garden in Oldbury and medieval pottery and site records from an excavation in Oldbury town centre in 1967 have been studied.

5. PUBLIC DISPLAY AND EDUCATION

Education is seen as a fundamental function of the Project. Talks and site visits have been arranged for both primary and secondary schools in the surrounding area. An education assistant has now been appointed to develop this work.

In the Sandwell Valley a heritage trail will be laid out, starting at Sandwell Park Farm and including the pleasure gardens, ice-house, Sandwell Priory site, the ha-ha and a former colliery tramway. Sandwell Park Farm is currently being restored to serve as an interpretation centre for the Valley and contains small exhibition of information about the Project and objects found in excavations. A new wing to house a museum is planned. The ice-house was excavated and restored in 1982-83, and an observation mound has been constructed near the ha-ha. Once excavations have finished part of the Priory remains will be consolidated for permanent display.

A small exhibition of medieval and post-medieval pottery from the excavations at Oakeswell Hall has been mounted in Wednesbury Library, opposite the site of the excavation. The remains of the Smethwick Engine House will probably be consolidated for display as part of the Galton Valley Canal Park Scheme, administered by West Midlands County Council and Sandwell Metropolitan Borough Council.

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7. ACKNOWLEDGEMENTS

In 1984, excavations were supervised by Ian Grieg, John Carmichael, Gary Higgerson and Steve Webster, documentary research and education by Jackie Glew, and field surveys by Steve O'Donnell and Nicky Hewitt. The figures for this report were drawn by Adrian Cottrell, Nicky Hewitt and Andy Skitt.

THE M42 SURVEY IN WARWICKSHIRE - GEORGE DEMIDOWICZ

1. INTRODUCTION

Since work began on the construction of the M42 Birmingham to Nottingham motorway in May 1984, it was too late for the Field Group to survey the line of the motorway before top soil stripping, so most effect was invested in examining the stripped area before the following phase of major construction work. The strategy adopted was to fieldwalk the stripped section, collecting artefacts and the examining of archaeological features.

There were three contracts in Warwickshire - Water Orton, Kingsbury and Polesworth South, a distance of about ten miles. The first effort in late May and early June was concentrated at the junction of the motorway with the A5 (Watling Street), coincident with the junction of the Kingsbury and Polesworth South contracts. This site was considered to be the most promising area and was also the earliest to be threatened by deep excavation. The area turned out to be the most rewarding and the main findings were a heavy concentration of medieval pottery and three post holes, one of which contained a course Roman gritted ware.

2. POLESWORTH SOUTH (Site A)

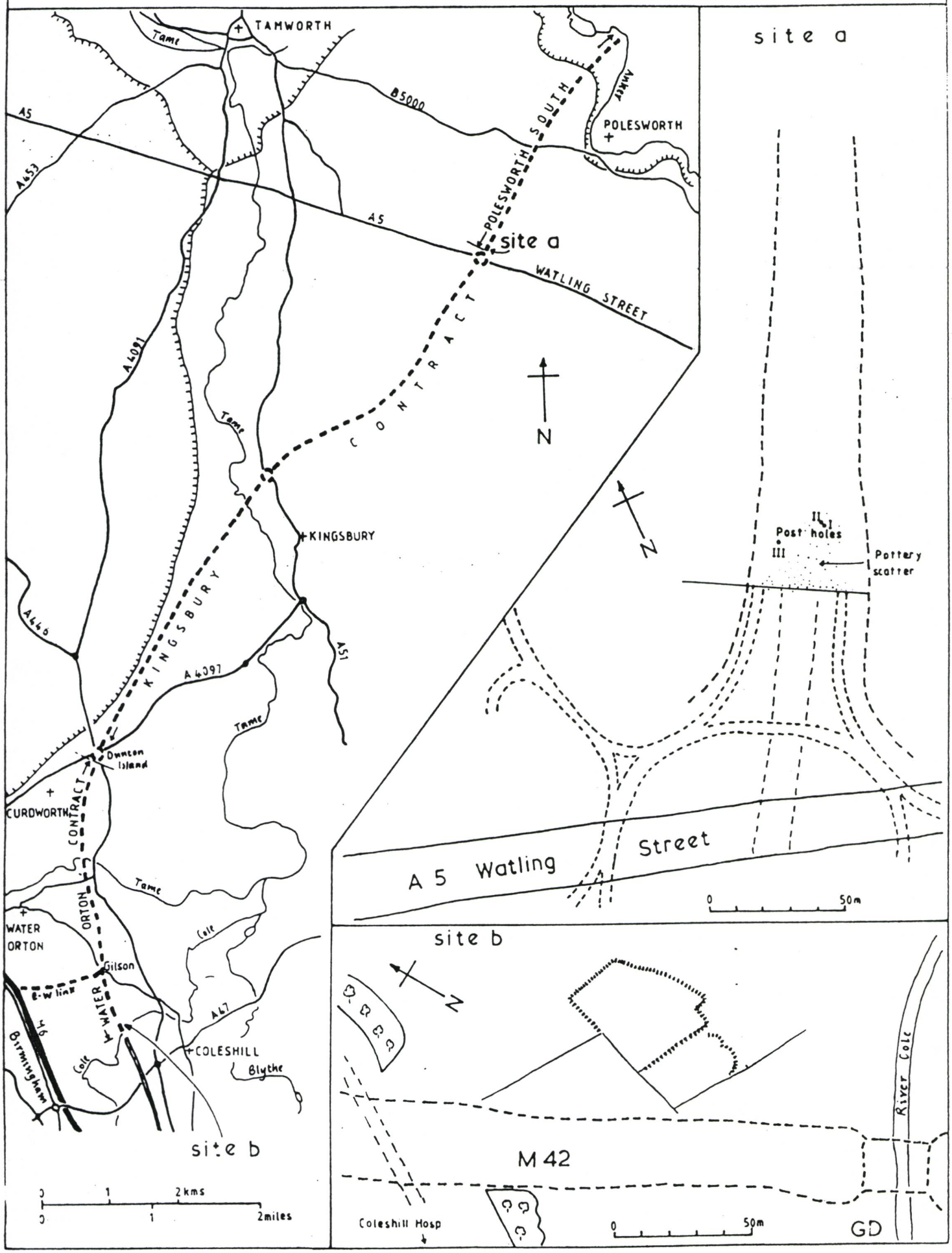
.1 Post Holes (SK 244008)

Post holes I and II were situated 1.3m apart and post hole III approximately 17 metres away and as a group roughly 100 metres north of the A5. The fill was brown clay mixed with charcoal with patches of red clay and charcoal embedded, particularly in post hole III. The sub soil was a light creamy sandy loam. The post holes I, II and III were 45-49cms., 46cms., and 49-63cms. respectively in diameter and between 8 and 10cms. deep. As destruction was imminent they were completely emptied and a sherd of coarse gritted pottery consisting of part of a base and side was uncovered at the very bottom of post hole II. It was a dark green-brown probably wheel thrown and has been dated as almost certainly Roman. The find of Roman pottery at the base of the post hole suggests that these features form part of a Roman structure.

M42 SURVEY (Birmingham-Nottingham)

B'HAM and WARKS ARCH. SOC FIELD GROUP

Fig. 13



.2 Pottery (SK 244008)

A considerable amount of pottery was found in the immediate area of the post holes and eight types have been distinguished:

(i) Pink with reduced blue core. Soft, very gritty. Roman? (one sherd).

(ii) White or buff, sometimes with reduced blue or black core. Hard, many small angular inclusions. Surface untreated or decorated with patches of mottled green glaze or streaks of red slip. Forms storage jar with expanded rims and strap-handled jugs. 'Cannock Chase ware', 'red-painted ware' or 'buff ware'. Probably twelfth to thirteenth centuries (57 sherds).

(iii) Red surface, reduced black core. Friable, gritty. No glaze. Forms cooking pot, probably twelfth to fourteenth centuries (4 sherds).

(iv) Orange pink with buff exterior slip. Hard fabric. Spots of green glaze on exterior surface. Twelfth to fourteenth centures (5 sherds).

(v) Pink with white interior slip. Patch green glaze on interior surface? Twelfth to fourteenth centuries (one sherd).

(vi) Red with white exterior slip. Medieval (one sherd).

(vii) Orange with reduced core. Hard, course fabric. Traces of green glaze on interior. Medieval (one sherd).

(viii) Pink, hard fabric with maroon slip. Post-medieval (one sherd).

Clearly no significance can be attached to the single sherd of Roman pottery. Two small flints were also found, one of which was patinated. Not all the post-medieval pottery was collected, but little was observed. The medieval pottery was concentrated between the post holes and the edge of the stripped area and this may be because the stripping was less intense here, leaving the base of the plough soil. The temporarily undisturbed area between the edge of the Polesworth South contract and the A5 was closely examined but little was found, except a large worked flint.

The quantity and sherd size of the medieval pottery recovered suggests that it is the result of settlement activity on or near the site, rather than a manuring scatter. The scarcity of post-medieval pottery indicates that there was abandonment in the Middle Ages; the small quantity of post-medieval material could be attributed to manuring.

3. KINGSBURY

Simultaneous construction work on the Kingsbury section did not allow any time to examine the stripped area before deep excavations and embankments were made. Oblique aerial photographs made by the consultant engineers were examined however but no significant features could be identified. Hedgerows near Dunton Island reflected the aratral curve of the former open fields of Curdworth.

4. WATER ORTON

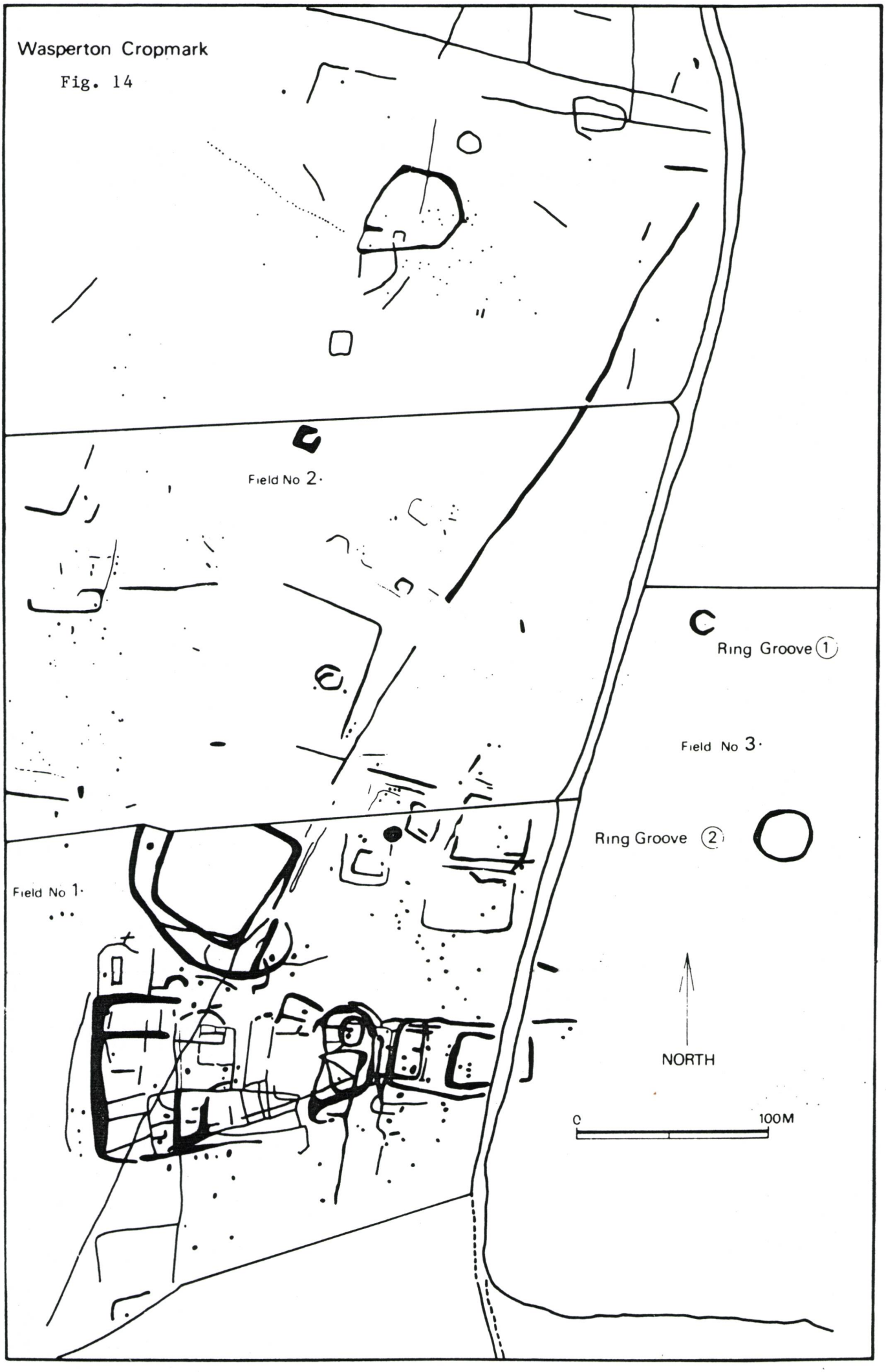
Systematic field walking was only accomplished in this section due to the later start of the contract. The survey progressed from Dunton Island in the north, south to the river Cole. This also included the east west link to the M6 near Gilson.

Very little pottery was found of any note. A sherd of Roman mortarium was recovered just north of Marsh Lane, south east of Curdworth (SP 185925) and a large fragment of sixteenth-seventeenth century pot on the east west link (SP 180900). South of the river Tame there was little or no pottery, except modern material in rubbish tips near Coleshill hospital. North of the River Tame there was a considerable amount of post-medieval pottery attributable to manuring.

At the extreme southern end of the section, just to the north of the Cole and to the east of the motorway, a small area of earthworks was identified and a rough survey made (Site B, SP 192895).

5. ACKNOWLEGEMENTS

Grateful thanks to all members of the Field Group and Solihull Archaeological Group and to Mike Hodder for the pottery analysis.


Wasperton Cropmark
Fig. 14
Field No 2.
Ring Groove (1)
Field No 3.
Ring Groove (2)
Field No 1.
NORTH
0
100M

EXCAVATIONS AT WASPERTON - FOURTH INTERIM REPORT - G. CRAWFORD

1. INTRODUCTION

A fourth year of excavation on the cropmark complex at Wasperton, Warwickshire (SP 265585) continued during 1984; the main excavation ended in October 1984, when the known area of cropmarks had been investigated as exhaustively as time and money permitted.

In this fourth year, the excavation of Field 2 (cf Crawford 1981; 1982; 1983) was completed and three specific areas of the field adjacent to the east were investigated (Fig. 14). A prehistoric date can be assigned to all of the features recovered in the remaining segment of Field 2, whilst features ranging from possibly the Neolithic to the Pagan Saxon period were recovered from Field 3.

2. FIELD 2

The area of Field 2 investigated during 1984 revealed more settlement evidence of presumed Iron Age date (Fig. 15). This comprised: the linear territorial boundary ditch, originally of Late Broze Age date, but reinforced in the Iron Age; west of this was a hut circle of 6.5m internal diameter, with a south-west facing entrance, and separated from a penannular gully to the north-west by a group of pits and a short stretch of gully; north of the hut circle was a second penannular gully, in two phases, with 2 small groups of pits; east of the boundary ditch, and at some remove from the rest of the Iron Age features, was a small, post-built, hut circle with a few pits and postholes nearby.

Hut 1, (Fig. 16) was polygonal: its walls were constructed, in common with other examples at Wasperton, in a series of straight segments, resulting in a subsquare interior about 6-6.5m across. The hut appeared to have been rebuilt at least once, though it retained its south-facing entrance, an unusual feature at Wasperton.

The hut was unenclosed; however, it marked the eastern extent of a group of about 30 pits which were bordered on the south by an enclosed settlement, on the north by a penannular gully and a short curving stretch of gully (Fig. 15). The pits ranged in size from 1-2m in diameter, had vertical sides, flat bottoms, and were up to 1.2m deep. The common interpretation for such pits is grain storage.

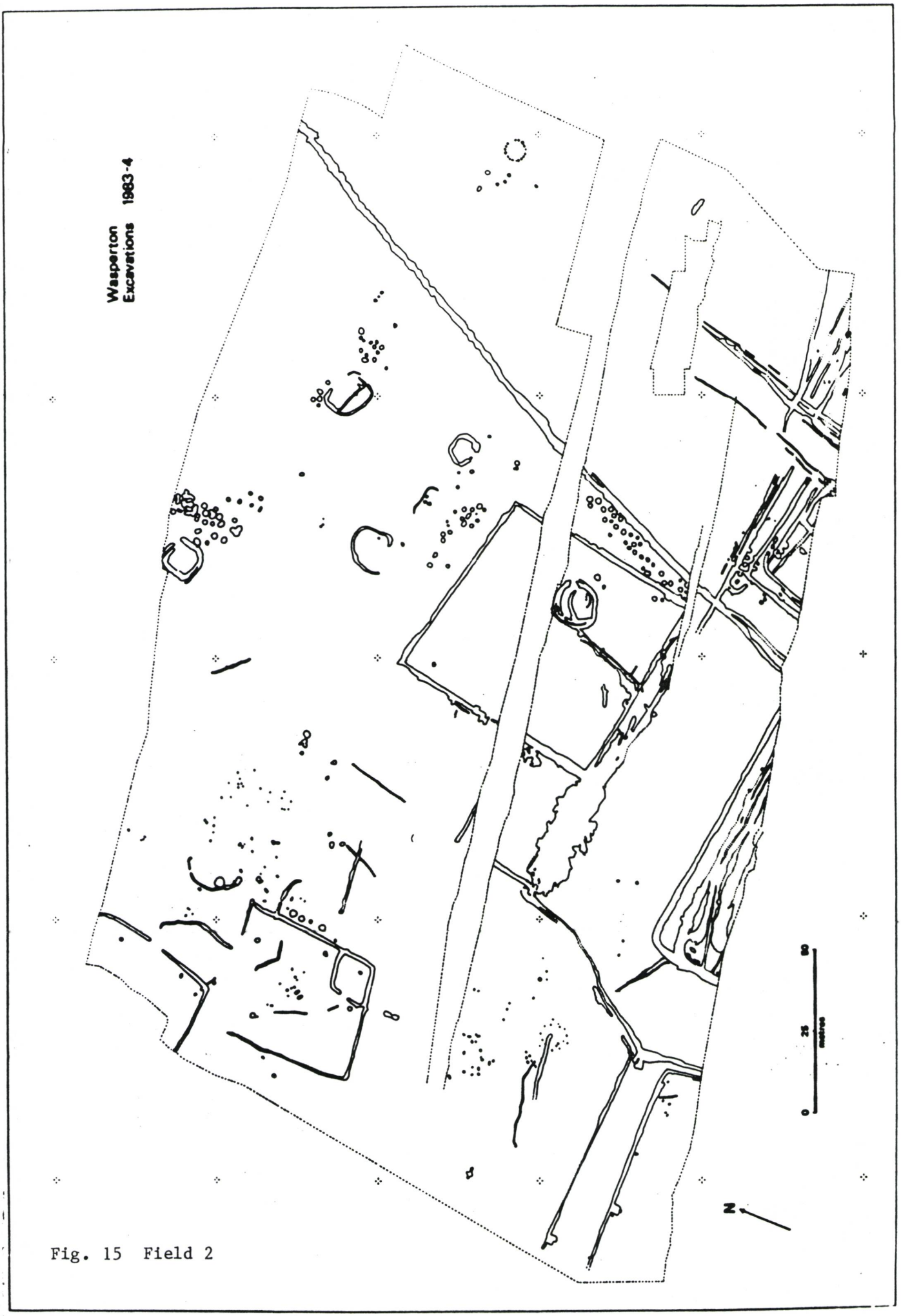


Fig. 15 Field 2

The penannular gully was subcircular, about 11m in internal diameter. Although this is not too large an area to roof, the gully itself was narrow and shallow and also the entrance, which faced south, was some 8m wide. Therefore it is unlikely that this structure was used as a dwelling, but can be plausibly interpretated as a roofed store or small animal pen.

About 40m to the north-east of the above complex was another penannular gully (Figs. 15 and 17). This structure was of 2 phases: phase 1 comprised 3 sides of a rectangle, with corners at the south and west; phase 2, which enclosed phase 1, was subcircular in shape, enclosing an area of some 12m in diameter; the gully was not continuous, having one break of 2.5m to the south-west and another of 6m to the north-west. Again the gully was neither deep nor wide enough to have held a substantial wall and together with the wide entrance indicates a use similar to the feature mentioned above. A small group of pits was found to the north of this feature but the main concentration was to the east: here were clustered about 15 pits, again of a type commonly associated with grain storage.

The territorial boundary ditch, which seems to have formed the eastern limit to this settlement complex, appears to have been extensively reconstructed in the Iron Age (Crawford, 1983). The original shallow U-shaped ditch had been deepened and widened in a series of oval segments which were usually contiguous, but some were separated by narrow causeways; there was no indication of a bank.

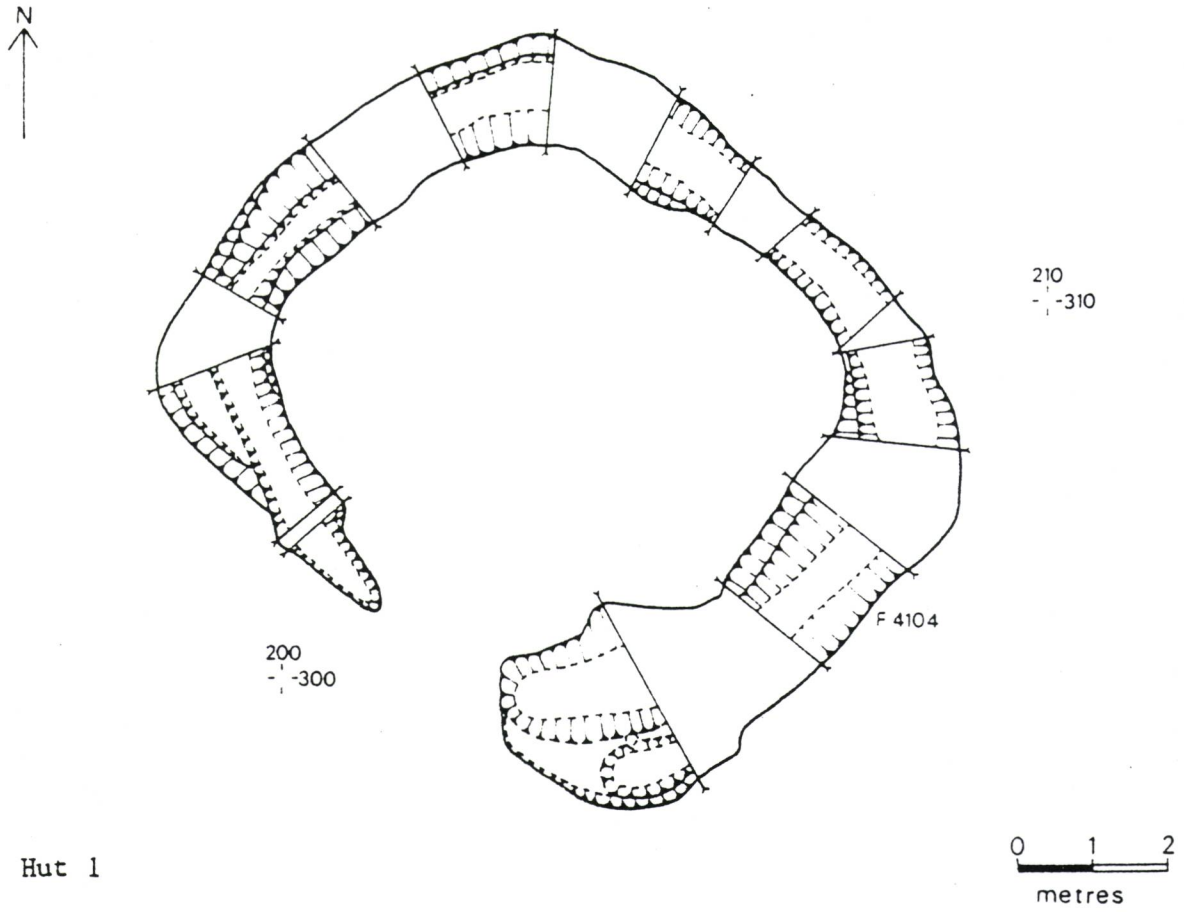
The only finds from this area of the site have been handmade pottery sherds which appears, on initial impressions, to be similar in form and fabric to that found throughout the other Iron Age settlements in Field 2 (Crawford, 1983).

Lying some 40m east of the territorial boundary ditch was a single hut circle Hut 2 (Fig. 16); it consisted of a circle of 17 postholes (2 of which had been recut which ranged from 0.5-0.7m in diameter: the internal diameter of the circle was 6m and the entrance was in the north-east. A small group of shallow pits lay in the north-west. There were no finds from this area at all.

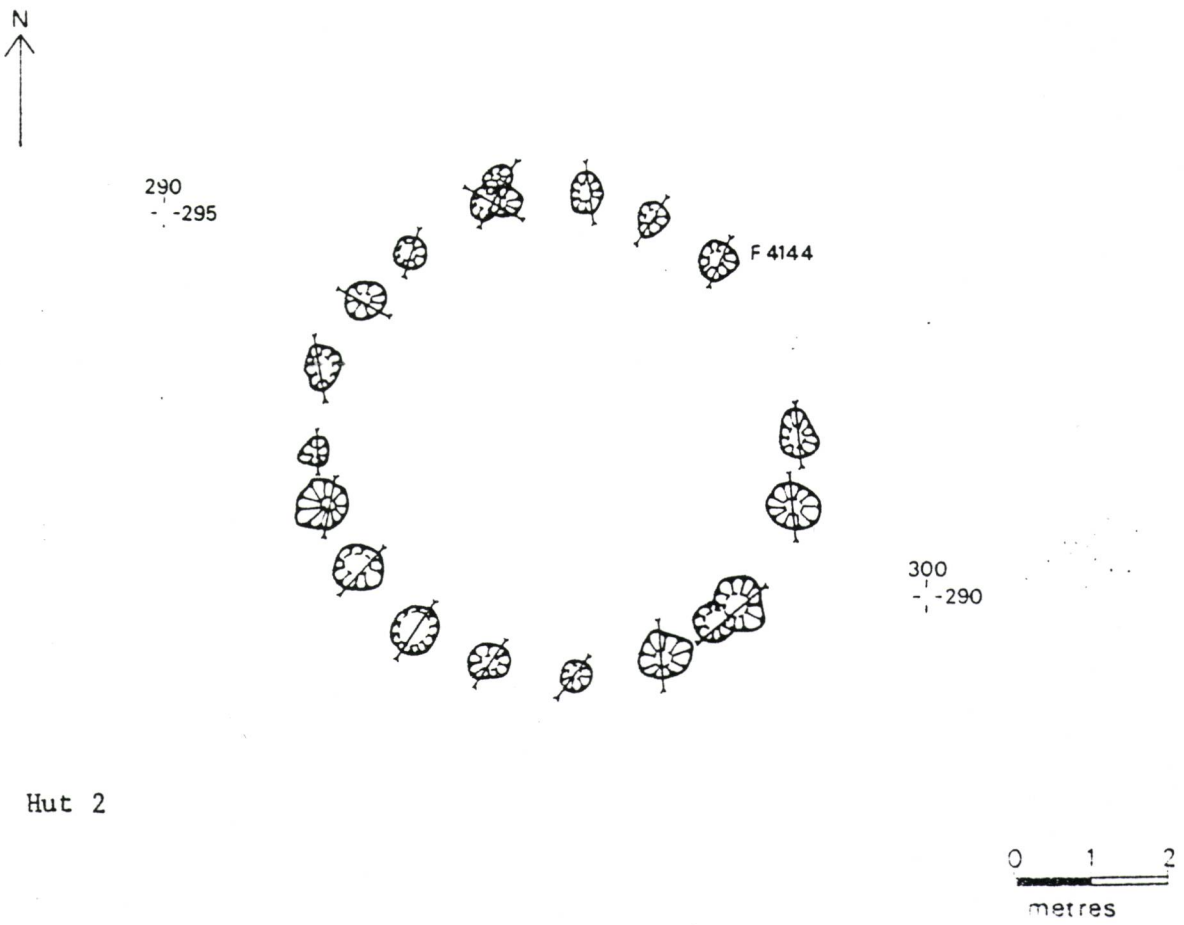
3. FIELD 3

Three areas of Field 3 (Fig. 14) were investigated in 1984. The first was a small area opposite the late Roman and Pagan Saxon cemetery reported previously (Crawford, 1981; 1982; 1983) (Fig. 14). It comprised:
2 shallow parallel ditches, the continuation of the Romano British enclosure recovered previously (Crawford 1983), 3 inhumation graves, gullies, a

Fig. 16

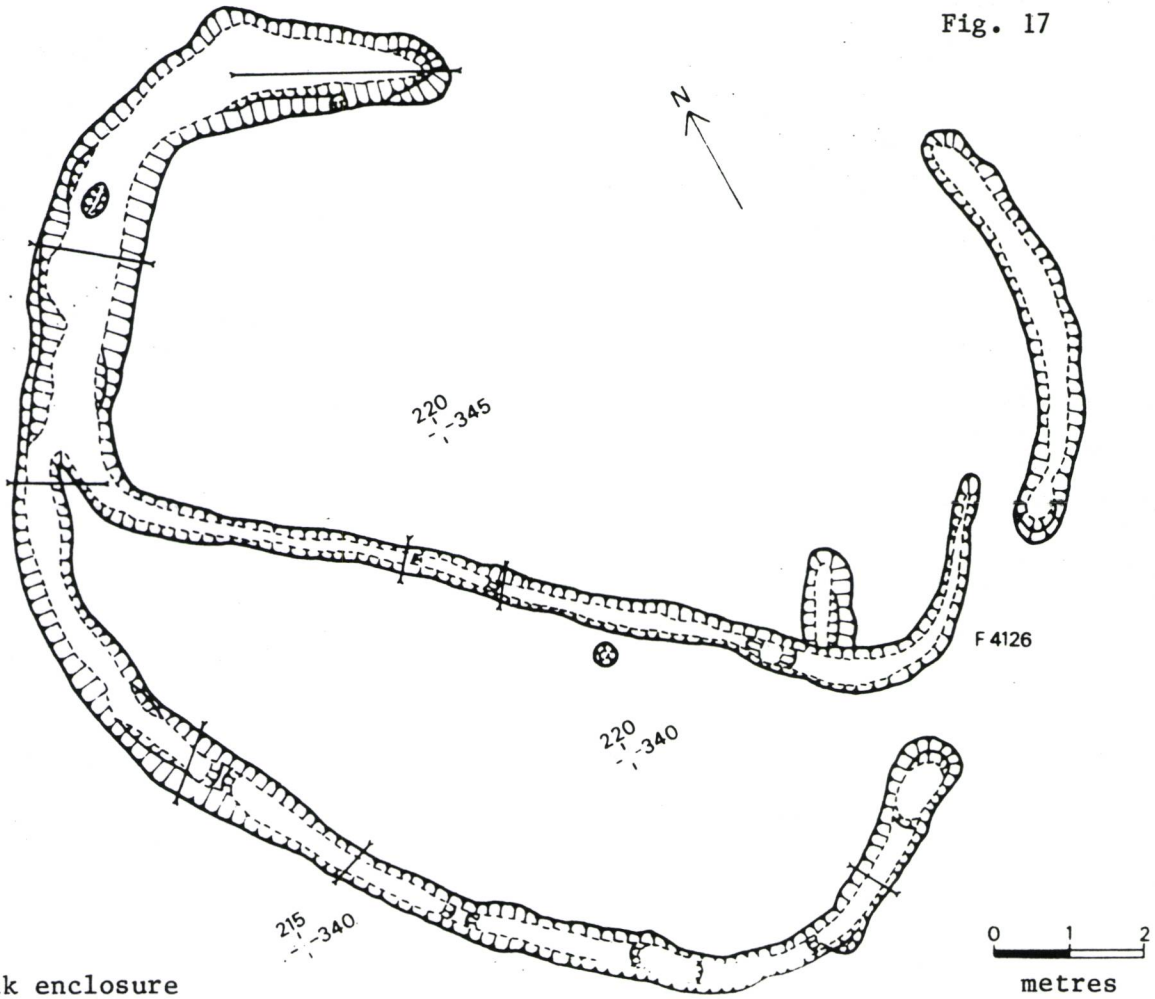


Hut 1



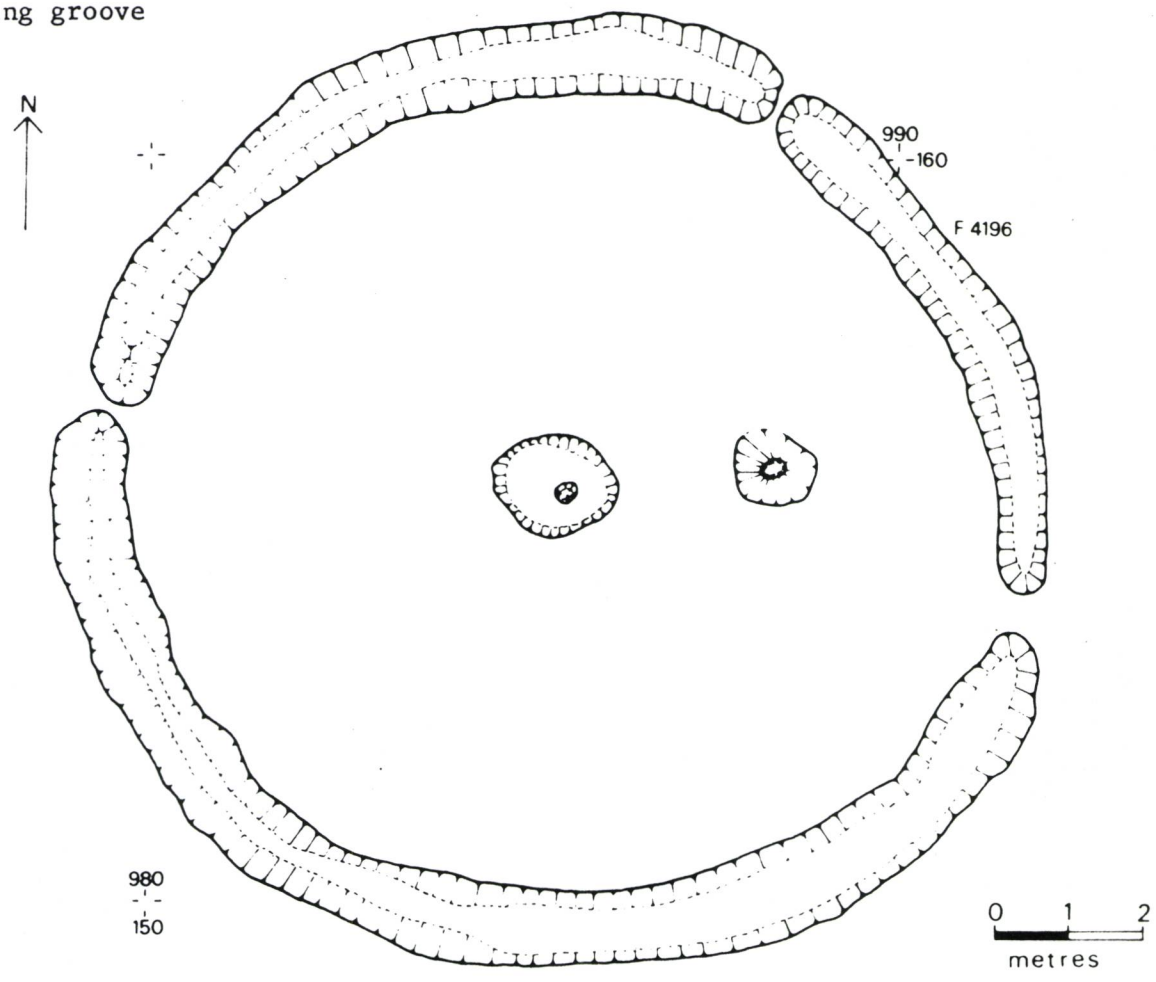
Hut 2

Fig. 17



Stock enclosure

Ring groove



cremation burial and miscellaneous features (Fig. 18).

The parallel ditches were between 3m and 4m in width, and had been dug about 3m-4m apart; they ran eastwards into an area destroyed by gravel extraction, with no archaeological supervision, some five years previously; therefore their total length is unknown. Between the ditches were a number of irregular pits and one cremation burial. A large number of flint flakes and occasional flint tools were recovered. It is possible that these were the remains of a Neolithic mortuary enclosure or bank barrow of indeterminate size: further examination of the finds should clarify this.

The Romano-British enclosure ditch showed a steep-sided, V-shaped profile with one recut. Around it, and cut into it, were 3 inhumation graves; all had Anglo Saxon characteristics: south-north orientation, and/or gravegoods (cf Crawford, 1983). One was male, one female and one indeterminate.

The second area investigated was close to the north-west corner of Field 3 (Fig. 14). Evident as a penannular enclosure on aerial photographs, it proved, on examination, to be a circular ring ditch (Fig. 17). The ditch was a narrow shallow slot about 0.5m in width and 0.2m deep, with three very narrow breaks or "entrances" across it.

Within the circle, which measured about 10m across, were two oval pits; the first was placed centrally, the second, and smaller was placed east of centre. Both pits contained the "pipe" of a large post, but neither appears to have been used for burial. There were no finds from the ring ditch or its associated features at all, though it is presumed to be Early Bronze Age in date.

The third area investigated in Field 3 was south-east of the above (Fig. 14). It appeared on aerial photographs as a large circular feature, (Fig. 19). It comprised a large, up to 5m wide, ditch (with a profile varying from almost vertically-sided to a broad U-shape) with an internal diameter of about 25m; the ditch regularly reached 1.75m deep measured from the top of the cleared surface. No mound survived. The area was deeply scored by medieval furrows and it appears that the mound had been thrown down in that period. Large quantities of flint flakes, many flint tools and a broken segment of a Group VI, Langdale polished stone axe were recovered. Therefore a late Neolithic/early Broze Age date is likely.

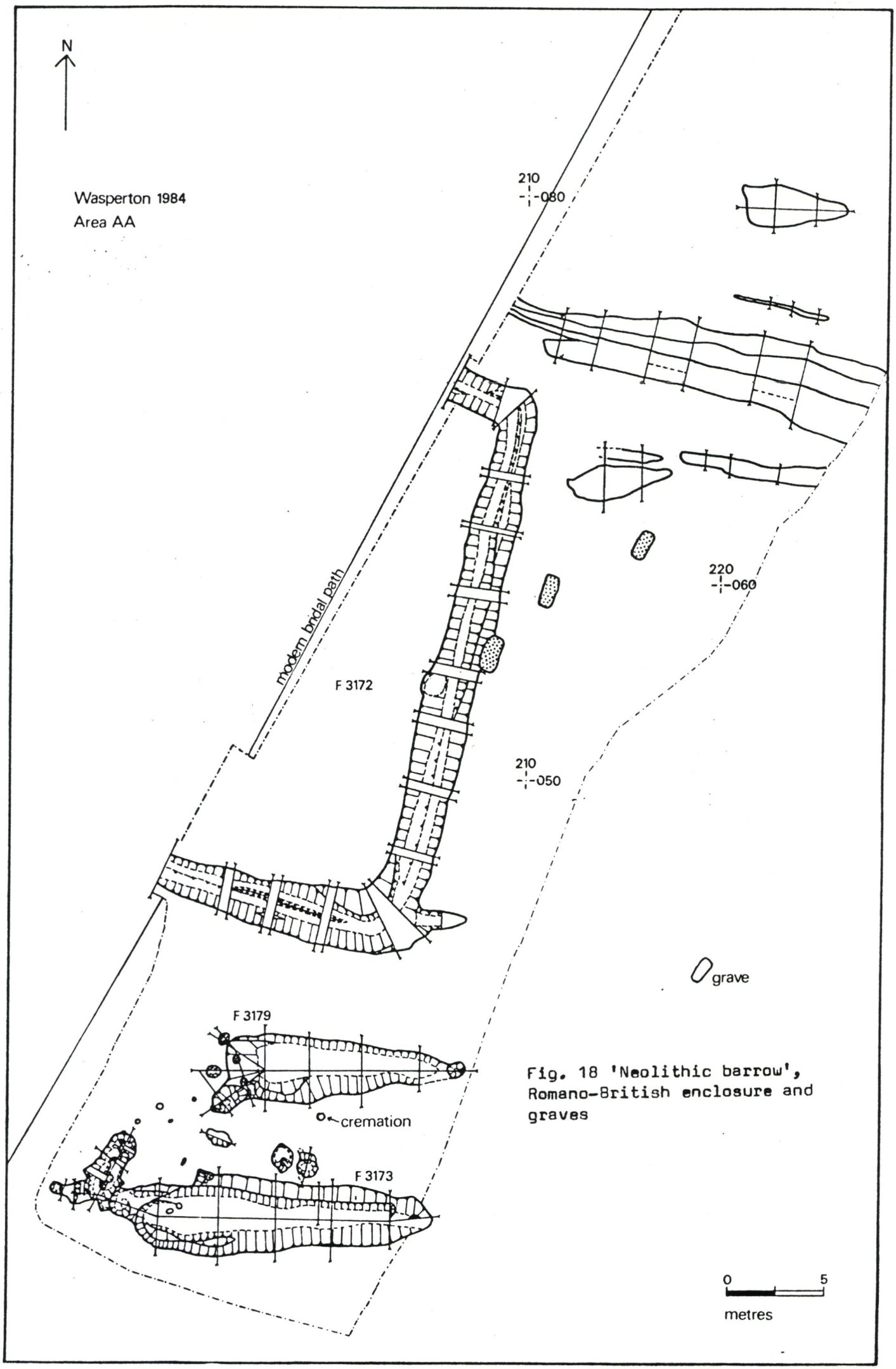


Fig. 18 'Neolithic barrow', Romano-British enclosure and graves

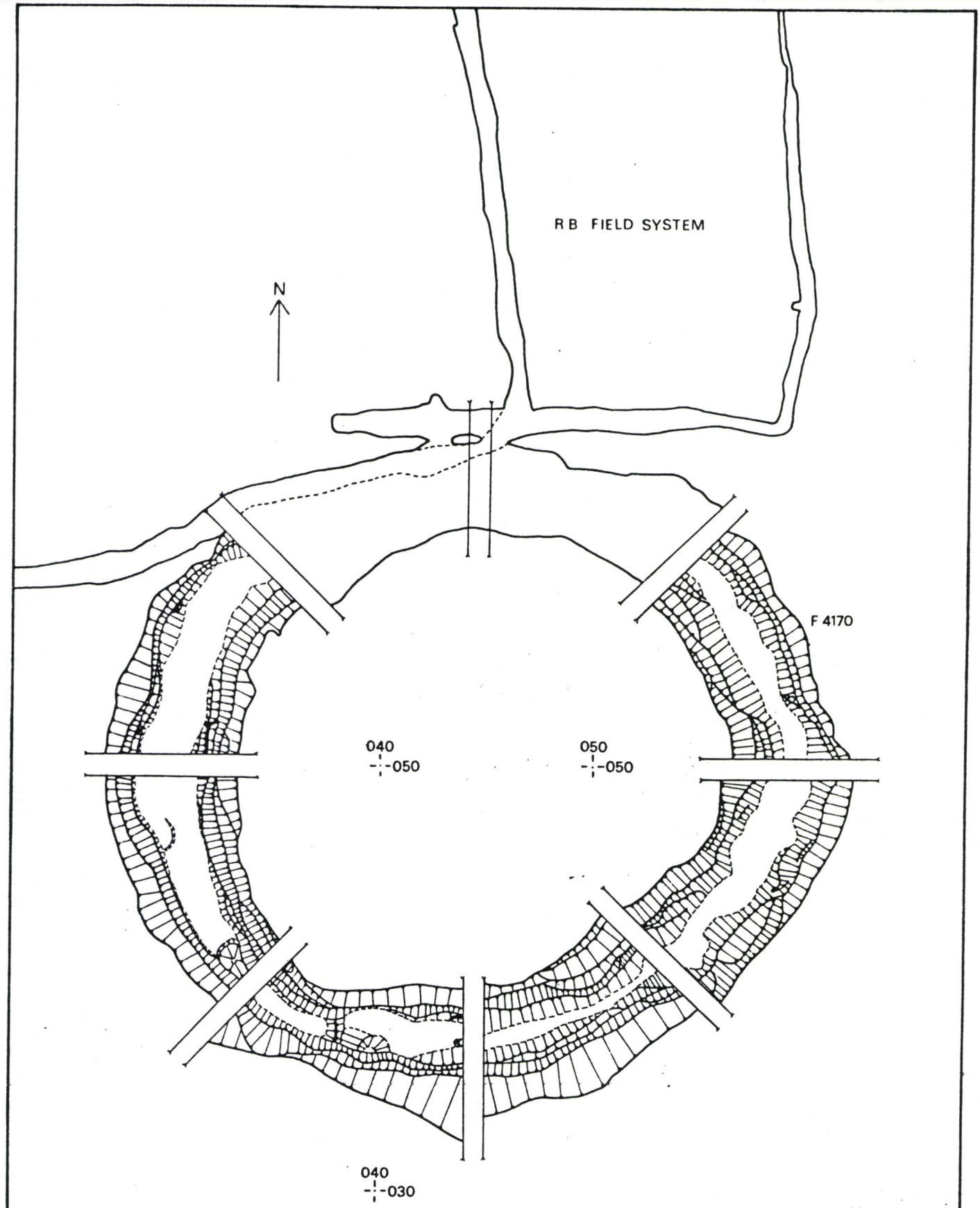


Fig. 19 Ring Groove 2 and Romano-British Field System

North of the ring ditch and impinging slightly onto the ditch was a Romano-British field system (Fig. 18), comprising a series of subrectangular fields divided by shallow gullies which may have held fences. To the north just outside of these field plots was a simple well. It comprised a large (6m) diameter opening, tapering down to a roughly circular 1.5 diameter shaft: the latter was very short, only .5m deep, but the well as a whole had a depth of some 2.5m. It seems to have been a simple shaft sunk into the gravel subsoil which eroded to a "funnel-shape".

4. DISCUSSION

Field 2 at Wasperton now appears as an area of dense Iron Age settlement exhibiting all of the hallmarks of organised farming. The area displays settlement areas, huts and pits, together with stock enclosures and a drove road, all contained within a defined territory. It should be possible to isolate further specific agricultural practices and their change or evolution especially using environmental and finds data.

The discovery of a possible Neolithic funerary monument and two early Bronze Age ring grooves/barrows in Field 3 further emphasises the importance of this area of the Avon Valley during the prehistoric period. These monuments indicate the clearance and use of the gravel terrace from the Neolithic period. It is clear that the larger of the ring ditches stood as a barrow until the medieval period: the Romano-British field system cut the barrow ditch, but skirted the edge of the mound. It would thus have formed a major landmark within the cleared area, possibly for generations.

The recovery of only three inhumation burials from Field 3 indicates that the focus of the cemetery lay to the west and that few if any outliers were lost. The only part of the cemetery remaining to be examined is the 7m wide strip occupied by the modern bridlepath.

5. FURTHER INVESTIGATIONS

Although excavations finished in October 1984, a great deal of work has yet to be done. A large circular feature, about 100m in diameter which does not occur on the NMR aerial photo plot has recently been recognised and will be investigated shortly. It is also hoped that a programme of fieldwalking of the fields between the site and the village of Wasperton will be initiated as soon as the farming regime allows. Coupled to this, the post excavation process has begun in earnest.

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7. ACKNOWLEDGEMENTS

Many people have contributed to the successful running of the Wasperton Project. I would like to thank Helen Maclagan of Warwick Museum and Phil Voice, the Supervisor at Wasperton in particular. Thanks are also due to the members of the Project and to BUFAU staff - Martin Carver, Andrew Carey and Cath Bowker. The Wasperton Archaeological Project is funded by the Manpower Services Commission through the Managing Agency for Community Work in Warwickshire and by HBMC.

WEST MIDLANDS ARCHAEOLOGY IN 1984

ALCESTER (Warwickshire), 21 BLEACHFIELD STREET (SP089572)

A small scale excavation in advance of building work revealed the remains of a Roman gravel surface together with medieval and post-medieval surfaces and features (S. Cracknell, Warwickshire County Museum).

ALDMINSTER/ETTINGTON, (Warwickshire), KNAVEN HILL (SP25304950; PRNWA1278)

Nicholas Thomas (1974) descrined Knaven Hill as a possible hillfort and recorded evidence obtained through aerial photography and field survey (1974, 26 and plate 1b) in support of this view. The site was examined in the field and evidence recorded during the survey suggests that it is not in fact a hillfort.

The site is in a quite commanding position with downhill slopes to the east, south and west and is presently under plough and woodland. There are no indications of banks or ditches to the north, east or west of the site. To the west a drainage ditch was recut by the farmer in the autumn of 1984. This ditch was about 70 cm deep and stratigraphy consisted of about 40 cm of brown/grey loam topsoil over about 30 cm of orange clay/silt. There was no sign that the drainage ditch cut any archaeological features - let alone the large ditch and bank of a hillfort (the point at which the drainage ditch should have been cut by the rampart was examined carefully).

In conclusion it would seem probably that the site is not a hillfort. It is remotely possible that the drainage ditch may have been cut through the entrance of a hillfort (which would explain the absence of a rampart), but a geological origin for the crop marks seems more plausible.

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(R.M.E. Fowler and R. Hingley, Warwickshire County Museum).

BASCHURCH (Shropshire) THE BERTH (SJ429237 SA129)

A reassessment of the documentary and archaeological evidence from the Berth hillfort was carried out for the Department of External Studies at Oxford University; an assessment of the effects of the past 100 years of gravel quarying was also included (S. Smithson, University of Oxford, 'in-service' course).

BENTHALL (Shropshire) (SJ 667014)

Current open cast coal extraction is revealing numerous disused brick lined shafts. These are typically only lined with brick where they pass through softer geological strata, and the working floors seem to be unsupported - an area of coal having simply been recovered from the base of the shaft. A brick recovered from one shaft is unfrogged and made of a soft orange-red clay. From the worked out area at the base of another shaft a miner's hammer has been found, with some of its wooden shaft surviving. These finds indicate that the area was extensively worked with closely spaced bell pit shafts, presumably during the eighteenth and nineteenth centuries. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

BENTHALL (Shropshire) (SJ663019, SA17219)

The Ironbridge Gorge Museums Archaeology Unit has completed a small excavation to recover seventeenth century tobacco pipe kiln waste at Benthall. The site was discovered during building works when large quantities of waste pipes were uncovered, and a small excavation mounted to recover a sample. The foundation of an eighteenth century cottage were found to overlie a pit or ditch into which pipe kiln (and some pottery kiln) waste had been dumped.

The pipes are attributed to Henry Bradley and date to c 1660-90. Preliminary analysis shows that he used at least fifty different stamps to mark his pipes - a quote unparalleled number. In some cases he has stamped a decorative pattern on the back of the bowl facing the smoker, and many different bowl shapes (and presumably different lengths) were produced.

Although the kiln was not located, large quantities of muffle were recovered. The muffle was a chamber built within the kiln which was used to protect the pipes from naked flames during firing. The muffle fragments show that it was built of clay reinforced with waste pipe stems, and tapered towards a dome like top. In the top was a circular opening through which the pipes could be loaded. Few muffles have ever been excavated, and post-excavation analysis will add information of national importance about kiln technology, especially since this is the first excavated example of kiln waste from the important Broseley industry. (D.A. Higgins, Ironbridge Gorge Museums' Archaeology Unit).

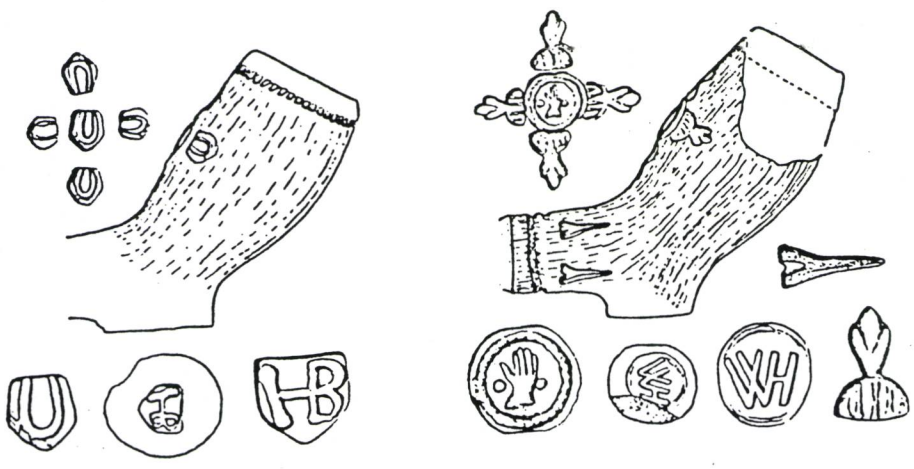

Fig. 20

BENTHALL (Shropshire)

Fieldwork and excavation by the Ironbridge Gorge Museum's Archaeology Unit has recovered pottery wasters of seventeenth to twentieth century date. Excavation (SJ 663029) has produced pottery saggers mixed with a tip of pipekiln waste dumped in the 1680's and nearby (SJ 664028) eighteenth century waste has been collected from an area of erosion around a small pond. The waste consists of thrown and press moulded earthenwares in a variety of forms, often with slip decoration. Saggers and wasters of eighteenth century saltglaze stoneware also been recorded from Benthall Lane (SJ 667021) and Benthall Old Vicarage (SJ 668091).

Nineteenth century waste has been recovered from ditch digging in Lodge Lane (SJ 668019) and from spoil exposed by the roots of a fallen tree in Deerleap Wood (SJ 667051). Both tips contain biscuit sherds of a developed creamware type body, some with banded and Mocha decoration. A wide range of tablewares including teapots is represented, together with some saggers and kiln furniture. Twentieth century finds from site clearance (SJ 663019) produced examples of black glazed lamp bases and electrical fittings as well as some late nineteenth/early twentieth century art pottery.

All these later tips of pottery almost certainly dervive from the nearby Benthall Potteries (SJ 662019). These consisted of two parts (See Benthall, 1957) - the first the Haybrook Pottery set up in 1743 and the second the Benthall Pottery set up on the opposite side of the road in 1772 - these combined later as one unit and worked until about 1939. The waste recovered provides examples of both the utilitarian and art pottery produced there which together with the earlier finds shows the potential for examination of the long and complex potting history of Benthall.

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(D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit)

BIRMINGHAM (West Midlands) DERITEND (SP 080862)

The Department of Archaeology, City of Birmingham Museum mounted a rescue excavation on the site of a former factory that had been cleared for redevelopment. The area formed part of the plot where Sherlock (T.B.A.S. 73, 1955, 109-114) had collected medieval pottery from the street frontage that was destroyed during road-widening. Maps of the area in the 1750's clearly show the plot forming part of an area of medieval burgage tenements. Only an area at the south-east corner survived above the medieval ground surface. Preliminary recording of the section (W.M.A. 26, 1983, 89) revealed no traces of any medieval strata. Two excavated areas, totalling a little more than 250m^2, revealed a considerable amount of post-medieval disturbance but neither of the two possibly medieval features, a post-hole and a slot, produced any finds. Only a few medieval sherds came from the buried topsoil layer directly above the natural, otherwise the ceramic assemblage is totally post-medieval. On one of the areas brick-built features were discovered which formed part of a nineteenth century button-maker's workshop.

BIRMINGHAM (West Midlands) NORTHFIELD, St. Lawrence Churchyard (SP 02517935)

On 23rd May 1984, a watch was kept on the digging of a trench to lay electric cables to power two spotlights. This trench cut either soil which had been disturbed by the provision of other services or featureless topsoil. No archaeological features were observed except for a small section of modern brickwork which cut across the trench just beyond the north end of the tower. Three eighteenth century sherds, a clay pipe stem, two pieces of tile and a small piece of worked sandstone were recovered. A photographic record of the trench was made. Its location is marked on the church's electrical wiring plan (Birmingham Museum and Art Gallery).

BISHOP'S TACHBROOK (Warwickshire)

A small scale field survey covering c 240 hectares has been carried out between Whitnash and Bishop's Tachbrook in an area 4 km by 0.6 km, bounded by Tach Brook and Harbury Lane. It was intended to investigate a random transect with a view to assessing past land-use and modern plough-damage. Generally the results were encouraging. The evidence for prehistoric activity was very dispersed and consisted of stray finds of flint flakes and the odd tool (such as a possible Mesolithic core from SP32306183 and a later, retouched blade at SP32396101). Field survey also indicated Roman manuring of land throughout the area, with a slight concentration of activity of unknown significance at SP32006218. A quantity of Roman sherds was also found amongst pottery from the site of the deserted village of Tachbrook Mallory, (SP317618, and produced much pottery of a thirteenth to fourteenth century date. A short length of holloway was found at SP31696178. The cropmark site of Heathcote deserted village was also investigated, but only a few medieval sherds were noticed. In the post-Medieval period, much of the area was given over to sheep farming, to judge by contemporary field names and field sizes, and the remains of possible dipping pens on the banks of Tach Brook. By 1696, however, the Grove had become a major manor house, served by avenues of trees, and the possibly set in extensive parkland. A full record of the survey is deposited in the form of an archive in Warwickshire Sites and Monuments Record. (R.M.E. Fowler, Warwickshire County Museum).

BLISTS HILL MINE (Shropshire) (SJ 694034)

Excavation on this site which was reported last year (WMA No 26 p 85) has been completed to the top of the nineteenth century levels. The full extent of the engine complex has been revealed, and planned at 1:20. It has become evident that earlier phases remain buried - an earlier stoke pit with the boilers on a different alignment for example has been partially exposed, and impressions where plateway track has been lifted have been found on several superimposed levels. When the initial report is complete a decision as to whether to consolidate the late nineteenth century phase or to expose earlier features will be made. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

THE OLD WIND, Brierley Hill (Shropshire) (SJ 670052, SA 2689)

The Ironbridge Gorge Museum Archaeology Unit together with students from the Institute of Industrial Archaeology have recorded one of the two surviving buildings on this site. In the early 1790's the canal terminated at two vertical shafts down which crates from the tub boats were lowered directly onto a tramway leading to the Coalbrookdate Works (SJ 667048). This method proved unworkable and was replaced in 1794 by an inclined plane. Two buildings now remain on site, one restored a few years ago as a domestic dwelling; the other overgrown roofless shell was surveyed and notes and drawings prepared. Although it had been used later as a domestic dwelling it seems originally to have been an office and store building associated with the canal. Two doors on the first floor were originally reached by little bridges from a raised platform adjacent to the canal. There seems to have been two rooms on this floor, each with a corner grate, and they were presumably used as offices. There do not seem to have been any stairs at this stage, and the ground floor with a large central door opening onto a lower level appears to have been a store room. Full notes, drawings and photographs are housed in the Museum archive. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

BROOKHAMPTON, KINETON (Warwickshire) (SP 32205071; PRNNA 4530)

A Roman villa was discovered in this area during field survey by Tony McKay in the autumn of 1984. The site produced a scatter of Roman pottery, tile (including roof and hypocaust tile), building stone and other occupation debris. The finds suggest one, or perhaps two, villa buildings on a ridge top and facing south east into a small stream valley. Pottery from the site appears to indicate occupation throughout the Roman period. In addition aerial photographs taken by Jim Pickering show a large rectangular enclosure on the site and the villa building(s) appear to be located at the centre of the enclosure. Flints and sherds of Medieval pottery were also noted during field examination of the site. (A. McKay, R. Hingley, Warwickshire County Museum).

BROSELEY WOOD (Shropshire) (SJ 671027, SA 3789)

In January 1984, building work cut back a bank behind 48 Sycamore Road and disturbed a layer of tipped pottery kiln waste containing saltglaze stoneware saggers and wasters together with other eighteenth century earthenwares (manganeese streaked and black glazed hollow wares, and slip decorated press moulded dishes). Also found during the building work were two almost complete saltglaze saggers built into a retaining wall. One of these is particularly important since it contained the remains of four tankards fused to its base (it originally contained seven), with sufficient surviving to give a complete profile. The tankards are finely potted in a pale grey fabric and each has four large pronounced ridges round its base. The tankards have fired to a pale greenish brown fading to a blue/grey externally and probably date to the first part of the eighteenth century. The nearest known pottery kilns were at The Pitchyard (The New Inn) - SJ 669026 - where eighteenth century pottery wasters were also recovered in 1983. Photographs, drawings and samples have been taken, but the saggers remain on site with the owner. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

CHESTERTON AND KINGSTON (Warwickshire) (SP 35605835; WA 790)

Deep ploughing of land between Town Close Meadow and the site of the moated manor house has brought large quantities of late medieval masonry to the surface. Much of this is substantial and includes fragments of window arches and large structural blocks probably deriving from a rebuilding of the manor hours, recorded as having taken place in 1470. (I.R. MacKenzie, Warwickshire Museum).

COALPORT (Shropshire) (SJ 695024, SA 12701)

Following the clearance of rubble from the 'Half Kiln' in April 1984 by the Archaeology Unit of the Ironbridge Gorge Museum, detailed planning and structural recording were carried out inside this early nineteenth 'century bottle kiln. The partly collapsed hovel has a maximum external diameter of 11.73m and survives to a maximum height of c 5.06m. Clearance revealed a central circular floor (damaged) of concentric bricks and nine rectangular ashpits radiating away from this. Wedge-shaped brick piers, which separate the ashpits, are all that remains of the original oven. The annual brick outer walkway is quite well preserved. Two brick bays (for fuel storage?) adjoin the hovel wall. Evidence of alterations to the kiln are apparent in the blocking up of two of the four entrances through the hovel wall. Alongside the recording work documentary research was also carried out on the history of the kiln. Although it is the oldest surviving kiln at Coalport the date of the erection of the Half Kiln cannot be exactly determined. Old maps attest to a construction date between 1814 and 1847 and most probably before 1841 when the factory entered a phase of decline. Between 1902 and 1905 adjoining buildings were demolished and new ones built and it seems likely that the oven was also rebuilt at this stage. The working life of the kiln came to an end in 1926 with the closure of the China Works at Coalport. From old photographs it is possible to calculate the original height of the kiln which was in the region of 12.5m. It survived to this height until at least 1950 but by 1955 the upper 5m had collapsed - the name 'Half Liln' seems to have originated about this time. Subsequent collapse has reduced the kiln to its present height. Now that recording is completed, the Ironbridge Gorge Museum Trust intend to consolidate the remains and rebuild the hovel to its 1955 height. (John Cotter, Ironbridge Gorge Museum Archaeology Unit).

DROITWICH (Hereford and Worcester) 32-38 HIGH STREET (HWCM 4167, SO 9006 6332)

During May and June 1984 a trial excavation was carried out on the site of the former open-air market, No's. 32-38 High Street, Droitwich. The excavation was organised by Hereford and Worcester County Council Archaeology Department and the work was carried out by an M.S.C. funded team under the supervision of D. Hillelson.

The site, which has been open for some years, lies over the centre of the subsidence trench which affects much of the town, and which is the result of industrial brine extraction between the eighteenth and earlier part of this century. The aim of the excavation was to investigate the extent of Medieval and Roman development in this area of the town. The site is close to the town's natural focus, the junction of two important routes Queen Street and Hanbury Street, and the crossing of the river Salwarpe.

On removal of the tarmac surface and infill, it became apparent that the site had been greatly disturbed by a number of modern pipe-trenches and machine-cut holes, and a variety of post-medieval buildings, which matched the Ordnance Survey map of 1884, were revealed. Inspection of separate machine holes to the north and south of the site suggested that only 30 cm of stratigraphy survived over the whole site. The street frontage was disturbed principally by a post-medieval brick cellar, and several other modern intrusions limited the evidence available. Within the building areas several brick, cobble, and rammed earch floor surfaces were found dating from the early post-medieval period, and also a particularly interesting (but undated) rectangular edge-laid tile hearth. A stone-lined well stood behind this area. Numerous stakeholes and irregular dumps of sand and marl suggest land use prior to this, but although these dumps sealed a single fragment of Samian, no structural evidence was found.

The southern portion of the site was divided into two areas. The eastern part consisted of a garden soil, disturbed by occasional unconnected post-holes and dumps of other material. Two residual sherds of pottery dating from the twelfth or fourteenth century were also found. On the western side were the remains of a modern building which had been terraced into the natural Keuper Marl, sealing the truncated and back-filled remains of various post-holes and other depressions, including a large circular cut feature, 1.68 metres in diameter. This feature appears to be a brine well, and was very similar to another feature excavated in the area between the street frontage and the garden, which was 1.18 metres in diameter. It was not possible to fully investigate, or bottom either feature because of water seepage.

Although no far-reaching conclusions can be drawn as a result of this excavation alone, it may now be suggested that the area to the south of the High Street was not built up until the later medieval period. (David Hillelson, Hereford and Worcester Archaeology Department).

DROITWICH (Hereford and Worcester) UPWICH (HWCM 4575, SO 9010 6350)

Excavation in Droitwich continued until July 1984 with further investigation being made of the 'Great Brine Pit' of Upwich (see West Midlands Archaeology 26, 1983, pp 89-92). Removal of post-medieval deposits and structures revealed that the River Salwarpe had at various times run on a course further to the north than that which it held just prior to 1771 when the Brindley Canal was completed. This canal, in the town centre area, canalised the old river effectively fossilizing its late eighteenth century position while the river was diverted along a new channel to the north.

During the later medieval period the river had run across part of the site with the 'Upwich Pit' located within a bend of the river. The northern river bank had been revetted by a crude wattle fence and with a brushwood trackway associated with its first phases from the adjacent riverback deposits two duck (?) eggs were recovered. The river bend silted against the northern bank (the inside edge of the river bend) and at the same time industrial waste (wood ash and charcoal dust) accumulated and spilt over the back and its revetment. The revetment was replaced at least twice further to the south where the same sequence of silting and encroachment was observed.

Further examination of the 'Pit' and the area around it showed that the very large pit first encountered in the trial excavation, was the construction pit for the 'Brine Pit' that was in use until the early eighteenth century and which had been described by Rastall in 1678. The 'Brine Pit' consisted of a square 'well' constructed from roughly squared oak timbers, with pegged half-lap joints at each corner and successive timbers pegged together along their length. The 'Pit' measured internally c. 3m square, but it was not excavated ot its full depth (30ft according to Rastall). It was situated within a large construction pit measuring c. 14m north-south and at least 15m east-west. Immediately to the south of the 'Pit' had been inserted a large timber framework, to support an engine to drive the pumps that had been fitted in the southern side of the 'Pit' itself and may date to he late fifteenth or early sixteenth century.

Samples were taken from the timbers of both the engine frame and the 'Brine Pit' for dendrochronological dating. Although dates have not yet been received it seems likely that the pit itself dates to the later half of the thirteenth century. Immediately predating the construction of the 'Pit' much of the earlier medieval deposits had been scoured from the site by flooding and a succession of clean laminated clays and silts deposited to a depth of c. 1.2m (possibly in the thirteenth century). It is known that there were problems with the management of the 'Brine Pit' at that time. The situation was temporarily improved when Richard Burford (Richard dela Wyche, Bishop of Chichester 1245-1253, Canonised 1262) interceded and restored the failed brine flow (Leyland, 1980, 93). However, following Richard's death the pit suffered further difficulties and the farm failed. An enquiry into the circumstances was ordered and in December 1264 the Sheriff reported that if the farm were not to fail totally the pit would need to be rebuilt at a cost of £40, and which would require the demolition of 12 houses to provide access. It seems probable that the serious flooding evident from the preconstruction levels of the pit caused, at least in part, the failure of brine flow and of the farm and therefore the excavated pit was that built as a result of the 1264 enquiry.

Removal of the flood deposits revealed more industrial deposits overlying river gravels. These deposits contained stone and wooden structural remains - wooden fences and stone hearths/salt boiling furnaces - associated with large quantities of mid-Saxon pottery including a number of stamped sherds. Parts of at least 12 furnaces were found and many fences all aligned north-south, may represent wind breaks adjacent to the furnaces.

Predating these Saxon features was another large pit dug into the gravels to a depth of c. 1.5m which contained a large and complicated timber structure part of which had been revealed by the trial excavation of 1981. Within this structure were 2 large cross-shaped timber frames which may be crane bases. This framework was not fully exposed as it partly lay under the old canal bed and so as yet it is not fully understood, and its dating is uncertain. It was sealed by Saxon deposits, and cut into the river gravels and upper parts of which contain only late Roman pottery, the lower gravels contain in situ areas of burning/hearths associated with briquetage. It seems likely therefore that this timber structure dates to the late Roman/early Saxon period. Dendrochronology will eventually clarify the overall dating of the site.

The excavation which has yielded evidence for salt manufacture from the late Iron Age until the early twentieth century was completed in July 1984. The thirteenth century 'Great Brine Pit' and its associated pumping equipment have been carefully buried in order to preserve them, until a decision can be made about their conservation and display, while the canal has been diverted around them. Work in now underway on the post-excavation analysis.

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West Midlands Archaeology 26, pp 89-92.

(John Price (Hereford and Worcester Archaeology Department).

EASENHALL (Warwickshire) (SP 462 794 : WA 4601)

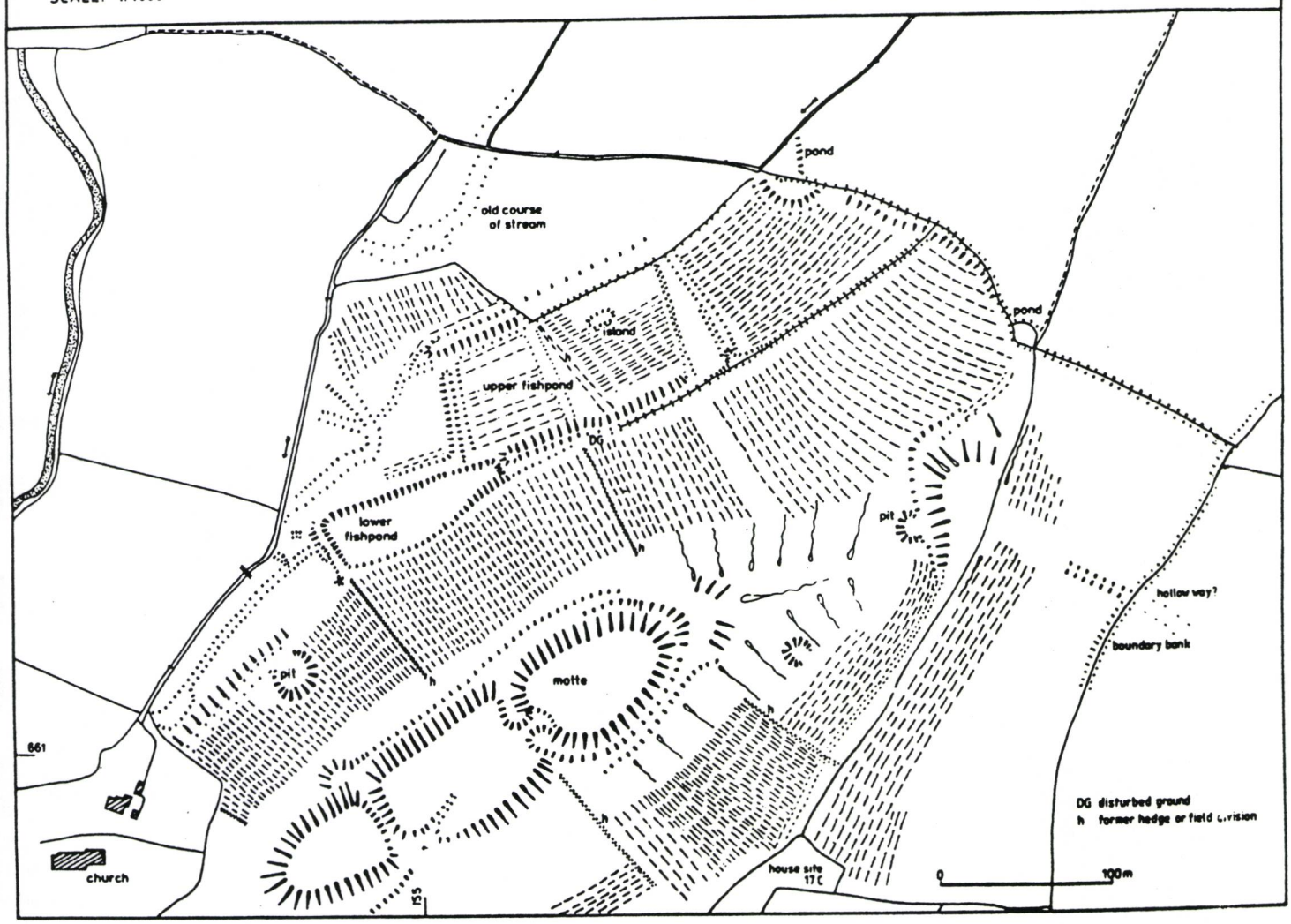
A late Bronze Age Spearhead was found with a metal detector in August 1984 and has been donated by the finder to the Warwickshire Museum. It is leaf-shaped with a lanceolate blade and is 95mm long and 24mm wide at the broadest point. The final section of the socket is missing but the absence of loops below the blade suggests that it was peg-holed. This type of spearhead probably belongs to Burgess's Pennard Phase, c. 1200 B.C. or later.
(John Pickin, Warwickshire County Museum).

PRIMARY RECORD NO. WA
SITE: MOTTE AND BAILEY CASTLE WITH FISHPOND COMPLEX
PARISH: BEAUDESERT
SCALE: 1:1000

NGR. SP 155661

SURVEYED 5.7.83 BY D. Hooke, R.C. & S. Hodrien

Fig. 21



HENLEY IN ARDEN (Warwickshire) BEAUDESERT PART II

In response to a planning proposal to develop a golf course adjacent to the motte at Henley-in-Arden, a measured survey was made of the fishpond site (Fig. 21); this replaces a sketch survey produced in 1975. (Hooke, 1975). The fishponds may have been associated with the castle built by the De Montforts on the natural hill to the east of Beaudesert church. Documentary searches indicate that this castle was in existence by 1140, was confiscated for a time after the rebellion of 1265, and had fallen into disuse by the sixteenth century. By the seventeenth century the earthworks had been much reduced by ploughing, signs of which are still clearly visible, and the site had been subdivided into closes. (Dugdale, 1658).

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(Della Hooke, University of Birmingham).

IRONBRIDGE (Shropshire) (SJ 674033)

An old slaughterhouse from Waterloo Street has been re-erected at the Blists Hill Open Air Museum (SH 694035). The building was described in the 1847 tithe award as a slaughterhouse and stable with no occupier, and later seems to have passed through various hands, being mainly used as a stable and cartshed. It became joined to the 'Central Cinema' with a projection bridge in this century, but was empty when recorded by the Ironbridge Gorge Museum's Archaeology Unit. The building is of local brick and tile construction, and has now been refurnished and opened as a slaughterhouse and cartshed at Blists Hill. For its dismantling a 'brick by brick' numbering technique was employed enabling the bricks to be replaced in their original positions. This method preserves the character of the building built up through years of weathering and differential discolouration and makes the reconstruction as accurate as possible. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

JACKFIELD (Shropshire) (SJ 688029)

On the riverbank three trial trenches were excavated to recover white salt glazed stoneware wasters which are being eroded by the river. The area suffers badly from subsidence, and in 1952 a number of houses had to be abandoned following a major landslip. Two of the trenches located walls and features associated with these buildings, which do not seem to overlie any pottery dumps. The third however revealed a layer of pottery waste adjacent to the river. Since there was a towpath along the bank it is possible that the debris had been used as a makeup or surface although erosion and subsidence made interpretation difficult. The layer contained a good range of fine eighteenth century saltglaze wasters as well as saggers and kiln furniture. Similar finds from this deposit have been described by Malam (1981 p 45-50) and full analysis of current finds should produce a comprehensive type series. The pottery was probably produced by the Thursfield family in kilns on the site of the Craven Dunhill Tileworks (SJ 686029)

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(D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

CALCUTTS IRONWORKS, Jackfield (Shropshire) (SH 685/6030)

Trial excavation in advance of redevelopment has taken place on this important site. A focus of industrial activity since the sixteenth century it rose to fame following the establishment of an ironworks in 1767 specialising in the production of cannons which were shipped for naval use at Bristol. At its height it had one of only three steam power cannon boring mills in the country, and had eleven horizontal boring bars. It was visited by the Prince of Orange during his tour of Shropshire and formed the focal point of a 96 acre estate which included mines, blast furnaces, tar furnaces, engines, water wheels and a mill on the river. It had fallen into disrepair by 1815 and never again reached its eighteenth century prominance. Trial excavation has established that substantial remains of the eighteenth century works survive over wide areas of the site. Parts of the cannon boring mill walls survive above ground level as the footings for later walls within which original floor levels survive. In one area a metallic deposit (iron) has formed as a continuous layer many centimetres thick with a slot (presumably) from decayed timber) in it. Above this a later floor is bedded in tar, presumably from the associated tar works. Another area is made up of brickwork spaced in a sort of herringbone pattery with slots between all filled with casting sand. A second trench has located a deep brick structure with a vaulted roof which may be the covered bearings for a blast furnace water wheel. Various associated eighteenth century features and floors have been excavated. Large areas of the works seem to have been built on deep waste tips and earlier features associated with the nearby potteries. These have produced good samples of the fine earthenwares and white saltglazed stoneware produced in Jackfield in the mid eighteenth century. Later brass castings and a cupula from the sites use as part of the Marshall Osbourne engineering works have also been recorded, and site watching will continue as development takes place. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

CRAVEN DUNHILL TILEWORKS, Jackfield (Shropshire) (SH 686029)

In advance of drain laying, the Ironbridge Gorge Museum's Archaeology Unit has excavated a section through the site of the four main tile kilns. These were bottlekilns, first shown in an engraving of 1875. In one of the rooms the excavation was extended to take up all the concrete floor, revealing the whole kiln base. This feature was largely intact although some later concrete machine bases had cut through it. The radiating ash pits survived, as did a central well hole and flue system indicating that they were doundraught kilns. The flues connected to a chimney, now largely demolished, which would probably have served all four kilns. The drain trench revealed that all this section of the works sits on a terrace cut out of the natural clay. There were virtually no other layers below the nineteenth century floors, although a few waster sherds of white saltglazed stoneware were recovered. This is an important discovery since this pottery is thought to have been produced by the Thursfield family, whose kilns were on the site now occupied by the tileworks. It is hoped to conserve the excavated kiln base for display to the public. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

KENILWORTH (Warwickshire) (SP 287725)

The Society has continued recording the old timber-framed buildings of the town using measured drawings and photographs, and has completed a further three buildings: the Old Manor, Manor Road (late sixteenth century), the Carendon House Hotel, High Street (part sixteenth century with a separate partial cruck blade), the Beauchamp Cottage, 8 Abbey Hill (late sixteenth century). (S.G. Wallsgrove, Kenilworth History and Archaeology Society).

LIGHTMOOR FURNACES (Shropshire) (SH 681053, SA 3770)

The Ironbridge Gorge Museum's Archaeology Unit has excavated sixteen trial trenches on this site in advance of construction work for the Ironbridge by-pass. The site was developed in the 1750's and worked with up to three furnaces until 1883. During this period it passed through various ownerships, finally becoming part of the Coalbrookdale Company in 1839. Documentary references show that numerous alterations and additions took place on this important ironworking site. The excavations showed that substantial remains exist below more recent backyard waste tipping. Some upstanding brickwork marks the furnace bank, behind which various features were located in the charging area. Part of a row of workers' housing was excavated showing that floor levels still survive in that area. In addition a cellar was explored, a second row of housing examined and a later weighbridge excavated. Other than walls and ironworking waste there were few finds in the trial trenches. Examples of a plateway sleeper and track were however recovered, and a later section of in situ railway excavated. A tip of firebricks and brickkiln waste marked 'Coalbrookdale Co., Lightmoor', and a possible mine ventilation shaft provided evidence for the associated brickmaking and mining which took place on the site. The conclusion of the trial trenches was that although many structural remains survive on the site the depth of later tipping should prevent any major disturbance during roadbuilding. (D.A. Higgins, Ironbridge Gorge Museum Archaeological Unit).

LEEK WOOTTON (Warwickshire) (SP 27556917; WA 2584)

A potential moated site was investigated on land belonging to Goodrest Farm. A measured survey was made of the surviving earthworks, which have now been ploughed over. It is possible that this site represents a predecessor of the moat and fishpond complex at Goodrest Lodge. (I.R. MacKenzie, Warwickshire County Museum).

LITTLE DAWLEY (Shropshire) (SJ 683 059)

Work has continued intermittently on the site reported last year (WMA No 26 p 105). The excavation has been extended to examine the area of the medieval building, and the post medieval features have now been removed. Dismantling work has started on the standing buildings which will be re-erected at the Blists Hill Museum Site. Recording will continue throughout the dismantling, and be followed by excavation on the site. (D.A. Higgins, Ironbridge Gorge Museum Archaeology Unit).

MANCETTER (Warwickshire) CHERRYTREE FARM (SP 3275 9250; WA 3866)

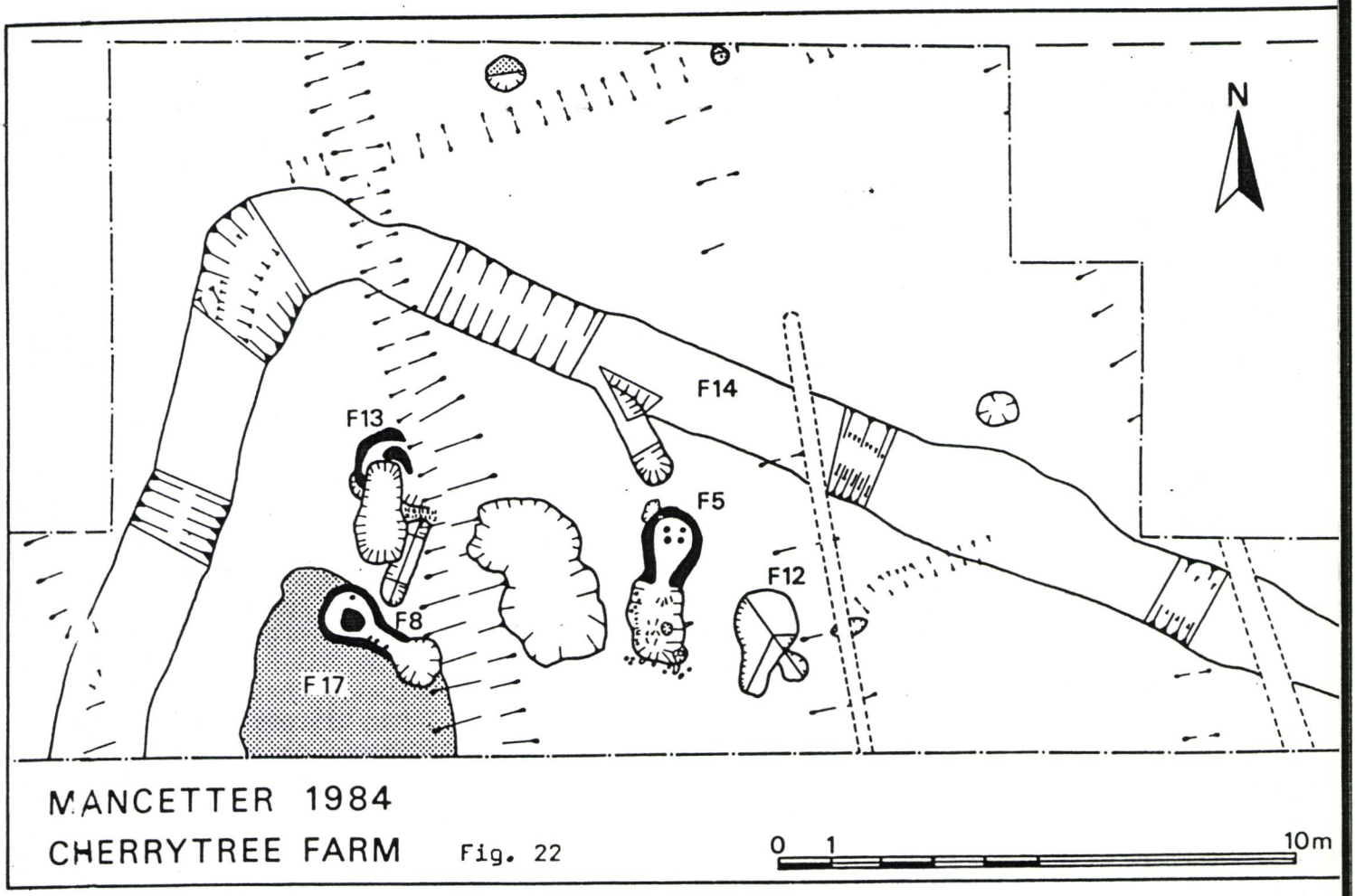
Further work was carried out on the Roman pottery kiln complex at Cherrytree Farm during November 1983-February 1984 in advance of pipeline laying. An area of 600 sq. metres was excavated to the north-west of the kilns uncovered in May 1983 (previously reported in WMA 26, 1983, 110) revealing three more kilns lying within the north-western angle of a broad flat-bottomed ditch. The ditch (F14) had been re-cut on at least one occasion.

Two kilns (F8 and F13) were orientated roughly east-west with their stokeholes to the east and are similar to types found previously within the complex. The southernmost (F8) had a moderately sized over (0.95m across) with a large central circular pedestal. The other (F13), though much damaged by subsequent pit digging and ploughing, had a much larger oven (c. 1.20m across) with probably two D-shaped pedestals. The third kiln (F5) was more unusual. It had four tall cylindrical pedestals probably supporting a floor of clay firebars. The oven was smaller than the others (0.85m across) and the whole structure was orientated north-south. Stakeholes along the south and western edges of the stokehole indicate that attempts had been made to block or channel an unfavourable wind.

The pottery from the kilns suggests that all were producing mortaria and coarse wares in varying proportions during the late second (F5 and F13) and early third (F8) centuries AD.

Other features within the ditched enclosure included a large spread of ash and wasters (F17) and a pit (F12) which, although kiln-shaped and lying parallel with F5, contained no evidence of burning or kiln furniture.

Despite a large area being stripped and cleaned outside the main enclosure little was discovered besides a large ovoid pit (F36) measuring c. 2.20m x 2.70m, 25 metres to the west of the kilns. (Martin Jones, Warwickshire County Museum).



MANCETTER 1984
CHERRYTREE FARM Fig. 22

MANCETTER (Warwickshire) NUNEATON ROAD (SP 32109658: WA 4632)

An area of 9m x 10m was excavated prior to the construction of a house. A number of features belonging to the early Roman fort sequence were uncovered including at least two timber beam-slots and a large defensive ditch.. The ditch measured at least 2.00m across x 1.60m deep and was V-shaped. It appeared to be turning sharply to form the south-eastern corner of one of the first century forts. The slots lay outside the defenced area and probably represent a different (earlier?) phase of military activity; the presence of Lyon Ware confirms a pre-Flavian date. Both the ditch and slots were cut by a sequence of irregular pits which produced few finds, but some at least belong to the early Roman period. Further buildings may be indicated by a number of shallow post holes. Medieval activity was represented by a large sub-rectangular pit and a quantity of smaller features, and during the post-medieval period a gravel pathway was laid out parallel to the Nuneaton Road. A small collection of stamped clay pipes included examples from 'JOHN MATS' (one dated 1689), 'RICHARD LEGG', and 'RICHARD UPTON', all produced at Broseley, Shropshire. (Martin Jones, Warwickshire County Museum).

MYTON (Warwickshire) (SP 302652)

As reported in previous issues, the site of this medieval village lies at Myton Grange Farm, Myton Road, Warwick and continues to be developed for housing purposes, including an extension to the original estate development. A watching brief has been maintained, on both sites, with the co-operation and assistance of both developers. Frequent visits have been made between November 1983 and October 1986, but due to the exceptionally large number of finds made (760 between March and the end of August, it has not been possible to record them all fully in time for this report; principally these finds were of medieval date (twelfth to fourteenth centuries). Other discoveries have included some pieces of clay pipe stem, some pieces of forged nail, some nineteenth century pottery, and some fragments of what appeared to be wattle-and-daub. (S.L. Wallsgrove, Leamington Archaeology Group).

NUNEATON (Warwickshire) ARBURY MILL (SP 344886 : WA 1888)

During June 1984 a standing building survey was undertaken at Arbury Mill in advance of proposed demolition. The survey indicated three major phases - one: pre. 1760's construction of single storey M-shaped barn in brick and random rubble stone-work, two: c. 1764; erection of a brick mill which incorporated the western half of the earlier barn and housed a breast-shot-wheel powered by the Arbury Hall canal system, three: the addition of a late Victorian brick store or barn onto the east of the existing structures. The Mill, which still contains the 18ft. diameter wheel but no other machinery, ceased operations in the late nineteenth century and since then has been used as a cattle barn and general farm store. (John Pickin, Warwickshire County Museum).

PERSHORE (Hereford and Worcester) ABBEY (SO94784578; HWCM5407)

In November 1984 the Archaelogy Department of Hereford and Worcester County Council carried out trial excavations at Pershore Abbey on behalf of the Architect and Structural Engineer to the Parochial Church Council, to enable an assessment to be made of the structural stability of the Abbey church tower. HBMC funded 5 small excavations adjacent to the standing building as a condition of scheduled monument consent; the Programme was carried out by Deborah Ford under the supervision of the writer.

Inevitably the restricted size of the excavations limited the extent of the information which could be recovered and excavation was kept to the absolute minimum consistent with the need to examine foundations. Deposits predating the post medieaval period were disturbed in only one of the five trenches.

These investigations revealed that archaeological evidence of the early medieval, andpossible earlier, periods survives and that extensive excavation should be undertaken in advance of any structural engineering works which may be deemed necessary to support the standing building. Of particular interest were a rubble foundation which appeared to predate the Norman southwestern crossing tower pier and a possible buried ground surface ca 0.6m below the ground level at which the Norman and medieval church were constructed. (J.P. Roberts, Hereford and Worcester County Council).

ROWINGTON (Warwickshire) (SP21376835; WA1760)

A measured survey has been made of the Medieval moated site at Oldfield Farm. (I.R. MacKanzie for Warwickshire County Museum).

STOKE-ON-TRENT (Staffordshire) DUDSON's FACTORY, HANLEY (SJ88424815)

The excavation was carried out on the request of a member of the Dudson family, who was anxious to find examples of their earlier wares - up to then only known through catalogues and other records.

A well-stratified series of tipped deposits was revealed. Most layers contained large amounts of nineteenth century pottery: including parian ware, black basalt and large amounts of willow-patterned ware. Quite a large quantity of this was identified as the Dudson family products.

A lens of earlier material was recovered amongst these layers consisting of a tip of pottery one hundred years older than the rest: including salt glaze, slip ware and butter pot type wares.

All the above material was contained in tips of kiln waste such as ash, clay and clinkers. The considerable depth of the deposit serves to indicate the effect on the level of the land surface in a relatively short period of time of industrial activity. For the area excavated was not a known tip but merely the yard of a pottery factory. (Ann Roberts, Stoke-on-Trent Museum Archaeological Society).

STOKE-ON-TRENT (Staffordshire) HANLEY EASTERN BY-PASS

Members of the Stoke-on-Trent Museum Archaeological Society are carrying out a series of trial excavations along the course of the Hanley Eastern Bypass. The trials are sited at random along the northern, eastern and southern edges of the City Centre. Therefore they may miss any traces of the earlier pottery industry in Hanley which, it is assumed, was situated closer to the heart of the old town. One of the main aims of the Project is to build up a picture of the development of settlement and industrial activity in and around Hanley. Those excavations already completed have provided information on the expansion of the town in the nineteenth century and on land use prior to the housing developments of the later nineteenth century. A full report will be published in Staffordshire Archaeological Studies. (David Barker, Stoke-on-Trent Museum and Art Gallery).

WALL (Staffordshire) (SK098066)

Excavation north of the "mansio" continues but progress is relatively slow due to the considerable amount of disturbed material which has to be removed systematically. Beneath these disturbed levels, however, the remains of early structures are appearing, although due to the later interference, their interpretation is extremely difficult. The latest could be the bases of two hearths and the discovery of slag and iron objects (mostly nails) suggests industrial activity.

To the north of the "mansio" the east/west foundation trench which carried a clay and cobble foundation has been found to be continguous with the north/south clay and cobble foundation topped with mortared sandstone which had been incorporated into the "mansio". No interpretation of this building as a whole has been possible so far as only a partial plan has as yet been revealed.

HBMC granted permission to carry out a small excavation around a sculptured stone situated near the southern hedgerow midway between the bath-house and the "mansio". This particular stone had been referred to by Col. Bagnall (Birmingham Midland Institute Archaeological Section 1883) and it was considered desirable to carry out an examination to verify whether it was in its original position. Excavation demonstrated that the stone was insitu and also associated with a clay and cobble foundation. The small scale of the excavation prevented a general interpretation of the structure to which this foundation belonged.

The stone itself is of interest architecturally. It is approximately square in plan, measuring 600 mm x 700 mm and is 400 mm thick. The top 100 mm are in the form of a flat-topped cushion with rudimentary tassels at the four corners. An elliptical hole near the centre of the stone was considered by Bagnall to be for a centre-pin hinge but the weathering of this hole during the ensuing 100 plus years has left little of the original detail.

A full report is in preparation for publication in the Transactions of South Staffs. Archaeological and Historical Society, 1986. (Frank and Nancy Ball, South Staffordshire Archaeological and Historical Society).

WARWICK (Warwickshire) PARK HOUSE, BRIDGE END (SP286646)

Excavations, begun in 1983, were completed in April 1984. The earliest feature on the site was a stone-revetted causeway which led through the marshes to the Old Bridge across the River Avon. Rubbish and silt accumulated against the causeway and eventually the deposits dried out sufficiently for houses to be built. The earliest buildings fronted on the causeway, which came to be known as Little Street. Later the gravel courtyard behind these houses was encroaches on by a building fronting on Mill Street, the road running towards Myton. The pottery has not yet been studied in detail but the earliest sherds seem to belong to the twelfth or thirteenth century. (S. Cracknell, Warwickshire County Museum).

WOOTTON WAWEN (Warwickshire) (SP1563)

The School of History of Birmingham University continued its Wootton Wawen project at St. Peter's church the removal of late nineteenth century wall-plaster was completed in the Lady Chapel revealing more features of the south wall of the Anglo-Saxon tower and of the porticus which formerly adjoined it, as well as further evidence that the round head of the south tower-arch may be secondary. Elsewhere the stone-by-stone recording of the rubble wall-faces was extended to the west wall of the nave and the north wall of the tower. The survey of St. Peter's graveyard also continued.

Detailed fieldwork in an area of c one sq.km. to the south of St. Peter's church revealed many well preserved relict features. These included a very small motte-and-bailey castle, which had been considerably altered and enlarged to form a rectangular manorial enclosure, surrounded on three sides by an extensive pond (now dry). Elsewhere investigation of the complex system of water control needed to feed this and another pond was begun; so too was the survey of a deserted settlement at the southern limit of this year's area, (traditionally identified as Offord, centre of a Domesday estate adjoining Wootton).

An illustrated report on the 1984 season, entitled The Wootton Wawen Project: interim report no. 2, can be obtained from the author at a cost of £1.00. (S.R. Bassett, School of History, University of Birmingham).

WROXETER (Shropshire) VIRCONIUM

1. Urban Features

It had hoped to complete work on the first city houses, but this was only achieved in the south corridor, leaving a few problems of structural relationships and details to be finalised in the two-period house at the north end of the west portico. The house in the south corridor had a fine opus signinum floor in one room and details were recovered of the burnt timber sill-beams, some of which were found to have been laid on lines of pieces of millstone grit, for which there must be a local source. The east wall had an external eaves-drip gully and a door at the north-east corner to gain access to the area to the east. A large piece of wood, probably an old door, had been put across the gully and in the destruction fire this had been carbonised and had collapsed into it. This feature was conserved and will be put on display in the future at the site museum.

The problems at the south end of the west Portico had held up the excavation and we were still dealing with post-Hadrianic deposits. The difficulty was resolved by the realisation that the perverse strafication was due to industrial waste having been tipped into the area over the south corridor wall. As the heap grew, so it was removed from time to time, sometimes cutting into earlier features. The deposit consisted of black, sandy material containing many lumps of slag, crucibles and a large assemblage of pottery. The sherds were carefully studied and not a single one could with any confidence be placed in the third century. This dating would seem to reflect the worsening conditions in public buildings in the late Empire, but extending these conditions back to the end of the second century. One interesting find in this 'dump' was a small portable (?) lead shrine of Venus (Figure 24) similar to one recently found at Wallsend (a full report will appear in the forthcoming Britannia).

2. The Legionary Fortresses

The main task this year was to define the relationship between the sequences of the intervallum roads and buildings. In spite of the deep latrine trenches which had been cut through the interconnecting levels, some success has been achieved. New cross-sections through the road showed that the second phase road consisted of five successive surfaces of varying widths. Furthermore the first road was found to be of poor quality and its relationship with the earliest buildings presented a problem. This phase may reflect the conditions when Legio XIV first came to the site at a time when there were extensive campaigns from AD 56 to c. 62, which would have restricted construction work to the winter seasons. The work also revealed a well-cut deep V-shaped drain 2.5m wide and 1.25m deep along the east side of Road 3, and sealed by Road 4. The lack of any erosion clearly indicates that it was timber-lined and probably boarded over. It has been traced to the south-east corner of 84.

The intervallum building sequence has been refined and investigations revealed a well-preserved tile base of a bread over dating to the first timber period. At the end of the north corridor 91, behind the turf rampart, excavations produced deep clay foundations of ovens predating the earliest buildings which must, therefore, have been primary and built against the rampart soon after it had been built.

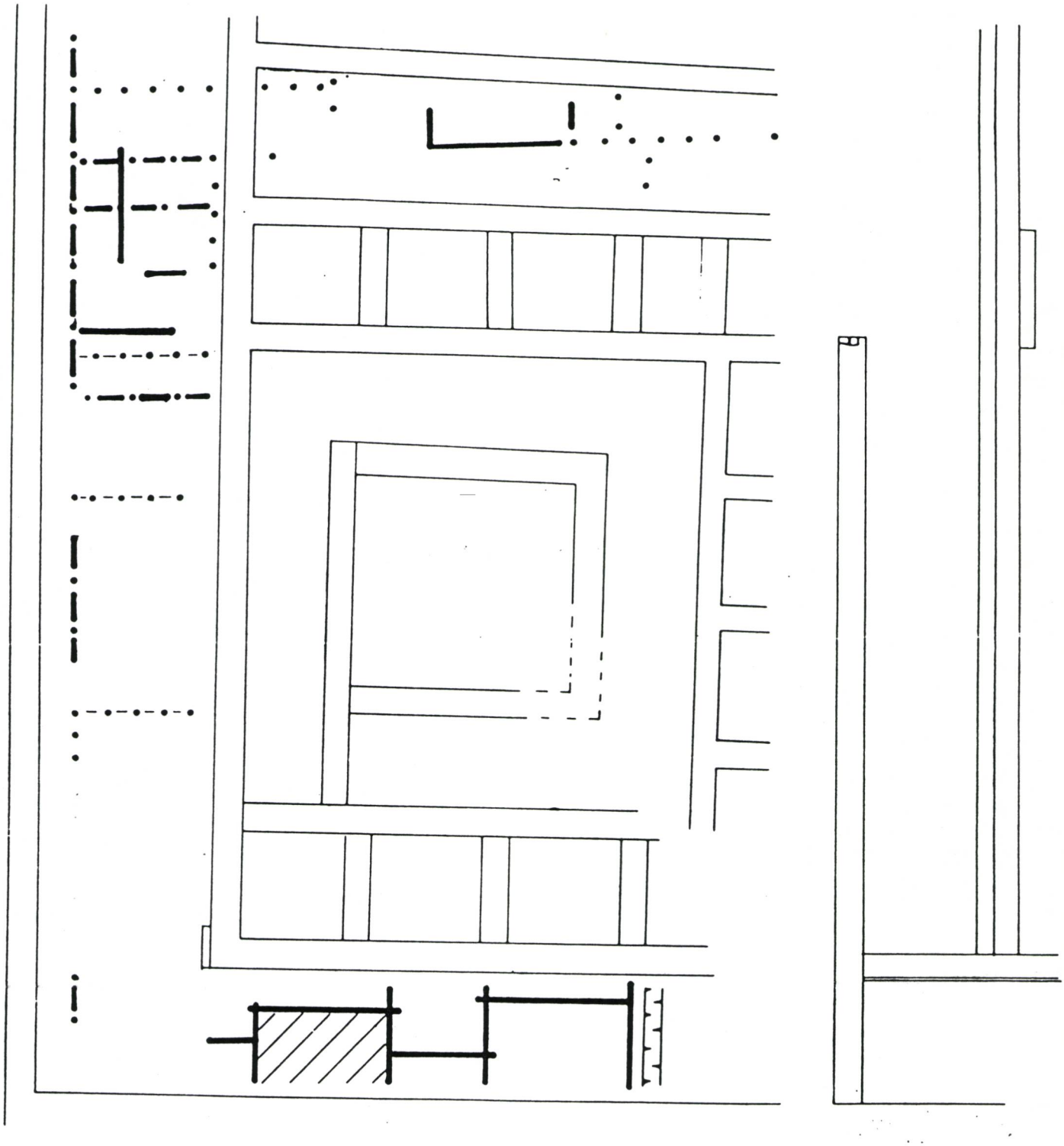
The most interesting discoveries have been the constructional details of the rampart. At the end of the last season it became evident that the rampart had a vertical front, but this year the discovery of more timber demonstrates that from the earliest period it was of a box-type construction. A sequence of horizontal cross timbers (10 x 15 cms) at 1.625m centres had been built into the rampart during construction, except for one which was a later

replacement. At the back of the rampart was a beam 12 cms wide and 6 cms deep, which appears to have been jointed to the cross-beams. Fortunately, it was possible to examine one of these joints and it is evident that the two timbers were halved into each other and a large nail was found at the appropriate point. However there is no evidence at the back of any vertical revettment, and it would appear therefore that the box-construction did not extend to the 5m width of the rampart. It would be reasonable to assume that the box-frame was restricted to the patrol track, forming 3m cube. The reason this feature had not been discovered could then be explained by the presence of the large metre-wide west Macellum wall. Only in the south corridor will it be possible to see a full uninterrupted section through the whole rampart. A more difficult problem relates to the reconstruction of the timbering of the front revettment. The surviving remains consist of a clay base, 48 cms wide, at the very front to which the log corduroy abuts. The horizontal cross-beams had been sawn off at a point 30 cms from the inner edge of the clay platform and had been placed 20 cms above the base. Attempts at a reconstruction of the timbering to account for this evidence have not so far been entirely satisfactory.

Another interesting feature of the rampart is the interval tower the two back-posts of which had already been found. These were placed 10 Roman feet, centre to centre, and it was anticipated that the tower would be square and this was found to be the case when the front two posts were not in the anticipated positions, since the front had been placed slightly askew. The tower had been built pari passu with the rampart and formed an independent unit with the front revettment and box-framing uninterrupted. One of the horizontal cross-beams, in fact had been placed against the south-west post. This setting-back of intervallum towers from the front of the rampart was apparently normal Roman practice and a good example was found at Vechten in the excavations of 1946/7 (Van Giffen, Jaarverslag van de Vereeniging voor Terpenonderzoek, 1948, P.10). (Graham Webster).

WROXETER MACELLUM EARLY CIVIL BUILDINGS

DO NOT SCALE — SKETCH PLAN



BEAM SLOT

EAVES DRIP

PALISADE TRENCH

TWO PHASE

FENCE

OP. SIG. FLOOR

Fig. 23

F-NB 84

Fig. 24 A portable lead shrine of Venus found in a late second century level at Wroxeter in the portico of the marcellum in 1984.

CHEAP MICROCOMPUTERS IN ARCHAEOLOGY

One would have to be blind and deaf to miss the impact of the mass-market home computer. They appear in shops, advertisements in magazines and on television, many schools have their own computer clubs and evening classes in programming abound. However, a closer look reveals that much of the time and effort expended is devoted to games of one sort or another - adventure games, either entirely in text or accompanied by rather crude graphics, or the latest "zapping-the-aliens" offering to test your reaction time. Among all this entertainment, you might wonder whether it is possible to do anything USEFUL with a home computer. In particular, is there any software designed for archaeological applications and easy to use and understand without having a degree in computer science?

The 1984 conference on Computer Applications in Archaeology showed a continued increase in the use of small, cheap micro-computers. Of the twenty-one papers published in the proceedings four used BBC micros, one used a Spectrum, one an Epson, one an IBM PC and three would run on any micro with the CP/M operating system. Several other papers did not state the actual micro-computer used.

In this discussion, I will refer to software in use on the Sinclair Spectrum, a very common home computer and currently one of the cheapest on the market. It has been around since 1982 and there are many extra peripherals produced both by Sinclair and by other firms which allow one to build it into a very varied and powerful system. I know of several other users who are using Spectrum-based systems to store a catalogue of finds from a site or to carry out the calculations to help with surveying. My own current interest is in recording profiles of objects and fitting curves to the profiles for storage and analysis. Later I intend to use this data to produce a typology of the objects based on similarity of the shapes of the profiles.

For the first stage, that of reading in the profile, I need some sort of digitiser. There are three currently available and that one I use is the cheapest as well as the first one to appear. This is the "RD Digital Tracer", originally produced by RD Laboratories and now marketed by Kane-May. It comes in two sizes, the one I own is designed to work from an A4 size area and more recently they have produced a more accurate version which works from an A3 size area. (Prices £60 for A4 size and £70 for the A3 size). The other possibilities are the "Grafpad" and the "Touchmaster" both approximately twice the price of the RD Tracer. These are supplied as an A4 work-surface and a stylus tracer, a point which might be worth remembering if you are expecting a large number of helpers coming to use the system.

The input programme starts by using the Tracer to define the exact area to be used for input. This must be approximately A4 in size for good results. Then the first profile is placed within the area, the head of the tracer is placed on each point in turn and a key is pressed on the Spectrum when the correct position is indicated. As the points are input, they are displayed on the screen to show how the input is progressing. When the curve is complete, the screen is cleared, a simple smoothing is applied to the data and the result is displayed. The user then has several choices; the curve may be smoothed again; if a gross mistake has been made, the curve may be completely re-input; or if the curve is correct, it may be stored in a data file on backing store (microdrive, wafadrive or floppy disc drive or even cassette recorder). Once this curve has been dealt with, additional curves may be input.

The fitting programme uses a B-spline curve to fit to the data points from one of the files. This is a form of curve fitting used in many CAD (Computer Aided Design) applications because the shape of the curve can be altered very easily by moving the control points until the curve takes the desired shape. This programme is interactive. The profile of digitised points, the control points and the error curve are displayed and the user has to move the control points until the values of the error curve are as small as possible. The control points are then stored in a data file for future use. The advantage of this process is the reduction in the amount of data stored. The number of control points needed to described a profile is only one tenth the number of digitised points needed for the same profile and this saving becomes very important when we come to compare the shapes of different profiles.

The final programme in the collection takes a set of control points and draws the profile corresponding to them. At present this only works on the screen and is of limited use, but once I get a plotter attached to my Spectrum I shall be able to produce scale drawings of the profiles on the plotter.

This is a working system of my own Spectrum and if anyone working on archaeological problems wishes to use it on their home computer I shall be happy to make listings available. If you are using some other computer, I shall be willing to advise on transferring the methods to your system but will probably not have time for detailed rewriting of the software. (Susan Laflin, University of Birmingham; telephone 021 472 1301 extn. 2631).

THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT IN ACTION

In April 1983 part of the site of the Roman Fort on Dodderhill, Droitwich (SO 60296369, HWCM 4999) was Scheduled as an Ancient Monument. The Fort had first been reported in 1938 by J.K. St. Joseph, who had carried out exploratory work and consequently was able to define the northern and eastern defences of a Fort of some 12 acres that had been established during the third quarter of the first century. In 1962 David Whitehouse defined the western defences and recovered traces of several timber buildings. In 1977 a further excavation was carried out by D.F. Freezer and T. Yarnell which receoved an important group of pottery and metalwork.

During October and November of 1983, six months after the Scheduling of the site, Dodderhill School carried out unauthorised works within the Scheduled area disturbing the archaeology over an area of some 2½ acres. Work was ordered to cease in November when the Planning Authority discovered that work was taking place. The School had not consulted the landowners and had sought neither Planning Permission nor Scheduled Monument Consent.

In November 1984 a summons was issued against Whitford Hall Ltd., the parent trust of the School, who were represented before Droitwich Magistrates on 6th December 1984. Whitford Hall Ltd. pleaded guilty to having carried out works on a Scheduled Ancient Monument without having obtained Scheduled Monument Consent, and requested Summary Trial. Whitford Hall Ltd. were fined £1500, this was reduced to £750 on appeal.

Part I of the Ancient Monuments and Archaeological Areas Act 1979 has finally been demonstrated to have teeth though they appear to be milk teeth that fall out when under slight stress. They will not deter the wolf. (J. Price, Archaeological Officer, Droitwich).

RECENT ACTIVITIES OF THE STOKE-ON-TRENT MUSEUM AND ART GALLEY

1. THE STOKE-ON-TRENT HISTORIC BUILDING SURVEY

The survey of pre-1st World War buildings in the City of Stoke-on-Trent continues its inexorable progress. It has survived the many vissicitudes of the MSC since it begain in January 1982, and has now disguised itself as the Community Heritage Project. Having started with 15 full-timers it reaches its maximum of 30 full and part-timers in 1983 and has now settled at 21. The work of the survey has gone considerably beyond what was anticipated at the outset (see West Midlands Archaeology no. 24 1981) and the purpose of this note is to bring readers up-to-date with progress.

The basic record consists of a series of typed cards, containing a brief written description of each structure street by street. It is filed alongside a set of photographs of all aspects of the building. This 'non-intensive survey', as we call it, is indexed so that items can be called up under a variety of headings, e.g. FACTORY - POTTERY - PRE - 1832. As we were not able to afford a computer we have used the punched card or Visual Co-incidence Retrieval System, which could in any case very easily computerised.

In addition to this basic record, which is nearing completion, we also have much more detailed records of 100 structures representative of the whole range of types from small cottages to huge complexed like the Stoke workhouse (the drawings for which occupy 16 sheets). These structures are measured and drawn, photographed inside and out, and investigated using documentary sources. A good deal of time is spent examining each building so that the drawings represent it as far as possible as it was in its original state.

The idea behind the survey is to show how surviving buildings, even of the recent past, can be used to illuminate social and economic history. The buildings chosen for detailed examination are not selected for their architectural qualities, but because they are typical.

A series of monographs on some building types has been started with Workhouses in the Potteries and Schools in the Potteries. The material is being made available to local libraries through booklets on individual buildings. The Royal Commission on Historical Monuments has expressed interest in publishing a definitive report in the future.

The following charts will give an indication of the range of buildings covered to date (October 1984). It does not indicate of course the rich variety within each category, e.g. terraced housing includes dwellings for the poorest to the relatively wealthy. A great limitation is that much of the evidence has been destroyed. This sampling factor applies particularly to the earlier and poorer quality housing, examples of which only survive by accident (e.g. through incorporation in an adjoining building). Nevertheless, we believe we can fairly claim that our survey is the most comprehensive record of ordinary (but in some ways extraordinary) nineteenth century industrial community.

Buildings Surveyed Intensively

Housing

terraced	24
detached	9
semi-detached	2
farmhouses	7
cottages	4
police	1

Public Buildings

baths	2
markets	2
workhouses	4
schools of art	1
schools	7
institutes	1
town halls	1

Ecclesiastical

chapels/sunday schools	7
churches	2

Factories

pottery	12
bottle ovens and kilns	8
other	1

Canal Buildings 2

By Area

Hanley	21
Stoke	34
Burslem	27
Tunstall	5
Fenton	4
Longton	9

Cameron Hawke-Smith
City Museum and Art Gallery
Hanley, Stoke-on-Trent

2. STAFFORDSHIRE ARCHAEOLOGICAL STUDIES

This annual publication will report excavation, fieldwork and finds from the County of Staffordshire. It is published by the City Museum and Art Gallery, Stoke-on-Trent, and is a continuation of the Museum Archaeological Society Reports but in a new format. The editors are Cameron Hawke-Smith and David Barker.

The first volume includes reports on:

Excavations at Eyeswell Manor Moated Site, Eccleshall.
The Sneyd Green Medieval Kilns : A review.
Excavation of an eighteenth century cottage at Tenton, Stoke-on-Trent.
Eighteenth and nineteenth century ceramics from the Foley Pottery, Fenton, Stoke-on-Trent.
A late eighteenth century pit group from Leek.
Volume one costs £4.95 including postage and packing.

The second volume is a comprehensive report on the Cistercian Abbey at Hulton (SJ 90554915), published to coincide with the centenary of the first research into the site's history. Particular emphasis is given to the architecture of the abbey church and the analysis of human remains uncovered during the nineteen seventies. A range of small finds and an historical summary are also presented. Volume Two costs £3.25 including postage and packing.

Both reports are obtainable from the Shop Manager, City Museum and Art Gallery, Broad Street, Hanley, Stoke-on-Trent ST1 4MS. (Philip J. Wise, Stoke-on-Trent Museum and Art Gallery).

POTTERY, DENDROCHRONOLOGY, CARBON 14 AND TRUTH: A CAUTIONARY TALE FROM DROITWICH

1. INTRODUCTION

The Old Bowling Green site was excavated during 1977, 1978 and 1979 under the directorship of D. Freezer and J. Sawle for Hereford and Worcester County Council and the Department of the Environment; labour was provided by the Manpower Services Commission. The recovery of vast quantities of briquetage from the excavation suggested that in antiquity, salt extraction had been carried out on a large scale; the site was waterlogged, resulting in the survival of much timber, both structural, and as debris in fills of features. The site had been massively truncated prior to its use as a bowling green, resulting in removal of sealing layers for most features and consequent lack of useful dating evidence for their abandonment. Pottery assemblages were often poor and rather mixed in date. With these constraints in mind, a programme of dendrochronological analysis and radiocarbon dating was carried out. However, this produced further problems since the dating supplied by these latter methods, instead of augmenting that provided by the pottery was in marked conflict with it.

2. THE FEATURES: LARGE CLAY AND WOOD-LINED PITS: F106, F132, F495, F1684, F1685, F1690, F1991, F2049

.1 Description (Fig. 25)

A group of large pits with clay and plank linings occupied much of the eastern part of the site. They cut a thick layer composed largely of briquetage which extended over Areas B, F, G and H, and were poorly sealed.

.2 Dating (Fig. 26)

Pottery. Assemblages from the features themselves were rather mixed and represented a date-range from the Iron Age to medieval period. Medieval sherds were usually (but not always) confined to upper fills. Most of the pottery was of early Roman date, but very few assemblages consisted entirely of early Roman pottery.

In Area B, the briquetage layer and layers beneath it contained sparse quantities of Iron Age pottery, together with even fewer Roman sherds. Nevertheless these sherds of Roman date were present throughout the stratigraphy, including the stratigraphically earliest layer. Pottery from the briquetage and earlier layers in Area G was similar, but there, Roman

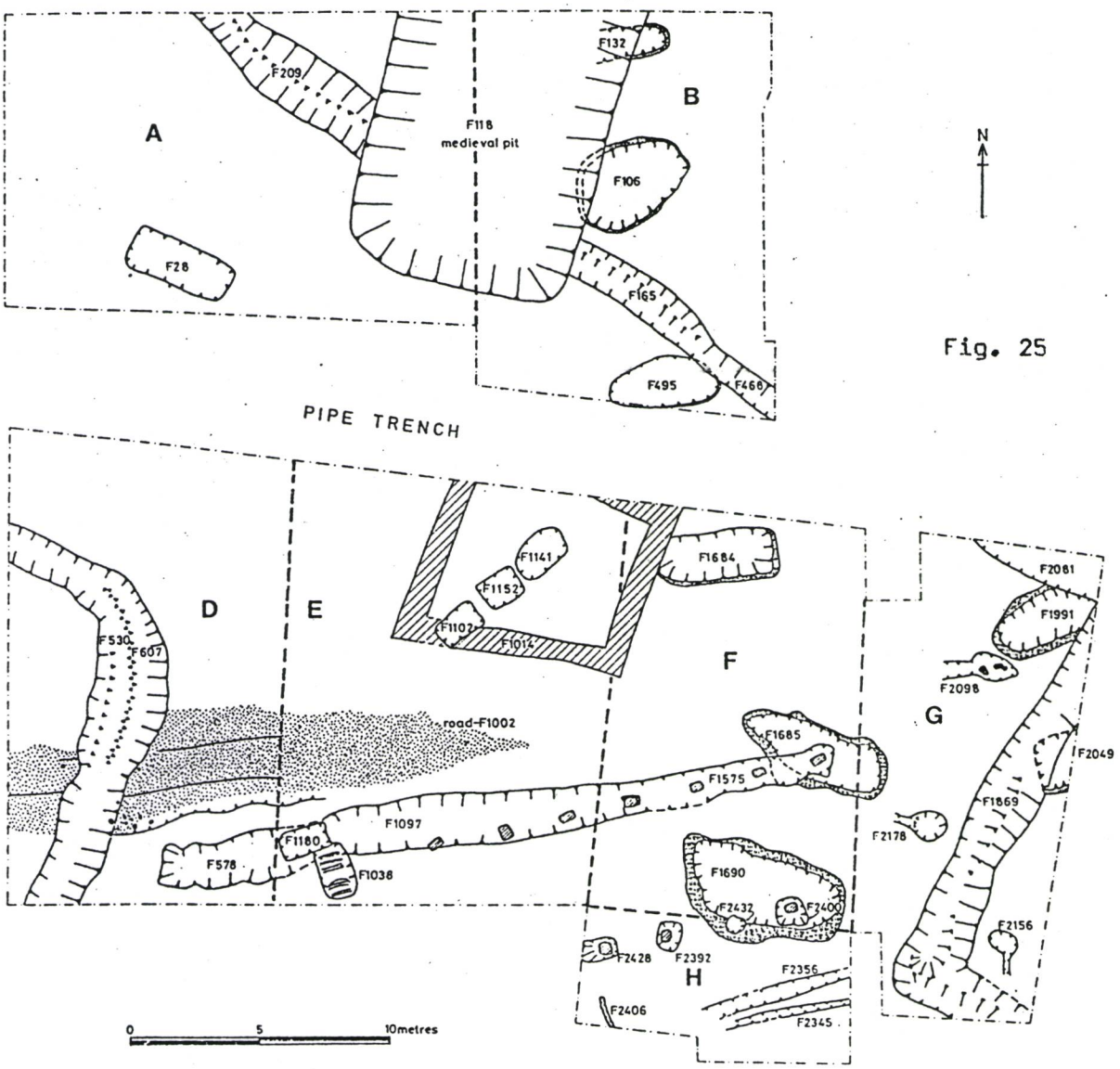


Fig. 25

Old Bowling Green, Droitwich, major features (J. Sawle)

sherds were confined to uppermost layers. In Area F, the briquetage and earlier layers produced relatively large quantities of Roman pottery and the stratigraphically latest assemblage was of late second century date.

Pottery evidence indicated, therefore, that all of the pits were of Roman date and supplied a tpq for the construction F1685 and F1690 in the late second century A.D. It was inconclusive concerning the date of the abandonment of the pits.

Dendrochronology. Dendrochronological work was carried out on samples from the timber linings of four of the pits, F1684, F1685, F1690 and F1991. The mean curves obtained for each pit terminated within eight years of each other, and together provided a sequence of 240 years ending in A.D.25. Since sapwood was present in 21 of the 35 wood samples used to construct the four curves, and since the chronological range of each pit included between 22 and 39 sapwood rings, it has been suggested that A.D.25 was close to the date at which the trees were felled.

Radiocarbon dating. Samples from three pits were analysed:

twigs and leaves from the fill of F132: 180bc ± 70
wood from the fill of F495: 50bc ± 70
wood from the lining of F1685: 70bc ± 80

Radiocarbon and dendrochronological dating were therefore in broad agreement in suggesting that the pits were Iron Age, but pottery evidence was seemingly incompatible with this.

3. DISCUSSION

Various interpretations of the evidence can be offered in an attempt to resolve these difficulties. Since the dendrochronological and radiocarbon methods produced mutually compatible dates, methodological errors (e.g. contamination of the C14 samples, mismatching of dendrochronological curves for individual wood samples) are clearly unlikely to account for their incompatibility with the pottery evidence. Similarly, since the Roman fabrics present not only included well known and easily recognised Severn Valley wares, but widely distributed well-dated material such as samian and black burnished ware, category 1, their date is not in doubt.

It is possible that the construction of the pits took place at a later date than the felling of the timbers due either to stockpiling to to reuse. However, none of the boards lining the pits showed any signs of reuse (usually indicated by redundant joints, notches or pegholes), the method of conversion to boards

split radially from the trunk of the tree (oak) suggested that the wood was unseasoned when used and the survival of fragile sapwood militates against removal from another structure. In addition, it is thought that the countryside around Droitwich was still well-covered with woodland during this period, obviating the need for stockpiling.

The most likely explanation would appear to lie with the nature of the site and its stratigraphy. Since wood and other organic materials can be presumed to have rotted down at a slower rate than on less wet sites, the interim between the deposition of a layer or fill and its final consolidation would have been longer. At any time during this interim period small sherds could have been incorporated into deliberate levelling of soggy hollows, (broken briquetage vessels would have been eminently suitable for this purpose) and could have fallen down voids created by half-rotted timbers. This may be the best method of explaining the mixed assemblages from the fills of the pits and the presence of Roman sherds in the briquetage and earlier layers in Areas A and G.

The presence of substantially larger quantities of Roman pottery in the briquetage and earlier layers in Area F is less susceptible to this interpretation. Here it must be suggested that a small feature or features cut into the briquetage or patching of the briquetage surface during (or after) the life of the pits were overlooked during excavation. Briquetage filled features or hollows cut into more briquetage would certainly have been difficult to recognise and recover, especially under 'rescue' conditions with an inexperienced MSC funded labour force. Additionally, a similar pottery assemblage would have been recovered if the Roman ditch F1575 (Fig. 1) had been slightly underexcavated and some of the finds from its fill incorporated with the briquetage and earlier layers, which it also cut.

4. CONCLUSIONS

The lack of correlation in many cases between dates obtained by differing methods has made this site very difficult to interpret. It also suggests that pottery recovered from waterlogged areas should be approached with caution since its value as dating evidence may be limited by processes of site and assemblage formation in a way which is difficult to predict ot quantify. It must be borne in mind that the deposition of other artefacts on such sites may also have been affected in similar ways, and that the range of evidence they might supply concerning the site, although not necessarily smaller than usual, may be difficult.

This problem of interpreting the complex process by which, through centuries of use, decay and reuse, a site becomes a series of stratified soil deposits to be recovered by the modern archaeologist is one that has only recently begun to receive sufficient attention. In the case of the Bowling Green, if there had been no alternative dating evidence to force a reconsideration of this process and its implications for the deposition of pottery assemblages, important evidence of the Iron Age salt industry at Droitwich would have been ascribed to the Roman Period.

Acknowledgements : I wish to acknowledge the use of the unpublished work of Ann Crone, Heather James and John Sawle during the compilation of this article. (Helen Rees, Hereford and Worcester County Council Archaeology Department).

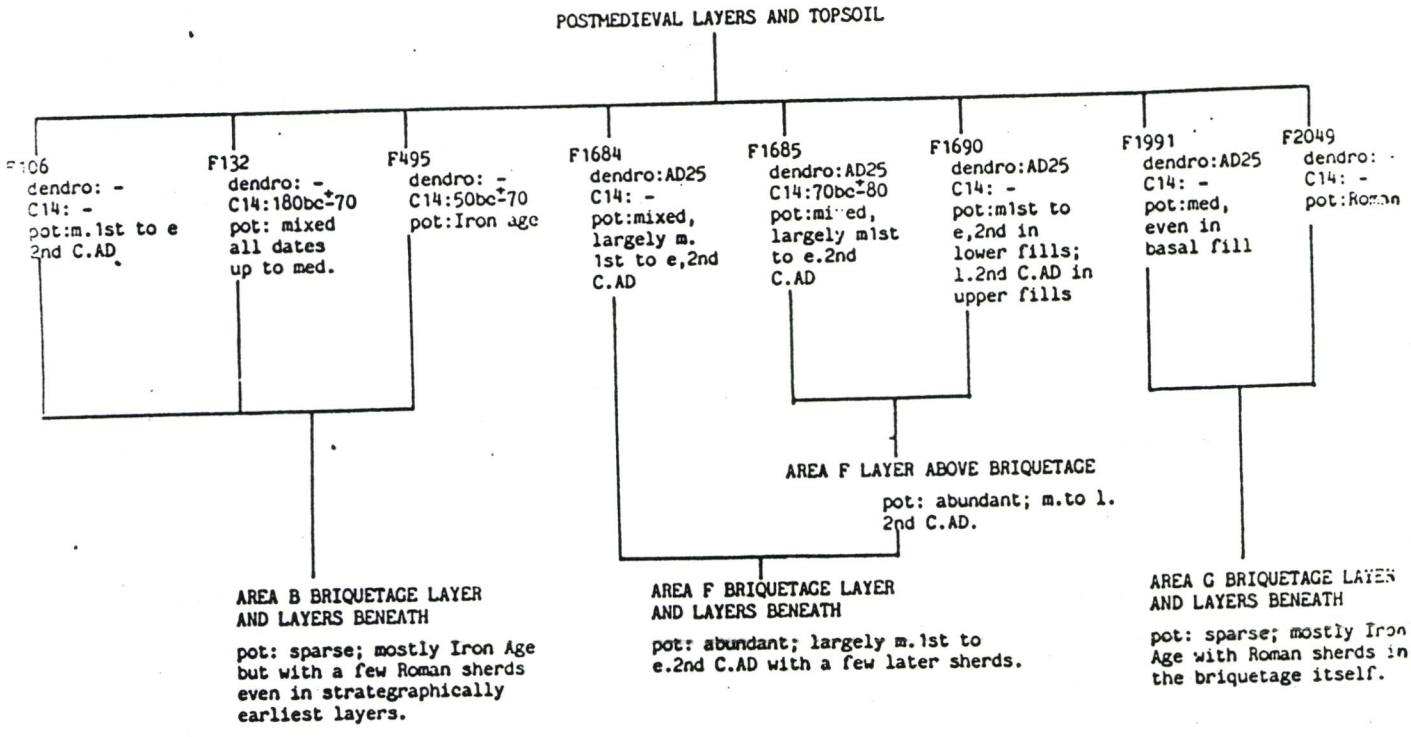
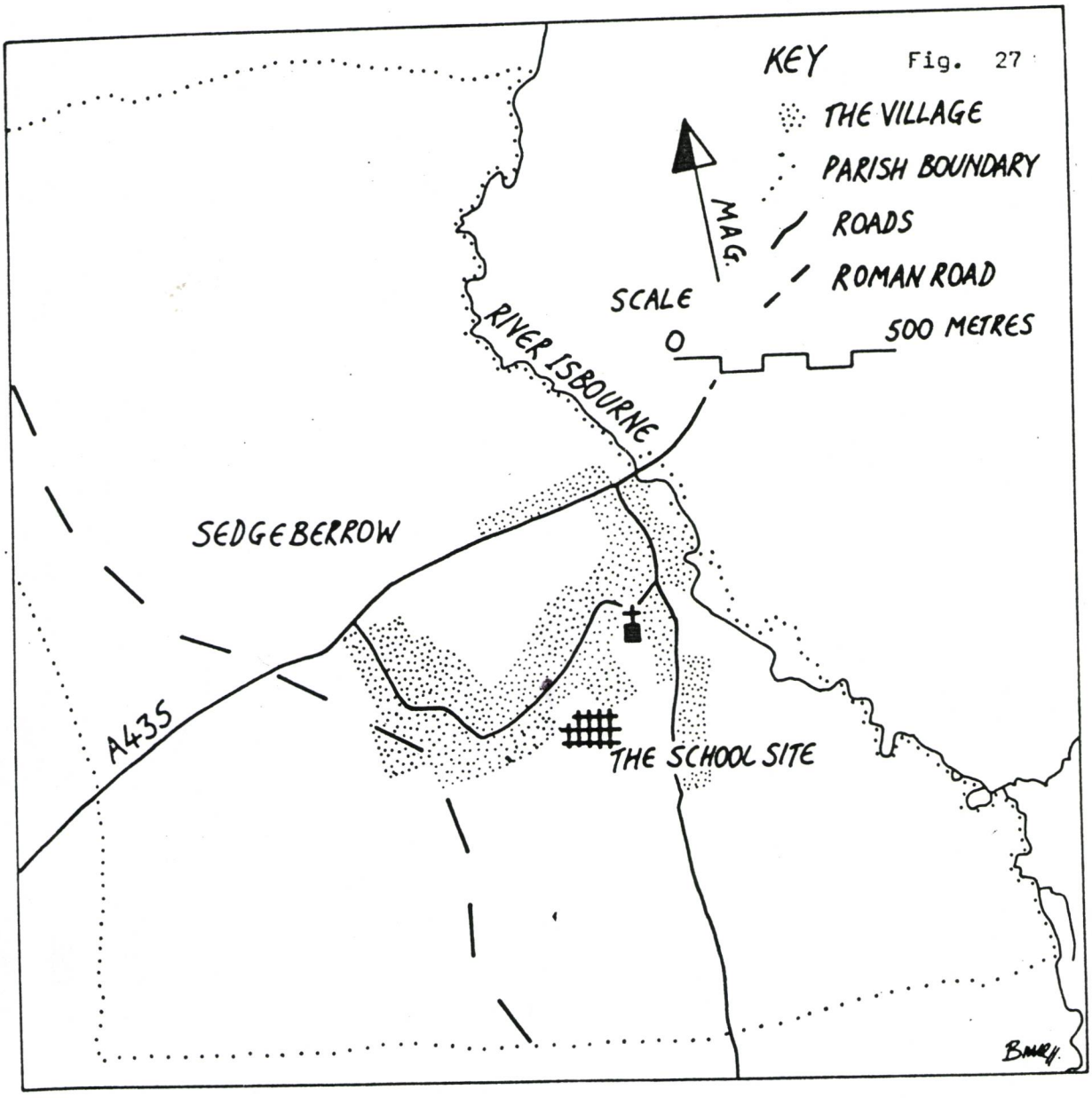


Fig. 26 SIMPLIFIED MATRIX SHOWING DATING EVIDENCE FOR CLAY AND WOOD-LINED PITS


KEY
Fig. 27
THE VILLAGE
PARISH BOUNDARY
ROADS
ROMAN ROAD
MAG.
SCALE
0
500 METRES
RIVER ISBOURNE
SEDGEBERROW
A435
THE SCHOOL SITE
BARRY

A ROMANO-BRITISH AND ANGLO-SAXON SITE AT SEDGEBERROW (Hereford and Worcester) (SP 02633829)

1. INTRODUCTION

The Sedgeberrow school site SP 02633829 area, lies on the southern edge of Sedgeberrow village (Fig. 27). The site was first recorded in the 1930's by Dr. G.R. Malkin who reported finds of Romano-British pottery, fibulae and coins from Faustina I (circa. AD. 138-161) to Valens (AD. 364-78), one Anglo-Saxon sceatta, Medieval coins and two Medieval gaming counters (OS. Archaeological Record Card SP 03 NW Antiq. No. 3).

The base silver sceatta (illustrated by Metcalf, 1976: plate 12, 7), has on the obverse a diademed bust and on the reverse a figure with a cross, possibly a bishop. Wright (1944, 77) suggested the figure was Mellitus Bishop of London (circa. AD. 604-16). Other sceattas are known locally from Badsey and Worcester, all date from circa. AD. 740 (Metcalf, 1976).

The site was included in Cox's (1967, 16) gazetter of Romano-British sites as No. 28. Today, the area is under pasture. A Roman road - the White Way runs past the village.

2. POTTERY CATALOGUE

The material found by Malkin, (Site 29) is all in the Evesham Almonry Museums.

.1 Romano-British

Out of a total of thirty-four sherds, 76.5% are Orange Severn Valley ware (1st-4th C. AD.). The rest consist of, in numerical order - sandy grey ware, grey ware, thin-walled Malvernian, early Roman ware, Peacock (1968-415) fabric A., Oxford ware, red colour coat (AD. 240-400) and Dorset Black Burnished ware imitation. There are four other sherds of either Iron Age or Roman date, consisting of the locally-made shell tempered ware, (Price and Watson, 1981-92) and the thick-walled Malvernian ware Peacock (1968-415) fabric A.

.2 Anglo-Saxon

Of a total of seven sherds, six are brown-black pock-marked sherds, 7-9mm thick. The pock-marking is the result of shell temper leaking out. Ther sherds are tempered with a very fine sand (not local). Two sherds have out-bent rims - from vertical walled vessels, possibly cinerary urns, but

as the sherds are small the profiles of the pots cannot be accurately reconstructed. Very similar 'pitted' sherds were found at Hatton Rock Anglo-Saxon Palace in South Warwickshire, these were described as organic tempered, (Hirst and Rahtz, 1983,172). This site is provisionally dated to the eight to tenth century AD., though some of the pottery could be older - middle Anglo-Saxon (AD. 650-850). The seventh sherd is grey-black in colour, tempered with coarse sandstone (source=Warwickshire), and 5mm thick. Like the others it can be paralleled with material from Hatton Rock (Hirst and Rahtz, 1973, 174).

3. DISCUSSION

The main problem is trying to infer human settlement from surface or unstratified finds is determining the duration of occupation. It is always tempting to assume continuous occupation from one period to another, for example, Roman to Anglo-Saxon. However excavations elsewhere have demonstrated that many multi-period sites have a history of discontinuous occupation.

The density and date of the finds suggest early Roman occupation on the site, centainly by the second century AD., until the late fourth century or possibly later. Local use of Orange Severn Valley ware during the fifth century, seems likely (Price and Watson, 1981, 93). Analysis of the Romano-British pottery at Cadcong Hillfort in Somerset suggested that some material was associated with fifth century occupation (Burrow, 1981, 125-133). Could the same be true on other sites, like Sedgeberrow?

Following the maxim that 'five sherds indicate a Saxon site' (Foard, 1978, 364), there was certainly middle/late Anglo-Saxon (c. seventh to tenth century) occupation on the site.

It is not known if there was continuity of occupation between the late fourth century AD., and the Anglo-Saxon phases. The Anglo-Saxons did not arrive in the Avon valley until about AD. 500, leaving a century for the development of undigenous post-Roman communities (Pretty, 1975, 3). The pattern of early Anglo-Saxon settlement in South Worcestershire is not known. Settlement was possibly concentrated around the cemeteries, as it is known there was contemporary settlement within the vicinity of Bidford-on-Avon early Anglo-Saxon cemetery in Warwickshire (Rahtz, 1976, 409). No Anglo-Saxon graves are known from Sedgeberrow.

4. THE PATTERN OF LATE ANGLO-SAXON SETTLEMENT

The Sedgeberrow school site is some 250 metres south-west of the parish church and just outside the modern nucleated village. Two pieces of evidence suggest a link between the site, the village and church.

Firstly, Sedgeberrow is an Old English place-name meaning 'Secg's (a personal name) grove' (Eckwall, 1947, 391). Secondly, parts of the fabric of the Medieval parish church are believed to be Anglo-Saxon (report forthcoming). A priest was recorded for Sedgeberrow in the Domesday Survey (Thorn and Thorn, 1982, 2.63) implying the existence of an Anglo-Saxon church. It is likely the Anglo-Saxon church and the occupation on the school site were broadly contemporary. Field walking of three villages in Norfolk revealed concentrations of early/middle Anglo-Saxon pottery around the Medieval parish churches (Wade-Martins, 1975).

Everyone generalises about the pattern of Anglo-Saxon settlement in England from a handful of field surveys and excavations of abandoned early/middle Anglo-Saxon settlements. Recent field-walking in Northamptonshire (Foard, 1978; Hall and Martin, 1979) demonstrate that early/middle Anglo-Saxon (AD. 450-850) settlement pattery was based on dispersed farmsteads or hamlets - away from the present nucleated villages. Field survey of the Chalton area of Hampshire revealed five abandoned early Anglo-Saxon sites (Cunliffe, 1972).

These field surveys suggest that the nucleated English villages may be the product of a shift in the settlement pattern during the late Anglo-Saxon period (AD. 850-1000) (Foard, 1978, 371-372). The reasons for this change in settlement pattern are thought to be rising population and the adoption of open-field agriculture (Rowley, 1978,98-102). Taylor (1983, 121) pointed out the abandonment of early/middle Anglo-Saxon settlements could also be interpreted as evidence of a declining population - perhaps decimated by disease?

There is little evidence of nucleated Anglo-Saxon villages before AD. 1000 (Taylor, 1983, 125). Excavation of two deserted villages in the East Midlands - Goltho and Barton Blount revealed the pattern of streets, crofts and houses were only laid out during the tenth and eleventh centuries (Beresford, 1975). Generally, archaeological evidence for the formation of nucleated villages is scarce because the density of present occupation or because prior destruction permits little excavation. One piece of local evidence is an excavation in Fladbury Village, Worcestershire, that revealed middle/late Anglo-Saxon occupation (Peacock, 1967).

The crucial question is - does the Anglo-Saxon occupation on the outskirts of Sedgeberrow village represent evidence of settlement nucleation? That the site is just outside the modern village is not significant as recent studies of English village topography show that the pattern of settlement was not static, but there was considerable movement of settlement during the Medieval period within the general area of the village (Taylor, 1978). We suggest the school site represents evidence of settlement nucleation because of the date of the finds and their location - close to the church and village. The only other archaeological evidence for the formation of the village is a thirteenth and fourteenth century jug handle, found in the western part of the village (Price and Watson, 1983).

5. THE DOCUMENTARY EVIDENCE

The first documentary reference to Sedgeberrow is in AD. 777. When 4 'manionses' (hides) at Sedgeberrow - lying south and west of the river Isbourne were granted to "Aldred Ealdorman - who regranted the estate to St. Mary's of Worcester (Finberg, 1961, 94). This charter is a later copy of the original document, containing some added material, for instance the regrant may be a fabrication as Worcester Cathedral was not re-dedicated to St. Mary until the tenth century. The charter describes the bounds of the estate in a brief survey describing four landmarks (Grundy, 1931, 225). Hooke (1981, Fig. 4.4) believes the area delimited by the boundary charter to be identical to the present civil parish (Fig. 27). In many boundary charters the description of the bounds - like Sedgeberrow are sketchy or not given at all but are said to be 'ancient' or 'well-known'. This practice suggests the boundaries were well-known because they were long-established, rather than ill-defined (Sawyer, 1974,113).

Nearly one third of the Worcestershire Anglo-Saxon charter estates are akin to later ecclesiastical parishes (Hooke, 1982, 233). These were agricultural estates and their connection with the church is a later event, when they were taken over as convenient units for financial and spiritual organisation (Taylor, 1974, 12).

Sedgeberrow was mentioned in another document of AD. 964 listing it as one of a number of estates belonging to the Church of Worcester which were exempt certain taxes (Finberg, 1961, 112). The Domesday Survey of 1086 recorded as living on the estate - eleven villagers, four smallholders, a priest and five slaves (Thorn and Thorn, 1982, 2.63).

To conclude, by the late Anglo-Saxon period Sedgeberrow was an established agricultural estate, with a settlement broadly in the position of the modern village and probably a church close by. There may have been other settlements or farmsteads within the estate, but no trace of them has been found to date. As the village has a fairly central position within the estate was its site in the Isbourne Valley deliberately chosen within the land unit, probably utilising land cleared and farmed by the Romano-Britons and using the Roman road for access? (Edward A. Price and Bruce Watson).

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7. ACKNOWLEDGEMENTS

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Alan Vince of the Museum of London, for identifying and describing the Anglo-Saxon pottery.

WORCESTER ARCHAEOLOGICAL PROJECT HWCM 378 DOLDAY (SO 8467 5396) AND HWCM 3899 POWICKE LANE (SO 8488 5492)

In February 1985 work will commence on what it is anticipated will be an extensive programme of archaeological excavation in Worcester. Preliminary analysis of the available evidence has enabled the Archaeology Department of Hereford and Worcester County Council to identify a number of sites with archaeological potential. After arguing the case for a project of this nature since 1978-79 the Department has now secured the resources (from the Manpower Services Commission and the Historic Buildings and Monuments Commission for England) for a short programme of trial excavation on two of these sites, where comprehensive redevelopment will commence early in 1986. The nature and extent of surviving archaeological deposits will be recorded and assessed and it is hoped that these assessments will allow a programme of full scale excavation of these sites (and of further evaluation of others) to be funded by MSC and HBMC(E) during 1985-86 and beyond.

This preliminary evaluation is now being followed by a more sophisticated analysis of the archaeology of Worcester using the Departments established multidisciplinary approach to sources (collating existing historical, cartographical and archaeological data and undertaking selective fieldwork to produce an analysis of the origin and development of the settlement) (Roberts, 1984). It is hoped that co-operation with the City Planning Authority's in the preparation of a Local Plan and it is intended that this kind of integrated approach to the archaeology of settlement should engender a more sensitive response than would otherwise be possible to the needs of Worcester's archaeology (in terms of both research and conservation priorites) and to the nationally significant issue of how a town developed from a base of pre and proto urban settlement. Human use of the site of Worcester appears, even on the comparatively scanty evidence that is now available, to have been singularly long lived and to have left unusually well preserved archaeological traces (Barker 1970, Carver 1980) and its belated examination in the 1980's is an exciting propostion which may go some way to providing recompense for the sad loss of evidence in the late 1960's.

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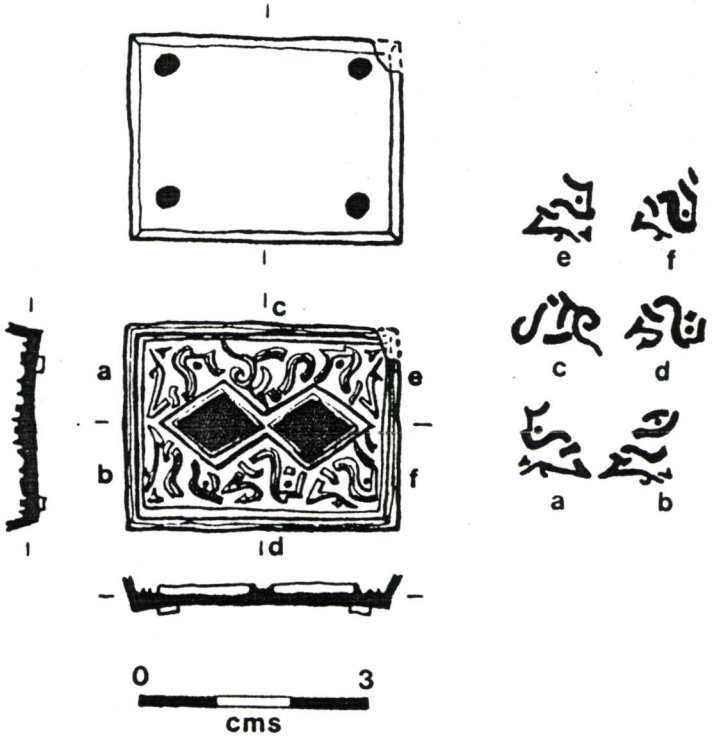
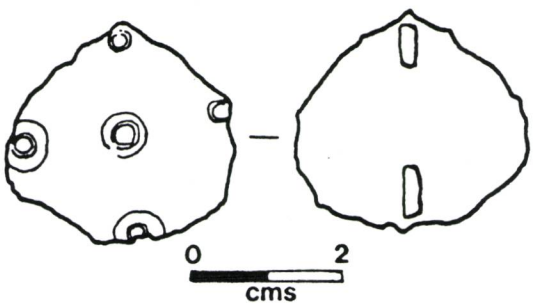
AN ANGLO-SAXON BELT FITTING FROM ALCESTER, WARWICKSHIRE (SP 0975 5725)

In late summer 1984, Mr. F.C. White of Redditch reported, and later presented, to the County Museum in Warwick, a piece of Anglo-Saxon metalwork located by metal-detector from a field north of Stratford Road, Alcester (Museum Accession No. 178/1984). A second item, a 'silvered', disc brooch with compass-inscribed ring and dot decoration was also recovered further to the north east (SP 101 580). Neither object comes from a known Saxon site, the only previous discoveries in Alcester being three possibly Saxon sherds of pottery from Birch Abbey and the terminal of a fine seventh century silver bracelet from Bleachfield Street. (Booth 1980 p.23). Meaney (1964) lists Alcester as a Saxon cemetery site but recent thought has cast doubt on this. The discovery of the two new items some 500m. from the nearest known area of the Roman town is, therefore, of some interest.

The main item is a belt-plate of mid-sixth century date of of Kentish derivative style (Fig. 28). The maximum dimensions are 36 x 27 x 4mm. The zoomorphic ornament, inlaid lozenges of Almandine (the normal variety of garnet used in English contexts) and traces of gilding point to an inspiration from a Kentish source. The quality of the 'animals', carving, gilding and stone-cutting and the absence of gold foil behind the stones suggest a fairly low-grade copy and might even hint at a local production. Garnet inlaid pieces are not at all common in this area, Meaney listing five pieces from the county (one or two others have been added since she wrote). The only use of large stones other than this piece is on the fine, Square-headed brooch from Alveston Manor, now in New Place Museum, Stratford-upon-Avon, which is incidentally the only other use of lozenge shaped stone in the county. The decorative scheme is divided by the two inlaid lozenges and their surrounds into siz roughly triangular zones. Each zone is filled with an individual zoomorph. Five are clearly recognisable creatures, one is not ('c' on illustration). The crouching form of a, b, d, e, f is reminiscent of Leeds 'Gothic' bird types (cf. Fairford, Glos. - buckle plate; Sarre, Kent - tab; and others) and the general style is illustrated by the buckle and plate set from Howlett's Bridge, Kent. The treatment of the body lines is paralleled elsewhere in the county on two saucer brooches from Longbridge, Warwick, which also contains small, central, circular garnets. I have, however, been unable to find any direct parallels for the piece. The animal or bird is depicted with bifid foot, curved under the body in crouching pose, with sinuous body (with incised groove) split by a single, sinuous cross bar. The head is marked by an eye-spot defined by lines above and below. The elements of 'c' may also be seen as a much devolved version, perhaps due to a worn mould, though it lacks any suggestion of an eye-spot.



SAXON BELT FITTING, ALCESTER, WARKS. (1:1)



SAXON DISC BROOCH, KINWARTON, ALCESTER, WARKS. (1:1)

Fig. 28

The metal of the belt-plate was subjected to qualitative X-ray fluorescent analysis by Justine Bayley at the Ancient Monuments Laboratory and this analysis showed it to be a bronze containing copper, tin and zinc with lesser amounts of lead and silver. It also revealed that traces of gilding were present on the decorated surface but mercury could not be detected in this gold surface layer. This pattern might suggest that leaf- rather than amalgam-gilding was used but it is difficult to be certain on the basis of negative evidence from small traces of residual gilding; the intricate decoration would lend itself much more readily to amalgam-gilding as has been confirmed by the detection of mercury in the gold layer on a brooch from Baginton (Coventry A/1013/13) and others examined in the Polytechnic Laboratory.

Toniho Ciuffini at the Polytechnic has carried out quantitative analysis on a small sample drilled from the rear of the belt-plate and the results are given in the accompanying Table. About seventy-five Anglo-Saxon brooches from various sites in the Avon Valley have been sampled in this way for X-ray fluorescence analysis (see Brownsword, Ciuffini and Carey, this volume), and it is possible to make comparison of the results for these brooches with the belt-plate data.

The presence of zinc together with tin as alloying elements contributing to the hardening of the copper is not unusual in Anglo-Saxon brooch alloys; the zinc, it is believed, was derived from the use of scrap brass. However, the vast majority of alloys have more tine than zinc present (justifying the use of the term 'bronze') whereas for the belt-plate the zinc level exceeds the tin level. The alloy has very little lead compared with the typical 2-5% of most brooches, and the total of the main alloying element content (tin, zinc and lead) is low, leading to a correspondingly high copper content. Such an alloy would be relatively soft and ductile, perhaps a deliberate combination of properties for this particular type of object. No other item with stone decoration has so far been analysed at the Polytechnic for comparison.

On the rear of the plate, four broken studs may have been rivetted through the belt or strap, or alternatively, might have formed flattened loops, through which the belt passed. The studs to the rear of 'b' and 'f' are placed further from the edge than those to the rear of 'a' and 'e', though whether this is significant is not clear.

The disc brooch (more accurately located to Kinwarton, Alcester) is of a rather more common type, with five compass-inscribed ring and dot motifs and 'silvered' surface, familiar locally from Bidford-on-Avon (New Place Museum, Stratford-on-Avon), Stretton on Fosse (Warwick Museum) and Beckford B (Bimringham Museum). The Alcester brooch has not been available for an investigation of the surface

coating but the disc-brooch (Warwick A1873) and a cruciform-brooch (Warwick A1866) from Stretton have been examined and the surface layer shown to be of tin and not silver.

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TABLE

Copper	Tin	Zinc	Lead	Antimony	Arsenic	Nickel	Iron	Silver	%
91.4	2.80	4.69	0.27	0.12	0.09	0.04	0.40	0.15	

Alloy composition of the belt-plate

We would be pleased to receive comments on either of the pieces discussed.

Michael A. Stokes (Coventry Museum), Roger Brownsword (Coventry (Lanchester) Polytechnic).

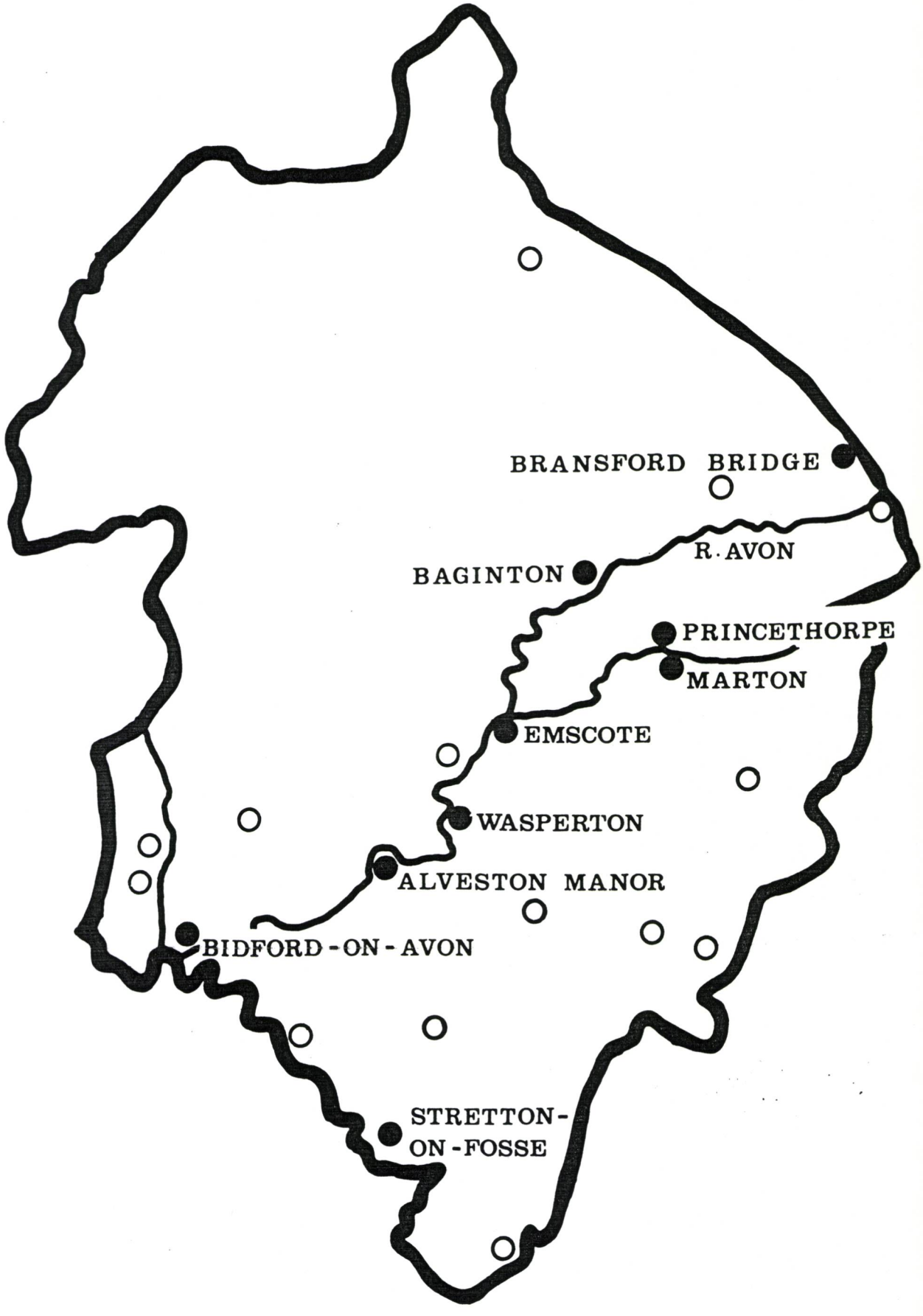


Fig. 29 Sites in the Avon Valley

METALLURGICAL ANALYSES OF ANGLO-SAXON JEWELLERY FROM THE AVON VALLEY

1. INTRODUCTION

There appears to be little published information available on the composition of the coper alloys, universally referred to as 'bronze' from which brooches retrieved from fifth to seventhcentury (AD.) burials were made. This being the case and the necessary analytical technique being available to the author, metallurgical curiosity led to trial analyses being carried out on some brooches from the recent excavation at Wasperton. (Crawford, 1981; 1982; 1983).

Since the first dozen or so results showed that the alloys were far from uniform, the subject seemed to warrant further study. Further items from Wasperton with others from Baginton, Stretton-on-Fosse, Emscote, Bransford Bridge, Marton and Princethorpe, (Meaney, 1964) have now been included in the analytical programme and it is the purpose of this paper to report the findings of this preliminary survey of about 75 brooches from the Avon valley area.

2. ANALYSES

.1 Alloys

Samples for analysis were taken from the backs of the brooches by means of a 1 run. diameter drill, after first removing and discarding the usual surface corrosion-product layer using the drill. The metal drillings were collected and later mounted for analysis by an X-ray fluorescence spectrometric technique described elsewhere (Brownsword and Pitt, 1983). The very small amount of metal required ($<$ 20 mg) and the hand-drilling made for little difficulty in sampling all but the thinnest and most fragile items.

Initially only brooches which could be loosely classified as cruciform were sampled but, later, examples of saucer, disc and penannular types have been included. The aim of the preliminary survey was to determine the range of alloy compositions used and to look for possible correlations of composition with such variables as brooch type, finish, date or site.

The analytical results were presented in Fig. 31 which gives the amounts of the main elements copper, tin , zinc and lead but also of the impurity elements nickel, iron, antimony, arsenic and silver. These last elements were generally present at very low levels with the exception of iron, about which values caution should be exercised since many brooches had the rusty remains of pins adhering to them; care was taken to avoid including any rust

List of all the Saxon Brooches

CODE	MUS	MUSEUM NO.	% Sb	% Sn	% Ag	% Pb	% As	% Zn	% Cu	% Ni	% Fe	EXTRA INFO
BR 1	Warw	1267/7	0.12	7.39	0.09	1.84	0.07	1.95	88.25	0.03	0.25	
BR 2	Warw	1441/1	0.01	4.93	0.14	3.24	0.10	0.39	91.01	0.05	0.14	
BR 3	Warw	3247/22	0.03	3.71	0.08	2.23	0.05	11.17	82.35	0.05	0.33	
BR 4	Warw	1230/4	0.07	6.75	0.12	3.34	0.13	1.78	87.36	0.03	0.42	G
BR 5	Warw	3276/22	0.00	5.97	0.14	2.90	0.06	1.35	88.66	0.05	0.92	
BR 6	Warw	1324/2	0.02	6.18	0.13	4.64	0.16	3.85	83.87	0.04	1.10	
BR 7	Cov	A/1013/12	0.03	5.56	0.13	2.05	0.08	3.41	87.50	0.05	0.18	
BR 8	Cov	A/1013/47	0.01	4.54	0.11	2.31	0.10	1.58	91.15	0.08	0.12	
BR 9	Cov	A/1013/41	0.09	2.60	0.05	0.46	0.25	17.25	78.69	0.15	0.45	
BR 10	Warw	1232/4	0.05	4.08	0.08	2.36	0.03	8.62	84.53	0.07	0.18	
BR 11	Warw	F82	0.07	8.26	0.06	1.34	0.35	0.63	89.07	0.05	0.17	
BR 12	Warw	2301	0.07	7.01	0.16	2.29	0.09	3.37	86.53	0.03	0.43	
BR 13	Warw	1324/1	0.17	4.24	0.12	1.97	0.24	4.85	87.84	0.04	0.54	
BR 14	Warw	1247/1	0.07	5.46	0.13	2.63	0.11	0.64	90.42	0.03	0.50	
BR 15	Warw	1257/1	0.06	4.56	0.09	2.33	0.08	0.51	92.13	0.04	0.21	G and S
BR 16	Warw	1254/1	0.07	7.02	0.07	2.60	0.05	1.80	88.16	0.03	0.19	
BR 17	Warw		0.12	4.66	0.12	4.25	0.12	3.88	86.55	0.04	0.26	
BR 18	Warw	3276/23	0.02	5.36	0.07	1.65	0.21	1.94	89.26	0.04	1.45	
BR 19	Warw	234/2	0.07	3.87	0.09	2.90	0.12	3.83	88.58	0.03	0.52	
BR 20	Warw	3616/23	0.05	2.51	0.07	2.31	0.10	13.10	80.08	0.04	1.73	
BR 21	Warw	3616/22	0.02	2.35	0.09	1.54	0.05	13.50	81.36	0.04	1.06	
BR 22	Warw	3247/23	0.07	6.32	0.08	3.49	0.07	1.07	88.78	0.05	0.07	
BR 23	Warw	1441/2	0.06	5.84	0.14	3.35	0.06	0.47	90.01	0.05	0.03	
BR 24	Cov	A/1013/14	0.11	5.27	0.06	5.38	0.07	2.00	86.98	0.05	0.08	
BR 25	Cov	A/1013/15	0.07	5.77	0.18	1.55	0.06	2.48	89.74	0.04	0.11	
BR 26	Cov	A/1013/16	0.06	5.73	0.13	2.19	0.12	1.91	89.69	0.06	0.10	
BR 27	Cov	A/1013/21	0.08	5.67	0.06	5.73	0.05	1.99	86.29	0.04	0.08	
BR 28	Cov	A/1013/22	0.05	8.24	0.09	4.20	0.08	1.14	85.99	0.04	0.15	
BR 29	Cov	A/1013/23	0.08	8.45	0.07	3.15	0.05	1.42	86.58	0.03	0.16	
BR 30	Cov	A/1013/25	0.06	8.64	0.10	2.07	0.08	1.19	87.71	0.02	0.15	
BR 31	Cov	A/1013/26	0.10	8.56	0.07	3.34	0.08	1.89	85.83	0.03	0.10	
BR 32	Cov	A/1013/27	0.09	6.89	0.12	1.41	0.15	2.49	88.54	0.04	0.28	
BR 33	Cov	A/1013/28	0.06	5.57	0.09	1.34	0.08	2.62	89.99	0.10	0.16	
BR 34	Cov	A/1013/4	0.05	2.87	0.06	0.61	0.20	17.58	78.24	0.12	0.27	
BR 35	Cov	A/1013/17	0.03	7.56	0.12	2.55	0.10	3.11	86.35	0.04	0.14	
BR 36	Cov	A/1013/18	0.06	6.16	0.11	2.64	0.09	3.65	86.84	0.05	0.39	
BR 37	Cov	A/1013/19	0.09	8.72	0.17	2.54	0.08	2.76	84.95	0.04	0.66	
BR 38	Cov	A/1013/20	0.07	6.20	0.11	2.08	0.11	3.97	86.98	0.07	0.39	
BR 39	Cov	A/1013/24	0.02	9.63	0.04	1.25	0.10	0.55	88.28	0.03	0.09	
BR 40	Cov	A/1013/29	0.10	6.33	0.14	2.62	0.14	1.38	89.06	0.09	0.14	

CODE	MUS	MUSEUM NO.	% Sb	% Sn	% Ag	% Pb	% As	% Zn	% Cu	% Ni	% Fe	EXTRA INFO
BR 41	Warw	1268/2	0.08	6.17	0.07	2.32	0.07	2.46	88.58	0.03	0.22	G
BR 42	Cov	A/1013/2	0.04	6.19	0.14	2.87	0.07	1.62	88.90	0.03	0.13	G
BR 43	Cov	A/1013/3	0.04	7.33	0.11	1.97	0.10	0.71	89.64	0.03	0.07	G
BR 44	Cov	A/1013/11	0.12	5.80	0.56	1.73	0.04	5.20	86.38	0.04	0.14	
BR 45	Cov	A/1013/10	0.03	7.63	0.04	5.50	0.09	0.59	85.98	0.03	0.10	
BR 46	Cov	A/1013/13	0.10	6.08	0.13	2.33	0.04	2.88	88.01	0.07	0.36	G and S
BR 47	Cov	A/1013/6	0.01	7.30	0.04	4.81	0.07	1.03	86.66	0.03	0.06	
BR 49	Warw	A 1640	0.07	4.94	0.08	3.34	0.06	1.75	89.55	0.05	0.17	
BR 50	Warw	A 1864	0.05	3.48	0.19	4.60	0.06	3.17	87.93	0.08	0.44	
BR 51	Warw	A 1637	0.07	3.84	0.02	5.06	0.08	12.08	78.51	0.03	0.32	
BR 52	Warw	A 1887	0.04	1.84	0.09	2.35	0.05	2.51	92.81	0.09	0.21	
BR 53	Warw	A 1886	0.03	3.30	0.08	1.46	0.11	0.89	93.78	0.10	0.24	
BR 54	Warw	A 1644	0.04	5.12	0.08	2.68	0.06	2.25	89.33	0.06	0.38	
BR 55	Warw	A 1643	0.04	4.28	0.10	3.65	0.07	2.73	88.84	0.06	0.23	
BR 56	Warw	A 1642	0.00	7.62	0.05	2.47	0.12	1.10	88.12	0.04	0.47	
BR 57	Warw	A 1636	0.07	5.83	0.11	2.89	0.08	1.94	88.73	0.06	0.29	
BR 58	Warw	A 1639	0.12	7.19	0.08	3.86	0.10	0.64	87.68	0.05	0.30	
BR 59	Warw	A 1871	0.03	5.03	0.08	2.39	0.05	2.13	90.01	0.05	0.22	
BR 60	Warw	A 1638	0.05	2.96	0.26	1.65	0.00	5.84	88.96	0.05	0.24	
BR 61	Warw	A 1867	0.08	4.89	0.13	5.22	0.18	2.41	86.80	0.08	0.20	
BR 62	Warw	A 1866	0.10	4.93	0.14	4.81	0.11	2.43	87.11	0.07	0.30	
BR 63	Warw	A 1880	0.07	5.10	0.03	0.54	0.10	6.23	87.60	0.04	0.30	G
BR 64	Warw	A 1881	0.10	5.19	0.05	1.08	0.11	1.74	91.46	0.06	0.21	G
BR 65	Warw	A 1887	0.11	4.09	0.31	3.23	0.00	0.94	90.93	0.06	0.34	
BR 66	Warw	A 1878	0.12	4.12	0.16	5.44	0.04	1.53	88.48	0.03	0.09	
BR 67	Warw	G 1528	0.07	3.29	0.06	2.10	0.20	0.68	90.36	0.11	0.13	G
BR 68	Warw	A 1442	0.07	2.63	0.12	2.19	0.20	12.01	82.45	0.10	0.23	G
BR 69	Warw	A 1879	0.10	7.25	0.08	5.13	0.05	0.81	86.45	0.04	0.09	G
BR 71	Warw	A 1865	0.11	4.09	0.03	7.46	0.52	0.98	85.63	0.19	0.99	
BR 72	Warw	A 1872	0.09	4.94	0.08	3.69	0.08	1.09	88.91	0.05	0.06	
BR 73	Warw	A 1873	0.06	4.30	0.07	2.52	0.05	1.11	91.57	0.07	0.24	
BR 74	Warw	A 1586	0.06	6.48	0.08	2.08	0.13	2.86	88.15	0.04	0.12	
BR 75	Warw	A 1641	0.03	7.39	0.05	2.39	0.06	1.40	88.57	0.03	0.07	

Fig. 30

LEAD

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0	1	*
1	8	********
2	27	***************************
3	20	********************
4	5	*****
5	9	*********
6	2	**
7	1	*

ARSENIC

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0.00	2	**
0.05	27	***************************
0.10	30	******************************
0.15	5	*****
0.20	5	*****
0.25	2	**
0.30	0	
0.35	1	*
0.40	0	
0.45	0	
0.50	1	*

ZINC

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0	13	*************
2	38	**************************************
4	11	***********
6	3	***
8	1	*
10	0	
12	3	***
14	2	**
16	0	
18	2	**

COPPER

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
78	3	***
80	1	*
82	3	***
84	3	***
86	16	****************
88	26	**************************
90	14	**************
92	6	******
94	1	*

NICKEL

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0.02	1	*
0.04	35	***********************************
0.06	20	********************
0.08	8	********
0.10	5	*****
0.12	2	**
0.14	0	
0.16	1	*
0.18	0	
0.20	1	*

IRON

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0.0	11	***********
0.2	37	************************************
0.4	15	***************
0.6	4	****
0.8	0	
1.0	3	***
1.2	1	*
1.4	1	*
1.6	0	
1.8	1	*

ANTIMONY

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0.00	2	**
0.02	7	*******
0.04	12	************
0.06	14	**************
0.08	19	*******************
0.10	10	**********
0.12	8	********
0.14	0	
0.16	0	
0.18	1	*

TIN

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
2	2	**
3	8	********
4	10	**********
5	15	***************
6	17	*****************
7	11	***********
8	6	******
9	3	***
10	1	*

SILVER

MIDDLE OF INTERVAL	NUMBER OF OBSERVATIONS	
0.00	1	*
0.05	21	*********************
0.10	31	*******************************
0.15	15	***************
0.20	2	**
0.25	1	*
0.30	1	*
0.35	0	
0.40	0	
0.45	0	
0.50	0	
0.55	1	*

	ANTIMONY	TIN	SILVER	LEAD	ARSENIC	ZINC	COPPER	NICKEL
N	73	73	73	73	73	73	73	73
MEAN	0,0648	5,58	0,1066	2,86	0,1023	3,34	87,58	0,0541
MEDIAN	0,0700	5,67	0,0900	2,52	0,0800	1,99	88,15	0,0500
TMEAN	0,0643	5,57	0,0975	2,79	0,0929	2,78	87,80	0,0503
STDEV	0,0338	1,75	0,0726	1,37	0,0764	3,80	3,06	0,0294
SEMEAN	0,0040	0,20	0,0085	0,16	0,0089	0,45	0,36	0,0034
MAX	0,1700	9,63	0,5600	7,46	0,5200	17,56	93,78	0,1900
MIN	0,0000	1,84	0,0200	0,46	0,0000	0,39	78,24	0,0200
Q3	0,0900	6,95	0,1300	3,42	0,1150	3,53	89,29	0,0600
Q1	0,0400	4,26	0,0700	2,06	0,0600	1,12	86,49	0,0350

	IRON
N	73
MEAN	0,310
MEDIAN	0,220
TMEAN	0,263
STDEV	0,313
SEMEAN	0,037
MAX	1,730
MIN	0,030
Q3	0,370
Q1	0,130

MTB > OUTFILE"*"

Fig. 32 Histograms of impurity elements

in the sample but it cannot be stated with certainty that none was ever accidentally included. Histograms of the impurity element concentrations, without any subdivision of the results by stylistic or other criteria, are presented in Fig. 32.

Figure 33 gives histograms of the elemental concentrations for copper and the main alloying elements tin, zinc and lead. However these elements should not be discussed individually since it is their combined effect on the copper which influences the alloy's strength, hardness, workability, colour and cost.

Fortunately for most of the brooches the copper content of the alloy is fairly consistent (between 85 and 91% for 58 of the 75 items) and the elimination of copper as 'balance' can simplify the discussion of the alloys. Binary plots, such as the tin versus zinc split of Fig. 34 indicate the contributions of two elements to the alloying but perhaps the most satisfactory means for the simultaneous presentation of the contributions of the three elements zinc, tin and lead is through triangular scatter plots (Fig. 35). These show the relative amounts of the three elements present, weighted to give a better spread over the triangular area; the fact that an alloy composition is close to a corner reflects the extent to which it contains that element at the expense of the others whereas a composition near the centre indicates that the alloy contains the three elements in more nearly equal proportions. The usual descriptive terms are given in the appropriate parts of the triangle of Fig. 35.

When the data for all 75 brooches are plotted (Fig. 36) a concentration of points is evident towards the tin-rich corner, the region occupied by true tin-bronzes with only very small amounts of lead and zinc present. A few points nearer the corner represent compositions with higher than normal tin levels. However about a third of the alloy compositions do not lie in this corner because of higher zinc and/or lead contents. In the case of lead the higher levels may have been sought by deliberate additions of lead but the higher zinc levels must have arisen from the use of scrap brass in the metal charge. Whether this was carried out in any controlled way is not clear; nor can the source of the brass be known for certain, although a Roman origin appears most likely, since a brooch would require only a handful of coins or similar scrap for its manufacture. The spread of points between the bronze concentration towards the zinc-rich corner is consistent with the addition of brass scrap, to a greater or lesser extent depending perhaps on availability, to a basic bronze composition.

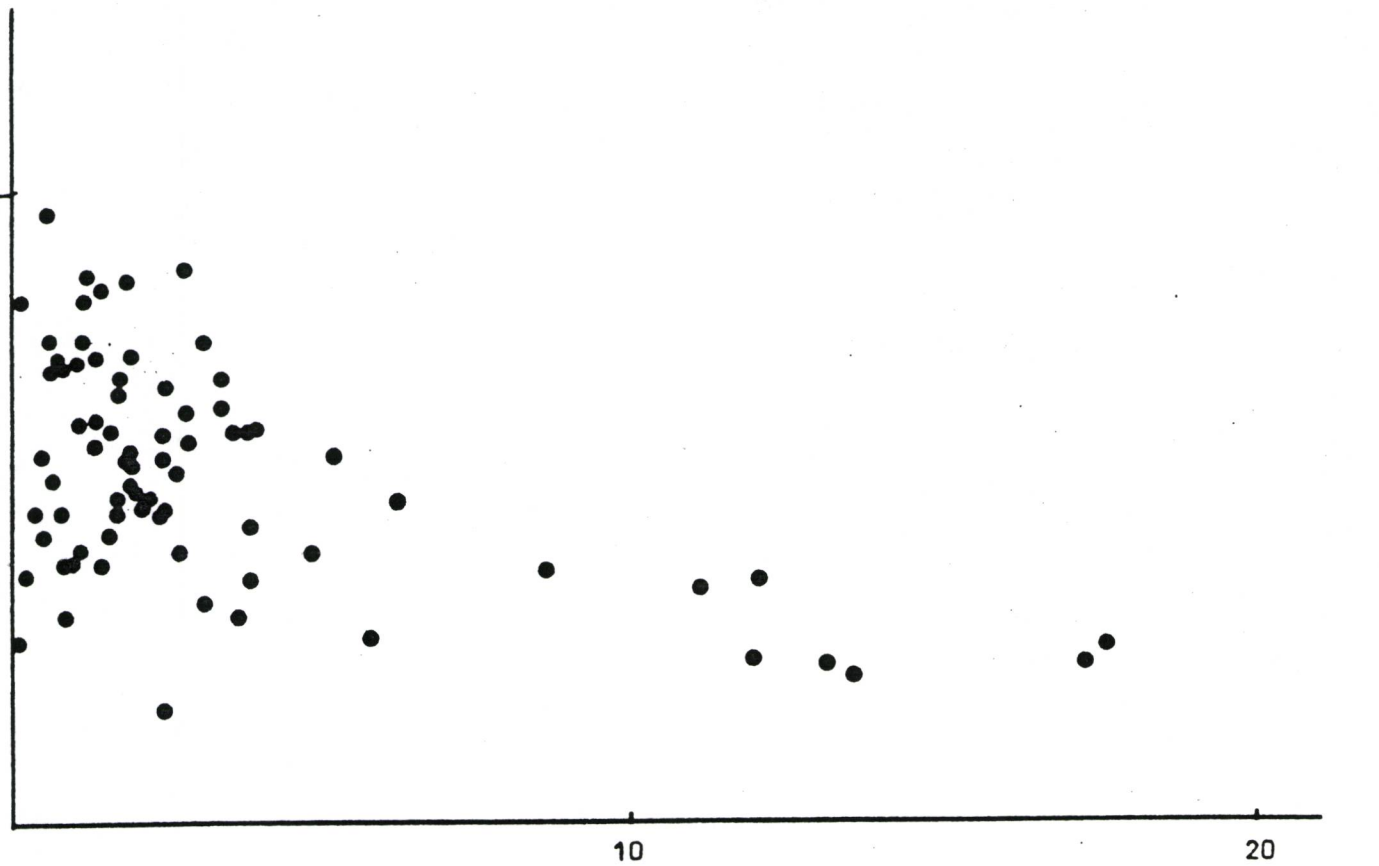


Fig. 34 Tin / Zinc contribution to alloy

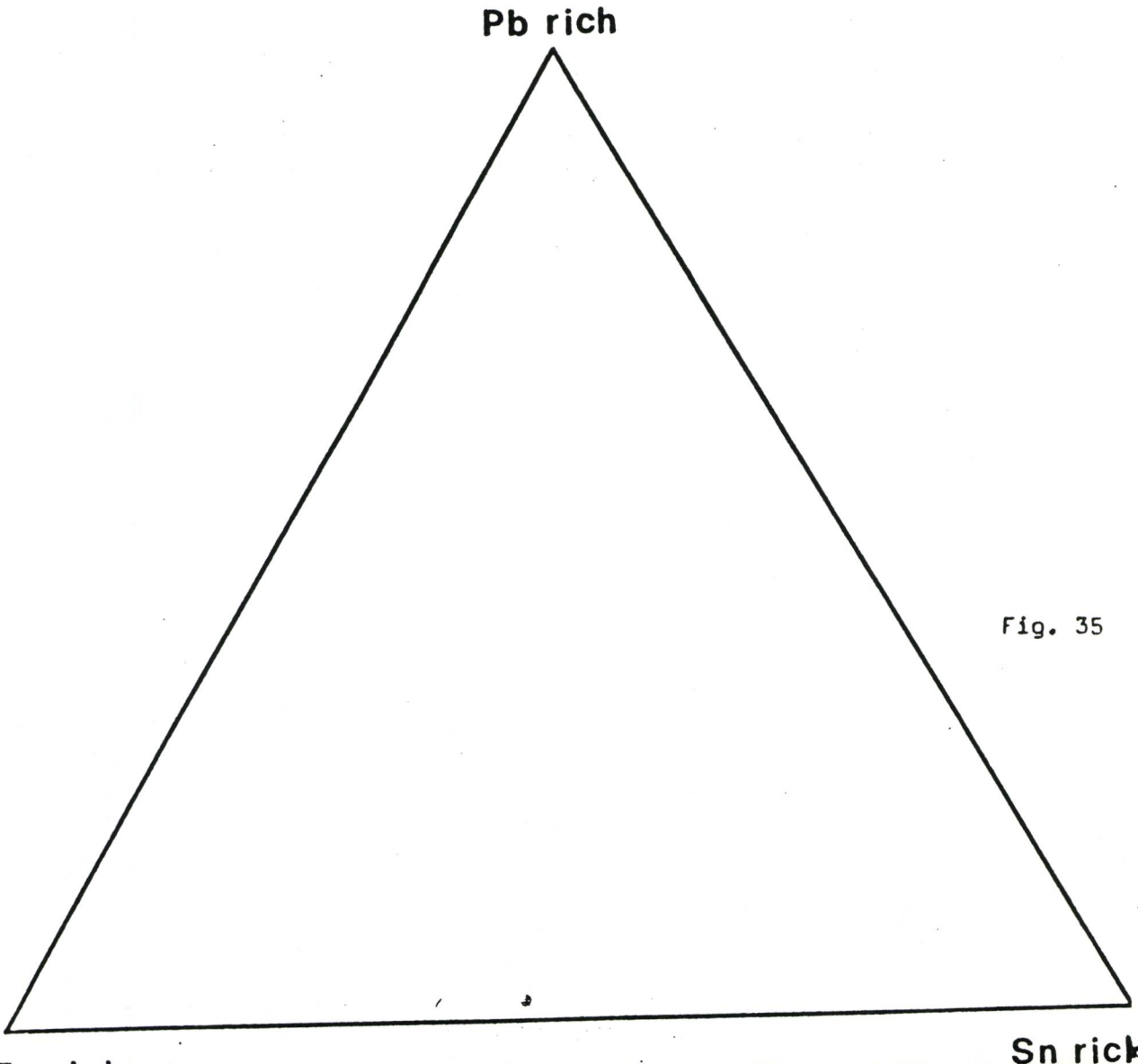


Fig. 35

Correlations were sought of position on the triangular plots with stylistic and other criteria for sub-division. Six of the seven great square-headed brooches are to be found in the bronze group with one displaced a little way into the triangle by virtue of a higher zinc content (Fig. 37). The thirteen saucer and disc brooches show less consistency of alloy composition (Fig. 38) and the fifty small cruciform brooches even more variation in alloy composition with points well spread over the lower part of the triangle, although with a concentration in the bronze area (Fig. 39).

Sixteen brooches, mainly of saucer and great square-headed types, are gilt and the majority are seen from Fig. 40 to be bronze; however four are slightly and one considerably displaced away from the bronge corner by virtue of higher lead and/or zinc contents.

Only Wasperton, Baginton and Stretton have provided more than ten brooches suitable for sampling as populations on which to base a possible correlation with site. The first two populations contribute to the general distribution without obvious bias but the Stretton population shows a bias (Fig. 41). Few of the points lie in or near the main bronze concentration and most are displaced along the tin-lead edge by virtue of higher than normal lead contents and very low zinc contents. However the population sizes are too small for any great significance to be placed on any of these observations.

Some information has been obtained on the surface finish and decoration on certain brooches by examination in the scanning electon microscope. Most brooches are small enough to be placed in the sample chamber of the SEM although the freedom to manoeuvre the object may in some cases be curtailed. Initially problems were encountered with excessive pump-down times due to outgassing by the object, principally, it is suspected, from the traces of the iron pin usually present in the form of rust. This was overcome by covering the rust with a barrier coating, removable by solvent after examination, which cut the outgassing down to an acceptable level. The brooches treated in this way were examined without difficulty and X-ray analytical data on the brooch surfaces were obtained.

.2 Gilding

Of the gilt brooches, two were selected as suitable for examination in the SEM to check the method used for gilding. If leaf-gilding were used, the gold surface layer should show no other metal present at levels above the detection limit of the instrument; mercury-analgam gilding on the other hand inevitably leaves a small amount of mercury in the gold surface layer which

Fig. 36 All brooches

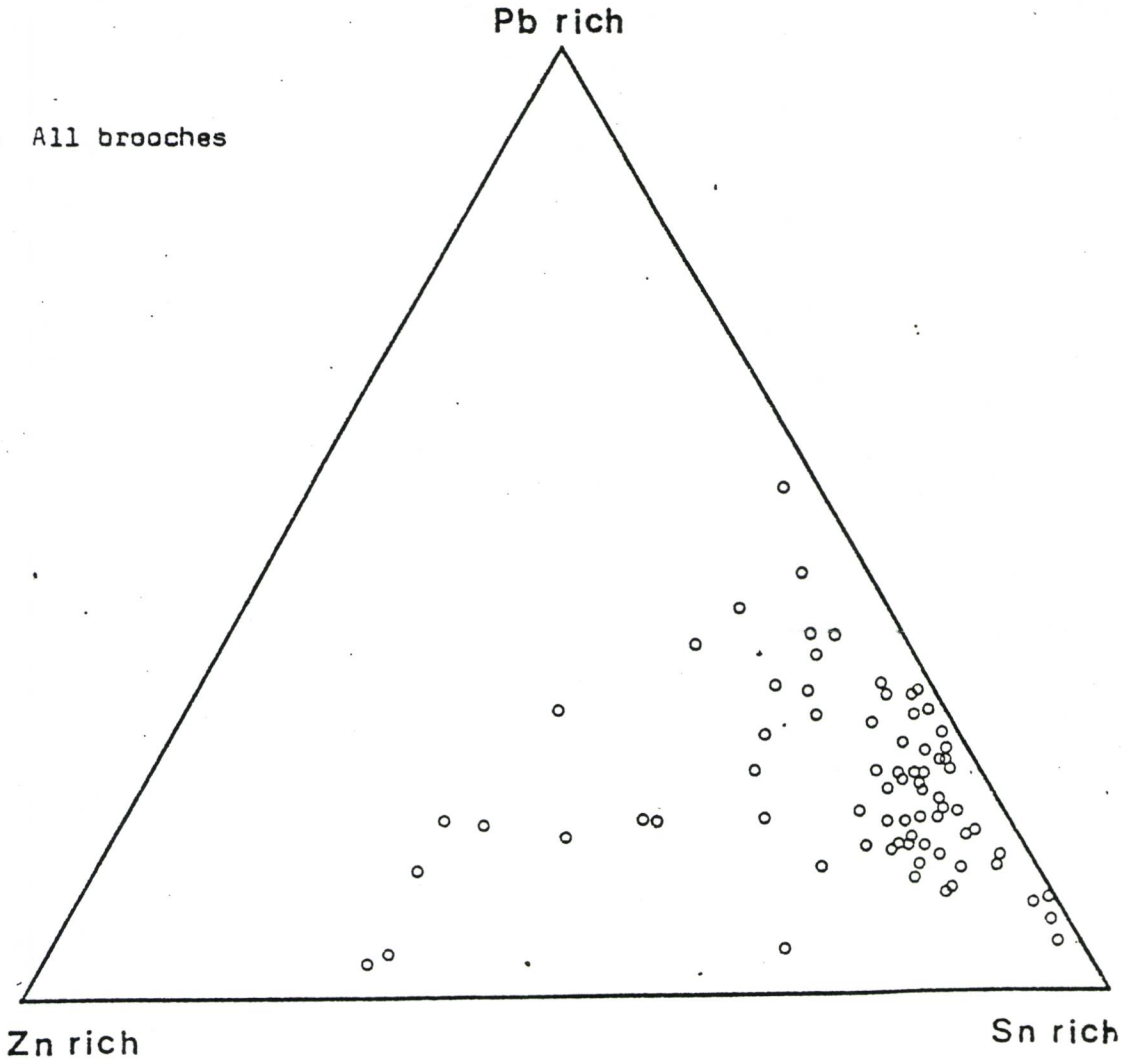


Fig. 37 Great square-headed

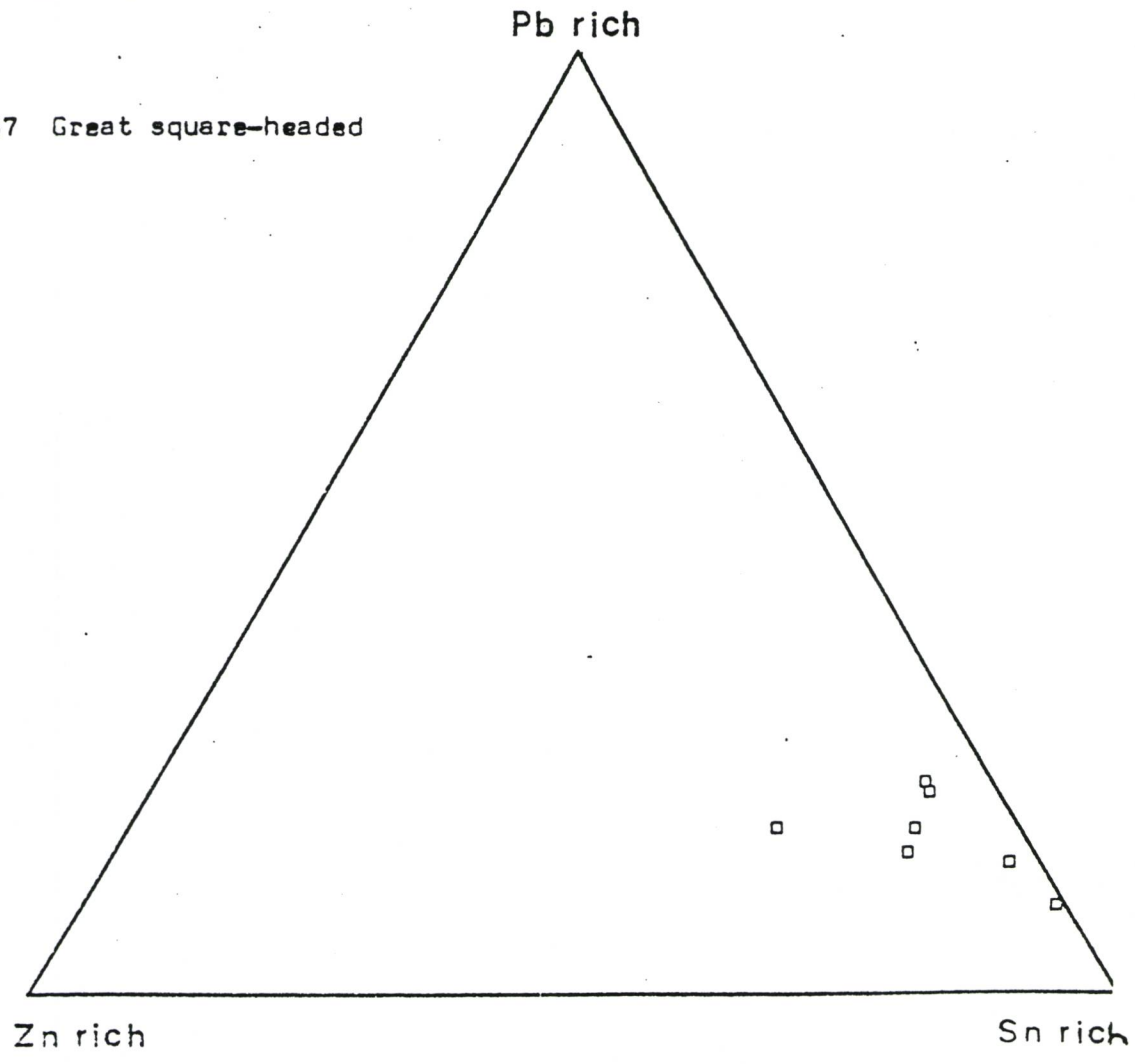


Fig. 38 Saucer and disc

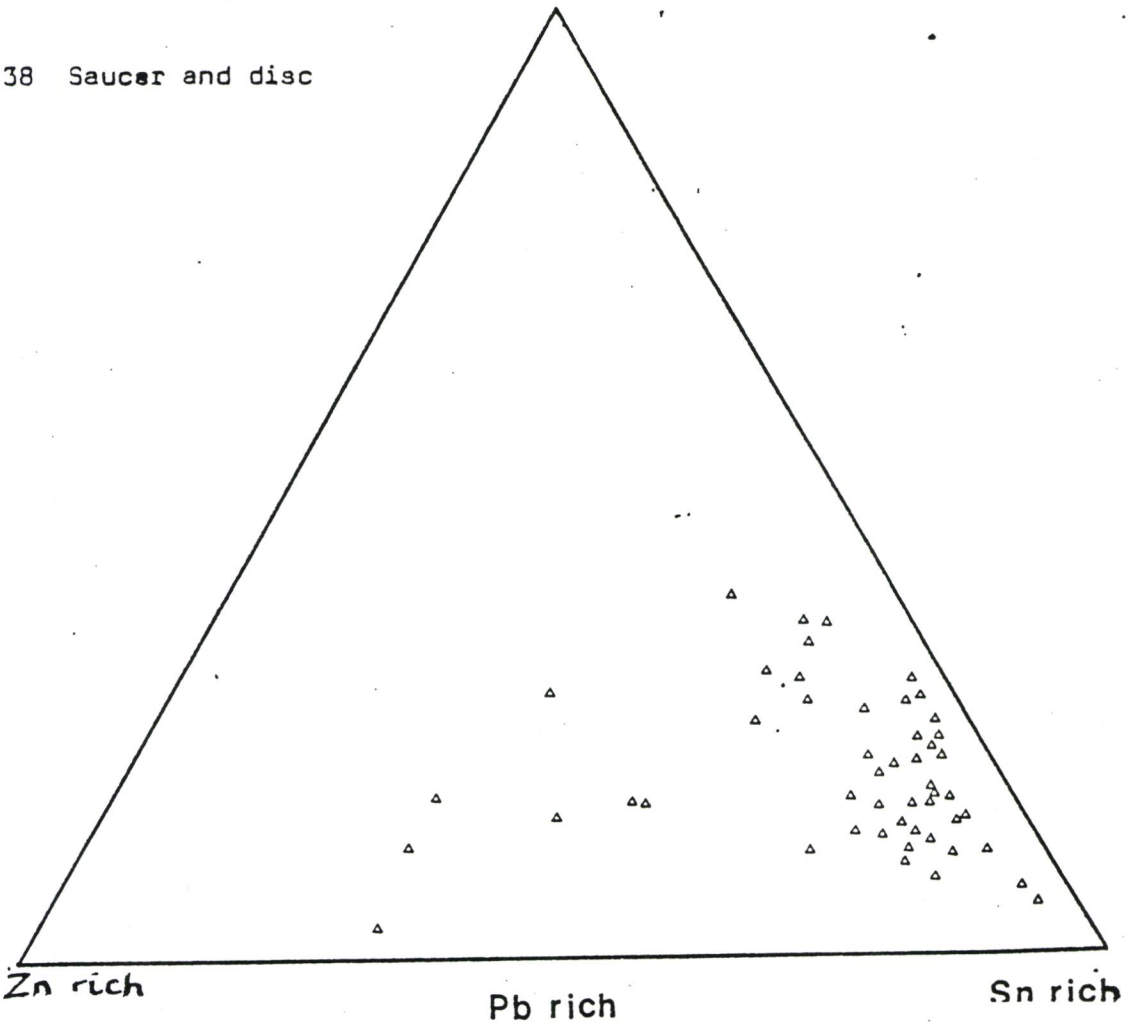


Fig. 39 Small cruciform

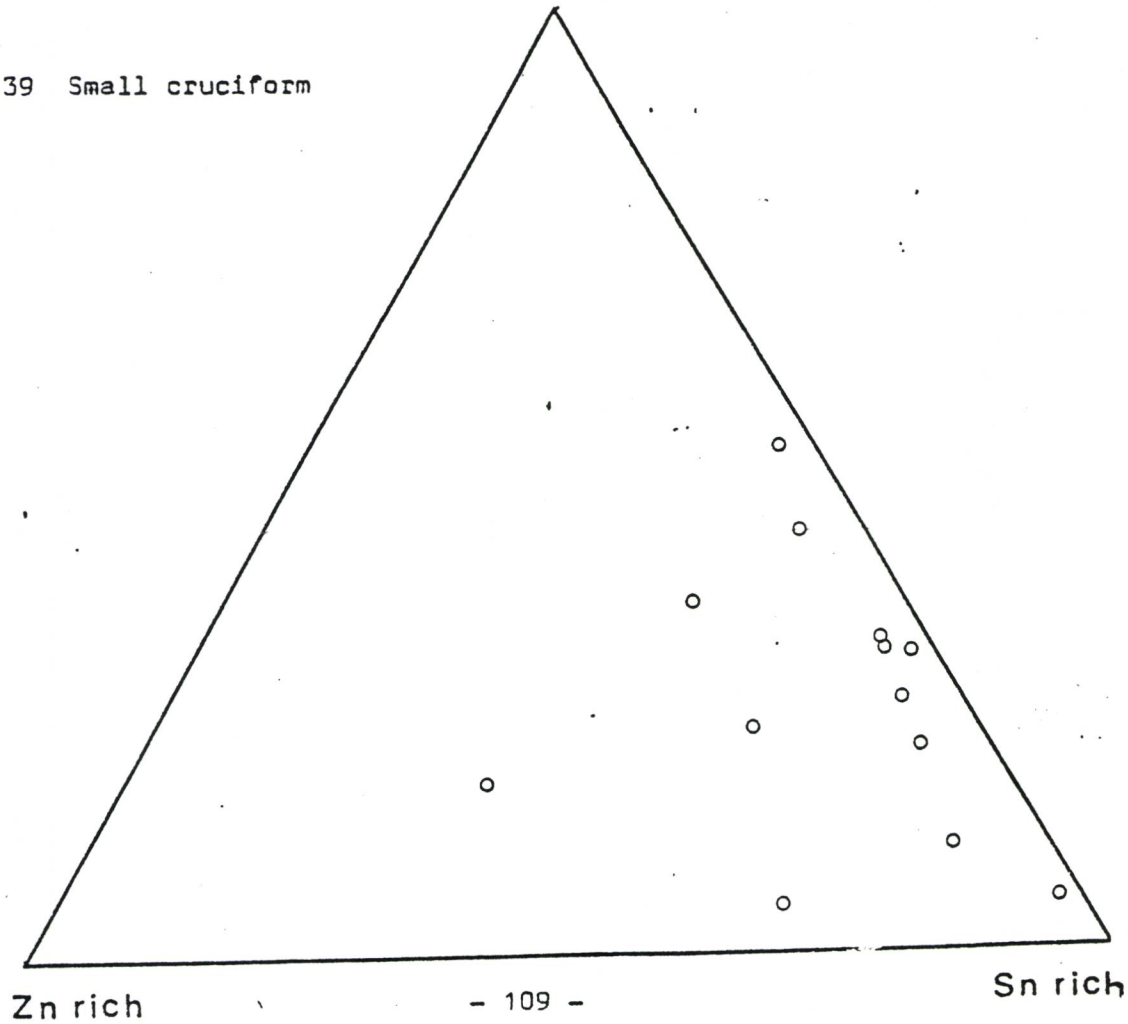


Fig. 40 Gilded

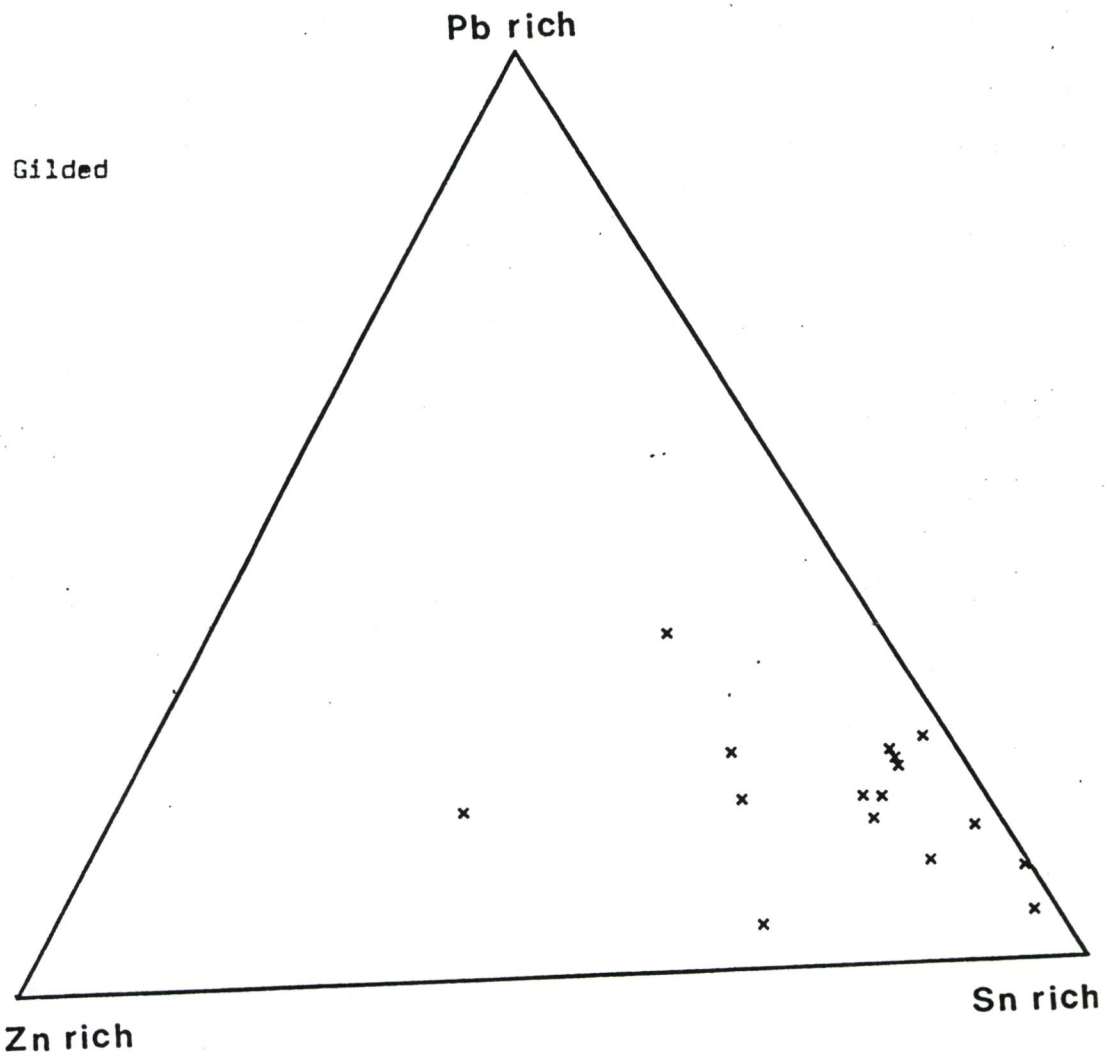
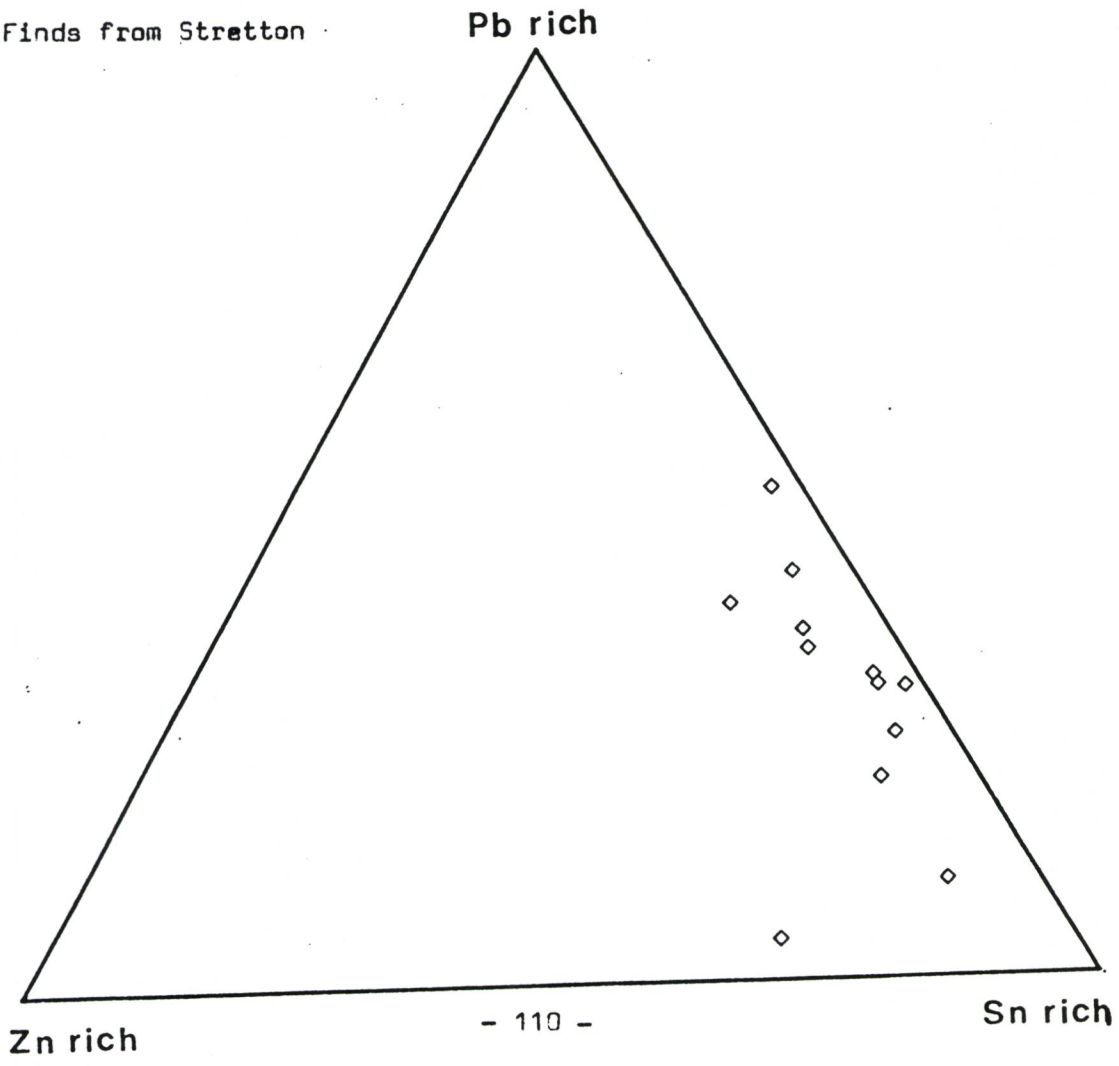


Fig. 41 Finds from Stretton



should be detectable. A great square-headed brooch BR41 from Wasperton (WN82 1268/8) and a florid cruciform brooch BR46 from Baginton (Coventry A/1013/13) were shown to have been mercury-analygam gilt, having clear mercury peaks on the spectral display.

Several of the brooches examined had a silvery surface coating over at least part of the front surface and they were described as 'silvered'. Three of these were examined for confirmation of the nature of the surface coating; two brooches from Stretton, one of disc type (Warwick A1873) and one of cruciform type (Warwick A1866), were shown to have been tinned and not silvered. However part of the decorative coating of the florid cruciform brooch from Baginton (Coventry A/1013/13) was confirmed as being of silver.

The recent excavations at Wasperton have yielded a brooch (WN81 1257/1) of unusual form which is decorated with two short bars of a silvery metal attached to the surface, presumably by soldering. The analysis of the bar gave a surprising result; full details are contained in Fig. 42. This very high tin bronze would justify the descriptive term 'speculum metal' and the initial suggestion to account for the presence of thin bars of such an alloy was that strips had been cut from scrap pieces from a Roman mirror. However the present alloy composition does not correspond with published analyses of Roman mirrors (Farley, 1983), which appear to form two groups. One has a relatively low tin level (for a mirror alloy) of 8-13%, with low lead levels of about 1% or less; the other has a high tin level of 20-26%, with fairly high lead levels of 4.5 - 14.5%. Neither has more than trace quantities of silver and gold is not mentioned. Further work may throw more light on the Wasperton brooch decorative bars but their origin must for the moment remain a matter for speculation!

3. CONCLUSIONS

It appears from this exploratory work that early Anglo-Saxon brooches provide a fruitful field for the application of analytical techniques and metallurgical examination. However if meaningful correlations are to be established between the alloy compositions and variables such as the method of manufacture, surface finish, brooch type, date and find sites then the total number involved in the survey must be considerably increased. Brooches from other Avon valley sites and areas further afield would be valuable in allowing the application of similar techniques of data analysis to those used successfully in the Polytechnic laboratories on the large volume of material from the medieval period.

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Analysis of a 'speculum' bar from Wasperton (1257/1) Figure 42

Cu	Sn	Ag	Au	Pb	Fe	%
57·5	29·9	06·9	03·5	02·0	00·15	

WELLESBOURNE - A SURVEY

Wellesbourne lies seven kilometres to the east of Stratford-upon-Avon, its two village foci separated by the River Dene, a tributary of the Avon. The parish is a large and includes the hamlet of Walton Mauduit as well as the deserted medieval village of Walton Deyville, now represented by earthworks to the south of Walton Hall. The parish lies within the rich Warwickshire Feldon region and in the pre-conquest period was part of the eastern section of the kingdom of the Hwicce, which in turn owed fealty to Mercia.

Wellesbourne was a major royal estate in the Anglo-Saxon period and documentary sources attest to the kings of Mercia visiting the estate on a number of occasions in the ninth century. It was at a meeting here in AD 840 that Heaberht, bishop of Worcester, handed over horses, plate, jewellery and other items to Berhtwulf, king of Mercia, in return for estates restored to the church. In AD 862 a charter confirming the lands which had been donated to Gloucester Abbey was signed at Wellesbourne, in the presence of King Burgred of Mercia and Ceolnoth, archbishop of Canterbury (Birch, 1885-99; Finberg, 1972). The occasion was a council meeting held on the estate which was attended not only by the king and queen and the archbishop but also, as on the previous occasion, by numerous bishops and nobles.

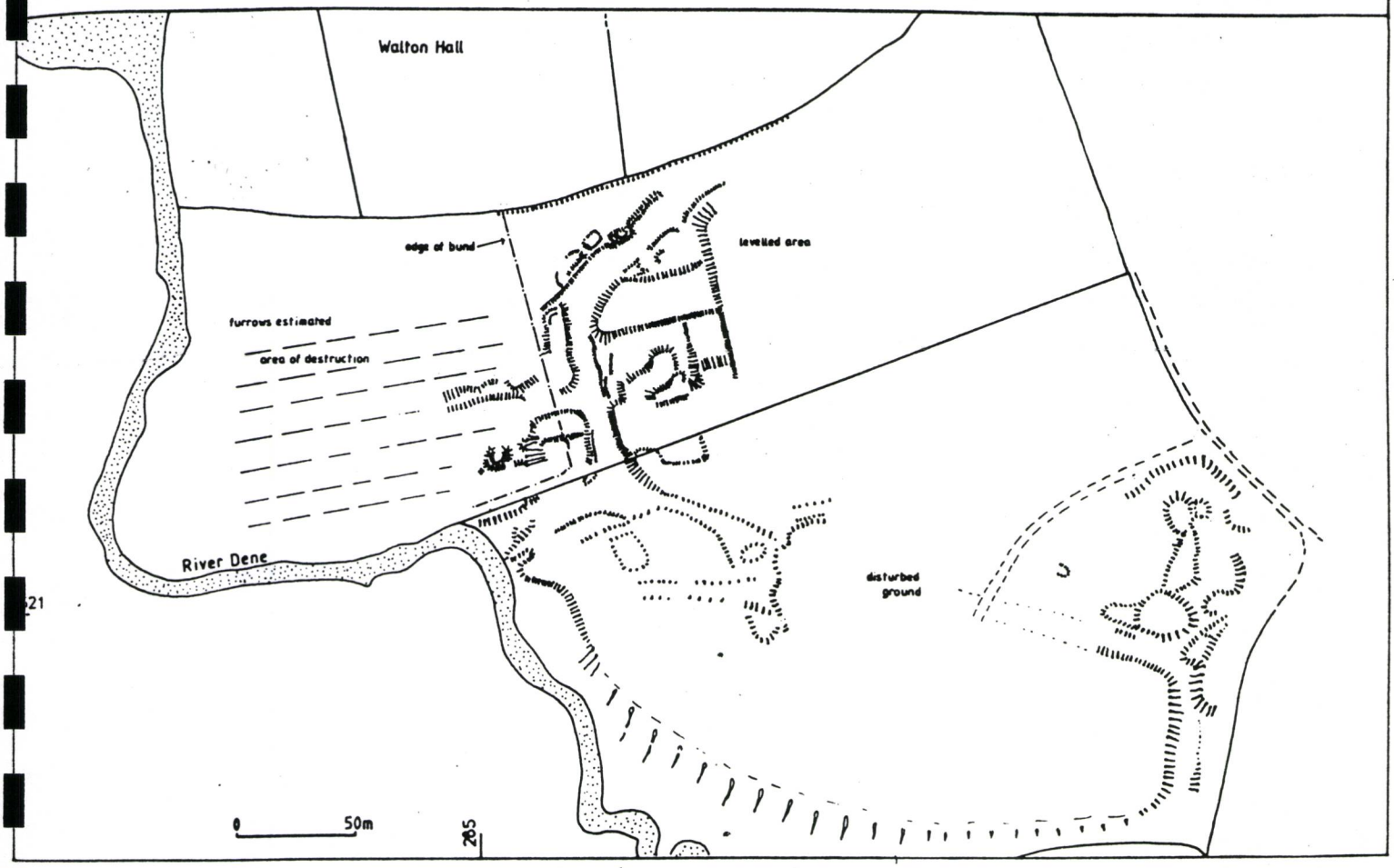
It is likely that a notable building or palace existed on the estate at this time but no indication of this has been found by fieldwalking. However, in the late 1970's Anglo-Saxon pottery was found beside the River Dene, having been freshly deposited upon river gravels within a meander curve of the river. The pottery appears to have been dislodged by bridge-building operations in Wellesbourne and to have come from an Anglo-Saxon occupation site near by. The pottery consisted of sherds of fine black ware from a domestic cooking pot, identical with that found at Hatton Rock in Hampton Lucy, accompanied by a sherd of Romano-British ware of third to fourth century date. The Hatton Rock site has been interpretated as a range of large timbered buildings likely to have been an Anglo-Saxon palace, possibly ecclesiastical (Rahtz, 1970; Hirst and Rahtz, 1972; Dyer, 1972).

A programme of fieldwalking by extramural class students (University of Birmingham to April 1984, University of Warwick October 1984 onwards) has produced evidence of a number of Romano-British sites, including one to the north of Walton, where numerous sherds of coarse ware were found on the western bank of the River Dene (SP 284537). A second site has been identified to the south-east of Wellesbourne Hastings and additional finds of coarse ware have been made at Fammington Farm to the south-west of Walton.

PRIMARY RECORD NO WA
SITE: DESERTED MEDIEVAL VILLAGE OF WALTON DEYVILLE
PARISH: WELLESBOURNE

NGR SP 28545215
SURVEYED 1984 BY D. Hooke, P Watts, et. al.
SCALE 1:500

Fig. 43



With a change of tenancy imminent at Walton Hall a survey was begun of the deserted medieval village of Walton Deyville in the spring of 1984 (Fig. 43). This site lies to the south of the hall in an area still known as 'Town Fields'. Unfortunately concern for the site was justified since damage occurred before the survey was complete. Contrary to general belief, the whole of the village site had not been extensively damaged during World War II; indeed the northern part had remained relatively well-preserved, although the eastern section had levelled at some stage. Several possible house sites could be identified and the village street was discerned running between platforms and although not appears to terminate abruptly at a field boundary there are signs that it continued south-eastwards, to form a hollow way which ran down to ford a tributary stream of the Dene. There are further platforms to the north of this road which may represent an extension of the medieval village. Certainly these platforms pre-date the disturbance caused in this area by war-time occupation. The more recent damage was caused by the construction of a bund to contain slurry from adjacent fishponds. This activity entirely removed the evidence of furrows running down to the river on the north-western side of the site and now it cannot be determined whether these were croft boundaries or plough-furrows. Quantities of medieval pottery have been recovered from the bund, together with one glazed floor-tile (Fig. 44).

The name of Walton, Waltone in 1086 but Waleton in 1176, may indicate the survival of a pocket of Welsh-speaking inhabitants in this area in the later Anglo-Saxon period. The name of the main estate is also derived from a river name, the weles burnan, which Ekwall (1960, 504) considered to mean 'the stream of the Briton'. The two village nuclei of Walton Deyville and Walton Mauduit may be represented by the two Domesday manors of Waltone assessed at 10 and 5 hides. The larger one was a well-populated manor, with 44 recorded inhabitants in 1086, although no fewer than 116 were recorded on the chief manor with its utlier at Kineton.

The medieval village of Walton Deyville also appears to have been large, although shrinkage began at an early date; thirty-three cottages stood here in 1279, yet only 13 tax payers were recorded in 1327 Avon; (Dyer, 1982). Further depopulation took place in the late fifteenth century (5 messuages, with 150 acres of arable converted to pasture in 1497) until, in 1509, 13 cottages were 'allowed to fall into ruin' and 40 people 'withdrew'. Because another 160 acres of arable which had habitually been sown with corn had been converted to animal pasture 7 plough teams were made redundant and the Inquisition of 1517 reported that tota villa predicta destruitur, 'the whole of the aforesaid vill is demolished'. (Leadam, 1897). (Della Hooke, University of Birmingham).

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Fragment of floor tile from Walton Deyville

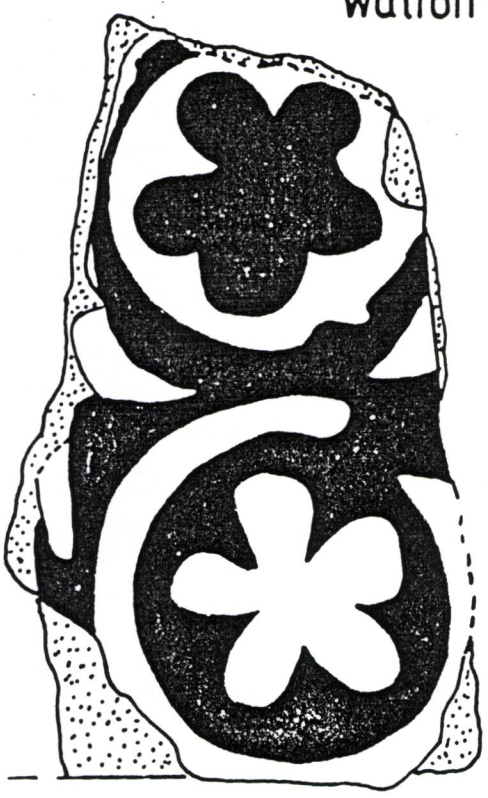

Fig. 44

DH

RIDGE AND FURROW SURVEYS AT KING'S NORTON (SP027788) AND NORTHFIELD (SP052792), BIRMINGHAM

1. INTRODUCTION

Surveys were conducted of surviving fragments of ridge and furrow in Kings Norton Recreation Ground and beside a new housing estate off Staple Lodge Road, Northfield (Fig. 45). Evidence from aerial photographs indicates that the ridge and furrow in the immediate area of the Northfield site was until recently more extensive, but was destroyed by the new housing development. Both sites are situated close to the River Rea.

Geographical proximity to the river was found to be the only common factor, however, as the Northfield site is situated within the former manor/parish of Northfield and Weoley and the Kings Norton site in the former area of the manor/parish of Kings Norton. These two manors had contrasting histories which made distinct imprints on the rural landscape. The documentary record points to a very different chronology and function for the two ridge and furrow sites and surveys were made to see whether such differences were reflected on the ground.

2. NORTHFIELD

Northfield and Weoley manor has considerable evidence for open fields, which, although already disintegrating in the fifteenth century, are still detectable as distinct traces on maps of the early nineteenth century. The field in which the ridge and furrow survives was known as 'Little Brimstones' and in 1811 belonged to Moat Farm (Eddebaston fifteenth century), which at this late peiod had still some of its land dispersed as unenclosed strips. 'Little Brimstones' formed part of a more consolidated area of the farm, but its field pattern reflects earlier piecemeal enclosure of bundles of open field strips. (Robins, 1811).

The neighbouring glebeland shows even more distinct evidence of this piecemeal enclosure. To the east of the site, a field only recently destroyed, measured approximately 250 metres by 12-18 metres and was clearly an enclosure of a few open field strips. Much of the remaining glebeland consisted of isolated and scattered strips, some still unenclosed in the early nineteenth century. As the nineteenth century field pattern reflected an earlier open field layout, it is suggested that the ridge and furrow present in these fields was a survival of this earlier system. (Leadbetter, 1714; Fowler, 1857).

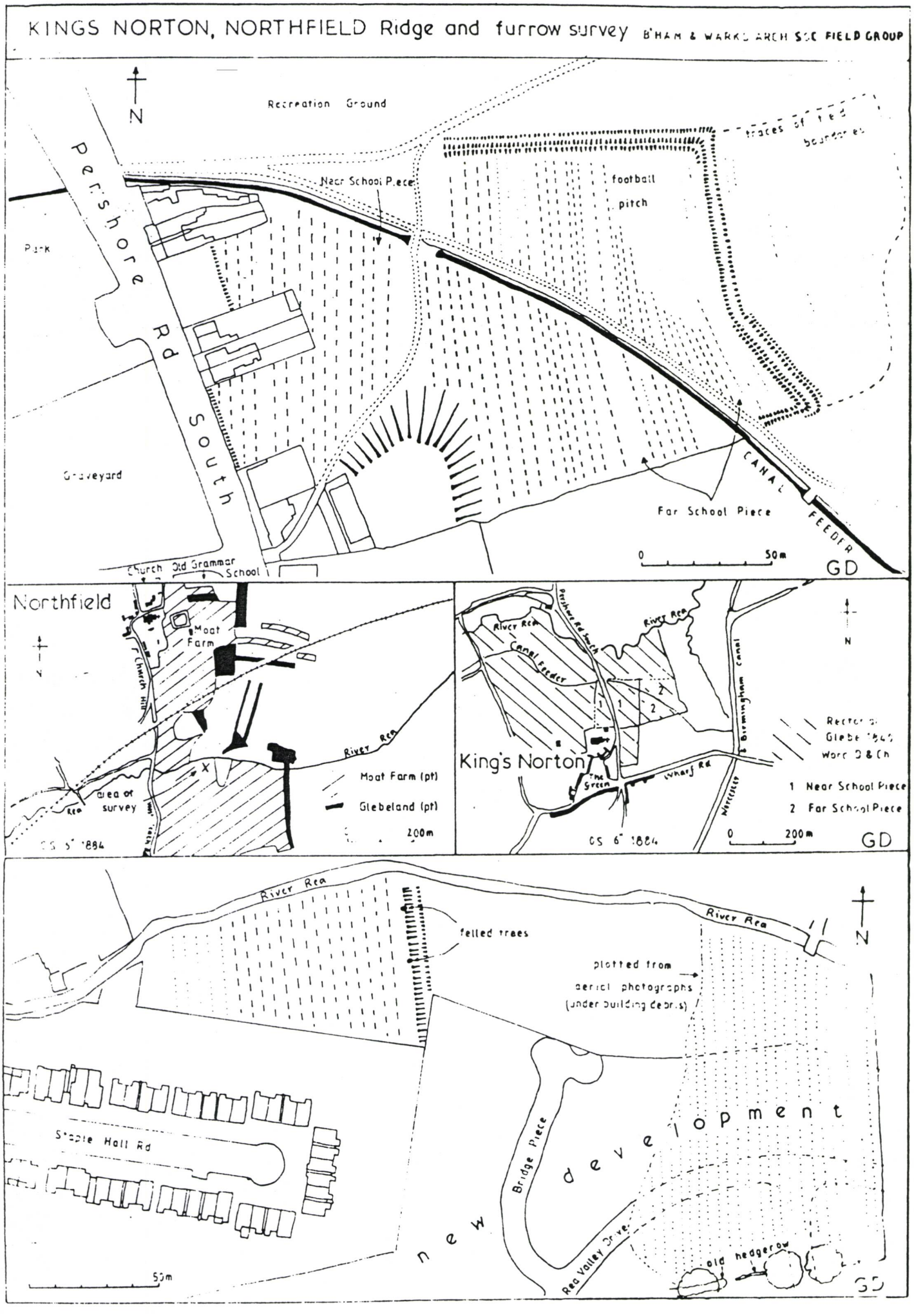
KINGS NORTON, NORTHFIELD Ridge and furrow survey
B'HAM & WARKS ARCH SOC FIELD GROUP
N
Recreation Ground
traces of field boundaries
Near School Piece
football pitch
Pershore Rd South
Park
Graveyard
Church
Old Grammar School
Far School Piece
CANAL FEEDER
0 50m
GD
Northfield
Moat Farm
Church Hill
River Rea
Area of survey
Moat Farm (pt)
Glebeland (pt)
200m
OS 5" 1884
King's Norton
Pershore Rd South
River Rea
Canal Feeder
Birmingham Canal
The Green
Wharf Rd
Worcester
Glebe
1 Near School Piece
2 Far School Piece
OS 6" 1884
0 200m
GD
River Rea
felled trees
plotted from aerial photographs (under building debris)
Staple Hall Rd
50m
new development
Bridge Piece
Rea Valley Drive
old hedgerow
GD

Fig. 45

The field survey revealed a regular series of ridges between 4.5 and 5 metres wide. Their length was insufficient to judge their alignment but aerial photographs indicate other recently destroyed ridge and furrow displayed a slight 'C' curve, as did some of the field boundaries. This ridge and furrow was also of similar dimensions to that surveyed on the ground.

3. TREE SURVEY

A survey of trees in the immediate area was made to see if any light could be cast on the date of the piecemeal enclosure. Two trees had been fortuitously felled only recently and their rings were counted; the remaining trees were measured around their girth. Most trees were found to be around one hundred years old and were rarely over one hundred and twenth five years in age. They could not be identified with the mature standards marked by surveyors on the first edition of O.S.25" (1884) series. This evidence suggests at least one major replanting phase about a century ago but no estimate could be made about the number of phases which preceded this. Surviving hedgerows were too denuded to do a species count.

4. KINGS NORTON

In Kings Norton manor, linked with Bromsgrove until the sixteenth century, evidence for an open field system is scanty. There are possible traces of fields lying immediately to the south of the village (Dougherty, 1731) but they were of limited extent and were probably being enclosed as early as the twelfth century, when the demesne was granted to Brodesley Abbey (Price, 1971). There is better evidence for a separate, though still small, open field area at Houndsfield (License, 1550). The rest of the manor consisted of hamlets, isolated farmsteads, often moated, and large expanses of waste.

The ridge and furrow is located within the former lands of Kings Norton Rectory, owned by the Dean and Chapter of Worcester; they formed a single block lying immediately to the north of the village as far as the River Rea and provide a striking contrast to the scattered strips composing Northfield's glebe. The site falls within two fields described in the 1840 Tithe survey as "Near" and "Far School Piece". these can be identified with two fields known as 'Schoolhouse Close', which appear in the 1649 survey of the Kings Norton Rectory (Care 1927).

Around 1811 a canal feeder from Wychall reservoir was constructed diagonally across "Far School Piece". The land remained open and now forms part of Kings Norton Recreation Ground. The canal feeder divides an area of football pitches, where the ridge and furrow has been eroded and is difficult to distinguish on the ground, from a sloping area where the ridges are well preserved. Aerial photographs do however permit plotting of the ridge and furrow in the football pitch area.

The ridge and furrow was found to be less regular than at Northfield, the width varying from 2.5 to 11 metres; the widest may be two ridges combined. Most fall in the 3 to 6 metres range. The ridges show a slightly different alignment between "Near" and "Far School Piece". More significantly, the alignment differs on either side of the canal feeder within "Far School Piece" and in addition, the ridges do not match up across the feeder. North of the latter there is a marked twist in the ridge and furrow seemingly to conform to the eastern boundary of the field. At the western end of the Pershore Road South a new turnpike road built in 1825 cuts the ridge and furrow and isolates a part of "Near School Piece". A terminus post quem may be provided by the date of the canal feeder (c.1811) along which the alignment and spacing of the ridge and furrow changes.

An early nineteenth century dating of the ridge and furrow relates to its creation and the ridges may have continued in use until the land fell out of cultivation during the present century. The fields may in fact have had a long history of ridge and furrow ploughing, but one unlikely to have been linked with part of a medieval open field system. The single block of land, with its pattern of closes already in existence in the mid-seventeenth century, suggests a single medieval grant of a compact holding to the Rectory. Any pre-nineteenth century ridge and furrow would have been created purely as a method of ploughing in old enclosures held in severalty by Kings Norton tenants.

The present ridges are the product of a ploughing technique much in vogue in the nineteenth century and for a considerable period earlier. Unfortunately they can be easily mistaken for medieval open field strips, which served not only as a method of agriculture, but also as a system of landholding and tenure. The measurements of the Northfield and Kings Norton ridge and furrow on their own are insufficient to be able to identify either open field selions or 'ploughing ridges'. In fact a purely morphological classification based on the distinction between 'narrow rig', considered modern (less than 4-5m in width), and 'broad rig', linked with medieval common fields, is proving unsatisfactory (Bowen 1961). Recent work has discovered 'narrow rig' to date from the eleventh century at least (Drury 1981). Conversely 'broad rig', as the Kings Norton evidence demonstrates, can be as late as the nineteenth century and local aerial photographs show modern broad ridging to a fairly common.

A more comprehensive approach is necessary to establish the origin and function of ridge and furrow in the field. This would involve a wider topographical analysis, complemented by documentary research into the manorial and tenurial history of the land in question. A rule of thumb for the topographical evidence is to check whether the field pattern conforms to the ridges or whether the ridges respect the field layouts. Piecemeal enclosure of open field strips tended to create long rectangular fields, relfecting selion and furlong alignments; this is the case at Northfield.

Fields predating ridge and furrow, as in Kings Norton, are more often than nor irregular in form, enclosing bundles of strips little skin to the prevailing shape of furlongs. Parliamentary enclosure usually produced a discontinuity between the pattern of ridges and furlongs and the subsequent field layouts. The chronological relationship between ridge and furrow and field boundaries is not always clear however and here the documentary evidence may be invaluable.

5. BIBLIOGRAPHY

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6. ACKNOWLEDGEMENTS

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George Demidowicz, Birmingham and Archaeological Society Field Group.

STAFFORD CASTLE - THE DEVELOPMENT OF AN AMENITY

Since its inception in 1979, the Stafford Castle project has already witnessed many phases, with the result that considerable progress has been made and a point has been reached where the Castle is on the threshold of becoming a major tourist attraction for the area. The first stage involved securing the preservation of the stone castle, wrongly regarded as a folly and as a result subject to acute vandalism. This achieved, and with a commitment to retain the stone castle by Stafford Borough Council as the focal point for an amenity and recreational resource, a programme of documentary and archaeological research was instigated. The results of this work have revealed much new and interesting evidence on the life of an early Norman motte and two baileys castle and its attendant deserted medieval village.

Consequently the castle with its long and distinguished historical pedigree is now far better known and appreciated locally with the important social consequence that the vandalism, so long a scourge of the site, has also ceased. This turnabout in public opinion, so necessary for the future, has also been achieved by the large community involvement in the castle. Thus, practically all the work at the castle has been carried out by the people of Stafford themselves.

Last year has also seen a new and important contribution by the Friends of Stafford Castle who not only have provided seats, picnic tables and refreshments at the castle, but also period-costumed guides. The measure of public interest can be gauged by the fact that over 10,000 people visit the castle annually and that, as usual some 500 people attended the Stafford Castle annual public talk last year.

Two new developments have jointly provided a timely impetus for the future development of the project. Firstly approval has been given by the English Heritage Commission to re-roof the stone castle for use as a museum/ interpretation centre. The first phase is due to be completed by 31st March 1985 and will provide an important new facility and reception area for the visitor. Secondly, an agreement over the future use of the castle grounds and woodlands has been made with the owner, Lord Stafford. As a result the Borough Council has acquired for public use all the castle grounds and a new woodland walk around the castle hill. This agreement increases the amenity and recreational value of the castle for the future and will undoubtedly be a major asset.

ARCHAEOLOGICAL PROGRESS

Excavations at Stafford Castle have been carried out in three main areas.

(i) On top of the eleventh/twelth century motte, both within the fourteenth/nineteenth century keep and externally at the west end. The excavations have shown that the rectangular keep, although documented in 1521 as a two storied structure with four storeys in the octagonal corner towers, had in reality the external appearance of a three storied structure in the main body. This was due to the retention of motte material in the ground floor during the fourteenth century construction, which was thus left solid apart from a cellar. Internally, and in accordance with the documentary evidence, the medieval structure was provided with two main floors.

Externally, around the N.W. tower, a set of octagonal stone foundations have been discovered. These substantial and stepped footings are not aligned to the bottom course of medieval ashlar, presumed to belong to the 1348 construction. Further, they show considerable signs of wear, which cannot have occurred whilst the ashlar was in position. It is not yet certain whether these foundations belong to a pre 1348 octagonal structure or represent a phase of the fourteenth building programme, discontinued for some reason (The Black Death which arrived in Stafford in the early summer of 1349?) and later recommenced on a different alignment.

(ii) In the S.W. corner of the inner bailey the area of the west lodgings (documented 1537) has been examined and to date six late medieval structures have been discovered. Their construction varies from purely stone construction (chapel? and rampart tower?) through timber framing on dwarf stone walls (kitchen?) to post hole timber buildings. It is not yet certain whether some of these structural elements were free standing and independent buildings, or whether they formed a continuous, sub-divided frontage or wing, backing onto the rampart and facing the internal courtyard.

(iii) On the site of the deserted medieval castle village 822 sq. meters have now been opened with occupation of at least three main periods coming to light. So far many of the elements of a medieval village, such as road systems, drainage, timber buildings, possibly gardens or paddocks, have been uncovered. A large and well preserved hoard of late medieval metalwork, such as knives, spurs, buckles etc., has also been found.

(Charles Hill for the Stafford Castle Research Group).

BOOK REVIEW

POST-MEDIEVAL POTTERY 1650-1800 BY JO DRAPER (Shire, 1984; A5, 64pp; £1.95)

This comprehensive little book is the fifth in the Shire Archaeology series on British pottery. Like its predecessors on prehistoric, Roman, Anglo-Saxon and medieval pottery, it consists of short sections devoted to the principal wares of this important period. It closes with an up-to-date reading list and a list of museums with relevant collections of pottery of the period.

Where the book differs from the others in the series, is in its extensive use of halftones illustrating 112 pots (of which 94 are from the collection of the Northampton Museum). This is a welcome change from pages of line drawings, and is what should be expected for the pots from such a recent time, where the balance is away from humble potsherds towards complete examples.

The wares are considered by fabric category, corresponding to the major elements in the ceramic range of the period (slipware, delft, stoneware, fine earthenwares, creamware and porcelain) with descriptions of their methods of manufacture, decoration and form. Many regional variations are noted, particularly amongst the 'coarse earthenwares', where local potteries produced their own often fiercely independent and inventive styles.

However, the section on a pit group from Dorchester seems a little unnecessary, and may perhaps have been best replaced by a glossary and a chronological diagram. Also, and this is rather puzzling the previous book in the series ended at about 1500, and this one begins around 1650. The missing 150 years are an important transitional period, and although the author mentions the so-called Cistercian wares and their likely development into slipware, they could have been covered and illustrated in this book as an introduction to the period in question.

This book is essentially an introduction to our most significant ceramic period. Archaeologists, ceramic historians and practising potters will all be grateful to Jo Draper for condensing the subject into a usable and handy guide, without getting bogged down in the complexities of its social and economoc implications.

John Malam, 164 Pinfold Lane, Wolverhampton, West Midlands.

Directory of Archaeological Groups and Institutions

(amendments and additions gratefully received)

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County SMR and Museum:

Archaeology Department, Hereford and Worcester County Council, Tetbury Drive, Warndon, Worcester. (J. Wills). Tel. Worcester 58608.

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Worcestershire Archaeological Society:

Editor: F. Grice, 91 Hallow Road, Worcester.

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Woolhope Naturalists Field Club:

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Ironbridge, Telford. TF8 7AW. (B. Trinder). Tel. (0952) 453522.

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Mrs. C. James, 44 Vyrnwy Road, Oswestry, Salop.

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Convent Lodge, Tong. (A. Wharton).

Whitchurch Area Archaeological Group:

(D.S. Stewart, Address above).

Shropshire Archaeological Society:

(Sec. M. Watson, County SMR).

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Planning Department, Staffordshire County Council, Martin Street, Stafford. (K. Sheridan, R. Meeson).

Stafford Archaelogical Project:

Birmingham University Field Archaeology Unit, 8 St. Mary's Grove, Stafford. (M.O.H. Carver, A. Brooker-Carey, J. Cane). Tel. Stafford 59030.

Stafford Castle Project:

Stafford Borough Council, Riverside Buildings, Stafford. (C. Hill).

City of Stoke-on-Trent Museum and Art Gallery:

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(Editor, J. Whiston) PLEASE ADVISE OF NEW ADDRESS.

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Mrs. P. Jones, 361 Stone Road, Trentham, Stoke-on-Trent.

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North Staffordshire Polytechnic, Stafford. (J. Wilcock). Tel. Stafford 53511.

WARWICKSHIRE

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Warwickshire County Museum, Eastgate House, Warwick. (H. Maclagan). Tel. (0926) 493431.

Birmingham and Warwickshire Archaeological Society:

(Editor: R. Taylor). Secretary: J. Pierson-Jones, Birmingham City Museum and Art Gallery.

Alcester Excavations Project:

The Old Fire Station, 52 Stratford Road, Alcester. (S. Cracknell). Tel. (0789) 764908.

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Planning Department, West Midlands County Council, Queensway, Birmingham. (J. Tonkins, S. Whitehouse). Tel. 021 300 6532.

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Coventry City Museums:

Jordanswell, Coventry CV1 5QP. (M. Rylatt).

Sandwell Archaeological Project:

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