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INTRODUCTION

This paper aims to assess the evidence for the appearance, colonisation and subsequent growth of the pagan Anglo-Saxon settlements in Bedfordshire. Particular attention is paid to settlement location, the character of the settlement and related economic aspects. Previous assessments of the Anglo-Saxon archaeology of the region have been very few and must now be reconsidered in the light of recent developments. The last, and indeed the only full assessment of the archaeological evidence for the Anglo-Saxon settlement in the county was by Morris (1962, b), and was influenced by the then recent discoveries at Marina Drive, Dunstable. Morris favoured a far reaching Kentish migration, seeing the Marina Drive burial ground as that of 'a small colony of Kentish men established on hostile territory in Bedfordshire', (Morris, 1962b, 57). Writing of an unusual type of girdle hanger which was found in the cemetery and which can be exactly paralleled in Selzen near Mainz in the territory of the Alamanni, Morris concludes that although 'no parallel is known from Kent, it is at least likely that a rare object so characteristic of the Rhineland should reach Dunstable by way of Kent'.

More recent studies have been concerned primarily with grave goods, their typologies and relationships. There has been no attempt to study the locational character of the settlements. At present in Anglo-Saxon studies there is a need for regional studies to determine the available material, its limitations and possible interpretations. It is only after this assessment of the evidence that problems concerning the origins of nucleated villages, the economic and tenurial organisation of settlements, and their associated land units or parishes can be considered.

This study has been limited to the area within the modern county boundary of Bedfordshire. In area Bedfordshire is one of the smallest counties and has few natural boundaries which could form a territorial state such as those of Kent or Sussex. Bedfordshire possesses a very transitional character due to its geographical position, geology and relief. It lies in the south-east Midlands, neither in the Midlands proper nor in East Anglia. The Great Ouse and the Icknield Way, crossing the northern and southern areas respectively, are two communication routes which have resulted in enforcing the marginal nature of the area. As the county lies on a cultural periphery it received a mixture of 'Anglian' and 'Saxon' influences. This marginal character was formally recognised in the Late Saxon period by the course of the Danelaw which passed through Bedfordshire dividing the county. The county was not formed as a distinct unit until the eleventh century.

SOURCES

Evidence for the evolution and nature of the pagan settlements comes from place-name studies and archaeological evidence. Both categories of evidence have been considered in this study but each have severe limitations in their application which should be recognised. Place-name study is the most productive line of approach but must be combined with site reappraisal. Problems involved in the usage of place-name evidence generally and particularly in relation to Bedfordshire are discussed in Part III. Part II considers the archaeological evidence together with the biases in the archaeological record which inevitably affect any subsequent interpretations. One factor of extreme importance involved in an examination of settlement location is the geology-soil relationship. This is outlined below while its specific application to the settlement is presented in Part IV. This final section will also attempt to evaluate the evidence and suggest further lines of research.

I: THE BACKGROUND TO THE SETTLEMENT

GEOLOGY AND TOPOGRAPHY

The main features of the solid geology are distinct but complications arise when the superficial or drift deposits are taken into account. Although there are large tracts of uniform or gently undulating country there are great variations in the soils influencing the location and nature of settlement in the region.

The general trend of the geological outcrops lie from south-west to north-east and they dip mainly towards the south-east, therefore the oldest strata are exposed in the north-west. From Leighton Buzzard to Sandy there is a prominent ridge which defines the limits of the Jurassic and the Cretaceous rocks, and which delineates the Ouse valley from that of its tributary the Ivel. This Greensand ridge is underlain by Boulder Clay while the overlying drift deposits are very varied. Oxford Clay extends over the greater part of north Bedfordshire and north of the county town it is largely overlain by Boulder Clay. South of the town it forms topographically, a damp and undulating lowland, the 'Vale of Bedford'. South of the Greensand ridge a narrow tract of Gault Clay runs parallel to the ridge. This Gault vale is drained by many small streams. The chalk covers practically all the rest of the county south-east of the Gault Clay and next to the Oxford Clay it occupies the largest area of all the underlying deposits.

The most prominent feature of the relief is this Chalk escarpment rising 200ft above the plain. The typical features of scarp and slope are well developed but due to drift deposits the only typical downland landscape is at Luton, Dunstable and Whipsnade. The Barton Hills and the Dunstable Downs attain a considerable altitude. The highest part of the Dunstable Downs, a continuation of the Chiltern escarpment, is between Kensworth and the Five Knolls, 800ft above sea level. Most of the rest of the county is below the 400ft contour line.

SOILS

'Every soil and every admixture of soil commonly seen on high land in the United Kingdom may be found in this county, from the strongest clay to the lightest sand'. Thomas Batchelor, 1808.

The extent of the superficial deposits are of extreme importance, almost every farm in the area shows differences of soil depending on the underlying rock. Even the Oxford Clay in the Vale of Bedford shows considerable variety from its drift deposits. Extensive areas are covered with glacial deposits and other deposits of the Pleistocene and recent age. These fall into three distinct groups:-

a) Clay-with Flints - overlying the chalk.

b) Glacial deposits - mainly Boulder Clay, parti-

cularly in the north. In the Oxford Clay and the Gault Clay regions this admixture lightens and improves the texture of the soil resulting in good agricultural land. Glacial sands and gravels cover a small area mainly in the Ivel valley.

c) Valley deposits. Considerable widths of gravel have been formed by the River Ouse. Between Felmersham and Bedford the river is very sinuous and below Oakley the gravel exceeds one mile in width, below Bedford two miles and in some parts it exceeds four miles in width. The rivers Ivel, Hiz and Lea have formed similar but less extensive tracts of gravel. The most recent deposits are of alluvium, being confined to the river valleys.

The county can be divided into eight distinct regions on the basis of the soils, underlying parent rock and superficial deposits.

- 1) Chalk Plateau : overlain by Clay-with-Flints. Together with Brickearth this masks the Chalk at a high level. On the dip slope deposits of sand and gravel occasionally support poor grassland or heathland. The chalky Boulder Clay beyond the River Lea is good arable land.
- 2) Icknield Loam Belt : this area runs roughly parallel with the Icknield Way. Along the scarp slope erosion has yielded rich loamy soils and resulted in one of the most productive agricultural regions of the county. On top of the escarpment there is a rough scrub. The lower chalk is extensively quarried for lime and cement, and in the east of the region Boulder Clay deposits have been quarried for the brickworks.
- 3) Gault Clay Vale : Boulder Clay covers large parts of the surface. This results in a light soil good for cultivation. Glacial sands and gravels occur in 'islands' as at Toddington. Fitchett (1943, 69) has remarked that although 'the whole region was probably forested few relics of this now remain'.
- 4) Greensand Ridge: this separates the two clay regions and is mainly covered by sandy soils, often too hilly or acidic for cultivation. The clays and loams in the valleys however, are very fertile. Greensand soils, peaty soils and alluvium deposits are localised, elsewhere the soils are mainly sands and gravels.
- 5) *Ivel Valley*: most of the soils are light sands and gravels. Areas of medium and heavy soils lie on the Oxford and Gault Clays which are difficult to drain.

- 6) Oxford and Boulder Clay Region : this lies in the north of the county. The Boulder Clay overlies the Oxford Clay and has a high clay content. South of Bedford there are large areas which have been and still are exploited for the brickworks.
- 7) Ouse Gravels : although the gravels predominate the soils are varied and change to loams and clays in the north. The Great Oolite and some Cornbrash come to the surface in this region.
- 8) North Bedfordshire : fairly heavy soils cover the region. The characteristic clays are not derived from the underlying Oxford Clay but from the drift deposits. High chalk content makes the Boulder Clay more workable.

Although the soils in Bedfordshire are varied there are many areas suitable for settlement and rich, or potentially rich, for agriculture. Lighter soils are found on the glacial sands and gravels. Present: land use shows the greater elevations to be arable and the lower areas with heavier and damp soils are in permanent pasture. Consideration of the areas occupied and farmed during the Roman period will help to determine the extent to which early agriculturalists could exploit the various soils available and indicate the regions utilised during the late Roman period.

THE ROMAN BACKGROUND TO THE SETTLE-MENT

Intensive fieldwork between the Nene and the Ouse valleys has produced interesting results showing that the traditional interpretation of the primeval forests being cleared by the Romans and the Saxons is false (Hall and Hutchings 1972, 8). A uniform and relatively dense distribution of sites occurs all over the area on light and clay soils alike in the Iron Age and Roman periods. The total area of Romano-British occupation in the 76,000 acres surveyed was 130 acres which is more than twice the size of the Roman settlement at Irchester (see fig 1, a). Of the 191 Romano-British sites in this area 43 were in Bedfordshire. Thus the Domesday woodlands in this area of north-west Bedfordshire must have been secondary regrowths and scrub which grew up during the late Roman or sub-Roman periods.

The main distribution of Roman finds and settlements are in the Ouse, Ivel and Lea valleys and in the Icknield loam belt. The traditional interpretation of the district being sparsely inhabited does not now hold. The absence of large communal settlements suggests a population primarily concerned with farming. Two major Roman roads passed through the county, the chief evidence for this is from the 'Itinerarium Antonii'. Watling Street crosses the county at its southwest corner. The course of the road is certain as it is still in use and it often forms a parish or county boundary. The Icknield Way enters Bedfordshire from Buckinghamshire. At its crossing with the Watling Street a small minor communal settlement grew up. There is a distinct lack of evidence for the boundaries and the streets of 'Durocobrivae'. It has been suggested that it was a 'town with walls, gates and a bridge . . .' (Bagshawe 1961, 20). But it may have been no more than a posting station or alternatively if a minor communal settlement did exist, it may lie under the modern town. Sandy, a minor communal settlement in the Ivel valley seems to have been of distinct local importance (Johnston 1975, 94). Discoveries in the Roman cemetery during the seventeenth and eighteenth centuries show a wide range of exotic goods, an indication of a rich, although unwalled, settlement. A dense and Romanised population seems to have dwelt in the Ivel valley, particularly around the agriculturally rich areas of Biggleswade, Sandy, Blunham and Shefford.

One of the richest agricultural regions in Bedfordshire is the edge of the Chiltern escarpment and the adjacent Loam Belt. There are two villas in south Bedfordshire which can be associated on the basis of economy and siting with those in the Chiltern group (Branigan 1967, 158). Totternhoe villa was sited at the foot of the Chiltern scarp and another villa at Kensworth was sited in the valley of the River Ver. The Chilterns were naturally suited to a mixed economy as the land in the valleys is potentially very rich. Occupation at the large courtvard villa at Totternhoe continued until the late fourth century. Tessellated floors, hypocausts and an ornamental gateway of red sandstone attest a comfortable standard of living. Occupation at Kensworth continued until at least the early fourth century.

In mid Bedfordshire the density of Roman finds and occupation sites is lower. But evidence for an area of settlement comes from the Flitt valley in the Ampthill area. A Romano-British settlement, fairly large and wealthy, occurs at Ruxox, east of Ampthill (*Beds. Arch. J.*, 4, 1969, 86). Roman cemeteries have been discovered at Flitton and

Maulden. It is generally assumed that this lack of settlement in the mid-Bedfordshire region is due to an aversion to settling on the clay soils. Roman occupation in this central region is concentrated on the greensand soils and the peaty soils along the Flitt but it also occurs on the Boulder Clay as in the north-west of the county (Hall and Hutchings 1972, 1-16). Rodwell (1975, 96) has indicated that the distribution of the minor towns and villas in the Trinovantian area is due to geological considerations. Settlement was mainly concentrated on the Boulder Clay which was easier to cultivate and which vielded higher grain harvests, in preference to the London Clay. The same pattern occurs in Bedfordshire where the Boulder Clays in the north-west were heavily utilised. Those areas of Boulder Clay which have not yielded evidence of Roman occupation occur in the area north of Ampthill where there is a wide expanse of Oxford Clay. Due to a lack of fieldwork in this region it can not be safely asserted that there was no Roman settlement particularly as one would expect some Roman occupation along the river valley in the Stewartby area and two possible Roman roads 170b and 173c cross the area (Margary 1964, 356-357).

Along the Ouse valley, Roman occupation was concentrated on the river gravels and the areas of Great Oolite and Cornbrash. A Roman villa of the fourth century was sited at Newnham and other substantial buildings have been found at Bromham, Radwell, Podington and Yielden. A large Roman cemetery was sited at Kempston but the associated settlement has not been discovered. There does not seem to have been a Roman settlement at Bedford although there was a nineteenth-century report of a Roman mosaic having been found somewhere in the town, (information from D.E. Johnston). Farmsteads, enclosures and occupation scatters are widespread in the region, many having been found during the course of gravel extraction on the terraces.

II : ARCHAEOLOGICAL EVIDENCE FOR THE SAXON SETTLEMENT

THE CHARACTER OF THE EVIDENCE

Before considering the archaeological evidence for the Anglo-Saxon settlement of the county it will be necessary to discuss the character of the evidence. The main source of evidence is that from pagan burials and some settlement sites. Very few of these have been discovered by archaeological research. Most are due to accidental discoveries in the nineteenth century during the course of mineral extraction and others are the result of finds made during modern quarrying and urban expansion.

The results of fieldwalking in north-west Bedfordshire has had an effect on the known distribution of Roman occupation but has had little corresponding effect on our knowledge of the Anglo-Saxon period. There was also a lack in evidence for the pre-Roman Iron Age. There were very few surface finds (e.g. pottery scatters) presumably because they were covered by the respective succeeding periods. There are also particular difficulties in recognising the pottery of these periods. The hand made pottery of the Iron Age and the pagan Saxon periods are very undistinctive. When divorced from its settlement context pagan Saxon hand made pottery looks deceptively like that of the pre-Roman Iron Age.

In north-west Bedfordshire slag patches were found, also during this intensive fieldwork. Ninetyseven appeared in the area under discussion. These are probably Romano-British and Saxon but as yet they can not be dated with any certainty.

The third category of archaeological evidence is that of stray finds which, divorced from their settlements, can only yield information on typological, artistic and technological aspects. A present problem in Anglo-Saxon studies is the difficulty in distinguishing the material culture of the Anglo-Saxons from that of the sub-Roman Britons.

THE EARLIEST EVIDENCE

Indisputably 'British' objects are rare and the majority of finds which are found in post 'Adventus' contexts are attributed to the Anglo-Saxons (Longley 1975, 1). Germanic influences were being felt at a relatively early date and 'controlled settlement' (Myres 1969, 34) was occuring in the mid-fourth century. It is difficult to determine the exact nature of the presence but distinctly Saxon features are found at this point in time.

Romano-Saxon pottery certainly has a Roman origin but the beginnings of its manufacture are too early to be influenced by the fourth century disposition of 'foederati'. Jutish pottery of an early type was found at Sandy and ceramic evidence from the early Saxon cemeteries at Sandy, Kempston and Dunstable seems to indicate Germanic presence in the early fifth century.

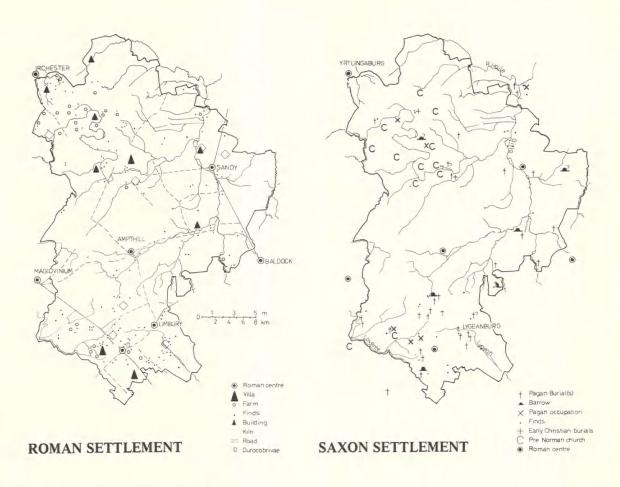


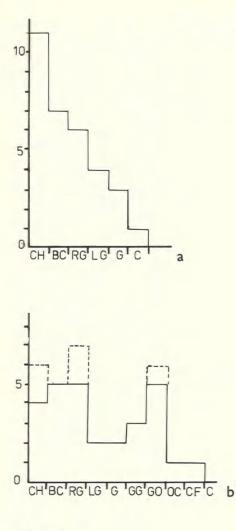
Fig 1 a. The Roman Settlement b. The Anglo-Saxon Settlement

Metalwork also shows indications of Germanic influence. Military 'cingula' (Hawkes 1974, 386-393) are traditionally seen to suggest the military disposition of troops. Types I and II occur at Kempston and Luton and are of a kind which probably were made in British workshops as copies of the Germanic styles. If this does not indicate the exact presence of Germanic forces it suggests a strong Germanic influence on sub-Roman metalwork. The present climate of opinion is tending towards the identification of a separate, sub-Roman school of metalwork.

PAGAN SAXON BURIALS AND SETTLEMENT SITES

The main evidence for Saxon presence occurs in the archaeological record during the early fifth century and is closely associated with Roman or subsequent sub-Roman centres. Myres (1969) first noted the relationship of many large cremation cemeteries to Roman walled towns. There are no walled towns in Bedfordshire but Taylor's findings (1974, 7) in eastern Northamptonshire where 'every one of the known pagan Saxon cemeteries ... is inside or very close to a Roman settlement' can be seen to apply in Bedfordshire.

The site of the large Roman cemetery at Sandy was very closely associated with an early pagan Saxon cremation cemetery. This early fifth century burial group was the latest group of burials on the northern edge of the site. Some thirteen cremation vessels were found. Of these, three are of types which are of the early fifth century and which have been assigned to Myres' Phase of



- CH-Chalk
- BC Boulder Clay
- RG-River Gravel
- LG Lower Greensand
- G Gault Clay
- C Cornbrash
- GG Glacial Gravel
- GO-Great Oolite
- OC Oxford Clay
- CF-Clay-with-Flints
- Fig 2 a. The Siting of Pagan Burial Sites
 - b. The Siting of Settlement Sites (dotted lines) and Early Place Names (-ham and -ingas formations).

Transition, 410-445 A.D. (Kennett 1970,17-33).

Roman cemeteries are often the focus of early fifth century cemeteries. The large and important mixed cemetery at Kempston adjoined and partially overlapped a Roman cemetery. There is from this site evidence for an extensive and substantial Roman presence in the area although no settlement is known. Dunstable does not illustrate such a close relationship between the Roman and Saxon periods due to the difficulty in defining the nature of the Roman settlement. However there is an early fifth century settlement in the vicinity at Puddlehill.

Thus two Romano-British minor settlement centres of local importance both exhibit evidence of early Germanic settlement. Both towns are strategically situated on the Icknield Way, a route which leads into the interior of the country and the rich agricultural lands of the Chilterns. Dunstable commands the crossing point of the Icknield Way with Watling Street and a 'satellite' Saxon settlement at Puddlehill, three-quarters of a mile to the north, was on the top of one of the highest points in the area, where the Icknield Way was forced to curve around the west side of the hill. Branigan (1967, 150) suggests that, 'In the Chilterns, where the Saxons were late arrivals the villas slowly grow smaller and evolved into farmsteads not very different from those which the villas had themselves replaced . . . our search for fifth century occupation in the Chiltern valleys should be directed not to the villas themselves but to the immediate surroundings . . .'.

The area around the Totternhoe villa and the Kensworth villa would offer unrivalled opportunities for evidence connected with the changing focus of this settlement pattern, the continuity of the local working population and agricultural systems. The region does seem to offer evidence to support this disintegration into dispersed agricultural settlements. The settlement at Puddlehill dates from the early fifth century, one kilometre away more huts were found at Sewell. Both sites were situated along the Totternhoe ridge and it would be fair to say that hill sites seem to have been a favoured location. At Eggington the Saxon site was situated on Gault Hill, the summit is just above the 400ft contour. Eggington is a good example of a 'Non-static' rural settlement (Wade-Martins 1974). During the last three to four centuries the village gradually moved westwards but in recent years modern expansion has resulted in

	400	500	600	700
Puddlehill				
Marina Drive				
Biscot Mill				
Argyle Ave.				
Dallow Road				
Eggington				
Deadmans SI.	-			
Chamberlains			11.0	
Warmark	II			
Sheepwalk Hill				
Chalgrave				
Shillington				
Farndish				
Harrold				
Kempston				
Duloe Hill				
Sandy				
Shefford				
Elstow				
Clapham				
Clifton				
Moggerhange Dunstable	4			

Fig 3 Date Ranges of Pagan Burials

the village gradually moving nearer the Saxon site.

The problems of dating in the Saxon period can be illustrated by archaeological evidence from Eggington. There, handmade pottery was associated with late Roman material. A Saxon vessel with a pinched up lug similar to a vessel from the Saxon cemetery at Leighton Buzzard, has been dated to the seventh century and was associated with the Saxon handmade sherds which are probably fifth century. The Roman material does not seem to have been acquired out of interest by seventh century Saxons as there were equal proportions of handmade and wheel-turned wares present.

Thus Germanic settlements appear in Bedfordshire during the early fifth century but it is difficult to determine the progress of the Anglo-Saxon settlement using only archaeological evidence. The distribution of Anglo-Saxon finds in the county (fig 1, b) closely corresponds to that of the Roman period (fig 1, a). The two main areas which were settled and exploited were the Ouse and the Ivel valleys, and also the Icknield Loam Belt. Although the distribution may be biased, generally this distribution pattern does correspond with the two main lines of communication across the area. The Ouse was navigable, at least as far as Bedford, when the Danes sailed up the river in the late Saxon period. The Icknield Way is a natural and long used route. The pattern of Roman settlement was dispersed and largely of a rural nature. Therefore the Saxons were compelled to settle near Roman sites or on remote or marginal land.

Taylor (1974, 8) has stated that all the mid-Saxon occupation sites in Bedfordshire and Northamptonshire are unrelated to the medieval villages and he cites the settlements scattered along the Totternhoe ridge at Puddlehill as an example. But this is surely an unwarranted generalisation for the number of pagan settlements on which Taylor has based his observations are too few. The settlement at Eggington is not completely divorced from the medieval village neither is that at Felmersham nor the later seventh century site at Clapham.

Apart from the settlement sites the main evidence is from pagan cemeteries and burials. The main date ranges of these where available (Meaney 1964, 35-42; Morris 1962, 63-76) have been plotted (fig 3). It must be stressed that these dates are not absolute but merely indicates the date ranges of the associated grave goods. The dotted lines accentuate that they may only be taken as an indication of the period during which the cemetery was in use. Some burials have been omitted due to a lack of dating evidence. As an example, Toddington has three cemeteries in its vicinity, presumably not all in contemporary use. Fancot remains undated, Warmark has been dated to the early fifth and sixth century and the cemetery at Sheepwalk Hill has been dated to the sixth century probably contemporary with the nearby cemetery at Chalgrave. This either represents a dispersed settlement pattern of small hamlets using three cemeteries simultaneously or, more probably, a change in burial site with the earliest at Warmark succeeded by that at Sheepwalk Hill and then a late seventh century site as yet undiscovered.

The move to a new cemetery site in the late seventh century would correspond to that generally seen at other Saxon cemeteries in England. Such a change is well illustrated at Leighton Buzzard. Deadmans Slade is 500 yards north-west of Chamberlains Barns and is the earlier. In these new cemeteries cremations are altogether absent and the percentage of grave goods is high, the majority being orientated with their heads to the south-west. Hyslop (1963, 198-200) has indicated that this change seems to occur all over England at the same period with the abandonment of old cemeteries and the start of new ones. This has been held to be due to the Christian conversion,

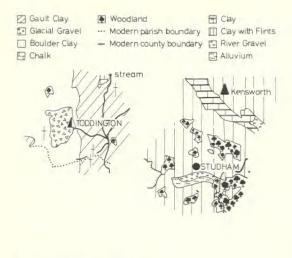


Fig 4

a. Toddington b. Studham

and the main characteristics of this group of cemeteries do seem to be due to the influence of Christianity. But this influence does not seem to have been very deep as pagan practices continued well into the eighth century. The features of these burial groups are more likely to be due to the results of fashion. At Kempston where there is some evidence for this 'fashionable' burial rite, there did not seem to be a change in burial site (Kennett 1968, 399), while at Astwick, Harrold, Clapham and Bletsoe there is as yet no evidence for preceding earlier cemetery sites.

Of the pagan burials from the fifth until the late seventh centuries, thirty-two out of forty may be located with fair accuracy (fig 5). Of these none are situated on the Great Oolite, the Oxford Clay, the Clay-with-Flints or the islands of Glacial Gravel (fig 2). Sixteen are cemeteries and sixteen are burials, including one primary burial in a barrow and three occurences of burials in pre-existing monuments. The cemeteries obviously indicate the existence of settled communities and of these six show recognisable fifth century burials indicating early settlement. All these thirty-two pagan burials lie within two kilometres of present day settlements. Six (20%) of the burial sites appear to lie actually on parish boundaries while the other twenty-six (80%) lie within 500

yards of the parish boundary. A sixth-century inhumation burial at Farndish was incorporated into the agger of a Roman road which was later taken as the parish and county boundary. This corresponds with Bonney's findings in Wiltshire (1966, 25-30). But it is not possible in the present state of knowledge to say whether these boundaries developed from an older system of land tenure or whether they evolved during the pagan Saxon period.

The predominance of burials on the chalk has been interpreted as evidence for the preference, by the Saxons of light, easily drained soils. But this is due, in this area to the recovery record. Of the seven sites on the Boulder Clay, five are of the sixth century and this could indicate some settlement of the Boulder Clay in the early stages of the Saxon colonisation, perhaps in an area previously farmed during the Roman period. It is debatable as to whether burial sites indicate places of burial only or whether they indicate the existence of adjoining settlement sites. Edwards (1972, 95) found that in north-west Kent the proximity of burials to settlements of the 'secondary phase', i.e. of place-names in -ingas and -inga-, and their unsuitability topographically as habitation sites indicated places of burial only. This would explain how, of eleven pagan burials on the Chalk in Bedfordshire, four of the associated modern settlements are situated on 'islands' of Glacial or River Gravels and one is sited on the Boulder Clay. Burial was probably directed on to the marginal land or that land in the immediate exploitation area of a settlement which was the least suitable for agriculture. Settlement on the Boulder Clay can no longer be held to be due only to a later, early medieval activity.

III : PLACE-NAME EVIDENCE FOR THE SAXON SETTLEMENT

THE CHARACTER OF THE EVIDENCE

Currently place-name studies are receiving a reexamination from a linguistic viewpoint, of their relevance to the problems of the Anglo-Saxon settlement. One of the basic limitations in the study is the lack of knowledge of the basic distinctions in the regional distributions of dialect features and their relationships to the contemporary continental forms. Thus there have been frequent assumptions made if linguistic information is not available. Interpretations are further complicated by the problem of the historical survival of place-names. The original form of a place-name is the form chiefly concerned in such studies. Scribal errors obscure dialect features as well as complicating the recognition of the original form. The 'Laws of Phonology' help in arriving at the earliest form and therefore the earliest meaning of the placename. For this the archaeologist must rely on the phonologist.

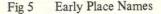
The problem of chronology is not only confined to the recognition of the earliest form of a place-name, it is often difficult to determine when a place-name was formed. The medial use of the suffix -ing-, as in Eggington ("oak-grown hill"), was probably in current use until the eleventh century (Dodgson 1966, 7). Bedfordshire possesses a group of pagan place-names. These are Harrowden (O.E. hearga-dun, "a hill with heathen temple"); Harrowick (O.E. heargawic, "farm by the sacred grove"); Wenslow (O.E. Wodneslawe, "hill sacred to Woden"); Sundon (O.E. Sunnan-dun, "down of the godess Sunne"). Others which probably indicate heathen worship are Thurleigh (O.E. Thur-lea) and Swineshead (O.E. Swines-heaford). Although these names may have originated at the time of pagan worship it is also possible that these heathen names may have been formed in the Christian period out of folk memory, or alternatively they may only have come to denote settlements later in the period after worship had taken place there for some time already. This lack of absolute chronology in place-name studies leads to difficulties in their archaeological application although occasionally in the light of archaeological evidence interpretations of individual place-names or groups of place-names may be questioned or corrected.

THE PROGRESSION OF THE SETTLEMENT

The confusion in the chronology of place-names with the suffixes -ingas, inga-, ingaham and -ham is of direct relevance to the progression of the Anglo-Saxon settlement. Ekwall in English Place-Names in -Ing (1923) suggested that the suffix -ingas was originally the collective name designating the people of the village or district, and that this type of name applied to the colonisation of the first Anglo-Saxon migrants. Smith (1956, 74) demonstrated that of this large group of names only the termination in -ingas and the medial -inga- were relevant to the early stages of the

EARLY PLACE NAMES





Anglo-Saxon settlement. Recently there has been a complete reversal of the traditional place-name progression principally led by Dodgson (1966, 5-29). It is this scheme as summarised by Edwards (1973, 81-85) which has been applied in this study. This progression places *-ham* as the earliest form. This is succeeded by place-names in *-ingaham* and finally *-ingas* names belong to the post-pagan era.

A final point which must be emphasised is the importance of topographical studies as a necessary accompaniment to the application of place-names. Too often in the past place-name studies have lacked the accompaniment of topographical analysis and fieldwork which is often necessary. Sometimes even fieldwork can not determine the true interpretation of a term, thus Swineshead may refer to the Germanic practice of head sacrifice or it may be descriptive, the fanciful name of a natural object.

THE APPLICATION OF PLACE NAME STUDIES TO BEDFORDSHIRE

Cox (1973, 15-73) noted that the distribution of place-names in *-ham* in the Midlands and East Anglia was closely related to the system of Roman roads and ancient trackways and also to major and minor Romano-British settlements and villas. Dodgson (1973, 2) also noted this same relationship in Sussex and Hertfordshire. The formation of placenames in *-ham* is certainly early as the element never enters post-Conquest place-names combined with O.Fr. personal names. Cox postulates that these early sites were settled from Roman roads under Roman or sub-Roman regional government and that the formation of these names continued through the years of migration into the pagan period.

In Bedfordshire two place-names can be positively identified as -ham names. Studham (O.E. stod-ham, "a place where horses are bred"), lies on the highest ridge of the Dunstable Downs. It has been suggested (Cox 1973, 67) that this could have been a settlement of some importance for the mounted cavalry of the foederati, lying as it does on open downland suitable for horses. Studham lies four miles south of Dunstable, two miles from Watling Street and three miles from the Icknield Way, a crossing possibly of some importance. While not doubting the possibility of this interpretation it must be pointed out that other names Stotfold (O.E. stod-fald), and Stodden (O.E. stod-denu), also occur. These too apply to the breeding of horses and may equally indicate

the breeding or enclosure of horses in the Roman or late Saxon period.

The second *-ham* form is found in Higham Gobian (O.E. heagh, "high"), situated two miles from the Icknield Way at 247ft above sea level. This belongs to a group of villages called Higham which, without exception, overlook roads. Higham Ferrers, Northants., is an example close to the modern county boundary in the north-west. These upland sites are well drained, easily cleared and would have afforded good visibility and a defensive position.

There was a fusion in Middle English of O.E. -ham with O.E. -hamm which has a range of meanings with a series of contrasts between natural and man made features. Gelling (1960, 140-162) has constructed a typology but it is sufficient to record here that these meanings range from "land in a river bend" to "an enclosed plot or close". Blunham, Biddenham, Bromham, Pavenham, Felmersham and Clapham are all situated on the River Ouse and are enclosed by loops of the river. As there is a lack of O.E. forms for the Bedfordshire Ouse series and a corresponding lack of M.E. forms in -hamm it is not possible to determine satisfactorily whether these placenames were formed from -ham or -hamm. The siting of these villages in a -hamm topography serves to confuse the issue further. But -ham is possibly present in some of these forms. All, except Blunham, are sited on Cretaceous deposits desirable for settlement and all are situated close to Roman roads and buildings. This area was densely occupied in the Roman period. The Folly, Clapham has produced evidence of pagan Saxon occupation as has Felmersham where the occupation has been considered to be not later than the sixth century (Jope 1951), 49). Harrold, two miles west of Felmersham and the cemetery at Kempston attest to fifth century occupation in the Ouse valley. It is probable that the Ouse series are -ham formations.

Roothams Green in the north of the county, one mile west of Begwary Brook needs investigation. The name is not mentioned in the English Place Name Society volume for Bedfordshire and consequently it has not received attention from Gelling (1960), Cox (1973) or Dodgson (1973). Like Blunham it is sited in the Oxford Clay region but the overlying soils are varied. Blunham exploits light loams and gravels, easily worked and manured. These place-names in *-ham* are all situated on good agricultural soils in one of the main areas of preceding Roman occupation.

The Saxons brought the word "stead" (O.E. stede) with them to England as an active name forming element in the fifth century (Sandred 1973, 72). When compunded as in -hamstede, the middle element -ham was liable to undergo phonetic reduction as early as the O.E. period. Wilshamstead (O.E. Wilshamstede, "Wil's homestead") is an example. Although still marked as Wilshamstead on the O.S. map it is still commonly referred to in local usage as 'Wilstead'. In all three compound place-names of this type occured in the region. Wilstead is the only one which can now be located with any accuracy. Greathamstead (O.E. greot, "gravel") is a reference to an area on which settlement was most favoured, the gravels.

Place-names in ingaham are possibly the earliest of the -ingas and -inga- names. Cox (1973, 74) also considered this name to be significantly associated with Roman roads, sites and pagan Anglo-Saxon cemeteries. In Bedfordshire only one modern example exists or has survived, but Bramingham is probably a late formation. Discussion of the place-name in the English Place Name Society volume indicates that if its association as the Victoria County History suggests lies with the ancient manor of Bramlehangre (1240), then it must have undergone an archaising process. Bramingham's regional archaeological context indicates that the possibility of an earlier formation can not be ruled out and must be considered. Bramingham lies 1.5 kilometres from the River Lea, 1.25 kilometres from the pagan cemetery at Sarum Rd., Leagrave, and one kilometre from the inhumations in Waulud's Bank, Limbury.

There is no reliable succession for the later settlement expansion. Extensive and exhaustive use has been made of the supposed progression to the element ton (O.E. tun). But this was in use as a place-name suffix until the thirteenth century. Place-names in *-ingas* (nom. pl.) are of two types. The first is those in which the basis is a personal name, of which there are four examples in Bedfordshire. The second category is one in which the basis is a topographical term or an older place-name. Knotting ('Cnotta's people' or 'dwellers at the hill') could belong to either group.

Personal names with an *-inga-* or *-ingas-* formation are largely associated with settlements removed from areas with any immigrant phase burials. Thus these place-names probably do refer to an expansion phase in the Saxon period. The medial use of the suffix *-ing*, as in *-ington*, *-ingdon*, *-ingley* and *inghoe* occured into the late pagan period but very few were formed in the succeeding Christian period. (Kuurman 1974, 34). The chronology for these terms, if there is one has not yet been established.

Other types of place-names have been suggested as denoting early settlements. Edwards (1973, 82) noted that in Kent centres bearing place-names signifying a water relationship appeared as the closest settlements to five out of nineteen pagan burials and suggests that further research may reveal a widespread degree of association between pagan burials and certain water based forms. This does not occur in Bedfordshire. Of thirty-nine burials none are situated particularly close to settlements with *-ham* names and only seven are close to settlements bearing place-names denoting a water relationship. Only two of these seven burials belong to the early pagan period.

One feature common in the Bedfordshire area, and which is concentrated the most in the area, is the prevalance of place-names from O.E. hoh, a hill spur. The number of place-names with this element indicates a considerable period over which the Anglo-Saxon settlement extended. There are thirty nine examples in Bedfordshire. Although it is difficult to distinguish the Anglo-Saxon hoh from the O.N. haugr (a natural height), the majority of these place-names are clearly Anglo-Saxon due to the presence of Anglo-Saxon personal names in their formations.

The Tribal Hideage (Davies and Vierck 1974) gives some indication of the early divisions of the Mercian district in the seventh century. Three hundred families formed the folk whose names appear in the genitive plural as the Giffle. The River Ivel is described in Domesday Book as the River Gifla. The name of the Ivel seems to have undergone a reduction in the names Northill (Nortgieule 1086) and Southill (Sudgiuele 1086). Each village is situated two miles from the river but as the river name is the source of the Giffle territorial name it is supposed that Northill and Southill are descriptive of settlements in the north and south of that territory. Yelden (Giveldene 1086) is another of the Giffle settlements.

The Chilternsaetan, about four thousand families occupied the plain beneath the Chilterns and the Hicce of three thousand household occupied the area around Hitchin in north Hertfordshire. The tribal Hideage is only a rough approximation of the actual number of family lands contained in the kingdom and these early tribal divisions were obliterated by the later tenth century administrative reorganisations by the kings of Wessex.

The Anglo-Saxon Chronicle records that in 571 Cutha fought against the Britons at Bedcanford and took four towns, Limbury (Lygeanburg), Aylesbury (Aegelesburg), Benson (Baenesingtun) and Eynsham (Egonesham). Bedcanford was originally identified as Bedford. Recent considerations have cast doubts on this identification. Lygeanburg has been identified with the modern form Limbury in south Bedfordshire. This would suggest if Bedford is not accepted as the site of Bedcanford that the West Saxon conquest under Cuthwulf reached its most northerly point at Limbury. The Ouse valley does not seem to have been under the West Saxons and this accords with the cemetery evidence of the region.

IV : DISCUSSION

The basic requirements for the successful study of settlement patterns (Taylor 1972) are that the recoverable pattern must be reasonably complete in an area and it must be possible to obtain an approximately accurate idea of the form, size, purpose and organisation of most of the settlements. It is therefore impossible to ascertain the true pattern of settlement and type of settlement by archaeological means only. The areas beyond the river gravels in Bedfordshire are not of the type which reveal soil or crop marks from the air and a lack of surface material does not imply an absence of occupation. But it is possible to ascertain to a degree the nature and growth of the Saxon settlement pattern using archaeological and place-name evidence. Some comparisons with the later nature of the region in the Domesday survey may also produce useful information.

The two main areas of settlement in the Roman and subsequent Saxon period seem to converge, although expansion in the later Saxon and Medieval periods probably resulted in the more even distribution of settlements present at Domesday (Campbell 1962, 10). It is probable that expansion, which was a gradual and continuous process from the sixth century onwards, resulted in growth to an already existing pattern of dispersed-farmsteads and small hamlets sited on good agricultural land. New 'colonising' villages can be documented to some extent during the late Saxon period and the early medieval period by place-names in *-leah*. A consideration of the *-ingas* and *-inga-* placenames in Bedfordshire and its immediate border areas produces an interesting 'mother-daughter' relationship between some place-names. Three pairs of place-names in *-ingas* are situated with less than two miles between the mother and the daughter settlement, (fig 5). It is not possible to say which of the pair in each relationship was the earliest, 'mother', settlement but in each of these three cases the mother and daughter settlements do not occur in the same parish.

The area enclosed within the modern county boundary is an area in which, during the eleventh century, the distribution of settlements was fairly even. This was primarily due to the widespread distribution of superficial deposits, principally Boulder Clay. The physical contrast between the upland and the vale is not markedly distinct but in the Domesday period as in the preceeding Saxon and Roman periods two agricultural localities can be distinguished, the souther part of the county underlain by the Chalk and the area of the county north of the Chalk, (Campbell 1962, 32-37).

Analysis of the siting of the villages with early forms of place-names on the lines of work done by Ellison and Hariss (1972, 921-962) also shows accordance with observations in eastern England made by Gelling (1974, 93). There is a recurrent relationship between place-name types and the soils on which the settlements were sited, on islands of sand and gravel in preference to the clay areas. Two kilometre circles were drawn round settlements to contain, theoretically, their most intensive exploitation areas. The Agricultural Land Classification Map (Ministry of Agriculture, Foods and Fisheries 1968) was used to obtain a general idea of land quality. Land is classified into five grades according to the degree to which its physical characteristics impose long term limitations on agricultural use. The main physical factors used are climate, relief (particularly slope), and soil (with reference to wetness, depth, texture, structure and stoniness). The boundaries indicated by a line on the map are not sharply defined and grades may merge abruptly or over long distance with one another. The majority of the land in Bedfordshire is shown as Grade III land which ranges from good land of above average quality to land of below average quality. Thus the map may only be used as a framework and guide to the value and suitability of land for settlement. As found in south England (Ellison and Hariss 1972, 961-962) many of the sites were located close to the junction between two different land categories thus enabling different exploitation of the differing resources (fig 4). The majority of the present day settlements with early forms of place-names were situated on Grade III land with Grade II land in their immediate proximity. Grade II land is generally suitable for a wide range of agricultural crops.

Studham (fig 4a) is of interest and may reflect a situation pertaining in general to the Anglo-Saxon settlement of Bedfordshire. The near non-coincidence of Studham and the Roman villa at Kensworth's site catchment areas is further delineated by the presence of woodland along the edge of the resulting theoretical boundary. This also occurs at Felmersham and its related Roman rural settlement at Radwell and also at Puddlehill and the Roman villa at Totternhoe.

This theoretical 'circular' catchment area for a settlement is distorted by the topography, historical factors and the location of critical resources. A classic characteristic distortion is the resulting long strip parish of the downlands in the south. A group of strip parishes is to be found in Wixamtree Hundred to the south-east of Bedford, and to a less clear cut extent those on the downlands in the south of the county, south of Manshead Hundred and south of Clipstone Brook are distorted in the same manner. In the northern group the strips run across the gravel and riverine deposits, the clays in the Vale of Bedford and the Oxford Clay regions.

Further analysis of present day settlement patterns in the region combined with badly needed reassessment of place-name studies generally and particularly in relation to Bedfordshire would greatly assist in the reconstruction of the changing, non-static rural pattern. Settlements are not static and farm names may often retain the name of a previous settlement as at Pillinge farm, near Wootton. The archaeological evidence calls for a multi-disciplinary approach to the problems concerned with the Anglo-Saxon invasion of England and the resulting growth of settlements. Recent studies have shown that the 'Adventus Saxonum' was a gradual process, a slow penetration of the English country side. Nothing illustrates so well the need for reassessments and new thoughts and approaches in Anglo-Saxon archaeology as the contrasts in distributions obtained from the archaeological evidence compared with that of the place-name distributions.

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