Settlement Histories and Landscape Change: Insights from Fieldwalking

The presentation of this working paper was timed to coincide with the completion of fieldwalking. A self-imposed sample of 10% of the project area was to have been undertaken, and area of between 960 and 1000 ht. The actual area covered stands at 915 ht, thus 45-85 ht short of the minimum target. The outstanding hectares will be walked either during the spring or during late summer, early autumn, an estimated 8-10 days work, and will thus be complete before the writing up phase of the research. Unchecked fieldwalking data is also currently available from a further *c.* 150 ht located in the eastern half of the project area, although it is doubtful that any of this material will be fully integrated into the project's databases by its end in July 2005. Nevertheless, the sample size is large and is approaching a statistically significant level allowing meaningful conclusions to be drawn.

It is important, however, to be aware of some intrinsic weaknesses in the sample. These are largely geographic: the majority of the fields surveys lie in the central southern part of the project area (see map 1). Parishes such as Leckhampstead, Lillingstone Dayrell, Akeley and Wicken have all been extensively walked. Smaller samples have also been taken in Stowe, Lillingstone Lovell, Whittlebury and Deanshanger. But no survey has yet been undertaken in historic Passenham (where the entire area is under pasture, settlement or being exploited for mineral extraction), Potterspury (walked by the Towcester Hinterland Project comprising the 150 ht of uncorroborated data), or Silverstone. As with all other fieldwalking programmes, the recovery of finds has been subject to unavoidable variables. These include inter-walker variability: there are clear biases in the types and quantity of artefacts recovered by individual members of the survey team; light conditions, surface nature, rain and temperature have also skewed recovery since it has not been possible to walk every field when in optimum condition; while the availability or non-availability of fields created by modern farming regimes and the timing of the agricultural cycle have meant that the choice of fields surveyed has remained haphazard throughout the project.

The principal objective of the fieldwalking programme has, from the outset, been the recovery of early medieval pottery and the identification of pre-village settlement sites. The methodology employed, that of line-walking rather than grid walking, has been borrowed from the Raunds Project (Parry). Here experience showed that an optimum line width of no more than 15m could be used to guarantee the satisfactory identification of early medieval occupation zones. The deployment of a technique designed to recover the rarest finds has inevitably allowed the collection of more ubiquitous artefacts such as Roman and medieval pottery, as well as flint scatters, all of which might have been found using a wider line spacing. In practice, pottery and other artefacts were collected by individual stint measuring 20m in length and 1.5m in width along each line. As a result 10% of the surface of any given field was sampled. Finds were washed, marked and sent for fabric analysis, before being plotted to a median stint point using ArcView GIS 3.2. Line walking has thus allowed intensive local recovery whilst permitting extensive regional coverage in the time available.

Traditionally fieldwalking has been used as a means of identifying 'sites', appearing in the record as spatially discrete assemblages of ceramics and other artefacts. Many published fieldwalking programmes refer only to these 'sites', for example the East Hampshire Field Survey (Shennan), the Essex claylands survey, the Shapwick Project, and the work of Hall and Shaw in Northamptonshire. Data from beyond these 'sites' has largely been ignored, this despite a long accepted acknowledgement that certain artefact types and their distribution, notably Roman and medieval pottery, might help in the reconstruction of past landuse zones (Foard 1977). Whilst the methodology employed in the Whittlewood research cannot be seen as innovative, its emphasis on the historic period, and the interdisciplinary nature of the project, has afforded the opportunity to analyse the data to a level rarely seen before. Consequently novel interpretations may be placed on the results regarding *both* settlement history and landscape change and it is on these two aspects that the remainder of this paper will concentrate. The main achievements of the survey will be listed, together with brief thoughts about the contribution this archaeological approach has made to the overall objectives of the project and their implications for fieldwalking programmes elsewhere.

Village History

The opportunity to fieldwalk the deserted village of Lillingstone Dayrell has provided the project with its most detailed biography of a single settlement. The survey identified a concentration of pre-Conquest pottery 100m west of the church. The assemblage contained a variety of fabric types, including St. Neots Wares, Stamford Wares and Cotswold Oolithic Wares. Whilst these fabrics have a broad date range (9th-11th centuries) a mean date around the end of the first millennium might be proposed for the foundation of this

small settlement. A single outlying sherd of Ipswich Ware might point to slightly earlier occupation. From this kernel, the village grew dramatically in the twelfth and thirteenth centuries, in line with population figures deriving from the Domesday Survey and the 1279 Hundred Rolls which suggest a three-fold increase between these terminal dates. The archaeological evidence points to the creation of a new regular row of tofts south-west of the church, together with others fronting the Buckingham to Towcester road. In the late fourteenth century and into the fifteenth, there is a marked and rapid decline in the village, witnessed by the total abandonment of the new row and contraction back to the original nucleus. Early modern ceramics found close to the track which now leads to the church from the main row point to limited occupation into the sixteenth and seventeenth century, and are consistent with the depiction of the 1611 Lillingstone Dayrell Estate Map of a three cottages here.

Here then, the fieldwalking data reveal the total history of a single nucleated settlement in Whittlewood. It is a useful template against which evidence from other settlements can be compared. The archaeological evidence is startlingly consistent with the limited historical sources – allowing the confident interpretation of other Whittlewood fieldwalking data sets which lack this corroberative evidence – and adds much to our understanding of the early undocumented stages of this village's development.

It has been possible to reconstructed elements of other villages too. At Leckhampstead, linear rows have been identified east of Weatherhead Farm, west of Barratt's End, and at Middle End. All appear to expand in the two or three centuries following 1100 and contract in the later middle ages. Pre-conquest pottery has been found in quantity at Weatherhead Farm suggesting an early and significant focus from which expansion took place, whilst at Barratt's End, a few sherds of similar date might point to the same process. Middle End lacks early ceramic material and appears to be the last addition to this dispersed pattern of settlement. The extreme southern end of Lamport (Stowe) has also been surveyed. This part of the village appears to have early medieval origins, again expand in the twelfth century but may already have been in the early stages of decay by the second half of the thirteenth century. Certainly the failure of Potterspury Ware (1250+) to swamp the assemblage in a way observed universally elsewhere suggests that this part of the village was not receiving much pottery at this date. The early decline of Lamport, or at least its southern part, as suggested by the fieldwalking material may relate to a change in its status, its name suggesting an early trading centre which may have been subsumed by the more flourishing later markets of first Buckingham and later Buckingham with Brackley.

It would appear from the Towcester Hinterland Project interim report, that parts of Puxley have been walked. The report includes the identification of concentrations of later medieval wares in the area of Brownswood Green, west of the moated site close to Watling Street. Nothing of the morphology of this settlement can be gleaned from the results.

Hamlet Histories

The Towcester Hinterland Project records a concentration of later medieval wares from a site identified by aerial photography at Knotwood in Potterspury (formerly Furtho). This may be one of the three manors assessed at Domesday, although the aerial photographs suggests a short row of tofts fronting onto a north-south road leading from Furtho towards Old Stratford. Whittlewood fieldwalking has been able to target a further two hamlets, those of Elm Green and Dagnall, both in Wicken. At Elm Green the pottery indicates a late foundation date, with no fabrics predating 1100. In form the settlement appears to be relatively dispersed with individual homestead located over a distance of nearly 1km. Part of this complex includes a moated site to the south, although the absence of ceramic material from close by suggests that this was not integrated into a tight settlement but was just one more dispersed element. Caution must be given to these results, however, since a large zone central to the known settlement pattern is occupied by Bedlam Copse. Whether this hides further settlement elements is not known, although local knowledge suggests that pottery has been found in rabbit burrows. There remains the possibility, therefore that the settlement may be more regular or planned than currently indicated by pottery plots from fieldwalking, and that the origins of the settlement may be found in a smaller site of earlier date.

At Dagnall, house platforms and limestone spreads indicate the location of a small linear hamlet to the south-west of the current farmhouse and outbuildings. Just like Elm Green, fieldwalking failed to produce any material predating 1100, but unlike its near neighbour, the settlement exhibits signs of planning. In the absence of other evidence, then the origins of Dagnall would be considered to be date. Here, however, test pitting has shown an earlier nucleus of pre-Conquest date in the eastern part of the settlement. It would appear then that Dagnall began as a single farmstead an expanded in the twelfth and thirteenth century.

Both Dagnall and Elm Green appear to have declined relatively early, producing little by way of late medieval wares or early modern fabrics.

Pre-850 Settlements

Fieldwalking has identified the origins of several later villages in the pre-850 period. These include Leckhampstead Church End and Weatherhead Farm, Lamport, and Lillingstone Dayrell. Despite tailoring the fieldwalking methodology to the identification of this type of sites, and despite the extensive coverage now achieved, only three settlement foci lying beyond later settlement centres have been identified. These are the two sites lying directly north of Church End, Leckhampstead and that at Mount Mill Farm, in the south of Wicken parish. Two of these three appear to be associated with earlier Roman settlements: at Leckhampstead a large Roman building of unknown status occupies the hilltop and this site produced early medieval material. At Mount Mill, a substantial Roman building producing hypocaust tile and tesserae indicating high status also produced significant quantities of handmade wares of the pre-850 period. The second site at Leckhampstead lies only 200m west of the Roman building but beyond a small brook and must therefore be considered a new site. Of these three isolated sites, those at Leckhampstead appear to have been abandoned by the mid-ninth century, producing no later fabrics. The Mount Mill site, by contrast, also produced St Neots Ware indicating a possible continuation of settlement to the end of the first millennium when the absence of later fabrics indicates a break. The site was never to be reoccupied.
In terms of the project's overall objectives, it is the absence of evidence for these early small settlement centres which has been so informative. Even in parishes which have been extensively sampled (Akeley, Leckhampstead, Lillingstone Dayrell and Wicken all have close to a 20% sample size), no trace can be found of an underlying pre-village dispersed settlement pattern of the density identified elsewhere in Northamptonshire (RCHME). Rather while the archaeological evidence clearly indicates permanent settlement in Whittlewood before 850, population levels appear to have been small producing a very low density of sites. The majority of these appear to have become the foci around which, or from which, later settlement developed. In large part, then, the medieval settlement pattern reflects a much earlier pattern.

Roman Settlements

By contrast to the low density of early medieval sites, Roman sites have been encountered throughout the project area. Leckhampstead has produced four, Lillingstone Dayrell, Lillingstone Lovell, Wicken and Akeley two each and Whittlebury one. The Towcester Hinterland Porject has also produced a number of Roman pottery concentrations along the Watling Street corridor. These new identifications add to many other sites known through woodland clearance, excavation and metal detecting, producing a settlement density of approximately one site per kilometre square. Currently no attempt has been made to date these sites more closely than to the Romano-British period. Further precision of date may demonstrate that these sites were not all contemporary and affect any attempt to gauge actual population levels or the chronology of Roman settlement foundation and abandonment.

Differences can clearly be discerned between these sites. This is often a matter of scale: there are a number of large sites covering up to 5 ht and more numerous sites covering less than 1 ht. Some produce brick and tile, others produce no indications of their construction. Sites which produce hypocaust tile and tesserae also attest to a certain elevated status, although the majority might best be described as 'Romanized' farmsteads. There is also differences in location. The larger sites for the most part appear to occupy elevated positions offering wide vistas whilst the smaller sites appear to be tucked into the valley bottoms. Only one site might be classified as a small villa, that a Mount Mill. If so, its location on the terraces overlooking the Great Ouse is paralleled by the known villas at Cosgrove and Deanshanger to the east and Foscote to the west.

Prehistoric Settlement

No prehistoric settlements have been identified by fieldwalking.

Settlement History: the Fieldwalking Data

Taken in isolation, the following history of settlement in Whittlewood would emerge:

- No prehistoric settlement
- Extensive and intensive settlement in the Romano-British period; clear evidence for a settlement hierarchy; topographically varied

- Low density of settlement 400-850; some continuity of settlement pattern with site survival from the Romano-British period through to early medieval period; colonization onto previously unoccupied sites
- Some abandonment of sites *c*. 850; often those settlements associated with the Roman settlement pattern rather than early medieval foundations
- Signs of nucleation around majority of pre-850 settlements around the end of the first millennium
- Continued growth in established centres especially in the period 1100-1350
- Foundation of new hamlets on new sites from 1100 and perhaps as late as 1250-1300
- Evidence for early decline from 1250 at some population centres
- General contraction of settlements from the second half of fourteenth century; leading in some cases to total abandonment; elsewhere to piecemeal survival.

If this chronology is compared against data from other sources there is generally close correspondence, certain discrepancies and a number of lacunae. Notably, it is clear that the fieldwalking data underestimates the level of late prehistoric settlement. Woodland clearance identified a 20 ht spread of Iron Age pottery under Old Tun Copse. Briary Wood, Redmoor Copse and Deanshanger Roman villa have all produced Iron Age deposits below later Roman settlements. The project has located a hillfort at Whittlebury, whilst enclosures at Whittlebury Golf Course have also been dated typologically to this period. Fieldwalking would also have underestimated the number of pre-850 settlement nodes. Test pitting has added a number of additional concentrations below later settlement. There may be a tendency too, for fieldwalking sometimes to indicate later foundation dates for hamlets beyond the parochial villages. Thus only test pitting at Dagnall produced early material. Despite these issues, fieldwalking has offered a comprehensive opportunity to investigate settlement chronology and morphology.

Landscape Change

The major themes to emerge from fieldwalking regarding landscape, or more correctly landuse, change have already been presented in an earlier paper *Farming in Whittlewood AD43-1500: The Archaeological Perspective*. Since the writing of that paper another substantial block of fields have been walked. The results from these recent surveys have added to, and largely support, the ideas previously laid out. It is hoped sufficient, therefore, here only to reiterate these themes.

Prehistoric Landuse

The recovery of flint scatters adds little to our understanding of pre-Iron Age landuse in Whittlewood since worked flakes cannot be used like pottery sherds to indicate areas of manuring onto arable land. Hall's ( ) belief that the patination of flint might reflect soil acidity and therefore levels of deforestation (deforestation results in alkaline soils (Calcareous boulder clays) leaching, thus become more acidic reducing patination) has also been brought into question (pers. comm.). For the later prehistoric period, finds of Iron Age pottery may be suggestive of manured areas, but it is likely that palaeoenvironmental data will offer a better opportunity to assess this aspect of the Whittlewood area than the current, or any future, fieldwalking material.

Roman Landuse

The general perception gained from early fieldwalking data of extensive areas of tillage between AD43-410 have been further strengthened by subsequent survey. Less than 10% of fields have failed to produce Roman pottery. The impression remains that of an area of extensive arable cultivation, interspersed with small blocks of woodland or wood pasture. Again palaeoenvironmental data will provide a clearer picture of the ratio of arable to other landuses.

Early Medieval Landuse

Thin scatters of early medieval, pre-850, pottery have been found in less than 10% of fields. Generally this material can be associated with settlement sites, but in a number of cases, notably in southern Wicken and northern Leckhampstead and Akeley, the material may derive from the manuring of infields in close proximity to dispersed farmsteads. The recovery of this type of pottery from the heavy claylands and the lighter valley soils indicates no particular preference for soil type. The oft quoted post-Roman retreat from the claylands to more favourable valley terraces cannot be substantiated by the Whittlewood results. Taken as a whole, however, the assemblage indicates a contraction of ploughlands and a commensurate rise in non-arable

landuse. If Whittlewood supported a mixed economy at this period, it is one which is predominantly pastoral in nature.

Medieval Landuse

Pottery scatters can be used for the period 1100-1400 to indicate the *minimum* area of manuring and therefore arable cultivation. Conversely, the absence of material has located areas of non-arable landuse. The coincidence of these blank areas with woodland depicted on later maps adds further support to the rather simplistic interpretation of the data as an indicator of landuse. Most previous surveys, where they have attempted to use fieldwalking data to reconstruct whole landscapes, have restricted themselves to this single observation. For the Whittlewood data, deeper levels of analysis have been made possible through the study of the physical artefacts recovered with the parallel historical research. The following themes have thus been illuminated:

- Pottery scatter density can be seen to be linked with, and proportional to, population level. Thus the common fields of a populous village such as Leckhampstead receive proportionally more pottery than a small village such as Akeley
- Pottery densities can be used to indicate areas of common agriculture and areas farmed in severalty. Thus the village fields of Akeley receive much larger quantities of pottery than the fields of Stockholt; likewise the fields of Whittlebury more than the monastic grange of Monksbarn
- Pottery density rises with length of ploughing episode. Again Akeley (early) and Stockholt (post 1200, emparked 1400) demonstrate this point
- Pottery density declines with distance from settlement. Lillingstone Dayrell western part for best example. This may indicate an infield/outfield arrangement, or simply the fact that the carting of domestic refuse to the furthest furlongs was economically unviable and too time-consuming.
- There seems to be little evidence for the disproportionate manuring of favoured furlongs which might buck the distance:density trend
- A rise in pottery density away from main population centre may indicate proximity to other settlement. Thus in Wicken, pottery density declines away from village until one enters the hinterlands of the hamlets of Dagnall and Elm Green.
- Number of fabrics present declines with distance from settlement. Although far from clear why this should be, this may be a useful indicator for the expansion of arable over time. Thus later additions on the periphery receive only later fabrics, whilst the whole range of fabrics is arriving in fields permanently under the plough from their laying out to the end of the medieval period. More work needed here.
- Ratios of fabric types present on fields largely conforms with ratios of fabric types found in settlements. Thus in our western villages, the dominant early coarse fabrics are the sandy wares and these are found to outnumber the competing and contemporary shelly wares both in village and on field. Conversely in the eastern parishes, the pattern is reversed. Fieldwalking thus appears to indicate market hinterlands for these two fabrics.
- Mean sherd weight might provide evidence for plough attrition and therefore the length of ploughing episode. Again more work needed here.
- The absence of certain fabrics from the fieldwalking record may identify changes in manuring strategy (from household rubbish to animal folding) or changes in domestic rubbish disposal practices. Notably, why the absence of St Neots Ware from fieldwalking, when it is found using the same technique on settlement sites and can be shown conclusively by test pitting to being used in the village cores. Are these different manuring strategies related to changes in the arrangement and organisation of the fields themselves? Do we have an archaeological indicator for the creation of the common fields?

Landscape History

Fieldwalking as an archaeological survey technique has evolved radically in the last forty years from the simple collection of artefacts by field to systematic campaigns designed to facilitate the accurate plotting of individual sherds and other objects. At the same time, the interpretation of the results has moved from simple presence/absence-based analysis to complex statistical analyses; surveys such as those at Madden Farm (? And Tingle) and the East Hampshire Survey (Shennan) have shown how these might be used to interpret ploughsoil data. Elsewhere other projects have shown how factors such as walker bias, light conditions, temperature and soil state might affect recovery rates (Gerrand and Aston), while the work of ?? and Gardiner (SAC) have begun to demonstrate how ploughsoil assemblages relate to subsoil archaeological features and how their formation might be affected by disposal strategies. Despite these scientific advances, however, most fieldwalking programmes continue to be fixated on the identification of

'sites'. Often only as an afterthought do they provide any notion of related landuse zones. If they do, this is generally limited to the rough location and extent of ploughland verses non-ploughland. Poor, or non-existent, presentation of the raw data and the absence of compatible nationwide methodologies further preclude the cross-examination of evidence from different parts of the country. It is remarkable that with such a massive body of information on which to draw, so little might be used to elucidate many of the outstanding questions relating to settlement and landscape.

By giving equal attention to both 'site' identification and off-site evidence, fieldwalking in Whittlewood has demonstrated the role that this survey technique might play in the *total* reconstruction of past landscapes. By adding temporal depth through the collection of artefacts of all periods, the four dimensional nature of the evidence becomes apparent, providing, not only static snapshots of past landscapes, but a dynamic framework for landscape and settlement change. On a regional scale it has been possible to reconstruct complete settlement patterns and to fill the inter-settlement gap by providing a landscape context for each centre of occupation. At individual site level, the evidence is so fine in detail to permit the identification of subtle variations within a single settlement, permitting the tracing of settlement development both spatially and chronologically. Presented appropriately, the Whittlewood fieldwalking results, and their full analysis, have the potential to influence the course and nature of all future surveys.