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Images downsized to 100 dpi for images above 125 dpi. Quality medium.





Epping Forest Conservation Centre

High Beach Loughton Essex Telephone 01-508-7714

March 16Th. '81.

Dear Dick,

Re. your 'phone call This morning, I am enclosing a copy of such makerial as I have completed on the Stammore Country Part, so that you will have at least something in time for your meeting on Thursday.

The text is complete. Though There are some silly Things about it, eg: I have splashed scientific names about far too much and, on reflection, would have been more sensible to use the Latin name on only the first time that a species is mentioned. Also, although I say the text is complete, there are appendites on soils and fauna missing, as is the Ust of references.

Equally, you will note that some of the maps are not there (!), and that the regetation map does not have the distribution of the main species marked. All this I intend to put right, but in the meantime you will have to work it out for yourseld!

But the parts that matter most (or so I like to imagine) are there, namely the outline history, vegetation description and conclusions. I hope they will prove as some value.

with all good wishes,

Yours

Paul

1. BACKGROUND

This study of the Stanmore Country Park is the result of a number of visits made to the area during the period 1977-79 and covering the spring, summer and early autumn seasons. Originally intended to be only a field survey, it soon became clear that the character of the area today could be explained only through looking at the land-use history and pattern of past change. Inevitably, therefore, the survey extended to include a certain amount of documentary research.

The result is something of a hybrid between a straightforward ecological description of the Park and an investigation into its landscape history. Since the two things are inter-dependent, I believe this to be an appropriate technique to choose but in neither respect should this be regarded as more than an interim report. Both ecologically and historically, there is ample scope for more detailed investigation. What follows, however, may provide a basis for such studies as well as being of possible value as a background for management.

2. THE AREA

The Stanmore Country Park, designated in 1978, occupies 78 acres (31.5 hectares) of land in the area bounded by Wood Lane to the north, Brockley Hill to the east, the London Road to the south, and Dennis Lane to the west. Not only is it close to a large urban population; it is within a few minutes' walk of Stanmore Station. The Park is only part of larger area of land within G.L.C. ownership and is close to Pear Wood, about which I have previously reported to the Authority. It is also within a short distance of a much larger complex of public open space, comprising Stanmore Common, Harrow Weald Common, Bentley Priory and Weald Wood, part of which is scheduled as a Site of Special Scientific Interest. Together with adjacent agricultural land and golf courses, it comprises an area of considerable scientific, landscape, and recreational value.

3. GEOLOGY AND TOPOGRAPHY

The Stanmore Country Park lies on the southern flank of a ridge of Pebble Gravel which, although broken in various places, extends across North London from Pinner Hill to Enfield. According to the Geological Survey, the Park mostly lies on London Clay, just below an outcrop of Claygate Beds (see Map A). A fairly superficial investigation, however, suggests that this is a misleading simplification. Older embankments within the Park area contain abundant Pebble Gravel, whilst other patches of the same material are possibly solifluction gravels brought down slope under freeze/thaw conditions during the Ice Age. Elsewhere, the soils have a higher sand content than would be found in London Clay, and probably include material washed down from the sandier Claygate Beds. Finally, in at least two places in the Park there are signs of past excavation, possibly for gravel or clay working.

The highest parts of the Park lie just below the 400 foot contour (120m), the lowest at a little more than 300 feet (90m). The overall slope is to the south, but the outstanding topographical feature is the deeply cut valley of the small (and apparently un-named) stream which rises in Cloisters Wood and flows south through Stanmore to join the Edgware Brook and, eventually, the River Brent. This stream may well be the "Stanburn", mentioned by C. F. Baylis in his "Short History of Edgware and the Stanmores in the Middle Ages" (1957).

SOILS

No attempt was made to carry out a comprehensive soil survey, but an auger was used to compare the profiles on the upper slopes of compartment 12 with those in the valley bottom. (For an explanation of the compartments, see below.)

Both sites showed essentially brown earth soils, the lower one being more gleyed and with a slightly higher pH throughout the profile, suggesting a nutrient downwash; the upper site appeared to have a higher sand content and a slight variation in pH, suggesting some leaching. The upper site was in false oat (Arrhenatherium elatius) grassland, the lower in tufted hair grass (Deschampsia caespitosa).

For a full description of the two profiles, see Appendix I.

There is nothing particularly remarkable or unexpected about these results, but they do point to the probable contrast in soil types that underlies the distribution of the two main grassland associations in the Country Park.

With reference to the soils, it is interesting to note that a resident on Dennis Lane informed me that compartment 13 had been stripped of its turf some years before. This could explain the peculiar complex of species to be found there at present, and the disappearance of the stream channel, well developed in compartment 12, when it enters this area.

5. THE HISTORICAL CONTEXT

At the time of the Domesday Survey of 1086, the northern part of Middlesex, including Stanmore, had a low density of population, little arable land and much woodland. (Campbell, 1962). Stanmore is recorded as having wood for 800 swine, though this does not necessarily mean the actual number of animals present so much as the number that the woodland was capable of supporting.

It seems probable that these woodlands were a survival of the original forest cover that established at the end of the Ice Age, and that one of the earliest areas of clearance into it was along the line of Watling Street - which runs just to the east of the Country Park - and especially in the vicinity of the Roman settlement of Sulloniacae, at Brockley Hill. Whether the composition of the original woodland was cak-hornbeam (Querous sp./Carpinus betulus), however, is less certain. Evidence from Epping Forest and Hampstead Heath suggests that the original forest on the higher sands and gravels in North London was cak-lime (Querous sp./Tilia cordata), and that the hornbeam became common at a relatively late date. (Baker, Morey and Oxford, 1978; Girling and Greig, 1977). On the London Clay itself the main constituent of the woodland understorey appears to have been hazel (Corylus avellana); this species is well represented within the Park area.

Although there is no area of well-established woodland within the present Park boundaries, historical associations discussed below make it a feature of some significance. Most of the woodland was originally coppiced, a practice which survived into the twentieth century, but which was already in decline by the late nineteenth with the disappearance of traditional markets.

The commons of Stanmore and Harrow Weald, adjacent to the Park, were described by Trimen and Dyer in The Flora of Middlesex (1869) as fine heathland and were still noted for their heathland flora at the end of the century. However, Kent's description of them as still heathland in

1975 owes more to their historic condition than to their appearance at that time; essentially, today, they are silver birch (Betula pubescens) woodlands with a rapidly developing understorey of oak (Querous robur) and beech (Fagus sylvatica).

The economy of Stanmore remained essentially rural until the arrival of the railway in 1890. The gravel ridge and steep clay slopes were not, however, well suited to arable farming and their main production was in grass - especially as improved communications encouraged regional specialization. Proximity to London is held to have boosted hay production in Middlesex in the eighteenth and nineteenth centuries and the crested dog's-tail grass (Cynosurus cristatus) - indicative of old pastures (Hubbard, 1954) - was known as "the Hendon Bent". But the productivity around Stanmore was low: in the reign of Henry III it was given the lowest rating of any parish in Middlesex, and in 1822 William Cobbet certainly thought little of the area around the present Park - "it is miserable land from Stanmore to Watford".

It seems unlikely that the classic three field system ever really took hold in Middlesex (Collins, 1953), with scattered plots and irregular field shapes providing the pattern until the general enclosure during the Napoleonic Wars. Presumably the Tithe Award for Stanmore reflects the consolidation of such units into blocks (Map B), as it does the predominantly pastoral nature of the rural economy of that time (Map C). Similarly, the 1931 map of the First Land Utilization Survey suggests a continuity of grassland as the main land-use

6. THE ECOLOGICAL AND HISTORICAL CONTINUITY

The vegetation compartments of the Country Park today can be related directly to the field boundaries of 1838; in places there is good reason to suspect they may be far older. Thus, the stream which today marks the boundary between compartments 10, 7 and 9 (and is followed by 8) follows the parish division between Stanmore Magna and Stanmore Parva. Although for part of the way following a natural feature, it winds away from the stream to form a sinuous curve characteristic of pre-Parliamentary enclosure, "eating into" the south west side of Cloisters Wood. Possibly it represents just that: an early enclosure of original woodland.

Similarly, the boundary between compartments 7, 5 and 6 may well mark the edge of the former extent of Cloisters Wood. Not only does it possess that characteristic sinuous shape, continuing the margin of the existing wood, but is marked by a ditch and bank with old trees along it, including hornbeam and sessile oak (Quercus sessiflora).

There are other, more ambiguous, historical features in the Park's landscape. The boundary between the present compartments 4 and 5 is followed by a vestigial trackway which follows the alignment of Kerry Avenue and appears to continue northwards; it does not however appear on either the 1838 Tithe Map or the First Edition of the 6" Ordnance Survey.

The peculiar depression in compartment 6 is marked on the 1864 Ordnance Survey as a "well" (though it was obviously on a scale far larger than any feature normally so named) and the field in which it was situated was in 1838 named "Blue Pond Field". Just north of it, in compartment 5, there is a small area which is suggestive of past disturbance. A map of the 1930's shows a building at this point. The track on the west side of the electricity sub-station appears to have been connected

with this.

Compartment 3 is also something of an enigma: it looks like an old pit, with traces of an access track leading into it on the north west side. The 1838 map marks a pond on this site; by 1864 it had disappeared, to re-appear in the 1930's as a patch of open grassland surrounded by trees. Whatever its origin, and however complex its history, it is today a major influence on the vegetation pattern.

The massive cak scrub invasion into the former separate field units is from the old hedgelines; there is no evidence of a planting history within the Park (with the exception of a small group of Scots Pine (Pinus sylvestris)), and the population must represent a genetic as well as historic continuity. For most of the fields, and most importantly the wet parts of compartments 9 and the lower parts of 7 and 13, there seems to have been a continuous history of grassland for at least 143 years (though in the case of compartment 13 this would appear to have been seriously disrupted in recent times); if the generalizations of the various writers on the rural economy of Middlesex hold true for the Park area, then that continuity may well be much longer.

D. H. Kent, in his <u>Historical Flora of Middlesex</u> (1975) has sketched the major changes that have taken place in the vegetation of the County. During the period 1869-1970, 78 species were lost to Middlesex, mostly through habitat destruction as a result of urban development, the felling of woodland, the declining of traditional usage on common land, drainage and agricultural improvement. Against this, 18 native species have been discovered in the County since 1869, and today, of the total of 1,109 species recorded for Middlesex, no fewer than 245 are of alien origin.

7. THE PATTERN OF CHANGE

It is easy to see what is happening to the Stanmore Country Park. After centuries of continuity, the traditional land-use has been abandoned. The agriculture was never - so far as one can gather - intensive, but grazing and hay production served to maintain the grassland communities. Until the advent of myramatosis in the 1950's the rabbit population too must have assisted in this process.

The survival of former hedgelines, and especially of hedgerow oaks, provided a ready source of seed-parents for rapid invasion of scrub into the former field units. Although other, shrub, species such as the common bawthorn (Crataegus monogyna) and bramble (Rubus fruticosus agg.) are important in some areas, it is interesting to note that over much of the Park the oak is assuming a pioneer role.

In compartments 1 and 13, on the wetter grasslands, ash (Fraximus excelsior) is a major component in the scrub development. Whilst there are other localities where this can be seen (notably at Covert Way Field, Enfield), it is a rare phenomenon. Yet it is only within the last twenty or thirty years that we have been able to see scrub succession on London Clay. The "classio" writers such as Tansley (1939) assumed that succession would be towards oak "climax", through an intermediate stage in which such species as hawthorn and bramble provided a protection for the seedling trees.

What is happening appears to be rather different. Not only is the actual pattern of succession more diverse, but it also seems probable that, on the lower and wetter slopes, ash, together with oak, is a major constituent of the developing woodland.

These changes are of interest in their own right, but they are also leading to a loss of diversity as the more open grassland communities are reduced in size.

The Stanmore Country Park is not of outstanding scientific value because of the rarity of any of the species to be found within it. Some of the plants are, however, diminishing elsewhere and therefore of particular interest. Amongst these are ramsons (Allium ursinum), wood anemone (Anemone nemerosa), cowslip (Primula veris), cuckoo flower (Cardamine pratensis), common figwort (Scrophularia nodosa), greater burnet saxifrage (Pimpinella saxifraga), heath groundsel (Senecio sylvaticus), pepper saxifrage (Silaum silaus), sneezewort (Achillea ptarmica) and meadow vetchling (Lathyrus pratensis).

Some of these, as little as twenty or thirty years ago, were still relatively common plants; in other parts of Britain, some of them still are. Their disappearance from the local area, or from the region, is explained by the rate and scale of habitat loss, and especially the reduction of old pasture, wet areas, and open-canopy woodland. It is upon the survival of these habitats, and the balance maintained between them, that the future ecological - and recreational - interest of the Stanmore Country Park will depend.

METHOD OF SURVEY

The survey method adopted was unashamedly broad-brush, and deliberately descriptive rather than quantitative. As a starting-point, both the current 1:10,000 Ordnance Survey sheet and the 1:1,250 map produced by the G.L.C. Valuer and Estates Department were used to plot the existing and former field boundaries (the latter being checked through field observation). Seasonal visits spread over three years enabled a visual impression of the vegetation in each compartment to be made, and a picture of the total pattern to be built up.

An "eyeballing" approach of this kind may be open to criticism on theoretical grounds, but it has the virtue of enabling a relatively large area to be covered when time is at a premium; moreover, it can always be followed by a more quantitative approach at a later date.

The historical aspects of the survey were able to touch on only some of the available documents, but these at least serve to illustrate the importance of the past influences on the present ecology and landscape.

9. THE NAMING OF THE COMPARTMENTS

To start with, each compartment was designated simply by a number. But numbers are terribly impersonal and, as the importance and interest of the historical aspects of the survey became evident, it seemed appropriate to use the old field names, where possible, to define the different parts of the Country Park. The names used are largely those of the Tithe Award of 1838. Some may seem a little odd: thus compartments 1,2 and 3 do not add up to the forty acres that the field measured in 1838 - but the fact that the rest of it now lies under the bricks and mortar of Glanleam Road seemed no reason to alter the name. Where a field was given no name, or where (as in the case of 10 and 13) two fields had the same name, that of the owner or tenant was used. Sir Robert Smirke has a more tangible memorial in Bloomsbury, but perhaps the shades of John Hall and Humfrey Thomas might find their commemoration appropriate.

Map D shows the distribution of the compartments.

10. VEGETATION DETAIL: THE COMPARTMENTS

(1) LOWER FORTY ACRES

This compartment differs from the rest of the Country Park in being fenced against public access and used for grazing. It was visited in 1977, 1978 and 1979 but no marked change in the vegetation was noted over this time and, during the period of the survey at least, the grazing pressure did not appear to be very intensive.

Essentially, the area is one of rough grassland with false oat-grass (Arrhenatherum elatius) as the dominant, being invaded by oak (Quercus robur) and ash (Fraxinus excelsior), ranging in height from newly established seedlings to young saplings of up to three metres. (The fact that the seedlings are establishing and that there is little obvious damage to the young trees supports the view that the grazing is light.) There is also a scattering of bramble (Rubus fruticosus agg.) clumps, especially on the higher slopes and in the north east corner, where it is mixed with field rose (Rosa arvensis).

The north west corner of the compartment appears to be wetter, with tufted hair-grass (Deschampsia caespitosa), hard rush (Juncus inflexus) and soft rush (Juncus effusus).

This corner also appears to be the source of the ash invasion, the parent trees being in the old hedgeline bordering the northern side of the compartment. The relative scaroity of this feature has already been noted. Assuming ash to be a pioneer species (as it appears to be on this site), and providing there is no check to or deflection of the succession, then one would predict the seral stages here to be open grassland, followed by bramble, then ash and oak, finally leading to oak dominance. This fairly orthodox interpretation tallies with the evidence presented by Duffey (1974), who cites ash as one of a number of scrub species on dry shallow calcareous soils, deeper calcareous soils, dry light neutral soils, wetter neutral soils and very wet neutral soils.

The brown earth soils of the Stanmore Country Park would appear to fit into the neutral categories, with wetter conditions and some nutrient enrichment on the lower slopes due to downslope accumulation. Ash is known as a component of mature woodland in valley bottoms; it also appears quite frequently as a standard tree in old hedgerows on a range of sites. Yet as a pioneering species in the early stages of woodland, ash is unusual in the North London area; the fact is that little is known about the pattern of succession on the London Clay and it is possible that on the lower slopes the ash should be regarded as a "climax" species.

Generally, the compartment has a rich and diverse flora. Apart from those noted above, other species recorded were cock's foot grass (Dactylis glomerata), timothy grass (Phleum pratense), yorkshire fog (Holcus lanatus), common bent (Agrostis tenuis), common mouse-eared chickweed (Cerastium fontanum), birdsfoot trefoil (Lotus corniculatus), tufted vetch (Vicia craoca), red clover (Trifolium pratense), white clover (Trifolium repens), yellow vetch (Vicia lutea), common sorrel (Rumex acetosa), broad-leaved dock (Rumex obtusifolius), yarrow (Achillea millefolium), common gorse (Ulex europaeus), crab apple (Malus sylvestris), creeping buttercup (Ranunculus repens), dog rose (Rosa canina), common hawthorn (Crataegus monogyna), meadow buttercup (Ranunculus acris), black knapweed (Centaurea nigra), rose-bay willow herb (Epilobium angustifolium), ragwort (Senecio jacobaea), scarlet

pimpernel (Anagallis arvensis), autumn hawkbit (Leontodon autumnalis). In 1838 this area was part of a block of land held by John Hall and is recorded as pasture; together with compartments two and three it formed one large field that extended to the south of the present Park boundary as far as what is now called the London Road. It was again recorded as grassland in 1931 and the variety of its flora at the present time suggests a continuity of land use.

(2) UPPER FORTY ACRES

This compartment is composed of dense scrub, much of it wych elm (<u>Ulmus glabra</u>), but with extensive stands of blackthorn (<u>Prumus spinosa</u>), common hawthorn (<u>Crataegus monogyna</u>) and oak (<u>Quercus robur</u>) and enclosing small patches of grassland. The whole surrounds the pit (compartment three), the origins of which are obscure.

The elm scrub has developed through extensive suckering from a number of dead trees; the blackthorn appears to have spread from the hedge to the south west. The oak scrub has mainly developed from the old hedgeline which marks the western boundary of the compartment: as with other hedges in the Park, it has some fine specimen standard trees of perhaps 200+ years and a degraded bank and ditch feature. In the north west corner the oak scrub, which is up to c. 4-5 metres in height, has beneath it the remains of a number of yellow ants' (Lasius flavus) nests, indicative of former open grassland conditions.

Little light reaches the woodland floor beneath the elm and blackthorn scrub and the ground vegetation is sparse. The moss Fissidens sp. is fairly plentiful, however, and other species noted include greater stitchwort (Stellaria holostea), lords and ladies (Arum maculatum), ramsons (Allium ursinum), three-veined sandwort (Moehringia trinervia), stone parsley (Sison amomum), cowslip (Primula veris), male fern (Dryopteris felix-mas), and ivy (Hedera belix).

Mixed in with the oak scrub is elder (Sambucus nigra), bramble (Rubus fruticosus agg.) and dog rose (Rosa canina); beneath there is false oat-grass (Arrhenatherum elatius) and fescue grasses (Pestuca spp.), as well as wood anemone (Anemone nemerosa) and heath bedstraw (Galium saxatile).

The open areas are of two types. The three more southerly glades (2a) contain a relict acid grassland vegetation, with such species as red fescue (Festuca rubra) and sheep's fescue (Festuca ovina), yorkshire fog (Holcus lanatus), tormentil (Potentilla erecta), heath bedstraw (Galium saxatile), lesser stitchwort (Stellaria graminea), creeping thistle (Cirsium arvense), spear thistle (Cirsium vulgare), brown bent (Agrostis canina), timothy grass (Phleum pratense), smaller cat's tail (Phleum nodosum), bird's foot trefoil (Lotus corniculatus) and common hemp-nettle (Galeopsis tetrahit). Occasional clumps of tufted hair-grass (Deschampsia caespitosa) point to locally wetter conditions. The most northerly glade (2b) is dominated by meadow buttercup (Ranunculus acris).

(3) FORTY ACRES PIT

This large and deep depression appears to be an old working, possibly for clay, and to have been excavated from the north west side. The junction with the Claygate Beds, near which this is situated, was often worked for local brick manufacture in the nineteenth century, but certain aspects of the vegetation here (see below) suggest a more complex situation. One thing is certain: there was a pond marked at this point in 1838.

There are some old crack willow (Salix fragilis) on the margin of the old pit, and a stand of goat willow (Salix caprea), some wych elm (Ulmus glabra) scrub which is spreading in from the banks as the middle of the pit dries out, as well as large patches of bramble (Rubus fruticosus agg.) and nettle (Urtica dioica). Other species species noted include agrimony (Agrimonia eupatoria), greater burnet saxifrage (Pimpinella saxifraga) and dogwood (Cornus sanguinea), all of which are indicative of lime-rich conditions. This is totally out of character in relation to the known geology of the area, but in other parts of North London would indicate a patch of decalcified glacial till.

Also recorded from here are honeysuckle (Lonicera periclymenum) and bittersweet (Solanum dulcamara).

(4) JOHN HALL'S FIELD

This compartment, which was one of the few fields known to have been under the plough in 1838, shows a complex pattern. The most open area (4a) consists of fescue grasses (Festuca spp.) with heath species such as tormentil (Potentilla erecta) and heath bedstraw (Galium saxatile). This is being invaded on the east side by oak (Quercus robur), which is spreading in from the old hedgeline mentioned in relation to Upper Forty Acres (see above). The spreading crowns of the standard trees in this hedge reflect the open conditions in which they developed; the oak scrub (4b) is well established and was estimated to be some 20-30 years old: it is supressing such field layer plants as heath bedstraw (Galium saxatile), common hemp nettle (Galeopsis tetrahit), field mouse-ear (Cerastium arvense), yorkshire fog (Holcus lanatus), smooth hawksbeard (Crepis capillaris), annual meadow grass (Poa annua) and sheep's sorrel (Rumex acetosella), as well as some clumps of bramble (Rubus fruticosus agg.), dog rose (Rosa canina) and hawthorn (Crataegus monogyna).

In the north east corner there is a small patch of cak (Quercus robur) and silver birch (Betula pendula) scrub, on the slope beneath which there is a strip of false cat-grass (Arrhenatherum elatius) dominated grassland, with smaller cat's tail (Phleum nodosum), yorkshire fog (Holcus lanatus), creeping buttercup (Ranunculus repens), barren strawberry (Potentilla sterilis), cock's foot grass (Dactylis glomerata), creeping thistle (Cirsium arvense) and smooth hawksbeard (Crepis capillaris).

The track that borders this area (4i) contrasts with the grassland in two respects: (i) in form, i.e. away from the most heavily trampled part the same species occur as those in the open grassland, e.g. cock's foot grass (Dactylis glomerata), creeping thistle (Cirsium arvense), creeping buttercup (Ranunculus repens), but are shorter; (ii) in specific composition, in the most heavily trampled area, where annual meadow grass (Poa annual), perennial rye grass (Lolium perenne), white clover (Trifolium repens), common sorrel (Rumex acetosa), stinging nettle (Urtica dioica), red clover (Trifolium pratense), hoary plantain (Plantago media) and common daisy (Bellis perennis) were all to be found.

Towards the southern end of the compartment, there is an extensive area of gorse (<u>Ulex europaeus</u>) (4h), which was burnt during 1976 or 1977. The old bushes are dead, but there is abundant regeneration; this area also carries some impressive stands of forglove (<u>Digitalis purpurea</u>).

At the extreme southern end of the compartment there is an area of

wetter grassland, dominated by tufted hair grass (Deschampsia caespitosa) and being invaded by sorub oak (Quercus robur) (4f); also, the blackthorn (Prunus spinosa) has spread from the boundary hedge to form a dense stand (4g). The old hedgeline here carries some scots pine (Pinus sylvestris).

(5) UPPER BLUE POND FIELD

This compartment is being invaded by oak (Quercus robur) scrub from two sources. The first of these, on the east side, is a line of mature oaks of about 250 years in age, marking the position of a former hedge from which the shrubs have been removed. The trees stand on a slight bank which continues north beyond the boundary of the Park, across what was for a short time a golf course. A discernible hollow on the west side of the bank looks as if it was the old track, though the present track lies on the east side of the trees and is in alignment with both Kerry Avenue and a field gate in the northern boundary hedge.

The second source of scrub invasion is the hedgeline which marks the western boundary of the compartment. Again, the shrubs have been removed, but the surviving trees are particularly noteworthy. Most of the trees are old common oak (Quercus robur) but there is a fine example of sessile oak (Quercus petraea) and a mature hornbeam (Carpinus betulus). These trees are standing on a pronounced bank, much of which appears to be of Pebble Gravel, with a distinct ditch on its eastern side. It is significant that both the bank and ditch can be traced to the north, and follow the sinuous line of an old hedge which is continuous with the northern and western boundary of Cloisters Wood. The irregular character of this line strongly suggests a pre-Parliamentary enclosure date and is a distinctive feature on large scale maps as far back as the Tithe Award of 1838. The line also seems to continue between compartments seven and six, and probably . represents a "ghost" feature (cf. Rackham, 1974) marking the former extent of a larger woodland of which the present Cloisters Wood is a surviving fragment. If this supposition is correct, then it is a feature of considerable historical interest.

Unfortunately, little of the hedge survives within the Park, but a sixty metre stretch was examined between the northern Park boundary and the present edge of Cloisters Wood. Over this length a total of eight species of woody plants was recorded, namely common cak (Quercus robur), hazel (Corylus avellana), common hawthorn (Crataegus monogyna), blackthorn (Prunus spinosa), holly (Ilex aquifolium), bramble (Rubus fruticosus agg.), beech (Fagus sylvatica) and crab apple (Malus sylvestris). All eight occurred in the first thirty metre stretch, and five of them in the second, to give an average of 6.5 species per thirty metres:

"Hooper's hypothesis" of hedgerow dating, which argues that every woody species represents one hundred years of existence, is now well established and often mis-applied. In the case of the Stanmore Country Park, however, the hedge morphology and documentary evidence support the case that this is one of the oldest field boundaries, not only in the immediate area, but probably in the district. Although only a small section was available for survey, the tentative age of some 650 years, giving a fourteenth century date, tallies with what is known about major enclosure of woodland in North Middlesex.

The eastern margin of the compartment consists of false oat-grass (Arrhenatherum elatius) dominated grassland being invaded by oak

(Quercus robur) scrub. It is interesting to note that, despite the presence of sessile oak (Quercus petraea) in the hedgeline, this species is not a major feature of the scrub development. This tree is of extremely limited distribution in North London and Hertfordshire today, but is said to have previously been quite common (Salisbury, 1913); its changing status in the area has been discussed by Moxey (1978) and its presence in the Park adds to the very few localities where it is known to survive.

Other species within the rapidly diminishing grassland here are common hemp nettle (Galeopsis tetrahit), red fescue grass (Festuca rubra), yorkshire fog (Holcus mollis), common bent (Agrostis tenuis), sheep's fescue grass (Festuca ovina), creeping buttercup (Ranunculus repens), with localised patches of common sorrel (Rumex acetosa). Most of the oak (Quercus robur) appear to be about fifteen years old; at the time of the survey many of them were showing signs of dieback in their upper branches. Presumably this is related to the drought of 1976 and is a physiological response to the fall in the water table that took place at that time.

The patches of common sorrel, together with some rose-bay willow herb (Epilobium angustifolium), are probably also related to the same period; the former appears to be an early coloniser of bare patches, and the latter is of course well known as an invader of burnt areas.

The compartment contains a number of nests of the yellow ant (Lasius flavus), and there is evidence of a certain amount of grazing by rabbits (Oryctolagus cuniculus). In terms of both animals, the upper slopes here, as elsewhere in the Park, have some similarity to the higher parts of the Bentley Priory Open Space, a mile or more to the north west and on a geologically similar substrate.

Towards the southern end of the compartment, there is a distinct area (5c) which appears to have been subject to some past disturbance. It takes the form of a slight hollow, with a lot of gorse (Ulex europaeus), but also has sycamore (Acer pseudo-planatus) of up to 2.5 metres in height, some silver birch (Betula pendula), bramble (Rubus fruticosus agg.), elder (Sambucus nigra), blackthorn (Prunus spinosa) and dog rose (Rosa canina). It is in this area that a building is marked on maps of the 1930's.

The southern boundary of the compartment is marked by the pathway established by the G.L.C.; this is a recent feature, cutting across the continuity between this compartment and Lower Blue Pond Field to the south. For the most part it follows a logical ecological sub-division, but it cuts through a damp hollow (5d and 6c), with such species as hard rush (Juncus inflexus), soft rush (Juncus effusus), creeping thistle (Cirsium arvense), creeping buttercup (Ranunculus repens), bittersweet (Solanum dulcamara), water pepper (Polygonum hydropiper) and ox-eye daisy (Leucanthemum vulgare). These plants occupy a distinct hollow, with damp soil, and a small but definite embankment on its south side carrying gorse (Ulex europaeus), broom (Cytisus scoparius). The 1931 map shows a pond at this point, and it was probably related to the building of the same period.

(6) LOWER BLUE POND FIELD

The history of this compartment would repay further investigation. In 1838, together with (5), it formed a single unit called "Blue Pond Field". The feature which gave its name to the field was in the centre of the present compartment (6) and appears to have been oval in shape. It seems unlikely that this was a mere stylistic convention,

as other ponds appear to have been represented as something approximate to their actual shape.

The existing depression in the middle of this compartment marks the old pend site. It survived as an open water area until at least 1919. The 1931 Land Utilization Survey is ambiguous on this point, since the feature is shown on the map without being given any land use category.

Today, the compartment falls into a number of divisions:

6(o), apparently a small pend on the northern edge of the area, has already been discussed in relation to Upper Blue Pend Field; 6(b) represents the gorse (Ulex europaeus) on the embankment of this small pend, as well as two other small patches carrying the same species.

On the eastern side of the compartment, 6(a) was originally part of Forty Acres and the small part of it that remains open carries the same false-oat grass (Arrhenatherum elatius) dominated community. There is dense scrub development along the eastern edge, and around the electricity sub-station at the southern end, close to Kerry Avenue (6(d)). As elsewhere in the Park, the main scrub species is oak (Quercus robur), growing here up to a height of c. 2.5 metres. Mixed with it there is a certain amount of dog rose (Rosa canina), common hawthorn (Crataegus monogyna), gorse (Ulex europaeus) and broom (Cytisus scoparius). The last two are on the verge of being shaded out and presumably are relics from an earlier, more open, stage of the succession.

The western side of the compartment is marked by a double line of cak (Quercus robur), which appear to mark the route of a former track. In addition, the hedge carries some dead wild cherry trees (Prunus avium) and hazel (Corylus avellana).

The field layer which underlies the scrub includes creeping buttercup (Ranunculus repens), yarrow (Achillea millefolium), cock's foot grass (Daotylis glomerata), common rush (Juncus conglomeratus), soft rush (Juncus effusus); common hemp-nettle (Galeopsis tetrahit), Oxford ragwort (Senecio squalidus), groundsel (Senecio vulgaris) and tufted vetch (Vicia cracca).

The borders of the depression are covered by scrub, of both cak (Quercus robur) and wych elm (Ulmus glabra), but the old pond site itself is essentially a ruderal community, with a few birch (Betula pendula); the field layer includes stinging nettle (Urtica dioica), creeping thistle (Cirsium vulgare), common vetch (Vicia sativa), red clover (Trifolium pratense), white clover (Trifolium repens), ox-eye daisy (Leucanthemum vulgare), broad-leaved dock (Rumex obtusifolius), coltsfoot (Tussilago farfara) and angelica (Angelica sylvestris).

Apart from the Blue Pond itself, this compartment was arable in 1838.

(7) HILLY FIELD

The higher, eastern slopes of this compartment are dominated by oak (Quercus robur) scrub, mostly 2.5-3.0 metres in height but becoming less dense towards the stream which forms the western boundary. On the northern side of the path which divides the compartment into two, there is also a small amount of hornbeam (Carpinus betulus) regeneration.

The scrub is advancing into false cat (Arrhenatherum elatius)
dominated grassland, mixed with creeping bent (Agrostis stolonifera),
cock's foot grass (Dactylis glomerata), yorkshire fog (Holcus mollis),

common sorrel (Rumex acetosa), rose-bay willow herb (Epilobium angustifolium), red fescue (Festuca rubra), sheep's fescue (Festuca ovina), smaller cat's tail (Phleum nodosum), crested dog's tail (Cynosurus cristatus), self-heal (Prunella vulgaris) and heath groundsel (Senecio sylvaticus).

A fairly abrupt break of slope towards the stream separates this community from that on the lower slopes, which are dominated by the tufted hair-grass (Deschampsia caespitosa). Since the original survey, a certain amount of oak (Quercus robur) scrub which had been killed by fire has been removed from the southern side of the path.

These lower slopes become noticeably wetter towards the stream and the vegetation includes a number of species which favour damp conditions, e.g. marsh thistle (Cirsium palustre), great willow-herb (Epilobium hirsutum) and pepper saxifrage (Silaum silaus). According to Kent (1975), this last is a well-established grassland species around Stanmore, but it is not one that I have previously noted; Dony (1967) considers it to be unusual in Hertfordshire, where it is associated with well-established pastures on the London Clay. Duffey et al. (1974) list it as one of the species characteristic of flood meadows and especially base-rich soils. Its former widespread occurrence on the heavy Middlesex clays (Trimen and Dyer, 1869) suggests that it is part of an association once more widespread in the North London area, reduced in status because of field drainage and habitat destruction generally.

Other species noted in this compartment include creeping thistle (Cirsium arvense), Oxford ragwort (Senecio squalidus), creeping buttercup (Ranunculus repens) and bramble (Rubus fruticosus agg.).

The hedgerow which forms the southern boundary of the compartment is largely composed of wych elm (<u>Ulmus glabra</u>) scrub, the parent trees, inevitably, having been stricken by Dutch elm disease; there are also some standard oaks (<u>Quercus robur</u>).

Towards the stream, the succession towards woodland is especially well-established with a thick belt of blackthorn (Prunus spinosa) which merges into compartment (8).

(8) STREAM WOOD

The age and importance of the stream as a boundary has already been commented upon. The compartment that has developed along both sides of it is unlike any other in the Park, forming a narrow, but dense and well-matured linear wood. It shows characteristics both of "high forest" and nutrient-rich, damp conditions. Species noted here include black bryony (Tamus communis), common bawthorn (Crataegus monogyna), cow parsley (Anthriscus sylvestris), common oak (Quercus robur), bluebell (Endymion non-scriptus), blackthorn (Present spinosa), bramble (Rubus fruticosus agg.), ivy (Hedera helix), hazel (Corylus avellana), hairy bittercress (Cardamine hirsuta), goat willow (Salix caprea), great willow-herb (Epilobium hirsutum), field rose (Rosa arvensis), dog rose (Rosa canina), elder (Sambucus nigra), holly (Ilex aquifolium), male fern (Dryopteris felix-mas), ash (Fraxinus excelsior), sycamore (Acer pseudo-planatus), silver birch (Betula pendula), brown birch (Betula pubescens), yew (Taxus baccata), stinging nettle (Urtica dioica) and broom (Cytisus scoparius).

Some of the hazel shows signs of having been coppiced in the past.

The morphology of the stream itself is worthy of note: it is very clearly a natural feature, not an artificial ditch; it is deeply entrenched and shows signs of incipient meandering.

(9) SIX ACRES

The vegetation of this compartment is strikingly different from the remainder of the Park, though it has some affinities with the lower slopes of Hilly Field (see above). It is relatively free from scrub encroachement and is dominated over a large area by tufted hair grass (Deschampsia caespitosa), indicative of poor drainage conditions.

Many of the other species noted here are also characteristic of wet grassland associations and include cow parsley (Anthriscus sylvestris), great willow herb (Epilobium hirsutum), common rush (Juncus conglomeratus), soft rush (Juncus effusus), sneezewort (Achillea ptarmica), marsh thistle (Cirsium palustre), grass vetchling (Lathyrus nissolia), meadowsweet (Filipendula ulmaria), and narrow bird's foot trefoil (Lotus tenuis). At least three of these respectively, meadow vetchling and narrow bird's foot trefoil - are uncommon in the North London area.

In the north west corner there is some scrub invasion by oak (Quercus robur), goat willow (Salix caprea), hawthorn (Crataegus monogyna) and field rose (Rosa arvensis). It is however still a fairly open community, with - apart from tussocks of tufted hair-grass (Deschampsia caespitosa) - tormentil (Potentilla erecta), self-heal (Prunella vulgaris), hogweed (Heracleum sphondylium), stinging nettle (Urtica dioica), hedge woundwort (Stachys sylvatica) and, more oddly, crab apple (Malus sylvestris).

The only scrub invasion into the main area of the compartment is by a few patches of bramble (Rubus fruticosus agg.); in the extreme western corner, where the conditions are especially wet, there is a small patch of michelmas daisy (Aster novi-belgii), presumably originating from garden refuse. The adjoining hedge is of suckering wych elm (Ulmus glabra) and oak (Quercus robur).

(10) HUMPREY THOMAS' FIELD

In 1838 Humfrey Thomas held two fields, this compartment and number (13). Both were simply called "Field next to Spinney". I suspect the spinney in question was the origin of the wooded strip, now spreading into scrub, which separates the two but is more extensively developed in the latter.

It is not a simple compartment, although its main characteristic is clear enough - namely, scrub extending into formerly wet grassland, dominated by the tufted hair grass (<u>Deschampsia caespitosa</u>). The scrub invasion seems to have come from all four boundaries of the compartment, but, to judge by the surviving open area, the advance from Stream Wood, on the eastern side, has been the slowest. Here there is a dense but relatively narrow band of developing woodland in which cak (<u>Quercus robur</u>) is intermingled with silver birch (<u>Betula pendula</u>), hawthorn (<u>Crataegus monogyna</u>), dog rose (<u>Rosa canina</u>), blackthorn (<u>Prunus spinosa</u>), crab apple (<u>Malus sylvestris</u>), sycamore (<u>Acer pseudo-planatus</u>) and goat willow (<u>Salix caprea</u>).

The former northern hedge boundary, despite its surviving trees, is now hard to distinguish in the oak (Quercus robur) scrub that has spread from it. There is also some regeneration of wych elm (Ulmus glabra) from old stumps within the hedgeline. This higher part of the compartment has some silver birch (Betula pendula) and bramble (Rubus fruticosus agg.).

This merges southwards into more open communities, part of which include a block of field rose (Rosa arvensis) and a scatter of bramble (Rubus

fruticosus agg.). The field-layer components include rose-bay willow herb (Epilobium angustifolium), tormentil (Potentilla erecta), broad-leaved willow herb (Epilobium montanum), common sorrel (Rumex acetosa), creeping thistle (Cirsium arvense), hard rush (Juncus inflexus), common chickweed (Stellaria media), timothy (Phleum pratense), soft rush (Juncus effusus), broad-leaved dock (Rumex obtusifolius), bittersweet (Solanum dulcemara), groundsel (Senecio vulgaris), ribwort plantain (Plantago lanceolata) and meadow buttercup (Ranunculus acris).

(11) SIR ROBERT SMIRKE'S FIELD

The southern boundary of this compartment is marked by the old hedgeline, already discussed with reference to the previous compartment. It is responsible for the belt of scrub, dominated by oak (Quercus robur), which has spread out from it. A second area of scrub, which consists of silver birch (Betula pendula) and oak (Quercus robur) coming through bramble (Rubus fruticosus agg.), is situated in the north east corner.

The more open area is dominated by false oat grass (Arrhenatherum elatius), together with yorkshire fog (Holcus lanatus), timothy (Phleum pratense), tormentil (Potentilla erecta), common chickweed (Stellaria media), yarrow (Achillea millefolium), creeping thistle (Cirsium arvense), broad-leaved dock (Rumex obtusifolius) and lesser stitchwort (Stellaria graminea).

(12) SPRING FIELD

This is one of only two compartments (the other being Hilly Field) to be named after topographical features on the 1838 map. The appropriateness of the old name was not fully appreciated until the present vegetation was examined in detail.

The north west corner of the compartment, with the entrance into the Park from Dennis Lane, carries mixed scrub of oak (Quercus robur), elder (Sambucus nigra), sycamore (Acer pseudo-planatus), dog rose (Rosa canina) and bramble (Rubus fruticosus agg.). There is also a fringe of scrub, with michelmas daisy (Aster nova-belgii) and nettle (Urtica dioica) bordering Dennis lane, where there is some suckering of wych elm (Ulmus glabra) from the hedge.

The more open upper slopes carry false oat grass (Arrhenatherum elatius) with the same range of associated species as noted in the previous compartment, of which it is really an extension. (The old field boundary which used to separate Spring Field from Sir Robert Smirke's Field has apparently disappeared).

In this more open area, however, there is evidence of change. A combination of trampling and mowing have created bare patches along the pathway and the presence of annual meadow grass (Poa annua), dandelion (Taraxacum vulgaria) and greater plantain (Plantago major) in its vicinity is significant. It is also noticeable that some of the grass is becoming tussocky and invaded by young hawthorn (Crataegus monogyna).

But it is the lower slopes, and especially where the stream has cut down to form a small but clearly defined valley, that the main interest is to be found. The spring at the head of the valley is now completely hidden in a dense clump of bramble (Rubus fruticosus agg.).

On the steeper, lower and wetter areas the dominant is tufted hair grass (Deschampsia caespitosa), with soft rush (Juncus effusus), common

rush (Juncus conglomeratus), hard rush (Juncus inflexus), self heal (Prunella vulgaris), tormentil (Potentilla erecta), silverweed (Potentilla anserina), cuckoo flower (Cardamine pratensis), creeping buttercup (Ranunculua repens), lesser celandine (Ranunculus ficaria), timothy (Phleum pratense), yarrow (Achillea millefolium), marsh thistle (Cirsium palustre), false for-sedge (Carex obtrubae) and greater bird's foor trefoil (Lotus uliginosus). Of the foregoing, the last is noteworthy as being a native of marshes and wet heaths, now somewhat restricted in its distribution.

Towards the southern end, this suite of species is mingled with others which originate from the broken hedgeline separating Spring Field from Spinney Field, e.g. oak (Quercus robur), suckering wych elm (Ulmus glabra), dog rose (Rosa canina), black nightshade (Solanum nigrum), groundsel (Senecio vulgaris), brown birch (Betula pubescens), nipplewort (Lapsana communis) and ox-eye daisy (Leucanthemum vulgare).

It is worth noting that whitethroats (Sylvia communis) were observed displaying in this compartment during the breeding season. Although previously fairly common in the London area, this species declined dramatically in 1969 and is only slowly regaining its former status (Montier, 1977). The presence of the birds here suggests that the Park - and in particular the low, rank vegetation with thick patches of bramble found in this compartment - provides an optimum habitat.

(13) SPINNEY FIELD

Bordered by the gardens of houses on Dennis Lane in the south west, and old hedgelines to the north east and north west, this compartment, becoming progressively narrower, slopes down to Stream Wood. As with most other areas of the Park, its present-day pattern of vegetation reflects the advance of scrub from the old agricultural boundaries.

The central part is predominantly coarse grassland, mainly tufted hair grass (Deschampsia caespitosa), but with a mixture of damp grassland and ruderal species that at first seemed puzzling. Thus cuckoo flower (Cardamine pratensis), common rush (Juncus conglomeratus), soft rush (Juncus effusus), hard rush (Juncus inflexus), meadow buttercup (Ranunculus acris), marsh thistle (Cirsium palustre) was mixed with common cleavers (Galium aparine), broad-leaved dock (Rumex obtusifolius), ribwort plantain (Plantago lanceclata), creeping thistle (Cirsium arvense), tormentil (Potentilla erecta), and yorkshire fog (Holcus lanatus). Into this there is some invasion by silver birch (Betula pendula), ash (Fraxinus excelsior) and bramble (Rubus fruticosus agg.).

An additional oddity is that the small stream which rises in Spring Field and has there formed the distinct valley already described, simply "disappears" or diffuses into this compartment, without any clear physical trace.

The explanation of these peculiarities was provided by the owner of one of the houses backing onto the area, who told me that a previous land-owner, about fifteen years ago, had removed and sold all the turf from this field.

The eastern boundary is marked by a line of old caks (Quercus robur) which has spread into a substantial thicket that is probably a development of the spinney which gave the field its name in 1838. This included some wych elm (Ulmus glabra), now felled but suckers of which are abundant. The stump of one of the old trees was examined and indicated an age of about 250 years: it is interesting to note that this pushes the date of the hedgeline back to at least the early

part of the eighteenth century. Blackthorn (Prunus spinosa), hawthorn (Crataegus monogyna) and dog rose (Rosa canina) are the main shrub species associated with this strip today; field layer species noted include bluebell (Enymion non-scriptus), red campion (Silene dioica), ivy (Hedera helix), sanicle (Sanicula europaea), hedge woundwort (Stachys sylvatica) and dog violet (Viola riviniana).

On the western side, bordering the Dennis Lane houses, there is a narrow band of oak (Quercus robur), silver birch (Betula pendula) and bramble (Rubus fruticosus agg.), together with michelmas daisy (Aster nova-belgii) and other garden escapes, the origins of which are rather too obvious. The southern boundary is marked by goat willow (Salix caprea) and a small plantation of aspen (Populus tremula); the origins of this last are puzzling.

11. THE OVERALL PATTERN

The overall pattern of vegetation in the Stanmore Country Park is a simple one. The old agricultural hedges have provided a source of parent material from which scrub is advancing into grassland. The main invader is oak (Quercus robur), though blackthorn (Prunus spinosa), dog rose (Rosa canina) and hawthorn (Crataegus monogyna) are locally important. In a few places, the succession seems to be following the classic pattern, in which the tree species are developing in the shelter of shrubs, but over most of the Park the oak is seeding successfully directly into grassland without this intermediate phase.

An interesting variation is to be seen in two areas, Lower Forty Acres and Spinney Field, where ash (<u>Fraxinus excelsior</u>) is a significant component of the advancing scrub. Wych elm (<u>Ulmus glabra</u>), suckering from the base of dead trees, is also important in a few sites, notably in Upper Forty Acres.

There are three main grassland types. Tufted hair grass (Deschampsia caespitosa) dominates in the lower and wetter parts of the Park: in Six Acres, the more low-lying parts of Hilly Field, and Spring Field a small number of interesting herb species are also to be found. This association probably represents a wet meadow community formerly widespread in the area.

Most of the higher grassland is dominated by the false cat grass (Arrhenatherum elatius), which is also the main species in Lower Forty Acres. This grass has always been widespread in Middlesex and was at one time used in seed mixtures, though at Stanmore it is mixed with yorkshire fog (Holcus lanatus) - which is generally regarded as a weed - and cock's foot grass (Dactylis glomerata), which used to be an important species in hay production. Only in Lower Forty Acres is there a significant herb element in the association.

John Hall's Field is dominated by Fescues, notably red fescue (Festuca rubra) and sheep's fescue (Festuca ovina); although the former is tolerant of a wide range of conditions, both are associated with grass-heath.

It has been argued that the grassland types reflect a long continuity of land-use. Yet Arrhenatherum is said to be indicative of past disturbance, such a seeding or ploughing. (Duffey, 1974). It is strange that the fields where it is abundant in the Park are not those with a known arable history, whereas John Hall's Field, with its <u>Festuca</u> community, is known to have been under the plough in 1838.

It is therefore difficult to draw firm conclusions about the history of the grassland, and tempting to suggest that the story may be more complicated than appears. Thus it should be noted that areas under Arrhenatherum, suggesting disturbance, also carry yellow ants' nests, which indicate the opposite! It is possible of course that disturbance took the form of seeding rather than ploughing as such, but the floristic variety in the grassland areas and the presence of indicators of old pasture such as smaller cat's tail (Phleum nodosum) and crested dog's tail (Cynosurus cristatus) support the idea of continuity.

12. PAST INTO FUTURE

It is not claimed that this survey provides a comprehensive account of the Stanmore Country Park, either ecologically or historically. It does, however, attempt to outline the main characteristics of the area at the present time and may provide a basis for further investigations.

W. G. Hoskins (1955) likened the English landscape to a palimpsest, with the past patterns of occupation and settlement, imperfectly erased, showing through to the modern surface. The analogy is useful if inexact, for, as the Stanmore Country Park shows, it is not simply that the past patterns show through those on the ground today; they largely determine them.

The collection and mapping of field data during the course of this investigation has repeatedly demonstrated the extent to which the past history provides the key to understanding the ecology. Close to one of the main Roman roads out of London, lying across a manorial boundary, with field divisions of varying ages, including the probable bounds of an ancient woodland and with a probable continuity of landuse over much of its area, the Park appears to offer a microcosm of what the North Middlesex landscape used to be like in the past.

Until the present century, steep slopes and poor soils mitigated against agricultural progress in North Middlesex. The establishment of the London Green Belt arrested suburban encroachement at the 1930's line. In the postwar years, the anticipation that the land might be released for building seems to have forestalled some of the hedge removal and other agricultural developments which have modified other parts of the agricultural landscape around London. Now the area has been secured as a Country Park.

Twenty years ago the species and habitats contained within the Park were commonplace. Today they are not, and some are on the verge of rarity. It is arguable that their survival in the Park is the consequence of neglect; equally, neglect could lead to their demise.

The ecological interest and value of the Stanmore Country Park lies in the survival of well-established grassland communities and in the genetic continuity that is represented in the development of woodland from the pld hedgerows. To argue that one grassland type is more important than another would be pointless: the drier Pescue associations of John Hall's Field cannot be weighed against the false oat grassland of Forty Acres or the wetter communities of Spring Field and Six Acres. Nor should the importance of any one species be stressed as more than its value as an indicator of habitat conditions. For the past thirty years conservationists have tended to indulge in cosmetic tinkering with species whilst habitats have been eroded and the plants and animals dependant upon them, all too often, pushed to the verge of extinction.

The habitats and associations found in the Park today have evolved in response to past management practices; the key to their survival lies in the development of sympathetic management procedures which will maintain the existing range, preserving genetic variety and continuity. Drainage of the wetter areas would be as destructive as the use of artificial fertilisers on the upper slopes. On the other hand, letting the advance of scrub continue until it blankets the entire area would simply achieve the same result on a longer time-scale.

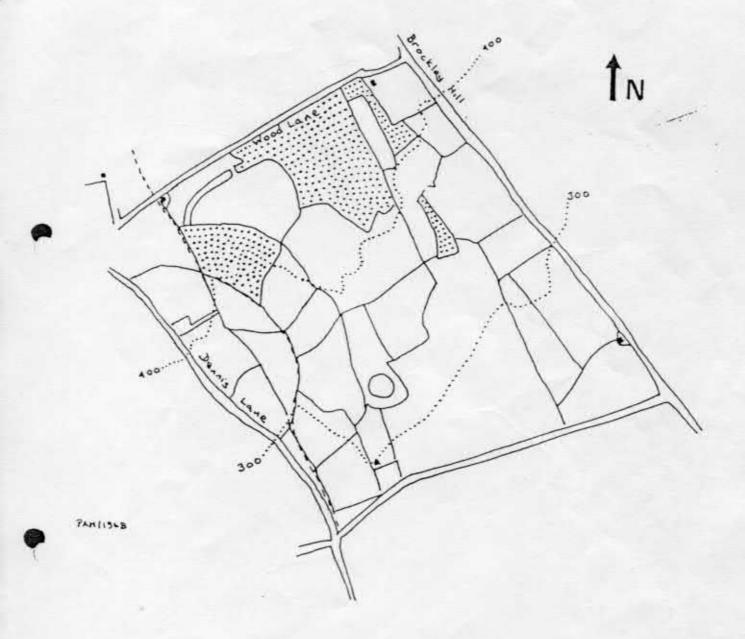
Equally, it should be stressed, the uncontrolled spread of woodland would, ironically, totally obliterate the field patterns developed over the past centuries and bring about a loss of scenic variety that would diminish the recreational appeal for the average visitor.

Thus the argument is for a management policy which will maintain a a balance of scenery and habitats of viable size, and which is sympathetic to the historical features of the Park and will seek to maintain their continuity.

Large open water areas

THE REAL PROPERTY OF THE PERSON OF THE PERSO

Woodland



THE WARREN HOUSE ESTATE IN 1864

Based on the Ordnance Survey First Edition, 6 inch:1mile

WARREN HOUSE ESTATE IN 1974

