

RECREATION, MANAGEMENT AND LANDSCAPE IN EPPING FOREST: c.1800–1984

R. L. LAYTON

Field Studies Council: Epping Forest Conservation Centre, High Beach, Loughton, Essex

ABSTRACT

The proximity of Epping Forest to London has ensured that its role as an important centre for recreation has continued for several hundred years. It is also a Site of Special Scientific Interest, encompassing a diversity of habitats, many of which have an ancient origin. The existence of detailed historical and contemporary records provide a unique opportunity to study the themes of recreation, management and environmental impact, including their interaction during the last two centuries. As well as considering the historical trends in the Forest as a whole, the paper examines two areas in particular detail.

INTRODUCTION

THE INCREASE of leisure time in modern society has resulted in a growth of the number of people engaged in outdoor recreational pursuits. To academics, especially those in the social sciences, it has presented an exciting new field of research and investigation (Burton, 1970). Attention has focused on the themes of recreational activities, management or environmental impact. However, few studies have sought to encompass all three aspects. This paper aims to investigate the relationship between visitor behaviour, land management and environmental impact, as demonstrated by Epping Forest during the nineteenth and twentieth centuries. The paper is divided into three sections. The first outlines the general trends in recreation, Forest management and woodland structure; the second examines the interrelationships between these three aspects; the third uses two case studies to demonstrate these changes in detail.

EPPING FOREST—GENERAL TRENDS

The Study Area

Epping Forest is an area of some 2428 hectares of ancient woodland, plains, marsh and open water. It extends in a crescent from Wanstead, 8.6 kilometres from the City of London, to beyond the town of Epping in the north-east part of the Metropolitan Green Belt, a distance of about 19 kilometres (Fig. 1). The Forest was formerly a Royal Hunting Forest and since 1878 has been managed for recreation by the Corporation of London, while in 1953 much of the area was designated a Site of Special Scientific Interest. Topographically, the main portion of the Forest lies astride a NE–SW trending ridge in the North with a smaller N–S lower ridge to the South. The geology of the main ridge consists predominantly of London Clay and Claygate Beds with localised cappings of Bagshot Beds and pebble gravel. The southern portion consists of London Clay with outcrops of glacial sands and gravels. The geology appears to have influenced the vegetation type. Thus, at a very general level, beech (*Fagus sylvatica*) and silver birch (*Betula pendula*) predominate on the better drained and more acid sands and gravels of the ridge

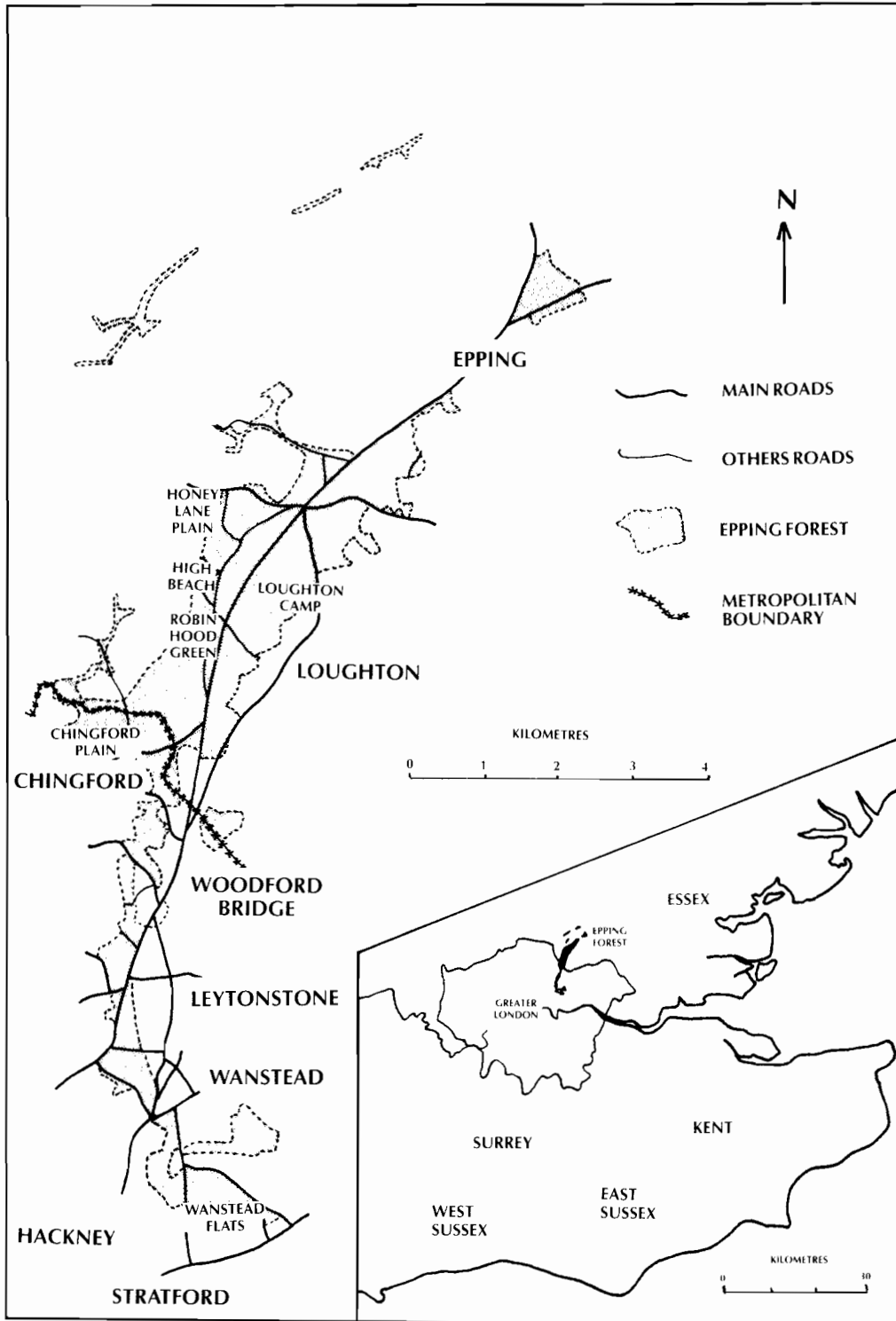


FIG. 1.
Site locations.

top while oak (*Quercus* spp.) and hornbeam (*Carpinus betulus*) dominate the London Clay. Similarly, springs and flushes at the base of the relatively permeable sands and gravels are characterised by willow (*Salix* spp.) and herbaceous plants such as soft rush (*Juncus effusus*) and purple moor-grass (*Molinia caerulea*).

Visitor Activities

The Sabbath has always provided a physical and social need as well as a religious one. Certain days were also set aside as religious festivals while for some people religious pilgrimage provided a change of environment as well as a spiritual experience. The town of Waltham adjacent to the Forest was an area of such pilgrimage. Throughout the Middle Ages, a miracle-working cross seems to have remained an object of pilgrimage from about 1030 A.D. until the Abbey was dissolved in 1540 (Dean, 1973). Public recreation has been a minor land use of the Forest since at least the sixteenth century (Addison, 1945). In fact, it was suggested at the Select Committee on Royal Forests, 1863, that the inhabitants of the neighbourhood and the metropolis had exercised that right since the time of the Conquest. Visitors were considered to have the right to footpaths and, provided that no damage was caused, were allowed as "permissive trespassers" to wander away from the paths (Report from the Select Committee on Royal Forests, 1863).

Epping Forest has been the venue for a wide range of recreational activities. Hunting was an early and popular form of recreation, though a prerogative of an elite minority. The Royal Forest of Essex was established in the 1130's in the second phase of afforestation under Henry I rather than the first phase under William I (Rackham, 1978). Its original use ended in the seventeenth century when interest in the Forest for hunting by the Crown declined. Licences were also issued to individuals by the Court of Attachments (a Forest Court) to hunt animals other than deer in the Forest. This continued into the nineteenth century. In addition, there was an organised Easter Monday Hunt where, on Easter Monday, a deer was hunted by Officials and Citizens of London. Under the auspices of the Mayor the hunt had some dignity; but by the nineteenth century, shorn of this leadership it deteriorated and was supplemented with various fairground activities. It ended in 1882 when it had to be suppressed by the police as it developed into a riot. Another major attraction was the Fairlop Fair. This was initiated in about 1720 by an entrepreneur, Daniel Day. It developed rapidly and, at its height in the mid-nineteenth century, was regarded as the greatest drinking bout of the year for East Londoners. Epping Forest was also the venue for other crowd attractions such as prize fighting, whilst team sports have always formed an important part of the recreation of the area. Cricket was being played in the Forest by the middle of the last century and when the Conservators took over the management of the Forest numerous football, cricket and hockey clubs applied for, and were granted, pitches on which to play; this tradition continues today.

The majority of the people visiting the Forest, however, engaged in informal recreation. As in Britain generally, it was probably in the nineteenth century that more widespread interest began to emerge—pioneered by the Victorians, inspired by the enthusiasm of such individuals as Rousseau and Wordsworth. However, the potential for recreation could not have been realised if land had not been available. Indeed, during the nineteenth century enclosure was rapidly reducing the amount of available land. Fortunately, the Government was not unsympathetic; in 1833 a Select Committee on Public Works stressed the necessity for open space in the neighbourhood of large towns for the working classes. The result was the establishment of a number of parks including

Victoria Park, Hackney, in the 1840s, whose benefits were apparent. Thus, it was stated that were it not for Victoria Park, chronic asphyxia would impend over the densely packed masses of the East End (*The Daily News*, August 2, 1871). By 1863, Victoria Park was crowded during fine weather and more space was needed. The drive to preserve further land for recreation was assisted in 1865 by formation of The Commons, Open Spaces and Footpaths Preservation Society. Its basic philosophy was that the inhabitants of urban areas had a right to enjoy land for recreation. The Society had an influence on the passing of the Metropolitan Commons Act 1866, which made the enclosure of London's commons practically impossible. It was also involved in the general movement of saving a number of open spaces for recreation including Epping Forest.

Table 1. *Estimates of visitor numbers in Epping Forest*

Date	Area/Activity	Number
1806	Troops reviewed by George III on Wanstead Flats	10,000
1804-62	Attending the Easter Hunt. Mounted (on foot)	700-1200 (500-600)
1813-63	People from London at High Beach and Honey Lane Plain	1000s-10,000s
1838-63	Children brought to Epping Forest by van proprietor on an average day (an exceptional day)	1050-1600 (2400)
Pre 1851	Excursionists to High Beach by van weekly before the railway	800-1200
Pre 1851	Excursionists to High Beach by van weekly after the railway	400-600
1863	Industrious classes of London in Forest on Monday mornings	20,000
1863	Visitors in the Forest and at Fairlop Fair	100,000-200,000
1865	Average numbers in Epping Forest on Sundays and Mondays	50,000
1865	Visitors to Epping Forest on Easter Monday by railway and various channels	200,000
1880	Visitors to the Forest on Whit Monday	300,000-400,000
1882	Visitors to Wanstead Flats Fair on Easter Monday	50,000
1882	A Foxhunting Meet	200
1897	Passengers to various stations—Easter Monday	42,864
1897	Passengers to various stations—Whit Monday	51,356
1897	Passengers to various stations—Jubilee Day	37,300
1897	Passengers to various stations—August Bank Holiday	54,396
1914	Bank Holiday visitors to Epping Forest	100,000
1920	Whit Monday arrivals at Chingford Station	100,000
c. 1920	Visitors on Chingford Plain	13,000
c. 1977	Visitors to Chingford Plain	8000

Visitor Numbers

Detailed information on early visitor numbers is sparse, coming from isolated references in newspapers and Government Committee reports. Furthermore, as these are estimates, one has to question the reliability and validity of such information. However, there were some good criteria in deriving visitor numbers as the roads were subject to tolls and it was easy to count passengers on trains (Report of the Select Committee on Royal Forests, 1863). Despite the shortcomings, the figures (Table 1) show that a surprisingly large number of people were visiting Epping Forest in the early part of the nineteenth century. Thus, for example, throughout the first half of the century High Beach and Honey Lane Plain were the resort of tens of thousands of people (Report of the Select Committee on Royal Forests, 1863). There was also a suggestion that the numbers were increasing. It was reported that, as a natural consequence, the Forest was more than



FIG. 2.

Epping Forest in the 1870s from the *Illustrated London News* (Reproduced by kind permission of the Curator, Passmore Edwards Museum, Stratford, London E15 4LZ).

ever a “Holy day resort of the working population” (*The Times*, July 27, 1869). Large numbers came to the Forest by horse drawn vehicles. Mayhew (1851) noted that while Hampton Court was the most popular resort, High Beach, Epping Forest and Rye House, Hertfordshire, were the other favourites. One vehicle proprietor stated that he brought up to a thousand persons daily to the Forest from the Ragged Schools and Free Schools. Railway competition tended to reduce the number of these vehicles with the weekly number to High Beach declining from 40 to 20 after the introduction of the railway excursion trip (Mayhew, 1851).

Another reason for the increase in visitor numbers to Epping Forest was that nineteenth century London was expanding rapidly, with the rates of increase in south-west Essex in the late nineteenth and early twentieth centuries being exceptionally high. The inhabitants found themselves distanced from the countryside while urbanisation created deleterious conditions where many felt the need for a day out in a different environment.

Increased accessibility also influenced the number of visitors to the Forest. The building of new roads and the improvement of existing ones in the early nineteenth century made possible a larger volume and quicker flow of traffic, reducing the isolation of the Forest. The railway also increased accessibility, first reaching Essex in 1839 with a section between London and Romford via Stratford; it reached Loughton and Chingford, two settlements contiguous to the Forest, in 1856 and 1870 respectively. In the early years, the railway services were neither very frequent nor very cheap although by the

1870s most of the Essex suburban lines were providing the sort of service that daily travellers needed at a price which they could afford (Victoria County History, 1966). In addition, over holiday periods, additional trains were brought into service and concessionary fares introduced. The influence of the railway is demonstrated by the fact that when a second station was built at Chingford, half a mile nearer the Forest, the number of passengers increased by 50% (*The Echo*, June 17, 1881). A comment was also made to the Select Committee in 1865 that the presence of the railway had resulted in a larger number of visitors to the Forest (Select Committee on Open Spaces (Metropolis), 1865). The peak of railway travel to the Forest was probably reached immediately after World War I when on Whit Monday, 1920, 100,000 people arrived at Chingford Station by a service running at 5 minute intervals. The introduction of tramways also brought about improvement. In 1878, trams were running every five minutes between Aldgate and Stratford and every quarter-hour between Stratford and Leytonstone. In the 1890s, a tram service from Clapton via the Lea Bridge Road to The Rising Sun public House in Epping Forest came into operation. At the beginning of the twentieth century, the motor bus was added to communication improvement with daily services to Chingford by 1912 and to Woodford Bridge and Epping by 1914 (V.C.H., 1966). The bicycle, and later the motor car, added flexibility for the visitor. It is difficult to determine if numbers have increased or not since 1900, although one individual estimated 13,000 on Chingford Plain "in the past" compared with 8000 on a contemporary good day in 1977. Visitors now distribute themselves more widely. At the beginning of the century there was a tendency for visitors to concentrate around points of public transport, with maximum numbers at weekends and public holidays. Today, while still in concentrations, there is a greater distribution through the Forest and greater use throughout the week.

The increase of leisure time also increased visitor numbers. In 1871, Sir John Lubbock introduced the Bank Holiday Act which gave four public holidays. In addition, by the end of the nineteenth century, Saturday afternoons were becoming a holiday for many; while between the two World Wars holidays with pay increased. The problem, however, was the restricted availability of land for recreation. It was thus aptly reported as being a thousand pities that when Sir John Lubbock multiplied the people's holidays he did not take some measures to multiply the open spaces and recreational grounds in which the masses might renew their vitality, nerve and strength (*Hackney and Kingsland Gazette*, 1873). The passing of the Epping Forest Act in 1878 had the impact of increasing visitor numbers. The Act, well publicised, stressed the importance of Epping Forest as a resort for recreation—very different from the permissive trespass of two decades earlier. Contemporary accounts detailed how the Forest had gained favour with the public where "never before had such large numbers sought recreation" (*The Woodford Times*, June 2, 1882).

The "Retreats" also had some influence in encouraging visitors to the Forest. These were large buildings constructed at the end of the nineteenth century to provide meals at reasonable cost for large numbers of people on a temperance basis, with amusements such as swings, roundabouts and donkey rides. While one may argue that the retreats were only catering for a demand, once they were established they probably attracted many to the Forest. They could cater for large numbers—one at High Beach boasted a capacity of 3000–4000 children at the same time. The retreats reached their peak immediately before World War I and then declined with changing social conditions. Further development in visitor numbers has taken place since the second World War with increased car ownership, leisure time and personal disposable income.

Visitor Impact

A general observation frequently made of those involved in informal recreation is the tendency to concentrate in certain areas. A survey of High Beach showed that 19.5% of visitors stayed mainly in their cars and a further 16% stayed mainly in the grassland area, 17% walked mainly in the Forest and 47.5% walked on both grass and in the woodland (Clements, 1976). This was not a new phenomenon: in the mid-nineteenth century most of the visitors congregated at a few open spaces such as around Queen Elizabeth's Lodge and at High Beach (Howitt, 1850). A later observer recorded a large percentage clinging tenaciously to the open spaces, the fringe of the Forest or the highways with few going on and penetrating the heart of the woodland (Hawkins, c.1906). This concentration has had a significant influence upon these areas. In Epping Forest, the impact has taken various forms and there would seem to have been a continuity through the last hundred years. In the late nineteenth century, complaints were frequently made about litter, with up to a week spent cleaning up after holidays while contemporary photographs show erosion of grassland by trampling and vehicular traffic—both still a problem today. Perhaps less of a problem today are incendiary fires; in the past numerous fires, usually caused by young children, were reported over the holiday periods and rewards were offered for information leading to convictions (Epping Forest Committee Minute Book (abbr. E.F.C.M.B.), 1885).

Forest Management

The Forest was established as a Royal Hunting Forest in the 1130s. It was subsequently maintained, to a greater or lesser degree depending upon the individual monarch, for the sport of hunting. After the sixteenth century, the management came under the Surveyor General of Woods, Forests, Parks and Chases. Then in 1866 the management of crown rights and interests in the Forest were transferred to the Office of Works and Public Buildings. The objective was to enable crown rights to be used for wider purposes than was previously possible. Open spaces, especially within a short distance from the metropolis, were viewed as of great importance for recreation especially to the middle and lower classes who could not afford to leave their occupations or could not afford to spend a holiday at the seaside (*Courier*, May 5, 1871). However, no immediate action was taken due to a change in Government. Yet in the nineteenth century there was a certain willingness by the Authorities to allow recreation in Epping Forest. In 1864, although not implemented, the Great Eastern Railway obtained Parliamentary sanction to extend a railway through the Forest. Cricket was played; individuals were given permission to hunt; numerous parties of school children were brought to the Forest; and swings, roundabouts, etc., were allowed at certain localities.

Under the Epping Forest Act, 1878, management came under the control of the Corporation of the City of London, making the Forest one of the first non-park open spaces. As far as policy was concerned there were two basic strategies possible; either making the Forest into a park or a natural forest. The Act provided that "the Conservators shall at all times as far as possible preserve the natural aspect of the Forest". In the early years, some tree planting was carried out and a few ornamental lakes dug; however, during this century management has been characterised by thinning, drainage, scrub clearance and horse ride construction and generally catering for the recreational needs of visitors.

Traditional management was also carried out by the commoners. Under the pre-1878 system, commoners were allowed to use the Forest for grazing cattle, pollarding trees for

wood and turning out pigs in autumn to eat acorns and beech mast (pannage). Under the Epping Forest Act, pollarding was ended but grazing and pannage were allowed to continue, although the latter was rarely if ever taken up. The change in policy had important ramifications. Perhaps the most significant was the cessation of pollarding which has produced a large tree canopy. This has reduced the amount of light penetration and subsequently reduced the ground and field layer of herbs and epiphytic ferns, lichens and mosses. Birds, insects and small mammals have also suffered. Another effect of canopy growth has been the loss of views and vistas.

The intensity of grazing has also changed since the Act. The period has seen a steady reduction in the number of cattle turned onto the Forest by commoners. Also in the 1960s the majority of fallow deer was removed from the Forest and placed in a sanctuary, because of dog harassment and road fatalities. An attempt was made to quantify this reduction in grazing pressure by converting the numbers of deer and cattle into feeding units per hectare using the methodology developed by Peterken and Tubbs in their study on woodland regeneration in the New Forest (Peterken and Tubbs, 1965).

$$\text{Feeding Unit ha}^{-1} = \frac{\sum (5 \times \text{Number of horses}) (3 \times \text{Number of deer}) (1 \times \text{Number of cattle})}{\text{Area of unenclosed Forest land}}$$

The results (Fig. 3) show an overall reduction in grazing pressure with upturns during the second World War and also in the early 1960s when more cattle were turned onto the Forest, possibly in response to rumours of a compensation scheme. Peterken and Tubbs suggested thresholds of 1.0 units ha^{-1} and 0.7 units ha^{-1} were levels sufficient to check all regeneration and allow regeneration respectively. The problem of relating this to actual regeneration is difficult as both cattle and deer were not equally distributed throughout the Forest with cattle mainly in the south and deer in the northern part of the Forest. Also the advent of myxomatosis in the 1950s hastened the encroachment of scrub on the plains.

The graph suggests regeneration taking place after the mid 1920s. The dates cannot be substantiated although the following points can be made. In 1889, Buxton described a close cropping of vegetation by deer and cattle and expressed a fear that no young growth of trees could be hoped for while the cattle roamed in such numbers over the Forest (Buxton, 1896). Some experiments were carried out to encourage regeneration by fencing certain areas; the weakness of the method, however, was that although the cattle were kept out, the deer were able to jump the fences (Buxton, 1897). The situation was similar in the early 1920s when it was pointed out that almost all the young seedlings were doomed to destruction by the cattle (*Essex Naturalist*, Vol. XX, 1922). However, some encroachment was taking place on the more acid soils of the top of the ridge. In 1922, it was recorded that within the previous fifty years there had been a great increase in the number of birch trees in common with other parts of south-east England (Paulson, 1922). For other areas, off the ridge top, the next evidence comes from the 1950s, where it was recorded that the decline of cattle grazing had reached a stage where many areas had changed from a characteristic well-grazed turf to coarse grass and thorn scrub in which trees were becoming established (Quist, 1956).

Vegetation Structure

Epping Forest is an area of ancient woodland consisting of woodland, grassland, marsh and open water. The vegetation has for centuries been influenced by man. From an early

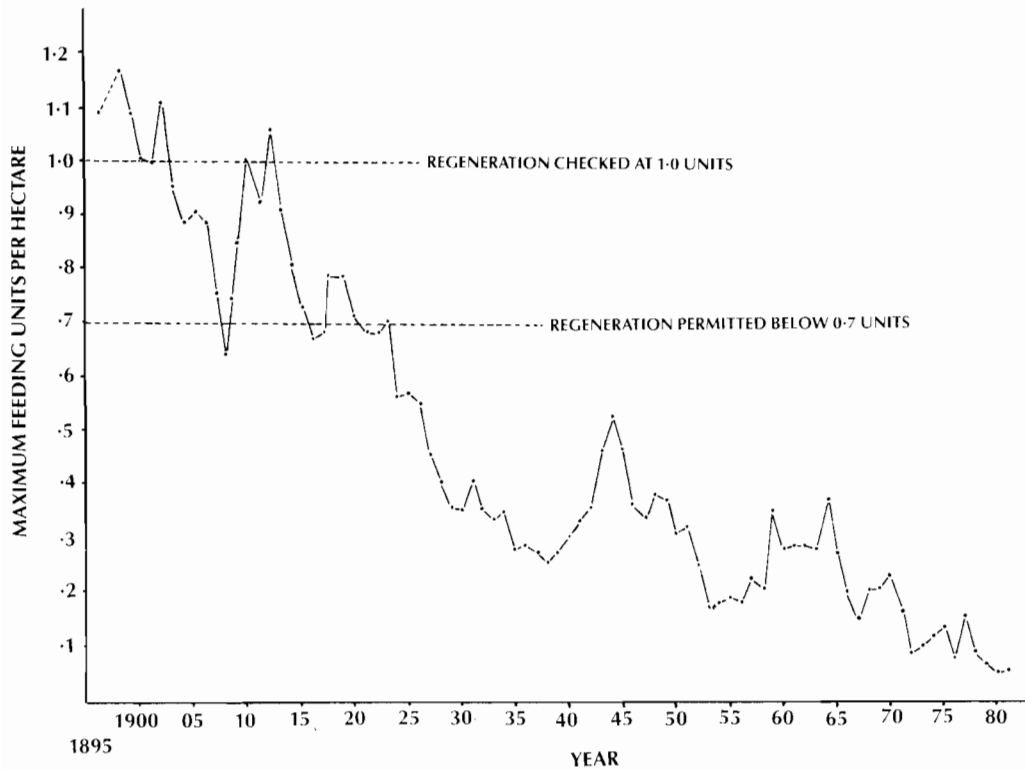


FIG. 3.

Combined maximum feeding units of deer, cattle and horses in Epping Forest 1895–1981.

date, commoners were given the right to wood-logging. The most common method was by pollarding which had a profound effect upon the woodland structure with restricted canopy and well developed understorey. The structure was changed by the occasional illegal removal of trees especially when the Forest Courts became more lax. In 1641, the estimated area of waste was about 15,000 acres (6070 ha); 12,000 acres (4856 ha) at the beginning of the nineteenth century and only 2000 acres (809 ha) in 1871. The 1878 Act restored the Forest to the 1851 situation with about 6000 acres (2428 ha).

In terms of the plains, the dominant characteristic for centuries was one of remarkable stability with certain plains of great antiquity. Indeed, it is claimed that the Chapman and André topography (a map of the County of Essex produced in 1777) was almost fully developed by 1066 (Rackham, 1978). The chronological continuity of a number of Forest Plains are recorded through the Loughton Survey of 1212 (Rackham, 1978), a plan of the Waltham Abbey area (c. 1590), a map of Forest Walks (c. 1640), the Chapman and André map (1777), the map in the Preliminary Report to the Epping Forest Commissioners (1875) and various editions of Ordnance Survey maps. However, some of the plains during the nineteenth century were enclosed and put under the plough; the ridge and furrow can still be observed in certain areas today. In addition, during the eighteenth and, increasingly, during the nineteenth century, Epping Forest became known as a collecting ground for naturalists: at this time a number of species became extinct [e.g. bird's nest orchid (*Neottia nidus-avis*), marsh fritillary butterfly (*Euphydryas aurinia*), and the black-veined white (*Aporia crataegi*)].

In terms of the grassland, probably more change has taken place in the last hundred years than in the previous seven hundred (Rackham, 1978). The most significant has been the loss of grassland due to a decrease in grazing pressure. Drainage has also resulted in the loss of wetland and associated plant species. In 1889, it was reputed that within the space of two years one of the better Forest bogs, where there had been an abundance of sundew (*Drosera sp.*) and a little *Lycopodium inundatum* (marsh clubmoss), had been drained and there was no trace of the latter and fewer of the former (Powell, 1889). Other changes include the loss of heathland due to scrub encroachment, loss of field and ground layer vegetation due to an increase in canopy size and some loss of grassland due to visitor pressure.

THE INTERACTION OF VISITOR BEHAVIOUR, WOODLAND STRUCTURE AND RECREATION MANAGEMENT

At a very basic level, the interaction between the three aspects is obvious (Fig. 4). Factors that affect visitor numbers have been discussed above. Added to this, one may include land management where visitor numbers may be discouraged or encouraged, and plant community structure which may influence the visitors' choice of site. In terms of Epping Forest, when one introduces specific aspects the interaction becomes more complex yet self-explanatory in diagram form (Fig. 5). It is the aim of the following section to demonstrate this relationship through two case studies.

AREA CASE STUDIES

Methodology

The integration of information on visitor behaviour, landscape and management has certain inherent difficulties which should be stressed from the outset. Goldsmith (1974) in looking at the environmental effect of intensive recreational pressure noted three difficulties:—

1. The difficulty of concurrently measuring both the number of people and any changes in the ecosystem.
2. The long time intervals over which changes often occur.
3. The lag between a change in the intensity of an activity and the resultant ecological effect.

Indeed, there is no necessary relationship between scales of recreational activity and scales of vegetational variation (Goldsmith, 1974). By collecting data from a long time period, it is hoped to alleviate some of the problems mentioned above and make the study more meaningful (Burden and Randerson, 1972).

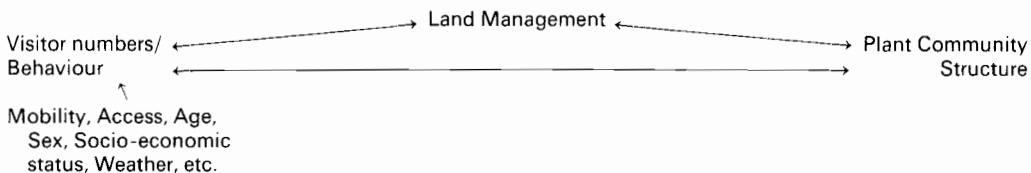


FIG. 4.
The interaction of human activities, woodland structure and land management.

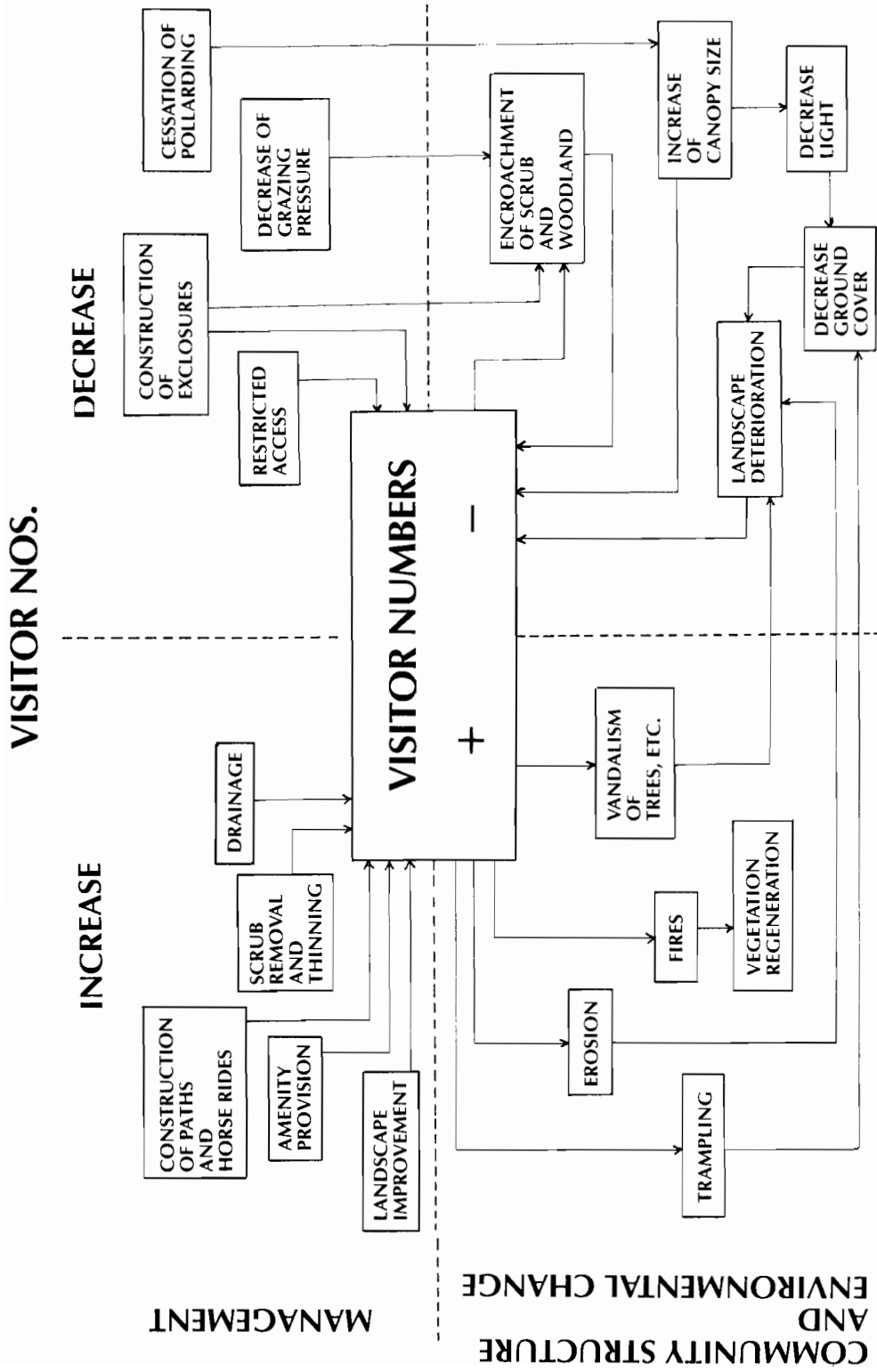


Fig. 5. Generalised relationship between woodland management, visitor behaviour and plant community structure in Epping Forest.

Data were collected from the following sources:—

- | | |
|-------------------------------|---|
| (1) Plant Community Structure | Forest Guide Books, Ordnance Survey maps, The Epping Forest Committee Minute Books, field data. |
| (2) Visitor behaviour | Forest Guide Books, newspaper articles, Government Select Committee Reports, field data. |
| (3) Management | The Epping Forest Committee Minute Books. |

Information on the three aspects was collected and collated. Trends were noted and through contemporary accounts and analysis an attempt was made to outline the relationships.

1. High Beach and The Robin Hood Green

During the second half of the nineteenth century grassland was a feature of Epping Forest; in area, it was relatively stable, being maintained by grazing and trampling pressure. Two such grassland areas were High Beach and the Robin Hood Green. High Beach was a meeting point of a number of roads and a resort, as mentioned above, for thousands of visitors. Similarly, the area of grassland opposite the Robin Hood public house, again at a cross roads, was also a location for visitor concentration set in an area of extensive grassland. It became a rendezvous for those people walking from the Lea Bridge and Leytonstone (Walker, 1873) and for excursion parties “where the town bred creatures revelled in the delights of the Forest” (*The Daily News*, July 29, 1871). It was also the stopping-off point for coach tours visiting Loughton Camp. The pub itself was an attraction and in addition at the end of the nineteenth century a temperance tent that catered for thousands of visitors was erected behind the pub. There was also a retreat at High Beach. The King’s Oak and later the Robin Hood were also the assembly points for the Epping Easter Hunt with all the associated fairground activities.

It is also interesting to speculate on the possible increase in visitor numbers to those two areas if a number of transport schemes should have materialised. In 1864, The Great Eastern Railway proposed extending a railway line across the Forest to a point 400 metres west of the Robin Hood while in the early 1880s it was proposed to construct a tramway from Chingford to the Robin Hood. In 1883, The Great Eastern Railway again proposed a route across Epping Forest—this time to a point about 800 metres from the King’s Oak, High Beach.

Apart from being a traditional site of visitor concentration there were certain other similar attractions to both places. Both had pubs in close proximity. The High Beach area was one of the areas selected by the Conservators to establish licences of swings, coco-nut shies and a donkey stand. Similarly, at various times the Robin Hood Green was used extensively; swings were set up (E.F.C.M.B., 1892); a donkey stand was built near the pub (E.F.C.M.B., 1880); a coco-nut shy was granted (E.F.C.M.B., 1890); and the publican of the Robin Hood was granted permission to level the land for football, cricket and quoits pitches in 1882—whether it was completed or not is not recorded.

At the turn of the century, therefore, both areas were popular resorts. Similarly, with the decline of grazing by cattle, deer and rabbits both areas began to contract, restricting the space available for visitors (Figs 6 and 7). It is at this point, however, that the two areas begin to differ. High Beach continued to be popular with visitors, with

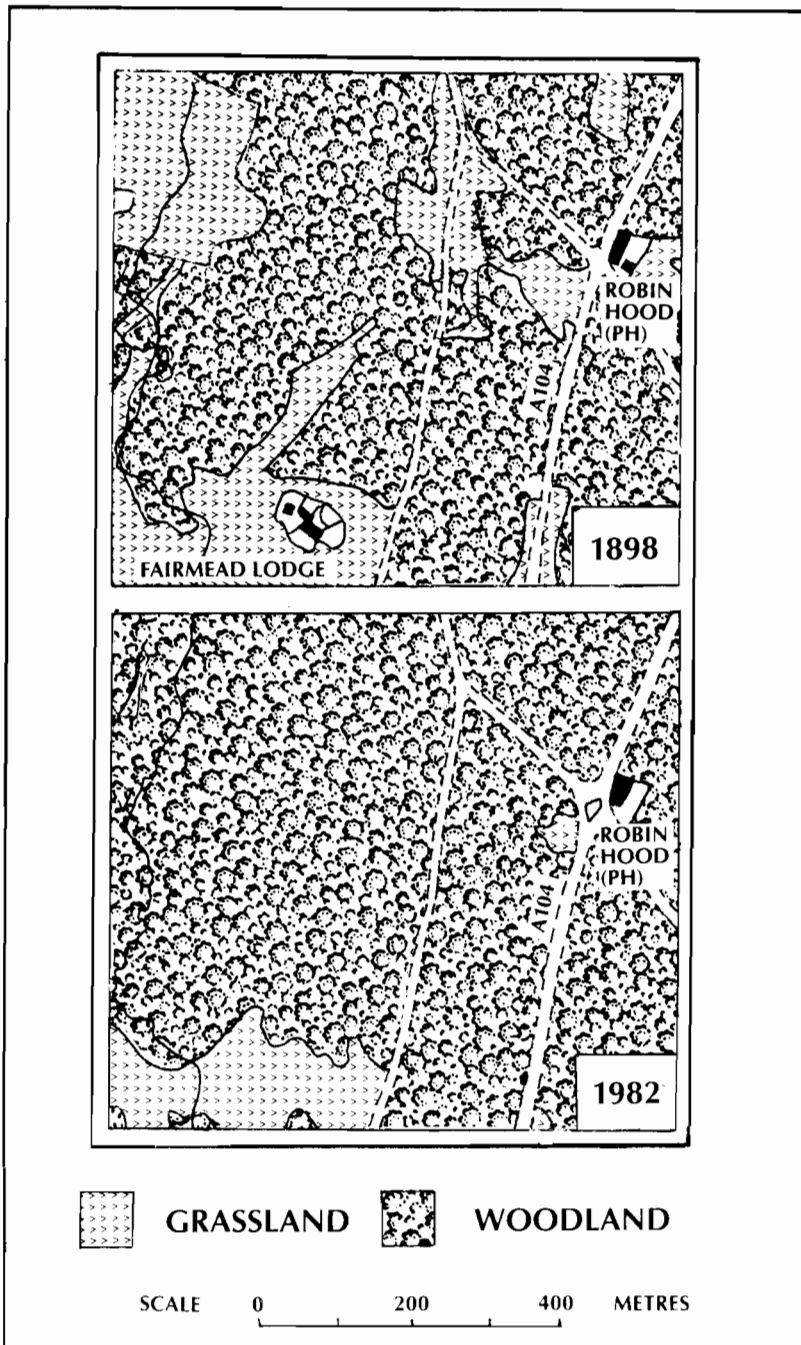


FIG. 6.
"Robin Hood" area of Epping Forest. Extent of grassland 1898 and 1982.

the attraction of pubs, a view across the Lea Valley, a refreshment hut and car parking facilities. The Robin Hood Green, in contrast, declined in popularity. While no one reason can be given for the decline a number of possible causes can be suggested. The

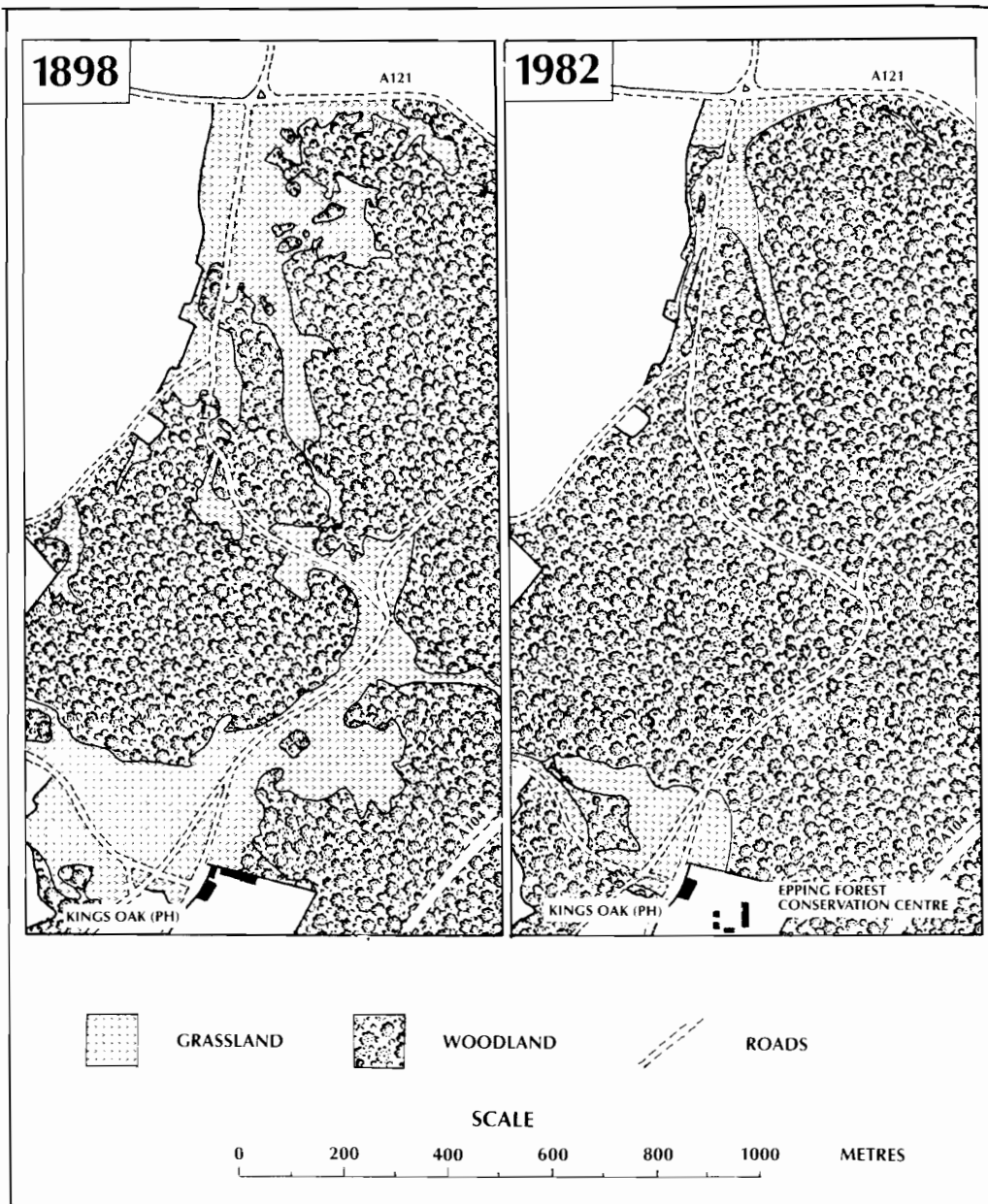


FIG. 7.
Grassland distribution of part of Epping Forest 1898 and 1982.

main North–South road was becoming progressively busier and about 1935, a roundabout was constructed at the cross roads and the road widened. The net result was to make the area less attractive although, as late as 1953 the Green was still a popular halting place as the bank of high ground provided a vantage point from which to watch the world go by (*The Sphere*, 1953). Another factor that disadvantaged the Green was a decrease in accessibility through a lack of car parking facilities. Accessibility was

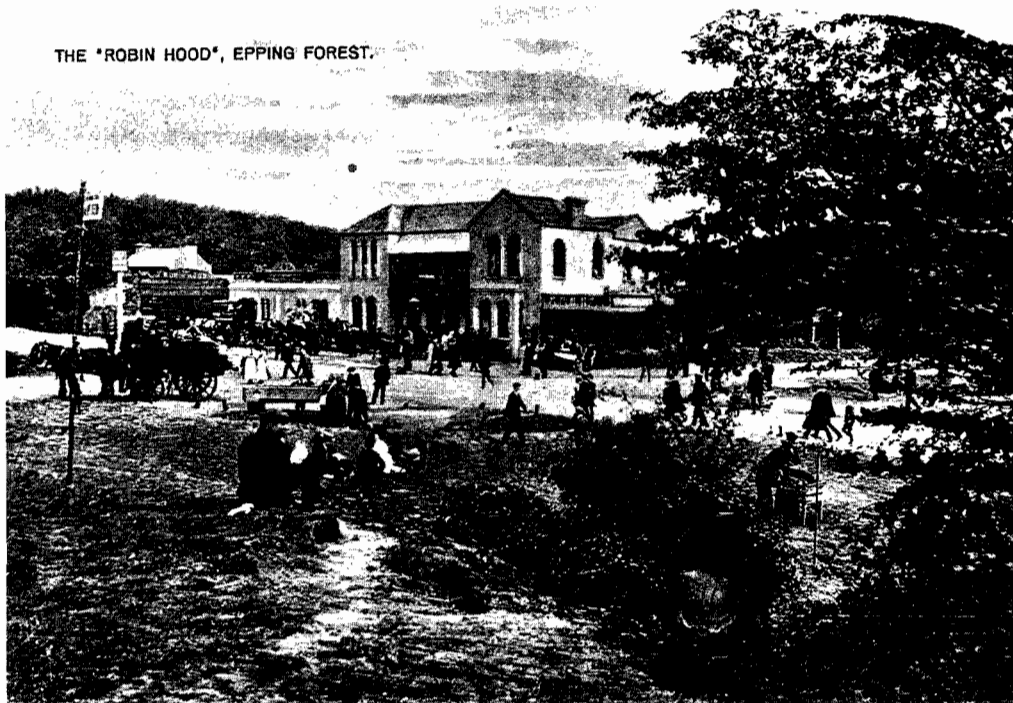


FIG. 8.

The Robin Hood, c. 1900 (Reproduced by kind permission of the curator, Passmore Edwards Museum, Stratford, London E15 4LZ).



FIG. 9.

The Robin Hood 1985. A former popular resort now rarely visited, in part due to increased traffic and the lack of parking facilities.

adequate in the past for pedestrians and cyclists but today's dependency upon the car has left the area isolated. The pub itself is still relatively popular (Figs. 8 and 9).

The resulting differential of visitor trampling pressure has produced differences in vegetation. In the High Beach area it has resulted in heavy erosion with extensive areas of top soil exposed. The main grass species are annual meadow grass (*Poa annua*) and wavy hairgrass (*Deschampsia flexuosa*) with sheep's sorrel (*Rumex acetosella*), creeping bent (*Agrostis stolonifera*), smooth stalked meadow grass (*Poa pratensis*), Yorkshire fog (*Holcus lanatus*), heath bedstraw (*Galium saxatile*) and mat grass (*Nardus stricta*). None of these species, except possibly the meadow grass, reach their maximum height, except in drainage ditches and there is no encroachment by tree species. In contrast, the Robin Hood Green has encroachment of oak, silver birch and holly (*Ilex aquifolium*). The wide range in sapling size suggests a fairly constant colonisation. The grass generally reaches its maximum height except along a footpath that crosses the edge of the grassland area. The main grassland species are Yorkshire fog (*Holcus lanatus*), creeping bent (*Agrostis stolonifera*), oat grass (*Arrhenatherum elatius*), tufted hair grass (*Deschampsia cespitosa*), with brown bent grass (*Agrostis canina*) cocksfoot (*Dactylis glomerata*), sheep's fescue grass (*Festuca ovina*), red fescue (*Festuca rubra*), timothy (*Phleum pratense*) and wood poa (*Poa nemoralis*).

Loughton Camp

This section again outlines the basic interaction between management, vegetation and visitor behaviour and attempts to give an explanation of why fewer people visit Loughton Camp today than did at the end of the last century. Loughton Camp is the site of an Iron Age settlement lying on a steep sided interfluvium between the two main branches of the Loughton Brook, a tributary of the River Roding. The Camp was first noted by B. H. Cowper in 1872.

In the late nineteenth century the site was relatively accessible (Fig. 14). A short distance to the north, a pathway, the Clay Road, had been constructed about 1860 as access for proposed building development. Then, around 1895, the Conservators cut a glade from the Clay Road towards Loughton Camp to break up the straight lines of the Clay Road. The area was thinned in 1927 and again in 1947. To the south, the area was also relatively accessible with an area of open grassland, Debden Slade, extending from the Green Ride to the base of the slope leading to Loughton Camp. The area between the Camp and Debden Slade was relatively open. Indications of this come from a number of sources. Firstly, Ordnance Survey maps show a number of areas of heath and grassland; secondly, there are numerous references in guide books to the open nature of the vegetation "where all about the Camp the heather beautified the ground in due season with its countless bells" (Mills, 1911), and to several tracks leading from Debden Slade to the Camp (Buxton, 1923). Finally, a sketch taken in about 1886 showed Debden Slade visible from Loughton Camp (Lindley, 1886–87).

As well as accessibility, Loughton Camp had other attributes that made it a resort for visitors. There was, of course, the fact that it had recently been identified as an historic site. Excavations were carried out in 1882 by General Pitt-Rivers and in 1926–27 by Hazzledine Warren. In addition, it was also a view point described as commanding one of the finest views of the Forest (Lindley, 1886–87). The situation was lofty, though lower than High Beach, and the view from the south stretched far away over Essex to the Hills of Kent (Johnson, 1878). It was also recommended in guide books as one of the most



FIG. 10.

The Robin Hood Green, c. 1900 (Reproduced by kind permission of the curator, Passmore Edwards Museum, Stratford, London E15 4LZ).



FIG. 11.

The Robin Hood Green 1985. An area formerly with a short sward now with oak encroachment due to a decrease in trampling pressure and a decline of deer, cattle and rabbits.

KINGS OAK HOTEL, EPPING FOREST.



FIG. 12.

The King's Oak, c. 1900 (Reproduced by kind permission of the curator, Passmore Edwards Museum, Stratford, London E15 4LZ).



FIG. 13.

The King's Oak 1985. An area that has continuously been a popular resort in Epping Forest since at least the beginning of the nineteenth century. The sward has remained relatively short throughout the period.

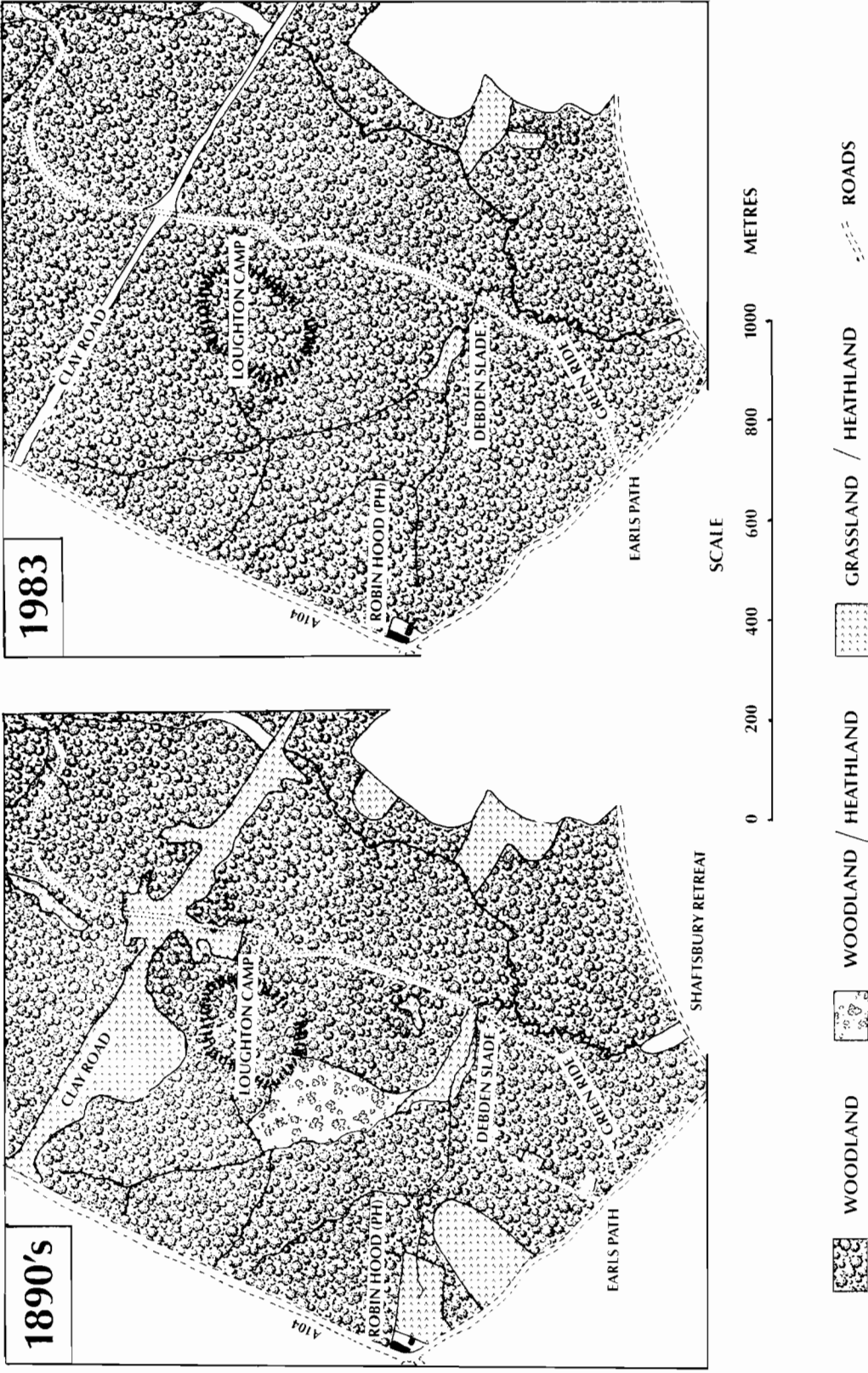


Fig. 14.
Change in accessibility to Loughton Camp 1890s-1983.



FIG. 15.
 Debden Slade, c. 1900 (permission from Mr. Chris Johnson).



FIG. 16.
 Debden Slade 1985. An area of grassland formerly kept short by grazing and browsing animals and trampling pressure (note the litter in the foreground of Fig. 15). In the past, the area also had open access to the Green Ride (seen through gap in the trees in the middle ground of Fig. 15). A decline in pressure on the grassland by both animals and visitors has resulted in encroachment of Silver birch. The area is less visible from the Green Ride.

enjoyable Forest walks (Hawkins, c. 1906) and as a picnic site (Simpson, 1908). As well as individual visitors, coach tours from Chingford stopped at the Robin Hood and passengers walked to Loughton Camp (*The Telegraph Four in Hand*, c. 1885). Debden Slade was another area that attracted visitors, being a popular picnic site where many thousands of children were brought by various charities (Burdett, 1908). Many children

from the Shaftesbury Retreat 500 metres to the south also came for games. It was then a simple walk up to Loughton Camp.

The management of the area has directly or indirectly affected the vegetation structure and, consequently, accessibility. The thinning of the vegetation of the area to the north was considered beneficial to the woodland itself and also to encourage the public to use the Forest for their enjoyment (Epping Forest Report for the Common Council, Vol. III). Since the 1940s however, the vegetation has developed into a stand of silver birch with some oak and a denser field layer of herbaceous plants including purple moor grass, bracken (*Pteridium aquilinum*), creeping soft grass (*Holcus mollis*), bramble (*Rubus fruticosus*), wavy hair grass, soft rush (*Juncus effusus*), field woodrush (*Luzula campestris*) and heath bedstraw. To the south, the area was also thinned during the 1889, 1900 and 1929 seasons. Here again, the vegetation has become denser with silver birch encroachment. In contrast, Debden Slade has remained grassland due to the removal of encroaching silver birch, hornbeam and oak seedlings by the Epping Forest Conservation Corps. However, the entrance to Debden Slade from the Green Ride has been encroached by a stand of silver birch and hornbeam obscuring the Slade from the Green Ride. This has probably reduced the number of visitors walking from the Green Ride to Debden Slade.

It is suggested that changes in management have influenced the vegetation structure which in turn has had an effect upon the number of visitors to Loughton Camp through reducing its accessibility. There are, however, a number of other factors that may be important. Firstly, there is the attraction of the view point. The cutting of vistas and the maintenance of views was an important aspect of management. When the view was becoming overgrown in 1922, the Conservators re-opened the views towards London (E.F.R.C.C.C. Vol. III). However, this view has now become overgrown due to the cessation of pollarding in the area, and subsequent canopy growth. One may also argue that a change in social behaviour has reduced visitor numbers. The age of the large picnic group, coach tours of the Forest and the Retreats has passed. The organised groups that used this area have ceased. However, there are several view points still frequently used—these are either accessible by car or reached by open grassland.

CONCLUSIONS

This paper has attempted to investigate the relationship between visitor behaviour, management and environmental impact through a historical framework. While the basic argument has been based upon documentary evidence and contemporary opinion rather than a more rigorous scientific methodology, a number of facts emerge. Informal recreation has taken place in Epping Forest for at least two centuries and certain themes are evident through that period. Visitors have tended to concentrate in a few accessible areas, especially those characterised by open grassland. This concentration of visitors has had an important impact upon grassland habitats through trampling and subsequent erosion. With a decrease of visitor numbers to some of these areas the grassland has recovered and scrub encroachment has occurred. Part of this vegetation change, however, must be ascribed to another man induced change—that of decreased grazing pressure.

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