

X 8184519

255635

EVALUATION OF OPEN SPACE POLICIES FOR OUTDOOR
RECREATION, WITH REFERENCE TO SOUTH EAST LONDON

Vernon Peter GREEN B.Sc(Econ), M.Sc.

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy (C.N.A.A.).

Thames Polytechnic.

September 1980.

Thesis
THAMES POLYTECHNIC LIBRARY
333.
78094
216
GRE

EVALUATION OF OPEN SPACE POLICIES FOR OUTDOOR RECREATION, WITH REFERENCE
TO SOUTH EAST LONDON.

Vernon Peter Green

A B S T R A C T

A number of policies for the provision of open space for informal recreation and sport have been developed by the Greater London Council, and other agencies including the Regional Council for Sport and Recreation and the Docklands Development Organisation. The study evaluates the extent to which these policies have been correctly formulated and are realistic, in the light of surveys of the supply of open space and the recreational use made of it by residents in south east London.

The degree of success with which these policies have been adopted and implemented by executive authorities, given their existing legislative and financial powers, is also examined. In this way deficiencies in policies are identified and a number of opportunities and alternatives are suggested.

The evaluation of both the formulation and implementation of open space policies for Greater London has not hitherto been carried out. Individual Borough Councils have produced topic reports or policy statements adapting strategic policies to local needs, but these do not look at their broader implications for the metropolitan area. Also the strategic open space policies contained in the Greater London Development Plan, the structure plan for London approved in 1976, have not been reviewed subsequently. Finally, although some research has been carried out in Britain and the United States on the general application of open space standards, there has been no detailed work specific to London.

EVALUATION OF OPEN SPACE POLICIES FOR OUTDOOR RECREATION, WITH REFERENCE
TO SOUTH EAST LONDON

Page No.

C O N T E N T S

VOLUME I

LIST OF TABLES	v.
LIST OF MAPS & DIAGRAMS	vi.
ACKNOWLEDGEMENTS	ix.
INTRODUCTION - aims and content	x.
- scope of study - methodology	

PART 1. BACKGROUND

<u>CHAPTER</u>	1. THE DEVELOPMENT OF THE STATUTORY AND PLANNING FRAMEWORK FOR THE PROVISION OF OPEN SPACE FOR RECREATION IN GREATER LONDON.	1.
----------------	--	----

1.1	The legislative and institutional framework for open space provision.	2.
1.2	Plans, policies and standards.	19.

APPENDICES I

(a)	Plans, policies and standards	47.
(b)	The theoretical basis of the Greater London Development Plan's hierarchy of open space.	49.
(c)	Methodological problems associated with the "Acres per Thousand Population" open space standard.	55.
(d)	Method of assessing requirements for playing fields.	61.

<u>CHAPTER</u>	2. THE PROVISION OF OPEN SPACE IN SOUTH EAST LONDON	63.
----------------	---	-----

2.1	Physical basis of south east London	64.
2.2	Urban development	67.
2.3	Provision of open space	87.
2.4	Policy implications	119.

APPENDICES II

(a)	Open space for recreation - Tables 1 - 12 and sources.	122.
(b)	Inventory of public open space in south east London.	130.
(c)	Use of location quotient as an index of concentration in describing pitch distribution.	134.
(d)	Sequence of photographs of parks referred to in Chapter 2.	facing p.135

<u>CHAPTER</u>	<u>3</u>	<u>RECREATIONAL DEMAND FOR OPEN SPACE IN SOUTH EAST LONDON.</u>	<u>136.</u>
	3.1	Nature of recreational demand	136.
	3.2	Review of empirical demand studies	142.
	3.3	The use of open space in south east London.	152.
	3.4	Demographic and social characteristics of the population and the use of open space	167.
	3.5	Policy implications.	178.
<u>APPENDICES III</u>	(a)	Details of household interview survey on recreational use of open space	183.
	(b)	Use of open space - Tables 1 - 11.	192.
	(c)	The use of indicators from 1971 Population Census to show the spatial distribution of demographic and social characteristics associated with recreational participation in south east London	198.

VOLUME II

PART II

EVALUATION OF POLICY FORMULATION AND IMPLEMENTATION

<u>CHAPTER</u>	<u>4.</u>	<u>PUBLIC OPEN SPACE POLICY AND THE EXISTING PROVISION IN SOUTH EAST LONDON.</u>	<u>202.</u>
	4.1	Size of open space	203.
	4.2	Distribution of open space	205.
	4.3	Characteristics of open space	208.
	4.4	Greater London Development Plan hierarchy and the parks of south east London	221.
<u>APPENDICES IV</u>	(a)	The use of First Nearest Neighbour Analysis in testing for regularity in the distribution of parks of different size categories	223.
	(b)	The use of Single-Link Cluster Analysis in classifying public open space by facility	233.
<u>CHAPTER</u>	<u>5.</u>	<u>PUBLIC OPEN SPACE POLICY AND THE USE OF OPEN SPACE FOR INFORMAL RECREATION IN SOUTH EAST LONDON.</u>	<u>238.</u>
	5.1	Size of park and distance travelled	239.
	5.2	Size of park and other visiting characteristics.	242.
	5.3	A hierarchy of use	249.

		<u>Page No.</u>
<u>APPENDICES V</u>	(a) Details of User Survey of Open space in south east London.	254.
	(b) Tables 1 -2 Size of open space by distance travelled	262.
	(c) Use of contingency tables and chi-square analysis in testing for relationships between park visiting characteristics, Tables 1 - 22	268.
<u>CHAPTER</u>	<u>6. THE USE OF PUBLIC OPEN SPACE BY SCHOOLCHILDREN</u>	<u>282.</u>
	6.1. Inter-relationships between park visiting characteristics.	283.
	6.2 Effects of location on park visiting characteristics	289.
	6.3 Implications for the hierarchy of open space provision.	296.
<u>APPENDICES VI</u>	(a) Details of survey of schoolchildren's use of open space.	298.
	(b) Tables 1 - 2. Size of park by distance travelled.	309.
	(c) Contingency tables 1 - 15 showing relationships between park visiting characteristics	313.
	(d) Tables 1 - 13. Effect of location on use of open space.	321.
<u>CHAPTER</u>	<u>7. THE USE OF OPEN SPACE FOR SPORT</u>	<u>325.</u>
	7.1 Football	327.
	7.2 Other pitch sports	337.
	7.3 Policy implications for the provision and management of open space for sport.	338.
<u>APPENDICES VII</u>	(a) Playing Fields Research Study ; Background to survey of pitch sports requirements undertaken by the Greater London and South East Sports Council 1971-1974	341.
	(b) Tables 1 - 7. Use of pitches for football	348.
	(c) Use of Spearman's Rank Correlation Coefficient (r_s) in testing relationships between the use characteristics of football teams in south east London.	354.
<u>CHAPTER</u>	<u>8. THE IMPLEMENTATION OF STRATEGIC OPEN SPACE POLICIES IN SOUTH EAST LONDON.</u>	<u>358.</u>
	8.1 Greater London Council	360.
	8.2 Greater London and South East Council for Sport and Recreation	370.
	8.3 The Docklands Joint Committee	375.
	8.4 The Green Chain Working Party.	382.
	8.5 Evaluation.	385.

<u>CHAPTER</u>	<u>9.</u>	THE IMPLEMENTATION OF LOCAL OPEN SPACE POLICIES IN SOUTH EAST LONDON.	387.
	9.1	Powers and finance.	387.
	9.2	Open space for informal recreation and other open land	389.
	9.3	Open space for sport	401.
	9.4	Evaluation.	406.
<u>CHAPTER</u>	<u>10.</u>	OPEN SPACE POLICIES - PROBLEMS AND OPPORTUNITIES	410.
		SELECTED BIBLIOGRAPHY	427.

LIST OF TABLES

<u>Table</u>		<u>Page.</u>
1.2(b)	Open Space Standards (after Pepler)	22
1.2(d)	Types and Accessibility of Public Open Space	33
2.3(c)	Correlation between Selected Census indices	114
3.2(b)	Average no. of visits to Public Open Space per person throughout Greater London, Summer 1965.	147
3.4(a)(i)	Correlation between selected demographic variables	174
3.4(a) (ii)	Correlation between selected socio-economic variables	175
4.3	Greater London Development Plan hierarchy : Characteristics of Parks	210
5	Expected use of parks in G.L.D.P. hierarchy	238
5.1	Interpretation of standard deviations of distances travelled to parks of different sizes	241
5.2	Park Visiting Characteristics	242
5.2(a)	Matrix of associations between park visiting characteristics	243
5.2(b)	Matrix of associations between size of park and visiting characteristics	246
6.1(a) (i)	Interpretation of standard deviations of distances travelled to parks of different sizes	285
6.1(a) (ii)	Average distance travelled to parks and standard deviation (adults and children)	286
6.1(a) (iii)	No. of facilities contained in parks visited by size.	287
6.1(b)	Matrix of associations between park visiting characteristics of schoolchildren	288
6.2	Size of park visited by location	292
8.1(c)	Phasing of development of Burgess Park	368
8.3(b) (i)	Existing and proposed public open space: Surrey Docks, Lewisham, W. Greenwich	378
8.3(b) (ii)	Surrey Docks. Lewisham, W. Greenwich: Approved Programme 1979 - 83	381
9.2(b)	Open Space proposals : Deptford	394

LIST OF MAPS AND DIAGRAMS

<u>Fig.</u>		<u>Page.</u>
1.2(d) (i)	Theory of accessibility to public open space	34.
1.2(d) (ii)	Interim standards for the overall provision of public open space in each London Borough	37.
1.2(d)(iii)	Greater London Development Plan : Open Land Policies	40.
2.1(b)	South East London : Simplified drift geology	65.
2.2(a)(i)	Public Open Space	68.
2.2(a)(ii)	Growth of South East London (1700 - Present day)	70.
2.2(a) (iii)	View of the Seat of the late Sir Gregory Page at Blackheath.	71.
2.2(a) (iv)	Blackheath - the Horsemanship	73.
2.3(a)	Open Space for Recreation - typology	93.
2.3(b) (i)	Distribution of Open Land	95.
2.3(b) (ii)	Size and location of public open spaces in south east London.	98.
2.3(b) (iii)	Size of Open Space by number of facilities	100.
2.3(b) (iv)	No. of facilities in public open spaces by location	101.
2.3(b) (v)	Proportion of open spaces containing sports facilities and playgrounds by size.	103.
2.3(b) (vi)	Proportion of open spaces containing sports facilities and playgrounds by distance from Central London.	104.
2.3(b) (vii)	Location of pitches for team sports	108.
2.3(b) (viii)	Type of pitch by distance from Central London.	109.
2.3(c) (i)	Open space deficiency and net residential density at Ward level	113.
2.3(c) (ii)	Relationship between net residential density and acres of public open space per 1000 population	115.
2.3(c) (iii)	Relationship between net residential density and overcrowding at Ward level	116.
2.3(c) (iv)	Relationship between net residential density and households sharing a dwelling at Ward level	117.

<u>Fig.</u>		<u>Page.</u>
2.3(c) (v)	Relationship between net residential density and households lacking a bath & shower at Ward level.	118.
3.1(a)(i)&(ii)	Effective demand (economic and recreational)	137.
3.1(a)(iii)&(iv)	Distance decay functions and demand for recreation.	139.
3.1(b)	Potential, latent or deferred demand	140.
3.2(c) (i)	Effect of age, sex and stage in life cycle on participation in sport and park visiting: Greater London.	151.
3.2(c)(ii)	Effect of socio-economic variables on participation in sport and park visiting	153.
3.3(a) (i)	Last visit to public open space	155.
3.3(a) (ii)	Size of park and visiting preference	157.
3.3(a)(iii)	Improvements to park facilities	158.
3.3(a)(iv)	Activities in parks for older and younger children	160.
3.3(a)(v)	Size of park and visiting preference of schoolchildren	162.
3.3(a) (vi)	Improvements to parks for older and younger children	163.
3.4(a)(i)	Inner and Outer zones of south east London	170.
3.4(a)(ii)	Proportions of Wards with high or low scores for demographic variables by zone.	173.
3.4(a)(iii)	Proportions of Wards with high or low scores for socio-economic variables by zone.	176.
3.4(b)	Population projections 1978 - 1991.	178.
4.1	Size distribution of open space	204.
4.2	Areas of public open space deficiency	209.
4.3(i)	Relationship between size of park and number of facilities.	213.
4.3(ii)	Public open space by number of facility types	214.
4.3(iii)	Dendrogram expected from Greater London Development Plan hierarchy.	216.
4.3(iv)	Dendrogram of parks by facility in south east London.	Inside back cover.

<u>Fig.</u>		<u>Page.</u>
4.3(v)	Location of major clusters of parks by facility.	218.
5.1	Distances travelled to parks of different sizes.	240.
5.2	Age and sex structure of visitors to parks	248.
6.1(a)	Size of park by distance travelled by schoolchildren: south east London.	284.
6.2(i)	Survey of schoolchildren - schools interviewed	291.
6.2(ii)	Distances travelled by schoolchildren in Inner, Suburban and Outer areas.	294.
7.1(a)(i)	No. of pitches and games by zone	328.
7.1(a)(ii)	Games played on different quality grounds by zones.	331.
7.1(b)	Time of play	332.
7.1(c)(i)	Distances travelled by teams to home grounds at different locations.	334.
7.1(c)(ii)	Volume and direction of travel for teams using public pitches	336.
8.	Planning framework for open space policies in south east London	359.
8.1(c)	Burgess Park : Location and Plan	364.
8.2(b)	Playing Fields Strategy : Policies for south east London	372.
8.3(b)	Surrey Docks : proposed open space	380.
8.4(a)	Green Chain area	383.
9.2(b)	Lewisham : Areas of open space deficiency and proposals	393
9.2(c)	Greenwich : Areas lacking local open space	396.

INTRODUCTION.

Aims & Content.

The study will evaluate current planning policies for the provision of open space operating in Greater London, drawing on detailed work carried out in four south east London boroughs. The evaluation will be conducted at two levels examining:

- A. the extent to which policies have been correctly formulated and are realisable in the light of the existing supply of open space and the expressed needs of the resident population for outdoor recreation.
- B. the degree of success with which policies are being implemented and the ability and willingness of executive authorities to adopt them.

Part I will describe the background and current situation of the main components of the study and will identify policy issues which will be explored in more detail subsequently. Chapter 1 shows how the legislative powers for the acquisition, preservation and management of open space have developed since the beginning of the nineteenth century and how over the same period open space policies were gradually formulated in response to perceived and, more recently, measured recreational needs.

The physical background of south east London and its urban growth are described in Chapter 2 indicating the interplay of both planned and unplanned forces in the development of the present day supply of open space. The recreational and environmental functions of existing provision are described and policy implications indicated. The third chapter explores

the nature of recreational demand, how it can be, and has been measured and how it is manifested in south east London.

Part II develops the detailed analysis and evaluation of open space policies, Chapters 4 to 7 examining the issues raised in the formulation of policies and Chapters 8 and 9 concentrating on their implementation. The Greater London Development Plan's (G.L.D.P.) hierarchy for the provision of public open space is measured against existing supply in Chapter 4, its use by adults in Chapter 5, and its use by school children in Chapter 6. Policies for the provision of open space for sport are not so well formulated as those for public open space and Chapter 7 seeks to examine use patterns of pitches for team sports to see whether any improvement in present policies is possible.

Implementation of strategic open space policies is examined in Chapter 8 and of local policies in Chapter 9. The ability of authorities to implement policies will depend on how well they have been formulated, examined in the previous analysis, and also the legislative and financial framework within which they operate. Both these aspects will be developed in relation to the issues raised in Chapter 1.

The final Chapter draws together the issues raised in Part I and relates them to the analysis and evaluation of policies in Part II. In this way deficiencies in existing policies and the means by which they are put into practice are identified and a series of alternative approaches are examined.

Scope of Study.

The main subject components of the study are "policies," "open space" and

"outdoor recreation" whilst the area referred to is Greater London with detailed research being undertaken in south east London.

Policies¹ are courses of action to be adopted in pursuit of certain aims, objectives and goals, either independently or as part of a plan.

There are two components of a policy:

- (i) what is required i.e. aim, objective or goals.
- (ii) how it is to be achieved i.e. the method of implementation and the powers and finance available.

These two elements form the basis of the evaluation in Part II.

Open space² can be broadly defined as any land which is not built upon within the urban area or it can be more narrowly defined according to ownership (public/private), access, terrain (grass/woods/commons/gardens/man made surfaces) or by function (recreation/amenity). In this study open space is defined by function, specifically that used for informal recreation and sport. This includes parks, public open space, sports grounds, playing fields and pitches both in public and private ownership. It excludes golf courses and educational facilities although the implications of the latter are referred to at various stages.

Outdoor recreation³ has partly been defined already referring to both its formal and informal aspects. The informal component is the unplanned and

1. The nature of policies, plans and standards are explored in more detail in Appendix I(a). P.47
2. See Chapter 2, Section 2.3(a) P.87 et.seq.
3. See Chapter 3, Section 3.1. P. 136 et.seq.

unstructured use of open space typified by park visiting and children's play. The formal component relates to amateur team games. The analysis of golf and court sports are excluded from the study, as these are not so significant in policy terms.

The study area includes the London boroughs of Greenwich, Lewisham and Southwark and that part of Bromley lying within the Green Belt. A map of the study area (Fig. 1) shows the location of the boroughs, The Ward boundaries are not strictly coterminous with the inner edge of the Green Belt but these Wards contain a majority of built-up area and are used in subsequent analyses. In this way a sector of the metropolitan area is examined covering differing social and land use characteristics within which open space policies operate.

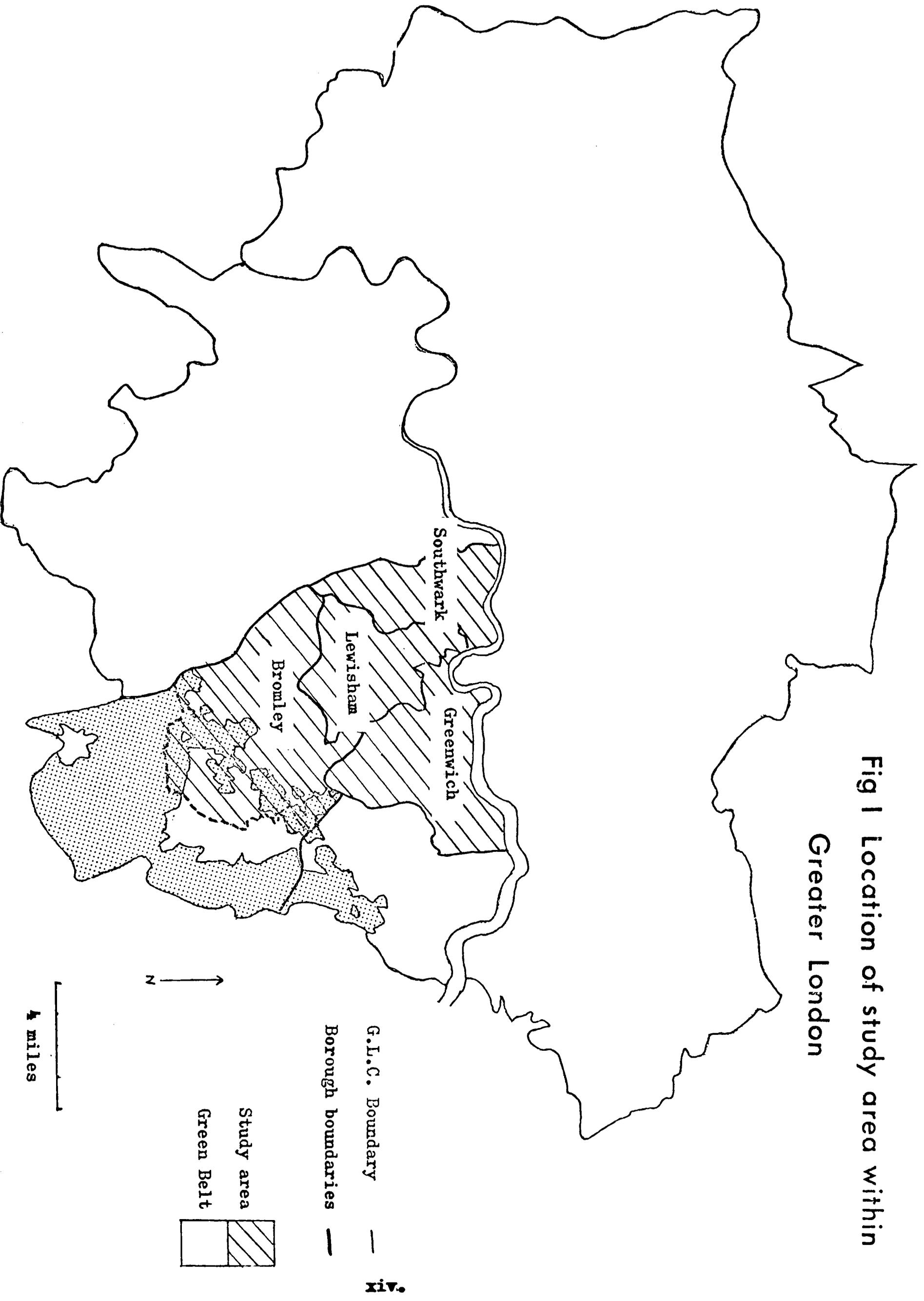
Methodology.

The background to the study represents a review of legislation, policies, open space provision and the nature of recreational demand, drawing on published and unpublished sources and original research. The present supply and use of open space in south east London is described and is based on an inventory of all the public open space in the study area and a sample household survey of use.⁴ The material is analysed and presented using simple descriptive statistics.

The detailed analysis in Chapters 4 to 7 draws on the above surveys and also

4. See Appendices II(b) III(a) P.130 & P. 183.

Fig 1 Location of study area within
Greater London



sample surveys of park users and schoolchildren.⁵ A variety of statistical techniques are adopted in the analysis including measures of location, (location quotients, nearest neighbour analysis), dispersion (standard deviation) association (cluster analysis, chi-square analysis).⁶

Chapters 8 and 9 concentrate on policy analysis involving an examination of published plans and proposals for open space and interviews with relevant officers in local authorities and other organisations.

5. See Appendices V(a) P. 254 VI(a) P. 298

6. See Appendices II(c) P.134 IV(a) P.223 IV(b) P.233 V(c) P.268 VII(c) P.354.

CHAPTER 1. THE DEVELOPMENT OF THE STATUTORY AND PLANNING FRAMEWORK FOR THE PROVISION OF OPEN SPACE FOR RECREATION IN GREATER LONDON.

There are two stages in the provision of open space for recreation.

- the development of the ability to acquire, manage and preserve open space for recreation.
- the preparation of a plan containing policies and standards indicating the amount, nature and location of open space which should be provided in order to serve the recreational requirements of the population.

The first section of this chapter will trace the development of the statutory and institutional framework i.e. the laws and agencies which enabled open space provision to be made, against the physical and economic constraints operating at different times, such as the availability of land and the costs of acquiring and preserving it in the face of competition from other uses.

The second section will explore the development of planning for open space with the evolution of detailed policies and standards of provision. These developed in response to the growing awareness of the needs of the urban population for outdoor recreation by providing agencies. This second stage represents a sophistication of the basic ability of authorities to make provision for open space.

The review of both these stages will be developed through four time periods:

- the nineteenth century
- the early development of town planning 1900 - 1940
- comprehensive town planning and the London Plans
- the present day

1.1 The Legislative and Institutional Framework for Open Space Provision.

(a) The Nineteenth Century:

Official concern over the state of open space provision in urban areas was first registered by the Government in 1833 with the publication of a report by the Select Committee on Public Walks, a body:

"appointed to consider the best means of securing Open Spaces in the Vicinity of Popular Towns as Public Walks and Places of Exercise calculated to promote the Health and Comfort of the inhabitants."¹

Three facets of the situation in the early nineteenth century were noted in the initial statement:

1. During the last half century there had been a great increase in the population of large towns especially among classes engaged in manufacturing and mechanical employment.

2. During the same period due to increased value of property and extension of buildings, many inclosures of open spaces in the vicinity of towns had taken place, and little or no provision had been made for public walks and open spaces, fitted to afford the means of exercise or amusement to middle or humbler classes.

3. Any such provision would be conducive to health and content for the classes in question.

¹ Great Britain, Parliamentary Papers, "Select Committee on Public Walks." (1833 (448 XV 337)).

The second comment indicates the two lines along which open space legislation would develop during the remainder of the century:

- to acquire open space for the health and exercise of the population,
- to preserve open space in urban areas from inclosure.

The principal finding of this survey of the level of provision of public walks in towns was that deficiencies were the rule.² The report suggested that an Act be passed to enable people to dedicate and bequeath their land for public walks and to facilitate exchanges of entailed or corporate property. No such legislation was enacted during the rest of that decade.

A further spur to the first strand of legislation was provided by the developing "Health in Towns" movement led by Edwin Chadwick and the publication in 1840 of a report of the Select Committee on Health of Towns³ and the Report of the Royal Commission on the State of Large Towns and Populous Districts, 1844.⁴ The latter report made enquiries into poor sanitation in large towns and the related high mortality rate. The attention paid to the lack of open space in towns and its effect on these conditions is given very little emphasis. Of over 6000 paragraphs of evidence only twelve relate to open space provision. In the second report⁵ the Royal Commission recommends the provision of public walks for middle and lower classes and preservation of existing open space "especially those well-ordered Squares

2. Detailed evidence for S.E. London is given in Chapter 2.

3. Great Britain, Parliamentary Papers. "Report of Select Committee on Health of Towns." (1840 XI).

4. Great Britain, Parliamentary Papers. "First Report of Royal Commission on the State of Large Towns and Populous Districts" (1844 XVII).

5. Great Britain, Parliamentary Papers, "Second Report of the Royal Commission on the State of Large Towns and Populous Districts." (1845 XVIII).

which already exist in the Metropolis."6.

The sentiment echoes that of the 1833 report although it is assumed that the middle and poorer classes will use squares in the fashionable parts of Central London and public walks, the recreation of the richer classes!

Again recommendations were made:

"We therefore recommend that, for the purpose of aiding the establishment of public walks, in addition to the legal facilities adverted to, the local administrative body be empowered to raise the necessary funds for the management and care of walks when established."7.

There was a delay of two years until the first legislation was passed in 1847.8. This was the first Statute giving the powers of acquisition and management of land for pleasure grounds and public recreation to civic authorities. A year later the Public Health Act9. gave the same power to Local Boards of Health. In both cases schemes could be financed by rates without consulting Parliament, although the use of powers was left to the discretion of the authorities. Consequently this early legislation had little impact on open space provision.

Two subsequent general Acts gave even less power for acquisition of open space. The Recreation Grounds Act 185910. and the Public Parks, Schools and Museums Act 187111. only allowed local authorities to accept

6. Ibid p. 68 para 30

7. Ibid p. 68 para 30

8. Towns Improvement Clause 1847 (10 & 11 V.c. 34).

9. Public Health Act 1848 (11 & 12 V. c. 63).

10. Recreation Grounds Act 1859 (22 V.c. 27)

11. Public Parks, Schools and Museums Act 1871 (34V).

grants of land but not purchase it for open space purposes. In the fourth Act the land could only be held by the local authority; it had to be managed and directed by trustees.

It was only with the Public Improvements Act 1860¹². that general powers were made available to local authorities to take responsibility for acquisition, layout and management of parks and open space. Rates could be used for acquisition and maintenance costs, although half the costs had to be met by private subscription or donation. With this type of financing arrangement there was little incentive to use the powers of this Act. Further general provision was made under the Public Health Act 1875¹³. whereby local authorities could buy or lease land for open space provision and could support privately owned recreation grounds. Whilst this Act lays a statutory obligation to provide sanitation the clauses relating to acquisition and management of open space are discretionary.

Of far greater importance for London were the Local Acts which allowed the acquisition of specific sites for park development¹⁴. and the legislation giving powers to the Metropolitan Board of Works (the predecessor to the London County Council). The first legislation relating specifically to London to be passed was the Metropolitan Local Management Act 1855.¹⁵ This enabled the Metropolitan Boards of Works to apply to Parliament for powers to provide parks, pleasure grounds, places of recreation, and open

12. Public Improvements Act 1860 (23 & 24 V. c. 30).

13. Public Health Act 1875 (38 & 39 V). C55 S164.

14. e.g. Formation of Southwark Park by Metropolitan Board of Works (27 - 28 V. c. IV).

15. Metropolitan Local Management Act 1855 (18 & 19 V. c. 120).

spaces for the improvement of the metropolis or the public benefit of the inhabitants. The necessity to seek Parliament's approval was removed in 1877.^{16.}

"The Metropolitan Board of Works may by purchase or voluntary sale, or by the gift of the person or persons legally entitled to dispose of the same, acquire or accept the ownership of any open space, whether enclosed within the rails or palings, or unenclosed, situated in the Metropolis and hold the same in trust for the perpetual use thereof by the public for exercise and recreation."

Other powers within the Act enabled the Board to manage open spaces and enforce bye-laws and use public funds to finance such schemes. In 1881 the Act was further amended to facilitate the transfer of land to the Board by trustees and disused burial grounds by church officials. This legislation enabled the Board, later to become the L.C.C. (1888), to acquire its parks and open spaces.

During this period a number of "ad hoc" Acts relating to the maintenance of open land in the Metropolis were passed: The London Gardens (Town Gardens Protection) Act 1863^{17.} and The Disused Burial Grounds Act 1884^{18.} Under the former Act local authorities were enabled to vest gardens or ornamental grounds in a committee elected by rated occupiers, the cost of maintenance and management being levied at a certain rate. The Disused Burial Grounds Act (1884) and the Open Spaces Act (1906)^{19.} were promoted by the

16. Metropolitan Open Spaces Act 1877 (40 & 41 V. c. 35). S.1.
17. London Gardens Act 1863 (27 & 28 V. c. 13).
18. Disused Burial Grounds Act 1884 (47 & 48 V. c. 72).
19. Open Spaces Act 1906 (6. Edw. 7) c.25.

Metropolitan Public Gardens Association formed in 1883. The latter Act consolidated earlier legislation on burial grounds and open space. The Act enabled open space held by trustees, persons and bodies to be transferred to local authorities in order to manage and control these, provided that the public were admitted.

The other important impetus to legislation in the nineteenth century was that of preservation of open space from enclosure for development. The rapid urbanization of the early nineteenth century noted above²⁰. meant that commons near expanding towns became valuable as development sites, whilst at the same time their value for outdoor recreation was becoming more apparent. The first general legislation was passed in 1845²¹. whereby inclosure decisions were taken from Parliament and vested in local inquiries held by independent commissioners. In the case of London, reports on the expediency of enclosure had to be produced, and the sanction of Parliament was required for enclosure of commons within 15 miles of the Metropolis.

In 1865 a Select Committee was appointed to:

"Inquire into the best means of preserving for public use, the Forests, Commons and Open Spaces in and around the Metropolis."²².

This Committee questioned the assumption of the rights of Lords of the Manor to dispose of the land they owned. This resulted in a flurry of activity

20. Great Britain, Parliamentary Papers, op.cit "Select Committee on Public Walks."

21. Inclosure Act 1845 (8 & 9 V.c. 118).

22. Great Britain, Parliamentary Papers. "First Report of Select Committee on Open Spaces (Metropolis)" (1865 Vol. VIII) P. 259).

to enclose commons before any legislation could be passed.²³ The following year an Act was passed which made it illegal to enclose any Metropolitan Common.²⁴

Power was given to Enclosure Commissioners to outline a scheme for the regulation of a common for public access and its management by a Board of conservators. This legislation resulted in a number of commons being acquired and preserved.²⁵

Further general legislation was passed in 1876²⁶ giving the Councils of towns over 5000 population the right to acquire by gift or to hold commons in trust, or purchase and hold them in trust, for the benefit of the town so that rights of common are not extinguished. This power was extended to all urban and rural districts in 1894²⁷. By the end of the nineteenth century the power of the owners of common land to enclose it had been restricted and local authorities could acquire the title to commons.

The various Acts that had been passed by the end of the century had resulted in widespread powers which local authorities could use to acquire and preserve recreational land. These powers were all discretionary, as they remain to this day where they survive, either under public health legislation²⁸ or as regulations specific to London.²⁹

23. See Ch. 2, P. 76 (action against enclosure of Plumstead Common).
24. Metropolitan Commons Act 1866 (29 & 30 V.c.122) Sec. 5.
25. e.g. (Blackheath & Bostall Heath).
26. The Commons Act 1876 (39 & 40 V). c.56
27. Local Government Act 1894 (56 & 57 Vict.) c.73
28. Public Health Act 1961 (9 & 10 E.II c. 64).
29. London Government Act 1963 S. 58 & 87

(b) Early Development of Town Planning 1900 - 1940.

Open space legislation was only one relatively minor strand of activity to improve urban conditions. Similar developments were occurring in public health, improvements to housing and education in the second half of the nineteenth century. At the turn of the century there was a growing awareness of the need for a more comprehensive approach to urban problems which would encompass these related trends. At this time embryonic planning ideas were developing which emphasized the regulation of the urban environment and its different components. Concepts of balance and harmony were fundamental to this thinking which had its origin in the pioneer experiments of nineteenth century philanthropists in creating model towns and villages for their employees. The main exponent of this thinking at that time was Ebenezer Howard whose ideas were put into practice in the Garden City experiments.^{30.} Ideas of civic design were also fashionable at that time and these formed a substantial input to the development of town planning.

The first town planning legislation was passed in 1909^{31.} and made provision for new development to be planned on a comprehensive basis of which open space was one land use element. The implicit role of open space is exemplified by a speech made by John Burn, the President of the Local Government Board in presenting the Bill:

"The object of the Bill is to provide a domestic condition for the people in which their physical health, their morals, their character

30. E. Howard, Tomorrow:- A Peaceful Path to Real Reform 1899 re-issued as "Garden Cities of Tomorrow."

Ed. F.J. Osborn, (Faber: 1946).

31. Housing Town Planning etc., Act 1909 (9 Edw. 7, (44)).

and their whole social condition can be improved by what we hope to secure in this Bill. The Bill aims in broad outline at, and hopes to serve, the home healthy, the house beautiful, the town pleasant, the city dignified and the suburb salubrious."³².

This is entirely in keeping with the spirit of contemporary thinking at that time; housing that is well planned, with plenty of light, air and space: the provision of open space is assumed but not made explicit. Although some schemes were developed as a result of this Act very few made provision for open space. Furthermore there was no statutory obligation on authorities to prepare schemes.

A further Act in 1919³³ made it obligatory for local authorities containing over 20,000 population to prepare schemes for new development, and the Town and Country Planning Act 1925³⁴ consolidated earlier legislation, although it was still only concerned with new development. The 1932 Act³⁵ repealed all previous legislation and broadened powers to include all urban land and not just new development. Local Authorities (counties, districts and boroughs) could prepare schemes for parts or the whole of their areas, financing by rates and loans from the Government. Nevertheless there was no mandatory obligation on authorities to prepare plans and there were no specific instructions for the provision of open space.

As a result of the depression and consequent migrations of population

32. Parliamentary Debates on the Housing, Town Planning etc., Bill H.C. Debates (Vol. 188 May 1908).

33. Housing, Town Planning etc., Act 1919 (9 & 10 Geo. 5, c.60).

34. Town and Country Planning Act 1925 (15 & 16 Geo. 5 c. 16 17).

35. Town and Country Planning Act, 1932 (22 & 23 Geo. 5 c.48).

a Royal Commission was appointed in 1937 to investigate the Distribution of the Industrial Population³⁶. Its findings, published in 1940, had important effects on subsequent planning. In the first instance the necessity to decongest overgrown cities suggested a national approach to planning. In 1943 a Minister of Town and Country Planning was appointed³⁷. to co-ordinate national planning and in the same year the Town and Country Planning (Interim Development) Act³⁸. brought all land under planning control, regardless of whether a scheme had been prepared or not. In 1944³⁹. as well as granting powers for reconstruction of war damage, the Town and Country Planning Act laid the basis for compulsory purchase of land for planning purposes. These powers were to form the basis of a new comprehensive planning system.

Against these changes in planning an advisory plan for London was published in 1943⁴⁰. which stressed the control of growth of the Metropolis and decongestion of its population. Enemy action by this time had made a plan for reconstruction a practical necessity. This comprehensive plan laid down policies for open space provision⁴¹. although it had no statutory basis.

During the forty year period following the turn of the century the development

36. Barlow Report, Report of the Royal Commission on the Distribution of the Industrial Population. Cmd. 6153 HMSO 1940.

37. The Minister of Town and Country Planning Act 1943 (6 & 7 Geo. VI c.5)

38. Town & Country Planning (Interim Development) Act 1943 (6 & 7 Geo. VI c.43).

39. Town and Country Planning Act 1944 (7 & 8 Geo. VI c.47).

40. J.H. Forshaw. P. Abercrombie. County of London Plan L.C.C. 1943

41. Details of open space policies will be developed in Ch. 1 Section 1.2. p. 19 et.seq.

of other legislation relating to open space was limited. The Public Health Act 1925⁴² enabled any local authority to acquire by purchase, gift or lease, and to lay out, equip and maintain, lands for the "purpose of cricket, football or other games and recreation." For the first time open space for formal sports could be provided this marking an important move away from the traditional Victorian idea of public walks and pleasure grounds. This was reinforced in 1937 with legislation designed to promote:

"playing fields, gymnasiums, swimming baths, bathing places, holiday camps and camping sites and other buildings and premises for physical training."⁴³

Discretionary powers were thereby given to local authorities for compulsory purchase and to lay out land for these purposes.

Nevertheless, the only obligation to provide open space and facilities for sport is on local education authorities under the 1944 Act, by which facilities for educational, social and physical training must be acquired and secured by these authorities.⁴⁴ Unfortunately this mandatory legislation only applies to educational facilities and playing fields and not provision for wider community use. Only in recent years have attempts been made to secure the dual use of educational facilities.⁴⁵

(c) Comprehensive Town Planning

A comprehensive system of planning was established in 1947 with provision relating to land use planning and the control of land values.⁴⁶

42. Public Health Act 1925 (15 & 16 Geo. V. c.71) Sec. 69
43. Physical Training and Recreation Act 1935 (1Edw.VIIIc.1.Geo.VIc.46)S.3(1) (a)
44. Education Act 1944 (7 & 8 Geo. VI, c.31) Sec. 5.
45. See Ch. 10 P.409 et. seq.
46. Town and Country Planning Act 1947 (10 & 11 Geo. VI, c.51.).

Responsibility for physical planning was vested in County Councils and County Borough Councils who were required to prepare and submit a "development plan" for their area to the Minister within three years after 1st July 1948. The development plan would indicate how land should be used within the area covered and should be reviewed every five years. With regard to open space the plan should define the sites of

"parks, pleasure grounds, nature reserves and other open spaces."⁴⁷.

In this way planning authorities were put under a statutory obligation to designate open spaces on their development plan town maps. The implementation of the plan was facilitated by the development control system whereby no development is allowed without the permission of the planning authority. Powers of compulsory purchase were at the disposal of authorities to pursue the plan.

Under this new legislation the London County Council prepared and published its Initial Development Plan in 1951⁴⁸. which drew heavily on the earlier advisory plan. As well as preparing a town map designating open space the plan laid down broad policies for open space systems in the built up area and narrower policies or standards of open space provision. This plan was approved in 1955 and underwent a first review in 1960. Progress in open space provision was slow, despite comprehensive powers. In 1951 the provision of 483 acres⁴⁹. of new open space was proposed for the following five year period. By the first review in 1960⁵⁰. only 238 acres had been provided in the County.

47. Town & Country Planning Act 1947 (10 & 11 Geo. VI c. 51)
Part II Sec. 5 (2 (a)).

48. L.C.C. Administrative County of London Development Plan 1951 -
Statement Analysis.

49. L.C.C. Administrative County of London Development Plan 1951 ; statement P.3.

50. L.C.C. Administrative County of London Development Plan. First
review 1960 Statistics Table 1.

EVALUATION OF OPEN SPACE POLICIES FOR OUTDOOR RECREATION, WITH REFERENCE
TO SOUTH EAST LONDON.

Vernon Peter Green

A B S T R A C T

A number of policies for the provision of open space for informal recreation and sport have been developed by the Greater London Council, and other agencies including the Regional Council for Sport and Recreation and the Docklands Development Organisation. The study evaluates the extent to which these policies have been correctly formulated and are realistic, in the light of surveys of the supply of open space and the recreational use made of it by residents in south east London.

The degree of success with which these policies have been adopted and implemented by executive authorities, given their existing legislative and financial powers, is also examined. In this way deficiencies in policies are identified and a number of opportunities and alternatives are suggested.

The evaluation of both the formulation and implementation of open space policies for Greater London has not hitherto been carried out. Individual Borough Councils have produced topic reports or policy statements adapting strategic policies to local needs, but these do not look at their broader implications for the metropolitan area. Also the strategic open space policies contained in the Greater London Development Plan, the structure plan for London approved in 1976, have not been reviewed subsequently. Finally, although some research has been carried out in Britain and the United States on the general application of open space standards, there has been no detailed work specific to London.

This lack of progress exemplified in London's development plan was being mirrored throughout the planning system. The rigidity of development plans stultified planning and led to a large number of appeals on planning applications. The development plan was increasingly seen to stress the negative aspects of control, to be concerned with local land use and ignore the broader underlying processes affecting its distribution. In this way strategic elements were lost amid detail. Development plans took a long time to be approved and were often out of date before they could be implemented. These defects resulted in the establishment of the Planning Advisory Group in 1964 to review the future of development plans. Its findings^{51.} formed the basis for the new planning system introduced in the 1968 Town and Country Planning Act.^{52.}

The new approach to planning was adopted by the Greater London Council when London's local government system was reorganized in 1963.^{53.} Under this legislation the Greater London Council became the strategic planning authority with thirty three new London Boroughs as the second tier concerned with local planning issues. The Act also empowered the G.L.C. to prepare a land use plan for Greater London to act as a framework for borough plans. This was published in draft form in 1969.^{54.} For the first time the policies and standards relating to open space planning acknowledged the need to cater for peoples' recreational requirements rather than simply designating areas of open space. This reflects the changing attitude to planning away from

51. M.H.L.G. The Future of Development Plans: A report by the Planning Advisory Group. H.M.S.O. 1965.

52. Town and Country Planning Act 1968 (Eliz. II, c.72.).

53. London Government Act 1963 (Eliz II c.33)

54. G.L.C. Greater London Development Plan. Draft Written Statement and Report of Studies (London: G.L.C. 1969).

the static land use approach to the planning of activities and processes which shape the land use pattern. Nevertheless this plan was not approved and had no legal status until seven years after its publication, thus boroughs were unable formally to adopt and implement these policies.

During this period there were few changes in existing open space legislation. The Housing Act 1957⁵⁵ made provision for recreation grounds to be provided in new Council housing developments, although the powers are discretionary. In 1961 the Public Health Act⁵⁶ made provision for management of parks for sport and gave local authorities the power to charge for the use of facilities. The major consolidation of legislation for London came under the 1963 Act, which also gave new powers to the G.L.C. as the strategic authority. Section 58 (1) (b) defined open space development powers of the G.L.C. as being the provision of new parks and open spaces,

"for the benefit of an area of Greater London substantially larger than the London Borough in or near which the open space is proposed to be provided."⁵⁷

The Act made provision for transfer of smaller parks to the London boroughs. Other legislation for acquisition and management of parks and open space was consolidated and resulted in the Public Health Act 1875 Sec. 164, Open Spaces Act 1906 (except Section 14) and Public Health Act 1961 Sections 52-54 and Public Health Act 1936.

(d) Present Day

55. Housing Act 1957 (5 & 6 Eliz II c.56, Sec. 93).

56. Public Health Act 1961. (9 & 10 Eliz. II).

57. London Government Act 1963(Eliz II c.33 Sec. 58.)

The new planning system under the 1968 Town Planning Act makes provision for a two-tier hierarchy of plans :the structure plan produced by County authorities giving a broad and flexible strategy; local plans produced by boroughs and districts for all or part of their areas giving detailed planning requirements. This was confirmed under the 1971⁵⁸. Act and forms the legal basis for the Greater London Development Plan and any local borough plans. The types of provision to be made in development plans regarding open space are:

"parks, pleasure grounds, nature reserves and other open spaces."⁵⁹
and further open space is defined as:

"any land laid out as a public garden, or used for the purpose of public recreation, or land which is a disused burial ground."⁶⁰

Powers of acquisition and appropriation of land for open space are given in the Act and can be used by local authorities; in the case of London by both G.L.C. and the London boroughs.⁶¹ The use of these powers will depend on the local authorities' ability and willingness to acquire land for open space purposes. The development control procedure protects existing open space from development, although a private owner may serve a purchase notice on a local authority who refuse to grant permission for the development of his open space, if he can prove that:

"the land has become incapable of reasonably beneficial use in its existing state."⁶²

58. Town and Country Planning Act 1971 (Eliz II C.78)S.6 et. seq.

59. Ibid Schedule 5 para. 3

60. Ibid S.290 para. 1.

61. Ibid S's 112 & 113

62. Ibid S. 180 p. (1) (a).

If the local authority refuses the notice the decision is referred to the Secretary of State. If the refusal for planning permission is over-ruled then the local authority must purchase the land if it wishes it to remain as open space. This would be costly in urban areas where land would have to be purchased at development value. This has now changed,⁶³ and land can be purchased at existing use value. In the process of being repealed the situation will revert to the former condition.^{*} However the powers to retain open space are still dependant on the financial ability and willingness of the local authority.⁶⁴ These powers are strengthened where structure and local plans make specific policies relating to the retention of private open space for recreation.

With regard to Greater London, these powers are embodied in Town and Country Planning (Local Plans for Greater London) Regulations 1974.

Further specific directives on the provision of open space are given in M.H.L.G. Provisional Order Confirmation (Greater London Parks and Open Spaces) Act 1967 and London Authorities (Parks and Open Spaces) Order 1971 No. 228, 229 and 230. These provide uniformity of laws relating to management and improvement of open space in Greater London.

.....

This review indicates that legislation relating to the acquisition of parks and recreation grounds was well developed by the early twentieth century. Subsequent developments have been minor, relating to the provision of sports grounds and facilities and open space provision in housing developments. During this latter period town planning has developed from being partial to being comprehensive and more recently to being more flexible in planning

63. Community Land Act 1975 (Eliz. II c.77).

64. See Ch. 9 P. 387 et. seq.

* Since writing the present Government is in the process of repealing the Community Land Act.

for activities and processes rather than simply physical land use. The powers of acquisition of open space under these planning regulations are extensive, however it is left to the discretion of the planning authority as to whether these powers are used. This refers also to open space legislation:

"Under present laws local authorities are given wide powers to maintain, manage and regulate, but if they are reluctant to act there is little that can be done about it and despite the miscellany of statutory and common law provisions dealing with open space it would appear that something more definite is needed."⁶⁵

The ability to use these legal powers will depend on the funds available to each local authority and the level of priority they attach to open space provision vis-a-vis other items of public expenditure.

There is one area where there is little positive legislation and that relates to the preservation of open space. It is covered in a negative way under development control procedure but the rest of open space legislation refers to the acquisition of new areas and the management and maintenance of public open spaces. This omission has been noted by Professor West:

"English law had made very little provision for the preservation of open spaces and even recent administrative Statutes do very little to ensure adequate amenity space is provided."⁶⁶

Powers are only one aspect of open space planning relating to its implementation. There is also the need to know the type of open space, the quantity, and location required to serve the recreational needs of the population living within the area being planned.

65. W.A. West, Provision of Open Spaces in Urban Development - the Legal Background, Journal of Planning and Environmental Law Jan 1973 pp 24-26

66. Ibid p.26

1.2 Plans, Policies and Standards

(a) Nineteenth Century.

The parks of the eighteenth and early nineteenth centuries were planned primarily for the private enjoyment of royalty and the landed gentry. The original meaning of park was that of an enclosure for game in which hunting could be carried out.

"The nineteenth century inherited little in the way of civic amenity for the masses, and the open space, outside the royal parks, the private high-class residential squares, and a few urban commons, was, for all practical purposes, non-existent."⁶⁷.

Although the Government became more aware of the need to provide open space for the health and exercise of the masses it had little notion of what to provide to serve their needs. It was assumed that more public walks and pleasure gardens should be provided on a greater scale, replicating the traditional outdoor recreation facilities of the aristocracy. The labouring classes were expected to enjoy fresh air on their day of rest, by walking in parks with their families dressed in their Sunday best. This was seen by the Government as a means of raising the moral standards of the working classes, inducing proper dress and a substitute for alcohol as a means of relaxation. The potential effects of increased productivity as a result of this recreation were no doubt a motivating force behind these recommendations.

67. K. Balmer. "Open Space Planning in England & Wales." (unpublished PhD. thesis. University of Liverpool 1972) I p.17.

Consequently the type of open space provided as a result of early legislation was designed for passive and sedate recreation.

The size of parks and their location were not in any way planned at this early stage, new open space being determined rather by gifts and donations from landowners or where purchase was most easily and cheaply secured. The Victorian Parks between the 1840's and 1860's tended to be large (over 50 acres) and located on the periphery of the urban area where undoubtedly land was cheapest and most easily available. The wording contained in the Recreation Grounds Act 1859 seems to typify the minimal directives given as to the nature of open space provision at that time:

"to facilitate grants of land to be made near populous places for use of regulated recreation of adults, and as playgrounds for children."⁶⁸.

There were a few early attempts to describe the deficiency of open space in towns in the various reports of Committees and Royal Commissions, for example:

"Have you observed a great many of those (residential districts) in the vicinity of many populous towns and especially on the east, north and south of London? - The inhabitants there have to go considerable distances to get into the fields; and in many places I believe the fields which exist are shut against them."⁶⁹.

The earliest standard of provision for open space was embodied in the

68. Recreation Grounds Act 1859 (22 Vict. c. 27).

69. Great Britain, Parliamentary Papers. "First Report of Royal Commission on the State of Large Towns and Populous Districts." 1844 XVII P. 238

Inclosure Act 1845. This suggested that a certain proportion of enclosed common or wastes should be retained for recreation which would be related to a town's population as follows:-

4 acres			for populations of less than 2000
5 acres	"	"	of 2000 - 5000
8 acres	"	"	of 5000 - 10,000
10 acres	"	"	of over 10,000 ⁷⁰ .

In 1878 Miss J. Vernon illustrated a ratio of existing public open space to resident population for some major British cities in order to show the differing levels of provision.⁷¹ This ratio was not a standard that was advocated for planning purposes but rather a measure of relative deficiency.

(b) Early Development of Town Planning 1900 - 1940.

The two examples above set the pattern which standards were to follow very closely from the turn of the century to the 1960's i.e. that of a simple quantitative ratio of open space to population. During the early years of the twentieth century when planning ideas were evolving a number of simple standards were advocated and some of greater sophistication, giving guidance not just on the quantity of open space, but also on the location, type and the population it should serve. These early formulae were reviewed by G. Pepler in 1923⁷² who attempted to formulate an acceptable standard of

70. Inclosure Act 1845 (8 & 9 Vict. c. 118 S.30)

71. Miss J. Vernon; "On public parks and gardens." Transactions of the National Association for the Promotion of Social Science 1878 pp 510-518.

72. G. Pepler "Open Spaces" Town Planning Review Vol X.No.1. 1923 pp 11-24

open space provision by incorporating elements from each. Table 1.2(b) shows the different standards which he reworked so that they were comparable.

Table 1.2(b)

<u>General Open Space Needs</u>	<u>acres per 1000 population</u>
U.S.A. Park and Arts Association (1901)	5
A.J. Coney (American Town Planner)	8.7
F.L. Olmsted (Initiator of Central Park N.Y.)	2-2.5
M.J. Thompson, (City Engineer Dundee)	$6\frac{2}{3}$
Mr. T.H. Mawson	4
Juvenile Organisation Committee	$2\frac{1}{2}$
Patrick Abercrombie	$\frac{1}{3}$

From an analysis of these standards Pepler recommended a standard of 5 acres per 1000 population of which $2\frac{1}{2}$ - 3 acres would be for children and young people under 25 years of age and the remainder for other park lands. He also developed some ideas as to how this quantity of open space should be distributed, emphasizing the importance of accessibility. Even at that time accessibility was not a new concept in relation to open space and had been developed by earlier town planning theorists.^{73.}

Pepler's paper also drew attention to another open space planning policy which had its origins in early town planning theories^{74.} and which was to develop more fully in the London Plans. This was the idea of a system of open space throughout the urban area. The function of open space in a

73. For example Sir P. Geddes. A Study in City Development; parks, gardens and cultural institutes. (Dunfermline 1904).

74. Ibid.

system:

"is that they should form ventilating ports into the centres of cities."⁷⁵. This indicates the amenity function of open space and its role in improving the quality of the urban environment. It was this aspect that was emphasized at the expense of the recreational aspect in the early years of town planning prior to the 1920's. Open space in new residential development was seen as the panacea for the ills of cramped and poor housing conditions of the nineteenth century. Open space was to offer health, balance and harmony to urban areas; its recreational role was ignored.⁷⁶.

After the First World War there was a considerable increase in the playing of team games and the unsatisfied demand for these activities is well documented for the London County. Referring to 1925, the Honourable Cadogan M.P. cited 878 applications to use 232 football grounds and 1048 applications for 320 cricket pitches. Although his use of statistics was cavalier and ambiguous, the impression he was trying to convey was that demand far exceeds supply, a hypothesis more convincingly shown by a survey undertaken a few years later by the L.C.C. In the face of this situation he moved that:

"the Government should insist on the urgent necessity for local authorities to make adequate provision in town planning schemes for the reservation of open spaces and if necessary, to provide some more effective powers to enable local authorities to acquire land for recreation in all cases where it cannot be purchased on fair terms by negotiation."⁷⁷.

75. Pepler, op.cit P.15.

76. See Section 1.1 P.9.

77. Journal of Royal Town Planning Institute Vol II 1925-6
Editorial Comment p.196.

This epitomized the growing feeling that more guidance was required. At the same time the National Playing Fields Association (N.P.F.A.) was formed following a mass meeting in the Albert Hall on the 8th July 1925. A resolution was carried:

"that this meeting, recognizing the vital importance of playing fields to the physical, moral and mental welfare of the youth of the County, deplores the widespread and increasing shortage of recreation grounds, and urges all local authorities, sports governing bodies, societies and members of the public interested in the matter to co-operate with the N.P.F.A., in order that, by their united effort, the deficiency may be met."⁷⁸.

To further this end the Association gave guidance in the form of a standard of provision of 6 acres of playing space per thousand population. Playing space in this standard referred to pitches, courts, greens, children's playgrounds, areas for casual play, athletics facilities and pitch and putt golf courses. Consequently the emphasis was very much on outdoor sport and play and no guidance is given on who should be the providers of these facilities (although they should be available to the public) and where they should be located in terms of the population served. The amount of provision was arrived at by deductive reasoning, based on doubtful "a priori" assumptions and in so doing indicates the type of provision:

"This (the standard) assumed that on average per 1000 persons 500 would be in the active 10 - 40 year old group and that of these 500, 150 would not wish to play sport or were deterred by infirmity and 150 would

78. National Playing Fields Association, *Grounds for Action : a description of the work of the N.P.F.A.* (London : N.P.F.A.) (No publication date given)

be attending schools and colleges with their own recreational facilities.

The recreation needs of the remaining 200 people could be met by providing one soccer pitch, one hockey pitch, one cricket pitch, one three-rink bowling green, two tennis courts, a small playground and a pavilion which would just occupy 6 acres."⁷⁹.

The standard and its reasoning has been subsequently adopted almost without question in plans for London, with minor modifications, and by successive Governments until the 1960's. However some dissent was expressed as early as 1940:

"this standard is based on the wild assumption that one-third of the entire population will be playing games at one and the same time, so that it can be discarded as excessively extravagant - the extravagance of over-provision in reaction against under-provision."⁸⁰.

This acknowledges the doubtful methodology which forms the basis of the standard, but is also symptomatic of the changing attitudes against the low-density "prairie planning" of the 1920's and 30's and the endless suburban sprawl, reflected in the report of the Barlow Commission,⁸¹ which noted the need to contain urban growth:

"The more a town is diluted with playing fields the more it spreads, and the further the countryside is pushed away from its central inhabitants, and this applies to parks as well as playing fields."⁸².

79. W.F. Lever; "Recreational Space in Cities : Standards of Provision."
Journal of Royal Town Planning Institute 1973 pp 138 - 140

80. T. Sharp; Town Planning (Harmondsworth : Penguin, 1940). p.89.

81. Ibid P.89.

82. Ibid P.89.

In 1927 the National Playing Fields Association offered some guidelines on location of children's play facilities, saying that they should be located no further than half a mile from home. This was the only reference made to accessibility, apart from some of the standards advocated by a few individuals previously.^{83.}

(c) Comprehensive Town Planning.

During the early years of the Second World War, the elements of a comprehensive town and country planning system began to emerge and the London County Council commissioned Abercrombie and Forshaw to prepare a plan for the re-construction of London. This was a comprehensive, strategic plan, which contained the first detailed policies and guidelines for the provision of open space in London.^{84.} The mal-distribution and deficiency of open space in London was identified by means of a deficiency map showing districts with no open space above 10 acres within half a mile's walking distance. A target of 4 acres of public open space per 1000 population in rectifying these deficiencies was seen as reasonable, with a further 3 acres outside the County area. It states rather unclearly, that new areas of open space will be related to population, but it does not say to what size of area the standard applied.

83. e.g. F.L. Olmsted suggested a minimum of 5% of area of City should be devoted to parks and squares, with 3.1% being one 20 acre park every square mile and the remainder being made up by odd playgrounds and squares.

Also P. Abercrombie advocated 50 square feet of playground space per child under 14 years being not more than half a mile apart.
(referenced in G. Pepler, op cit. (Vol. X 1923 P.11-24)).

84. J. Forshaw - P. Abercrombie. County of London Plan
(London: L.C.C. 1943).

It is implied that new open space would be provided in deficient areas. The plan identifies three broad groups of open space to be provided within the 4 acres; 2 acres for playing fields and sports facilities; $1\frac{2}{3}$ acres for amenity parks and parkways and $\frac{1}{3}$ acre for small play areas, squares and rest gardens.^{85.}

A further policy, in addition to remedying public open space deficiency, was to co-ordinate existing and new open space into a park system. This would use radial roads along which parkways would be provided linking open spaces to form wedges from the Green Belt to the city centre. This originated from the theoretical ideas of Geddes and Pepler and for the first time was transformed into planning policy. The viability of the policy is doubtful, given the built-up nature of the urban area, and this is no doubt realized as it does not feature in the L.C.C. Initial Development Plan.^{86.}

In the same year as the publication of the County of London Plan the Government recommended a national standard of open space provision.^{87.} of 10 acres of open space per 1000 population (6 acres of playing fields and sports, 1 acre of parks and gardens and 3 acres of school playing fields). This referred to all open space of which public open space would constitute 5 acres (4 acres of playing fields and 1 acre of parks and gardens). This standard was incorporated in the Greater London Plan 1944.^{88.} This plan

85. Ibid para 146.

86. London County Council, Administrative County of London Plan (London: L.C.C. 1951).

87. Ministry of Town & Country Planning Circular No. 5: 1943.

88. P. Abercrombie on behalf of the Standing Conference on London Regional Planning for Minister of Town and Country Planning: Greater London Plan (London : L.C.C, 1944).

complements the earlier one and confines its attention to that part of London beyond the County boundary out to 30 miles from the centre.

Whilst adopting this standard the Plan outlined some of the weaknesses inherent in it : it may not be possible to achieve this target locally in the centre of large towns owing to the density of development; the topography will influence the existing and future distribution of open space; there is a problem of applying a gross figure for open space to a given population without indicating the type that should be provided and its location; there is a considerable amount of private open space in some areas which can act as a substitute for public provision - should this be taken into account; finally the imbalance in emphasis towards sport and organised games was noted:

"The National Playing Fields Association and Education Authorities are apt to estimate the area required for different games and age groups, according to leisure hours, saturation point in the use of land etc., and leave what balance there is from a standard figure for all other purposes. This is a one-sided approach."⁸⁹.

This is still being advocated by the National Playing Fields Association and is endorsed by the Government.⁹⁰.

The park system policy is also contained within this plan and also an admonition that private open space should be safeguarded:

"Every inch of available or existing open space needs to be safeguarded. Some, where the full extent of public rights are in doubt are still in danger of being lost."⁹¹.

89. Ibid. P.99 para. 236.

90. M.H.L.G. Open Spaces Technical Memorandum No. 6 1952. See also Appendix on methodological problems associated with standard, I(c).

91. L.C.C. Greater London Plan op.cit. P.99 para 239.

This policy is still being promoted today, as is the recommendation to consider the provision of school open space facilities in relation to wider community provision and need.

Both these plans were advisory, although some of their recommendations were officially adopted. In July 1945 the Council adopted the standard of 4 acres of public open space per 1000 population for the L.C.C. area, with an interim standard of $2\frac{1}{2}$ acres in areas where actual provision falls considerably short of the target. In March 1946 the Council approved an estimate for liability for £13m. for the acquisition of 300 acres of open space in deficiency areas.⁹² The standard was embodied within the Initial Development Plan 1951 prepared under the Town and Country Planning Act 1947 and became statutory when the statement was approved in 1955. Town maps accompanied this plan, indicating where new open space provision was to occur. Its location was determined in relation to the distribution of population after planned reduction in density through out-migration to New Towns and out-County estates and the distribution of areas deficient in open space.

Although the green wedge policy was not adopted in this plan the Council stated its commitment that neither public nor private open space would be developed for any purpose and that any open land lost would be replaced.

In 1952 a Government report,⁹³ re-affirmed the National Playing Fields Association standard of 6 acres of publicly owned playing fields should be

92. L.C.C. Administrative County of London Initial Development Plan (London : L.C.C.; 1951) P. 213 para. 1180.

93. M.H.L.G. The Density of Residential Areas (London : HMSO, 1952).

provided per 1000 population exclusive of educational facilities and private and club grounds, and one acre of parks and gardens. The report also indicates that no standards which have been suggested are mandatory on planning authorities and that this is a good thing as conditions and situations vary from town to town. This is a valid argument against the adoption of a rigid standard across the board which applies equally well to areas within London - a theme which will be developed throughout this study.

In 1956 the Government again re-affirmed the N.P.F.A. standard:

"no better assessment of need has so far been put forward"⁹⁴.

However the slow progress in the acquisition of open space under the Initial Development Plan was beginning to indicate that this adopted standard was not a realistic target. The First Review of the plan in 1960⁹⁵ showed that the level of open space provision had only increased by 238 acres for the entire County of London between 1951 and 1957 resulting in an increase in provision from 2.46 acres to 2.61 acres per 1000 population.

Consequently there was a growing need for a more realistic standard. The first call for a re-assessment of standards with regard to sport and active recreation came from the Wolfenden Committee in 1960⁹⁶ which recommended an emphasis on the location and type of sports facilities to be provided as well as the amount.

94. M.H.L.G. Open Space Technical Memorandum No. 6
(London: HMSO, 1956)

95. L.C.C. Administrative County of London Development Plan. First Review 1960 - Statistics (London: L.C.C. 1960).

96. Wolfenden Committee Sport and the Community (Central Council for Physical Recreation, 1960).

At the same time dissatisfaction was being expressed at the working of the 1947 planning machinery.⁹⁷ There was a growing feeling that land use planning could not operate effectively without examining the broader processes which underpin the distribution of these land uses: the land market; population trends; economic and industrial development; behavioural patterns. The notion of a fixed standard for open space provision which was unrelated to the recreational needs and behaviour of the population epitomised the rigid and unbending land use approach to planning.

This new approach demanded rigorous and detailed research into these processes. By the mid-sixties two national recreation surveys and one concerning the use of open space in Greater London were being undertaken.⁹⁸ All three were sample surveys and all highlighted a similar major conclusion - the overwhelming importance of passive informal outdoor recreation compared with the relative minority interest of sport and games. This contrasts with the emphasis given in the open space standards that were then in operation, to sports provision as opposed to informal outdoor recreation (The National Playing Fields Association suggested 6 acres of playing fields and 1 acre of parks and gardens).

The G.L.C. survey found that there was a functional relationship between the size and the number and quality of facilities, parks and open spaces, and the distance people were prepared to travel to them. The twin concepts of

97. See Section 1.1

98. (a) Department of Education & Science Ed. K.K. Sillitoe, Planning for Leisure (London: HMSO, 1969).

(b) BTA/University of Keele, Pilot National Recreation Survey Vol. 1. 1965

(c) GLC. Department of Planning & Transportation, Surveys of the Use of Open Space (2 Vols; Research Paper No. 2; London: GLC, 1968).

function and accessibility of open space revealed by this study have subsequently revolutionized open space planning. For the first time the recreation behaviour of park users was being taken into account and the location and type of provision was found to be in many ways more important than the quantity.

(d) Present Day.

The findings of the G.L.C. survey formed the basis of the planning guidelines for open space contained in the Draft Greater London Development Plan. This was the pioneer of the new style structure plans, its preparation taking place at the same time as the discussions which formed the basis of the 1968 Act.⁹⁹ The Report of Survey summarized the findings of the G.L.C. Surveys of open space and developed a hierarchy of open space provision (see Table 1.2(d)). This relates the size, type and characteristics of open space to the function and distances people are prepared to travel for each level in the hierarchy. Fig. 1.2(d)(i) illustrates the theoretical distribution of the different levels of the hierarchy. Each park type should fulfil its own functions together with those of each smaller type, thereby forming a nesting set of functions.¹⁰⁰

The plan intends that this hierarchy should be used as a guideline and framework for provision by the G.L.C. and the London Boroughs. It should be used

"with reasonably flexible interpretation, as a guide to the distribution, siting and kinds of open space required, paying

99. Town and Country Planning Act 1968 op. cit. (Eliz. II).

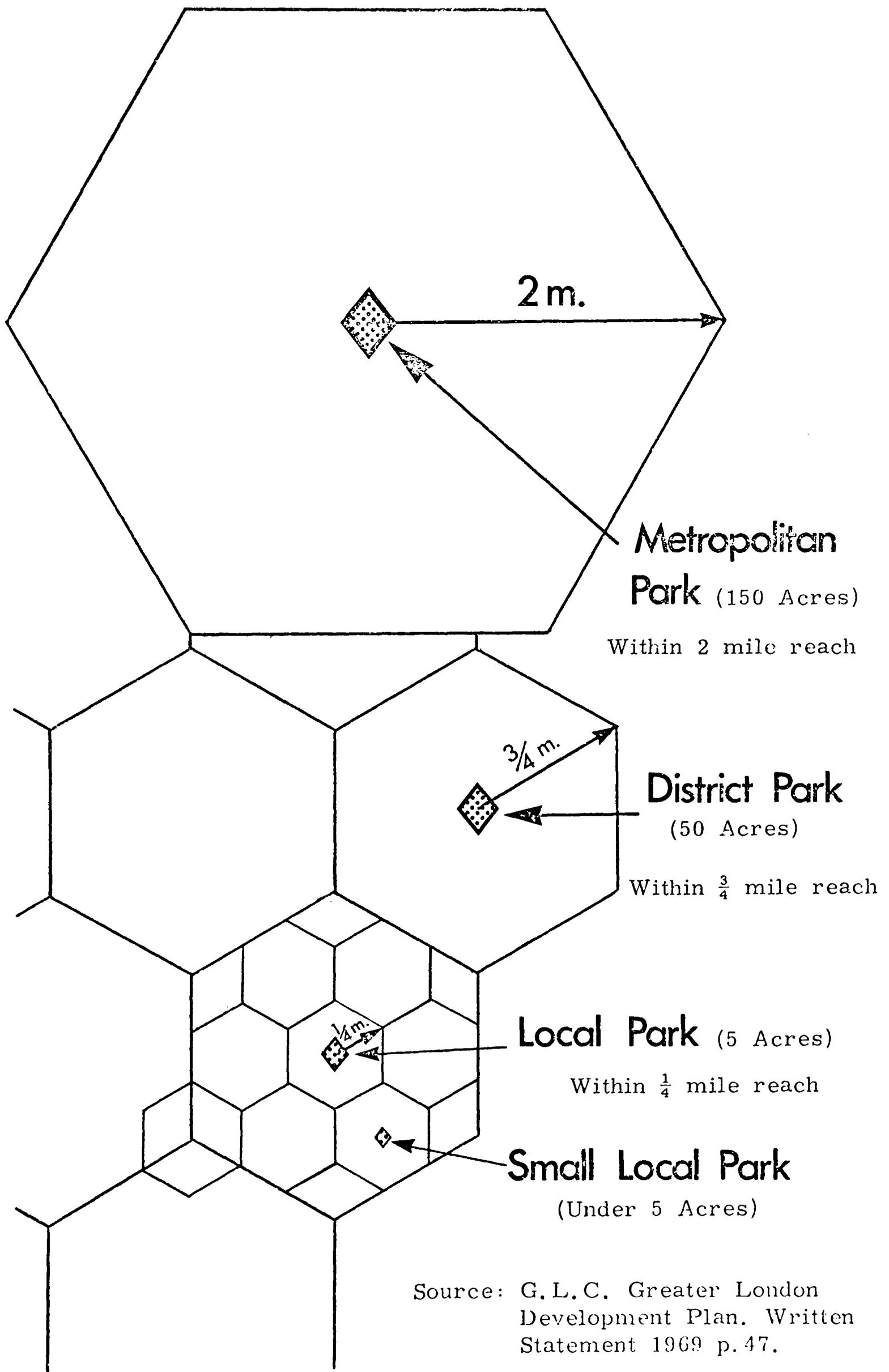
100. For a detailed discussion of the theoretical basis of the hierarchy see Appendix I(b). P.49.

Table 1.2 (d)

Types and accessibility of public open space

Type	Main Function	Approximate Size	Distance from Home	Characteristics
(a) Metropolitan Park.	Weekend and occasional visits by car or public transport	150 acres	2 miles, or more where the park is appreciably larger.	Either (i) natural heathland, downland, commons, woodlands etc., or (ii) formal parks providing for both active and passive recreation e.g. boating, entertainments etc., May contain playing fields but at least 100 acres for other pursuits, Adequate car parking essential.
(b) District Park.	Weekend and occasional visits on foot	50 acres	$\frac{3}{4}$ mile	Containing playing fields, but at least 50 acres for other pursuits (as in local parks and some car parking.
(c) Local Park	For pedestrian visitors including nearby workers.	5 acres	$\frac{1}{4}$ mile	Providing for court games, children's play sitting out areas, landscaped environment and playing fields if the parks are large enough.
(d) Small Local Park.	Pedestrian visits especially by old people, children and workers at mid-day particularly valuable in high density areas.	Under 5 acres	$\frac{1}{4}$ mile or less	Gardens, sitting-out areas and/or children's playgrounds.

Fig 1.2(d)(i) **THEORY OF ACCESSIBILITY TO PUBLIC OPEN SPACE**



particular regard to the density of population to be served,"^{101.}

The Report of Survey suggests how this hierarchy might be applied. By plotting the existing Metropolitan and District level parks and their crude catchment areas, based on the distances people are prepared to travel, areas of open space deficiency can be identified for these levels. Furthermore the areas of greatest open space need are identified by super imposing a series of sieves indicating social and environmental conditions in those deficiency areas. Three indicators are used: areas with net residential densities of 65 persons per acre and above; areas of housing stress within the deficiency areas; boroughs with less than 3 acres per 1000 existing public open space.^{102.} In this way the priority areas for new provision are determined. It is not explicitly stated but assumed that this hierarchy of provision is also a target which will ultimately be achieved for Greater London when the existing deficiencies are remedied.

In the approved written statement^{103.} the G.L.C. gives some ideas as to how this hierarchy may be implemented. It recommends the use of existing resources of open land such as burial grounds and the greater use of dual use facilities with educational establishments. These measures are stop-gap policies until new provision can be made. The problem of this approach is that opportunities for open space provision do not necessarily coincide with the areas of greatest need.

101. G.L.C. Modified Greater London Development Plan (London G.L.C. 1975) Sec. 9 para. 9.3.

102. G.L.C. Greater London Development Plan : Report of Survey. 196 Fig. 5.9

103. G.L.C. Greater London Development Plan. Approved by Secretary of State for the Environment (London : G.L.C. 1976.). P. 88.

In addition to the problems of making new open space provision in accordance with the hierarchy there are more fundamental theoretical problems of using it as a measure of recreational requirements for open space. The Panel of Inquiry¹⁰⁴. set up in 1969 to examine the draft Plan as part of the process in its approval expressed two reservations about the hierarchy: it was concerned that its universal application in terms of quantity, type and location would take no account of the varying densities of population in Greater London; (it could be argued that people living at higher densities in inner urban areas should have a correspondingly denser network of open space) the distances outlined in Table 12(d) are simple physical distances which take no account of the social, physical, economic and psychological barriers inhibiting the use of some open spaces and conversely the communications network which can facilitate accessibility. For these reasons the Panel suggested that the hierarchy was just as arbitrary as the original acres per 1000 population standard and should be dropped until a better measure of need is developed.

In the light of these comments public open space policy in the Plan was modified.¹⁰⁵ Whilst retaining the concept of the hierarchy it was suggested that it should only be used as a guideline and should be interpreted flexibly according to local circumstances. Furthermore the plan suggests that it is inappropriate to lay down specific formulae as peoples' needs are changing and the use of standards tends to be inflexible. The theoretical basis of the hierarchy, which draws heavily on Central Place Theory, is evaluated in

104. Department of Environment, Greater London Development Plan : Report of the Panel of Inquiry (2 vols; London; HMSO, 1973) Vol 1 P. 564; 568

105. G.L.C. Greater London Development Plan 1976. op.cit. P.83 para 9.4

Appendix I(b), and the methodological problems of applying it to open space provision are there examined in more detail.

In the original plan the hierarchy was to be used in conjunction with interim standards of open space provision, which for Inner London Boroughs was 4 acres per 1000 population (with an interim objective of 2.5 acres per 1000 in areas where provision was below that figure) and 5 acres per 1000 population for Outer London Boroughs (Fig. 1.2(d)(ii)).

FIG 1.2(d)(ii) INTERIM STANDARDS FOR THE OVERALL PROVISION OF PUBLIC OPEN SPACE IN EACH LONDON BOROUGH



1 in. equals 8 mi.

Source: G.L.C. Greater London Development Plan: Report of Survey. (London, GLC 1969) P.125

This was subsequently dropped from the Plan as being a crude measure of need. Some of the problems associated with the use of this standard are developed further.^{106.}

Other open land policies contained in the Greater London Development Plan refer to the Green Belt and to larger areas of open space within the urban matrix referred to as Metropolitan Open Land. The former is beyond the scope of this study. The policy relating to metropolitan open land is designed to preserve swathes of public and private open space which are of structural and environmental significance within Greater London. Such areas would form large green wedges defining and separating built-up areas which are important in maintaining the character of London as a whole. This policy has its origin in the system of parkways outlined in the County of London Plan. However this policy is not systematic in any way. It is merely a preservation policy, like the Green Belt, protecting open land where it exists. The policy has no explicit recreational content and it is unlikely to help those areas in most need of open space, except indirectly,^{107.} as it refers to existing areas of opportunity rather than areas of need or deficiency. This policy will consolidate existing inequalities in open space provision rather than ameliorate them.

There are two other environmental policies in the Plan which are complimentary to Metropolitan Open Land: "Areas of Special Character" - these are to be

106. See Appendix I(c) P.55 et seq.

107. Preservation of open land in Outer London can act as a reservoir of opportunities for Inner Londoners. This is particularly true of sports pitches for which teams from inner areas are prepared to travel to the suburbs.

preserved as amenity areas, including major open spaces, with a high landscape value e.g. the Greenwich Park/Blackheath complex; and "Other Areas of Opportunity" - which refer to areas other than Action Areas specified in the Plan which hold opportunities for change and improvement which will be of benefit to a large number of Londoners e.g. Surrey Docks. Fig. 1.2(d)(iii) indicates the proposed distribution of these policies in South East London. The last policy would appear to offer the most scope for developing new open space provision in areas of deficiency.

The ability to preserve open space is fundamental to the Metropolitan Open Land policy. The earlier section has shown that the local authority must be able and willing to preserve private open space. The machinery exists for such preservation but unless open space is performing some positive function the owner may force the local authority to purchase the land if planning permission for development is refused. A means of ensuring that open land remains open is to ensure that it forms part of a positive recreation policy. The Greater London Development Plan weakly exhorts London Borough Councils:

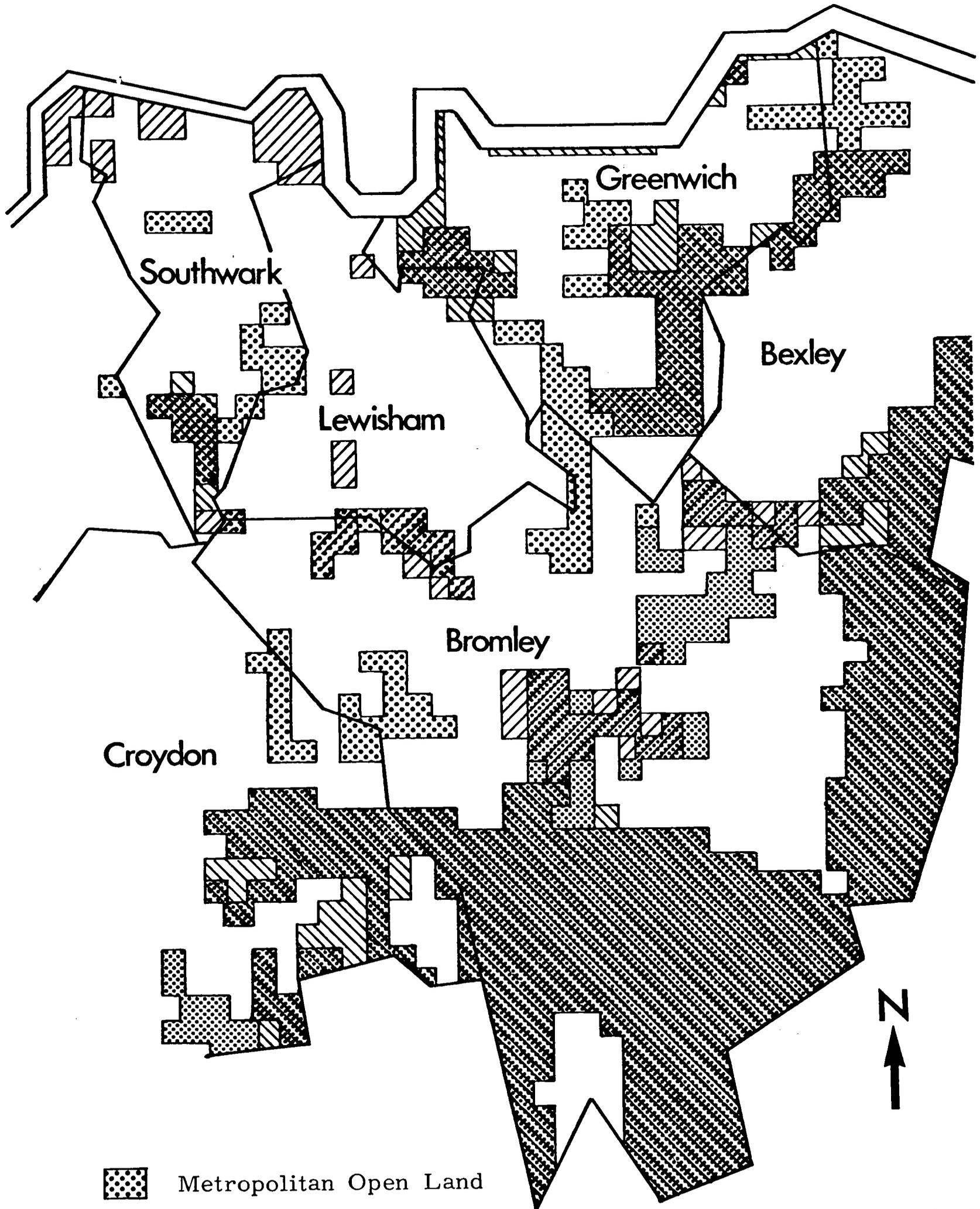
"to give special consideration to the safeguarding of such (private) open space, particularly in circumstances where it also has a strategic role as part of the system of Metropolitan Open Land and of the Green Belt." ^{108.}

It may be that private open space within the Metropolitan Open Land designation will be safeguarded as it is performing a specific role. However many

108. Greater London Development Plan 1976. op.cit. P.63 & P. 102.

Fig 1.2 (d)(iii)

GREATER LONDON DEVELOPMENT PLAN: OPEN LAND POLICIES



-  Metropolitan Open Land
-  Areas of Special Character
-  Green Belt
-  Other Areas of Opportunity

Scale Approx. one inch to two miles.

Source: Greater London Development Plan, Urban Landscape Diagram, 1976.

Private open spaces are not contained within such a policy and if their present use ceases then they are very susceptible to development. This problem is particularly pertinent to the loss of private sports grounds that has occurred in recent years. Between 1970 and mid 1972 178 acres of private sports grounds were lost to development in Greater London.^{109.} Of this total over half went to housing (mainly the private sector), over one third of the loss being in South East London.

It is possible that if the Greater London Development Plan had contained positive policies for the development of playing fields and sports grounds this loss might not have occurred. The Report of Studies makes reference to the needs of sport and acknowledges that the hierarchy caters mainly for general recreation needs and:

"sport requires separate criteria.....and further research is required to determine the amount of land required for team games and other sports."^{110.}

It further states that:

"analysis of needs for sports facilities on a regional or sub-regional scale is being conducted in conjunction with the regional sports council."^{111.}

This is in fact the case but there was no reference to a policy for outdoor sports in the approved Development Plan. This is a serious omission for a structure plan for Greater London which is meant to provide the framework

109. Data from records of Greater London and South East Council for Sport and Recreation.

110. G.L.C. Draft Greater London Development Plan Report of Studies op.cit para. 5.24(c).

111. Ibid para. 5.34.

for detailed local (land use) plans.

Instead the Regional Sports Council, an advisory body with limited grant-aiding powers, following the recommendations of the Wolfenden Committee and "Planning for Sport," has conducted a study of the use of playing fields and has developed policies for the provision and preservation of playing fields and sports grounds in Greater London. In the same way as the hierarchy for public open space provision, these policies are based on empirical research. From the Playing Fields study certain constants were obtained for each sport which were then input to a simple formula to estimate the number of pitches required for a given "relevant" population (males 10-44 years).¹¹² Although still a crude measure of need based on generalised data it does represent a considerable advance on earlier standards of provision which were based on "assumed" needs rather than "actual" needs.¹¹³ Policies for London are developed on a sectoral basis which suggest that outer boroughs should be prepared to develop and preserve pitches for the use of residents of inner boroughs. In doing this boroughs should preserve all existing private and public pitches; should develop new pitches in areas of opportunity e.g. Metropolitan Open Land; should develop synthetic pitches in areas of deficiency; should pursue management policies which improve the use of existing pitches e.g. make better use of education facilities; improve transport links to inaccessible pitches; manage demand by encouraging play on "off peak" days. For each sector the deficiency in pitches is estimated according to the formula and policies

112. Details of the formula are given in Appendix I(d) P.61.
(source: Greater London and South East Sports Council. A Playing Fields Strategy for Greater London (London: 1977)

113. For a fuller discussion of recreational demand and its measurement see Chapter 3. P. 136 et.seq.

seek to remedy these shortfalls.¹¹⁴

Although these policies represent a more realistic set of planning guidelines, they are not incorporated in any way into the Greater London Development Plan, the statutory structure plan for London. Instead they are promoted by the Regional Council for Sport and Recreation, an advisory body, and as such their implementation is left to the discretion of the local authority. A clearly defined statutory planning policy for outdoor sports would make the status of many private sports grounds more secure.

Apart from these specific policies and standards relating to open space for sport and informal recreation, there are a number of general policies for recreation of which open space facilities can form an element. In 1972 a Select Committee of the House of Lords was appointed

"to consider the demand for facilities for participation in sport and the enjoyment of leisure out-of-doors, and to examine what impediments may exist to the fuller use of existing facilities or the development of new ones and how they might be removed."¹¹⁵

Following this the Government published its first comprehensive set of policies in its White Paper "Sport and Recreation" Cmnd. 6200. In this document little reference is made to open space policies per se. The loss of private playing fields is acknowledged.

"The Government hope that local authorities, with the assistance of

114. For detailed evaluation of these policies see Ch. 7.P. 325 et.seq.
115. Great Britain, Parliamentary Papers, Second Report from the Select Committee of the House of Lords on Sport and Leisure (London: HMSO 1973) P.Vii.

the Regional Sports Councils, will keep a close watch on applications to develop private open space. It is important to ensure that in planning full account is taken of the needs of sport and recreation compared with other needs."¹¹⁶.

The most recent development in recreational policy has been the adoption of an approach which positively discriminates in favour of recreationally deprived areas. These have been defined as:

"inner urban areas which have suffered from environmental deprivation and have lagged behind, particularly in recreation provision."¹¹⁷.

This definition is contained in the first comprehensive Government statement which relates to sport and recreation. The White Paper goes on to state that such areas should be given special financial assistance for recreational projects. It proposes that the imbalance between under-provided and well-provided areas will be redressed by grant aid to areas of deficiency made by the Sports Council. The machinery for such aid has been established so that projects falling within such "Areas of Special Need" are eligible for grant aid up to 50% of the capital cost to a maximum of £50,000.

Areas of recreational deprivation are in many instances associated with social and environmental deprivation, especially in the Inner City, and the Government suggests that within the limited resources available the highest priority ought to be accorded to such areas.

116. Department of Environment, Sport and Recreation, Cmnd. 6200 (London HMSO 1975) P.13 para. 45.

117. Ibid para. 56.

A broader area based policy is that of the Urban Programme which provides Central Government funds to certain local authorities to meet the needs of areas of severe "social deprivation." This money is used for expenditure on environmental and social projects, which include recreation. Areas eligible for such funds are defined as:

"those areas within towns and cities containing those who are relatively deprived by national standards and where the pressure for social services is severe."^{118.}

More recently the Government has entered into special partnerships with local authorities in selected areas which are given even higher priority among urban programme areas.^{119.}

Within the year 1979 - 80 further money has been made available to recreation projects through an additional grant to the Sports Council for "Urban Deprivation" and "Football and Community" schemes.

Consequently there is a considerable duplication of grant aid to recreationally deprived areas, either directly from Central Government or via its agencies. Whilst there are no specific policies relating to open space provision this sort of project would be eligible for grant aid. The merit of applying an area based approach specifically to open space policies will be examined in Part II.

There is no comprehensive set of planning policies relating to provision of

118. Home Office Circular 100/75.

119. Department of Environment. A Policy for the Inner Cities. Cmnd. 6845 (London: HMSO, 1977).

open space for recreation, although there are plans, policies and standards which cover most aspects of provision for informal recreation and sport. The appropriateness of these policies in the light of the demand for and supply of open space in South East London and their application and implementation by planning authorities and other bodies will be the central theme of part II of the study.

APPENDIX I(a) PLANS, POLICIES AND STANDARDS.

There is some confusion as to the meaning of these terms and the relationship between them. This appendix will seek to clarify these definitions to these terms which will be used in the study.

Fig. 1.

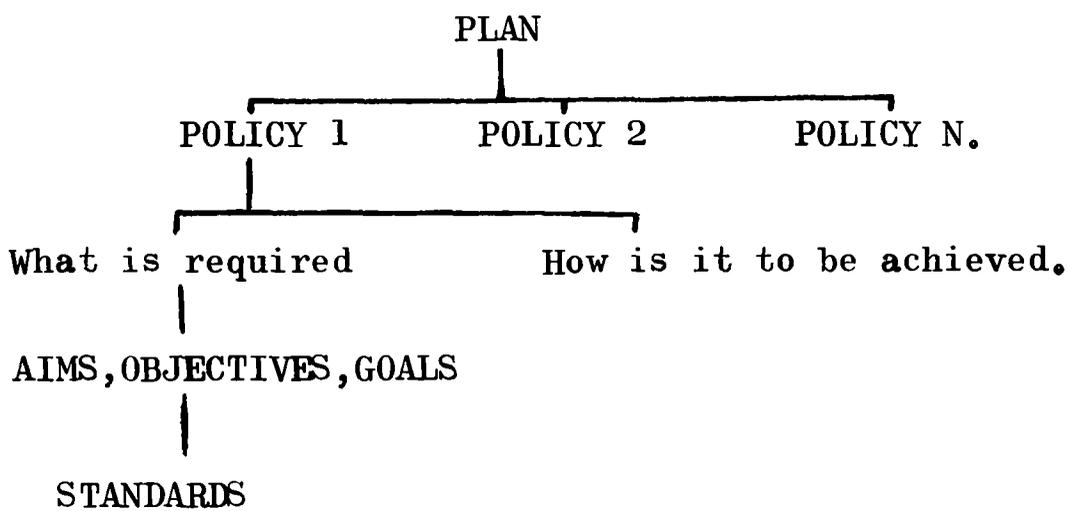


Figure 1 illustrates diagrammatically the relationship between a plan, policies and standards. The plan is a method or way of proceeding thought out in advance. The structure plan for a County or Metropolitan area provides a framework for broad land use policies to be co-ordinated and channelled into socially and economically desirable directions. A plan will contain a series of policies which can be defined as courses of action to be adopted in pursuit of certain aims, objectives and goals. Consequently there are two components to a policy:

- (i) What is required: that is what is trying to be achieved.
- (ii) How it is going to be achieved.

The first component is often referred to as the aim, goal or objective which are broadly synonymous terms, which Solesbury calls:

"expressions of value in the form of statements of desired circumstances."¹

He goes on to suggest that there is some distinction between these terms. Goals and aims are more general statements whilst objectives may be more specific. An aim or goal may be to increase recreational opportunities within the area of the plan. A specific objective within that may be to increase the number of tennis courts. All three represent targets to be strived for but stated in this way they are not very useful.

Standards provide tangible targets which give expression to goals and objectives. They offer a yardstick against which the progress towards achievement of a certain objective can be measured. A simple example is a residential density standard e.g. 40 persons per acre, a specification to which new housing developments can be built. In recreation the "acres of open space per thousand" population is the most well known standard.

The second component of policy relates to how objectives and goals, which use the tool of standards are achieved. This refers to the planning legislation, powers and finance that are available to implement and pursue objectives. The dichotomy within policy of "what is required" and "how it is to be achieved" will be used as the basis for the evaluation of policies in Part II.

1. W. Solesbury; Policy in Urban Planning. (Oxford: Pergamon, 1974). P.57.

APPENDIX I(b) The theoretical basis of the Greater London Development Plan's hierarchy of open space.

The table of types and accessibility of public open space and the theoretical distribution developed by the Greater London Council as a guide to the siting and kind of open space provision is based implicitly on the concepts and principles of Central Place Theory. This open space hierarchy does not pretend to be a theory, it does not explain the location or types of open space, it merely acts as a framework by which to plan open space in a way that relates size and function to patterns of use. This appendix will examine the assumptions, concepts and principles of Central Place Theory as originally formulated by W. Christaller¹ and draw parallels with its application to recreational geography and in particular open space planning. This will indicate whether the assumptions and concepts have been correctly applied, or whether indeed they can be transposed from one set of phenomena to another.

The theory was originally formulated by Christaller as:

"a general deductive theory designed to explain the size, number and distribution of towns in the belief that some ordering principles govern the distribution."

It was a deductive economic theory about the spatial dimension of the demand for goods and services based on certain "a priori" assumptions.

Since it was first published Christaller's theory has been tested, confirmed,

1. W. Christaller, Die Zentralen Orte in Suddentschland 1933 (Translated by C.W. Baskin). (Englewood Cliffs N.J. 1966).

re-formulated and applied by numerous geographers to different areas of interest.^{2.}

It has been most generally applied to settlement geography and to retail geography, both at the inter and intra-urban levels.^{3.} It has also been applied to recreation geography, most notably by Mitchell who has formulated a theory of public urban recreation.^{4.}

The concept basic to Christaller's theory is that of the Central Place - a settlement providing one or more services for the population living in the surrounding area. The Central Place is also supported by the produce of the surrounding area. This two-way relationship was identified earlier by Von Thunen. The Central Place acts as a focus for the surrounding area and provides central goods and services for its population. In the Greater London Development Plan hierarchy, open space is analagous to the central place and the recreational facilities it provides are equivalent to central goods and services.

The surrounding area or complimentary region served by the Central Place is

2. For a comprehensive review of literature see B.J.L. Berry & A. Pred. Central Place Studies : A bibliography of theory and applications (Regional Science Research Institute 1961). Bibliography Series No. 1.
K. Szumeluk. Central Place Theory : A Review (London : Centre for Environmental Studies Working Papers, July 1968).
3. For example L.C. King "A Quantitative Expression of the Pattern of Urban Settlements in selected areas of the United States" Tijdschrift Voor Economische en Sociale Geographie 53 (1962) PP. 1 - 7
B.J. Garner. The Internal Structure of Shopping Centres. (Northwestern University, Studies in Geography, 12 - 1966).
4. L.S. Mitchell. "Towards a Theory of Public Urban Recreation." Proceedings of the Association of American Geographers. I (1969) PP. 103-108.

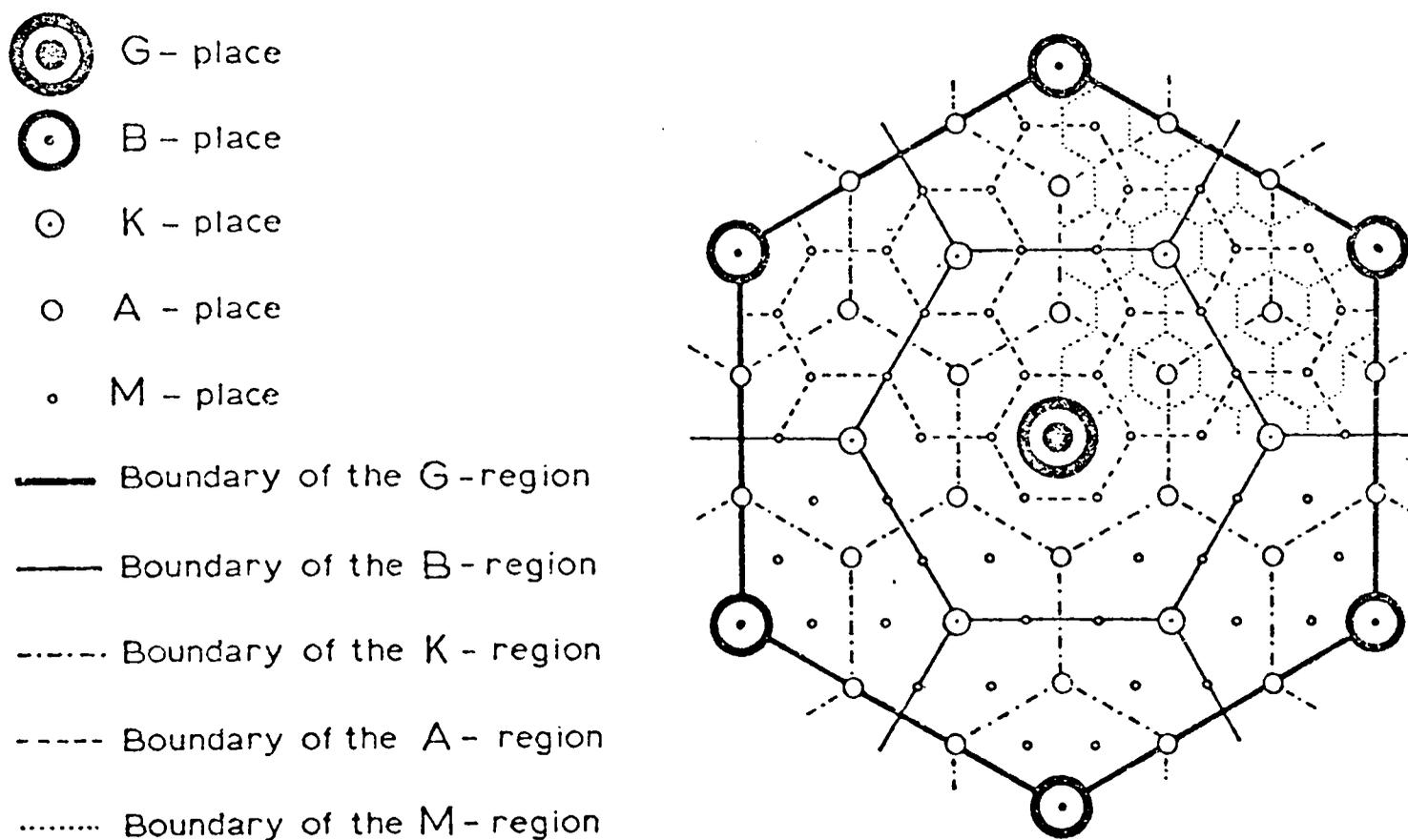
the equivalent of the catchment area in relation to open space.

Christaller envisaged a hierarchy of discrete orders of Central Place ranging from the highest order containing the full range of central goods and services and serving the largest complimentary regions, to the lowest order, containing perhaps only one or two basic goods and services to serve the smallest complimentary regions. As an example the humblest hamlet has a grocer shop, whilst theatres occur only in provincial towns and cities and the Capital. In the same way large parks offering a wide variety of recreational opportunities serve large catchment areas whilst the small open space on the street corner may just serve a few residents in the immediate area.

Implicit in this notion of hierarchy are the concepts of "range" and "threshold." The "range" of a central good is the farthest extent at which it can be provided economically (i.e. the producer's viewpoint if it is being distributed). The range for the consumer will be determined by how far he is willing to travel for the good based on time/distance costs. The range will determine the boundary of the complimentary region. The distance people are willing to travel to a park for recreation will also form the range and the boundary of the catchment area. The "threshold" is the minimum number of people required to support a central good or service. A jeweller's shop in a village would not have enough customers to operate economically. At this point the analogy breaks down. There is no equivalent idea of threshold in relation to open space which is a purely economic concept. The recreation opportunities offered by parks are free goods. Nevertheless the provision of facilities by public authorities will be guided by the likely support of the surrounding population. A park in a small town may not justify a skateboard area on its catchment population.

Christaller envisaged that the hierarchy of discrete orders of settlement would be distributed over the landscape in such a way as to serve all the population with the full range of central goods and services, from lowest to highest.

Fig I(b) The Central Place System after Christaller.
In this construct $K = 3$



Source: H. Carter. The Study of Urban Geography
(E. Arnold 1972) Ch. 5 P.

This distribution depends on certain assumptions which underlie his theory. He assumed an isotropic landscape with a uniformly distributed population and purchasing power, uniform transport accessibility and cost in all directions, and uniform topography and resources. Under these circumstances

a triangular lattice of central places, each place serving hexagonal complimentary regions, is the most efficient to serve the entire population. (See Fig.I(b)). The functional hierarchy is spatially expressed by higher order central places being more widely spaced than lower ones, and serving larger hexagonal complimentary regions, and lower order central places nesting within the complimentary regions of higher order places. In this nesting arrangement higher order places supply all the central goods and services of lower order places.

The hexagonal arrangement ensures that each member of the population is within the shortest possible distance of each order of central place. This arrangement "the marketing principle" is the basic pattern of Christaller's theory, although he did suggest other arrangements.

The nesting pattern of central places and their hexagonal complimentary regions forming the triangular lattice of Christaller's "marketing principle" can be expressed mathematically. He called it a $K = 3$ arrangement, whereby the size of the complimentary region and tributary population for a given order of central place is three times greater than the next lowest order in the sequence. Also the distance between settlements of a given order is $\sqrt{3}$ times greater than that of the next lowest order. Finally the number of settlements increases geometrically by the power of 3 from highest to lowest orders i.e. 1,3,9,27 etc.,

This spatial arrangement contained in central place theory has been loosely adapted in the Greater London Development Plan. The theory of accessibility to open space⁵, showing the spatial relationship between

5. See Ch. 1. Fig. 1.2(d)(i).

Metropolitan, District, Local and Small Local parks does not accurately reflect the hexagonal arrangement of the original, nor does it suggest the same level of mathematical precision. For example it is recommended that all homes should be within 2 miles $\frac{3}{4}$ mile and $\frac{1}{4}$ mile of a Metropolitan District and local park respectively, which implies that parks within these three size categories should be located at 3.5 miles, 1.32 miles and 0.44 miles from each other respectively. The nesting hexagonal arrangement ($K = 3$) would suggest that the distance between parks of a given size would be $\sqrt{3}$ greater than that of the next smaller category. This relationship does not apply in this case. Consequently it is the spirit rather than the letter of the spatial arrangement of Central Place Theory which has been adopted by the Greater London Council, as a framework for open space policy.

The nesting of functions which is fundamental to Central Place Theory has also been adopted in the Greater London hierarchy:

"Each type of park will fulfill not only the functions which the Table indicates, but also the functions of each smaller type of park for residents within the appropriate distance. For example, a district park will also serve, for those living within a quarter of a mile, as a local park." 6.

The use of the hierarchy as a basis for planning open space and guiding provision has a number of problems which will be developed in Part II

6. G.L.C. Greater London Development Plan, 1976 op cit P.83 para. 9.4.

APPENDIX I(c) Methodological Problems associated with the "Acres per Thousand Population" open space standard.

Although this form of standard for open space provision has been advocated and widely adopted since 1925¹, there are considerable methodological problems associated with its application and the assumptions upon which it is based. This standard was most recently included in the draft Greater London Development Plan² to be used in conjunction with the public open space hierarchy standard. Table A indicates the standards that were advocated as targets for Inner and Outer London Boroughs.

Table A.

Quantities of public open space

<u>London Borough</u>	<u>Standard</u>
City of London	
City of Westminster	
Camden	
Greenwich	
Hackney	
Hammersmith	
Haringey	4 acres per 1,000 resident population with a
Islington	first objective of 2½ acres per 1,000 where
Kensington and Chelsea	provision is at present less
Lambeth	
Lewisham	
Newham	
Southwark	
Tower Hamlets	
Wandsworth	

Barking
Barnet
Bexley
Brent
Bromley
Croydon

1. National Playing Fields Association Standard 1925 (see Ch. 1. P.24.).

2. G.L.C. Greater London Development Plan, draft (1969) op.cit P.125

Table A. continued.....

Quantities of public open space

<u>London Borough</u>	<u>Standard</u>
Ealing	
Enfield	
Harrow	5 acres per 1,000 resident population
Havering	
Hillington	
Hounslow	
Kingston Upon Thames	
Merton	
Redbridge	
Richmond Upon Thames	
Sutton	
Waltham Forest.	

As well as being a standard or target the ratio of acres of open space to population can also be used as a measure of relative deficiency which will indicate whether further open space provision is necessary to reach the required target.

Similar standards have been developed, in parallel, in the United States and these have also recently come under considerable criticism. The main problems are summarized below drawing on British and American experience.

1. The "acres per thousand" standard is a conventional density measure such as population per square mile. It tells us what the situation would be for any given geographical unit, assuming that the open space and population is evenly distributed i.e. it gives no idea of the actual distribution of open space or the differing population densities within the unit. It is likely that the ratio of open space to population will become more extreme the smaller the geographical unit e.g. an enumeration district may be completely covered with open space or may be completely residential.

The use of these ratios is severely limited as it is an area weighted formula. It is likely that the ratio will be more useful or representative for larger geographical units such as boroughs or towns. It is used to good effect in Table B which shows the relative levels of public open space provision for inner, outer and Greater London and four of the boroughs of South East London and the change that has occurred between 1966 and 1971. These levels can be compared with the target levels in Table A to show the deficiency of provision in Inner London and Southwark and Lewisham and the surplus for Outer London and Greenwich and Bromley. The trends over time indicate that the deficient boroughs are gradually increasing provision, whilst the surplus boroughs are losing provision. This is in accordance with the urbanization processes outlined earlier, whereby decentralisation from the centre is occurring.

	1966			1971		
	Population	Acres of pub.O.S.	Standard	Population	Acres of Pub.O.S.	Standard
Greater London	7,666,370	39,332	5.13	7,452,346	41,070	5.51
Inner London	3,501,590	9,114	2.6	3,031,935	8,680	2.86
Outer London	4,164,760	30,188	7.25	4,420,441	32,389	7.33
Study Area	1,097,090	5,045	4.59	1,053,653	4,937	4.69
<u>Boroughs</u>						
1. Bromley	295,760	2,383	8.1	305,377	2,357	7.72
2. Greenwich	226,980	1,479	6.5	217,664	1,371	6.3
3. Lewisham	278,450	732	2.6	268,474	776	2.9
4. Southwark	295,900	451	1.5	262,138	432	1.6

Sources: Population Census 1966 and 1971
Greater London Land Use Surveys 1966 & 1971.

An extension of this same problem is that everything within the boundary of the geographical unit counts equally whereas everything beyond the boundary is ignored regardless of whether it is a quarter of a mile away or 10 miles away. The ratio uses a weighting measure of one or zero, all or nothing. Consequently "West" Ward in Greenwich has 0.9 acres of public open space per thousand population, whilst its neighbour "Park" Ward has 15 acres. Consequently for smaller units this ratio can be positively misleading. It is more appropriate to consider individual open spaces and their relationship to each other. This approach has been adopted in the Greater London Development Plan whilst this standard has been dropped.

2. As a target the "acres per thousand" standard gives no indication of the distribution or character of open space to be provided in each borough.

When discussing provision of sports grounds the Wolfenden report stated:

"There must not only be an adequate acreage of grounds; they must also be in the right place."³

The target may have been reached for a particular geographical unit, although the open space may be clustered in one locality leaving other areas locationally deficient.

With regard to the character of the open space to be provided the original N.P.F.A. standard recommends 6 acres of open space per thousand population for sport and 1 acre for parks and gardens. The sports provision was to be met by:

"providing one soccer pitch, one hockey pitch, one cricket pitch,

3. Wolfenden Committee, Sport and the Community, 1960. cited in R.B. Gooch "Planning and Recreation". Town and Country Planning, 32, (1964) P. 480 et seq.,

one three-rink bowling green, two tennis courts, a small playground and a pavilion which would just occupy six acres."

The exact mix of sports facilities was dropped when the standard was incorporated in the County of London and subsequent London Plans. Nevertheless it begs the question whether this "mix" is appropriate for all communities. It also ignores the possibility of private sports facilities which may be present in some areas and may be "substitutable" for some of the public facilities.

3. In the same way the distribution and character of the population is ignored and its recreational requirements for open space:

"Standards expressed as so many acres per thousand do not discriminate among communities in terms of varying propensities for recreation consumption. Differences among communities in terms of demographic and socio-economic characteristics produce quite different patterns of recreation demand.⁴

Population cannot be regarded as a homogeneous entity even at a very localised level. The assumption that so many acres per thousand will be required by so many people at the regional or national level becomes even more unrealistic. The National Playing Fields Association standard was and still is advocated nationally, although more recently it has acknowledged the need to assess the requirements of local communities.⁵

4. S.M. Gold, Urban Recreation Planning. (Philadelphia: Lea & Febiger 1973)Ch. 1.

5. National Playing Fields Association. Outdoor Playing Space Requirements. Review of NPFA Playing Space Target 1971 (London: NPFA, 1971).

4. Finally, the assumptions upon which the standard is based have come increasingly under question. The original justification for the NPFA standard makes assumptions about the number of people between 10 and 40 years who would wish to play sport.⁷ This was subsequently re-assessed in 1956 and endorsed by the Government.⁸ This re-assessment was made in a similar way to that of 1925, except that the changed age structure was taken into account. Assumptions were made about participation which were totally unsubstantiated. During the 1960's a number of findings were published based on surveys of participation in sport, which suggested that the NPFA standard was an over-estimate of need. Winterbottom in a survey of urban open space in Colchester concluded that $3\frac{1}{2}$ acres per 1000 population would be adequate.⁹ In 1966 the Sociological Planning Unit of the Ministry of Housing and Local Government suggested that $1\frac{1}{4}$ acres per 1000 population would allow for the maximum use of pitches, but that conditions and context would need to be taken into account. Newcastle City Planning Department suggested 2 - $2\frac{1}{2}$ acres of playing fields would be realistic.

Finally Balmer suggests that the NPFA standard gives heavy weighting to formal sports provision whilst demand studies¹⁰ all emphasise the importance of informal recreation as opposed to the relatively minority interest in sport.

6. See Ch.1 P. 24.

7. M.H.L.G. Open Space. Technical Memorandum No. 6. 1956

8. D.D. Winterbottom; "How much urban space do we need?" Journal of Royal Town Planning Institute 53(4) (1967) PP. 144-147

9. Willis, M. "The provision of sports pitches." Town Planning Review 38 1968 PP.293- 303.

10. G.L.C. Surveys of the use of open space; Research Report No. 2. 1964.
K.K. Sillitoc Planning for Leisure HMSO, 1969.

APPENDIX 1:(d) APPLICATION OF REQUIREMENTS
METHODOLOGY TO LONDON

Al.1 The method of assessing requirements for playing fields described in Part 1 (paragraphs 1.16 - 1.21) can be reduced to a simple formula for each sport:

$$\text{SPUs} = \frac{\text{POP}}{\text{TGF}} \times \text{HGW} \times \text{PEAK}$$

where:

SPUs = Standard Pitch Units required

POP = Relevant Population

TGF = Team Generation Factor

HGW = Home Games per Week per Team

PEAK = Proportion of Teams' Games on Peak Day

Al.2. For the purposes of this exercise a Standard Pitch Unit is defined as a pitch which is:

- (a) conventional grass, full sized and meets basic governing body requirements;
- (b) freely available to any bone fide user or open membership club (e.g. membership not restricted to special groups);
- (c) available on the peak day of play for the sport concerned;
- (d) available for at least two games per week every week of the season (except under generally accepted 'unplayable' weather conditions).

A1.3 The 'Relevant Population' has been identified as males aged between 10-44. The other values appropriate to estimating requirements in this exercise are set out in Table A1.1 and are based on the findings of the Playing Fields Study. It is emphasised that the application of this formula to small populations produces results which must be interpreted with care. In particular there is considerable local variation in the following for rugby and hockey, which may necessitate substantial adjustments to the theoretical requirements.

(Source: Greater London and South East Sports Council.

A Playing Fields Strategy for Greater London) (London 1977). P.A.1.

CHAPTER 2. THE PROVISION OF OPEN SPACE IN SOUTH EAST LONDON .

The statutory and planning framework is only one force acting on the provision of open space within the broader context of urban development. There have been numerous physical, economic and social forces and constraints which have interacted over time in shaping the present system of open space provision in south east London. After an initial examination of the relief and geology of south east London, by way of indicating the physical backcloth against which urbanization developed, the historical growth of this area will be reviewed highlighting the effects of legislation and planning, as well as the unplanned forces and constraints acting on the provision of open space. A description and evaluation of the existing open space supply as a recreational resource will follow and, finally, the amenity effects of open space will be examined, drawing links between the existence of open space and the quality of the urban environment. The recreational and environmental functions of open space have important implications for planning policy which will be developed. In this way the background will be set for a detailed evaluation of policies and planning standards in Part II.

2.1 Physical Basis of south east London.^{1.}

1. Based on:

- H. Dewey & C.E.N. Bromhead. The Geology of South London. Memoirs of Geological Survey of England & Wales: explanation of Sheet 276 (London: HMSO, 1921).
- National Environmental Research Council - Institute of Geological Sciences. British Regional Geology - London and Thames Valley, (3rd ed; London: HMSO 1960).
- A.E. Smailes "Site, Growth and Changing Face of London." The Geography of Greater London - a source book for teacher and student. ed. R. Clayton (London: Geo. Philip & Son. 1964). PP. 3 - 9.

(a) Structure. The basement structure of the study area is a section of the southern limb of the chalk syncline forming the London basin. This downfold occurred in mid-tertiary times, its main axis running north east through London along the present line of the Thames Valley. It is an assymetrical trough with the southern limb being more steeply inclined than the northern; consequently the North Downs is much nearer the river than the Chilterns.

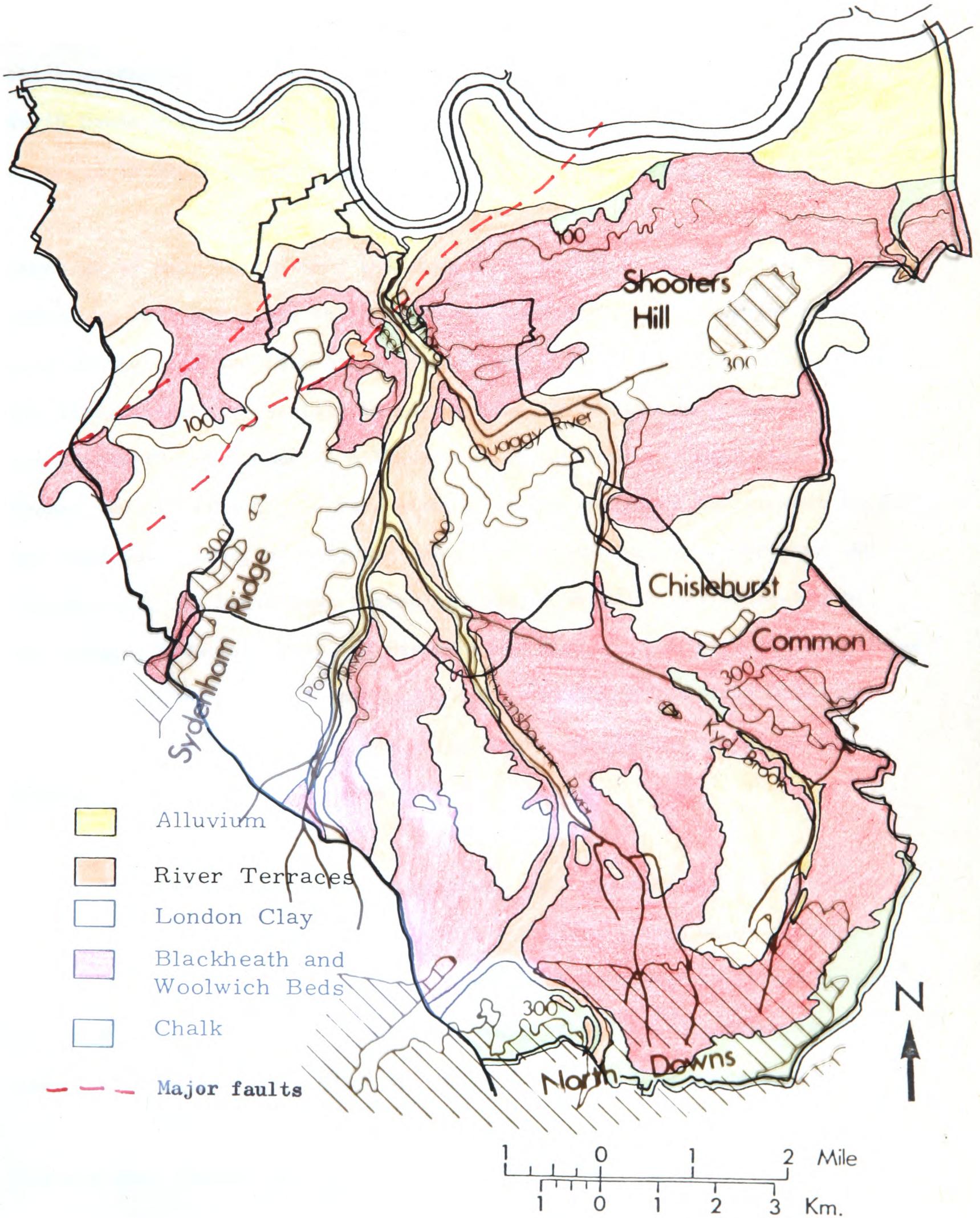
Within the study area section this simple pattern has been complicated by a number of minor faults and folds. There are two sets of disturbances running at approximately right angles to each other. One set runs south west/north east and includes two faults: the Greenwich fault running from Dulwich through Greenwich and continuing north east to the mouth of the River Roding; a roughly parallel fault from Raynes Park, through Tooting and Peckham dies out near Deptford. Both faults downthrow strata on the north and west sides. To the south and east of the Greenwich fault is a subsidiary anticline, the Crystal Palace/Sydenham Ridge with its axis roughly parallel to that of the main London Basin syncline.

The other older series of disturbances runs north west/south east and includes an anticline running from Chislehurst Common to Lewisham and a parallel anticline in the Ravensbourne Valley between Beckenham and Bromley. Both sets of disturbances find expression in the alignment of higher ground and the routes of tributaries, although the surface modelling which has highlighted these features is more recent.

(b) Geological Formations, Relief and Drainage. The chalk syncline has been covered by Eocene and more recent deposits, the distribution of

Fig 2.1 (b)

SOUTH EAST LONDON: SIMPLIFIED DRIFT GEOLOGY

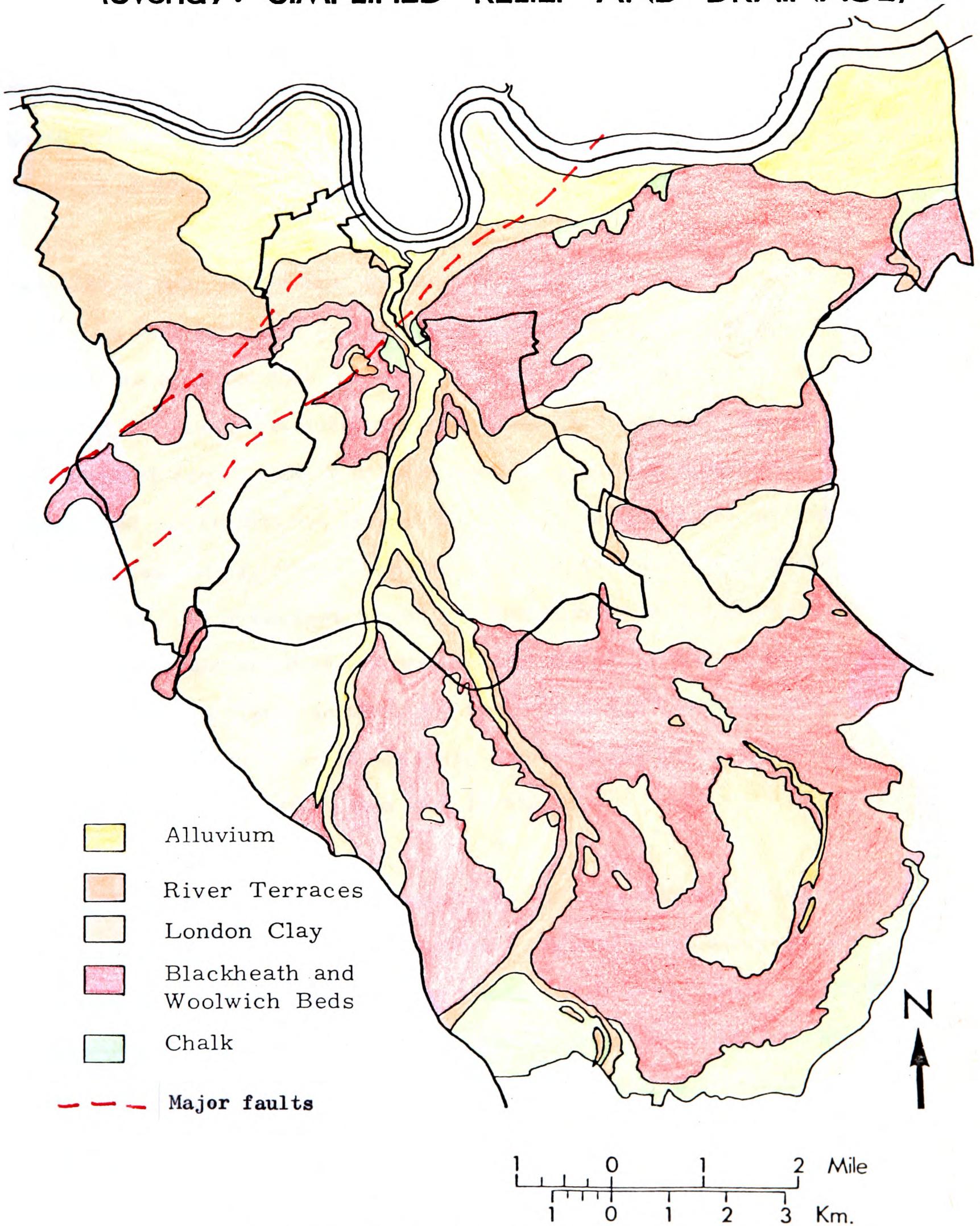


Source: O.S. 1" Maps (Seventh Series, 1970) Nos. 160, 161, 170 and 171, and 1" Geographical Maps (Fourth Impression, 1962) Nos. 256, 257, 270 and 271.

Fig 2.1 (b)

SOUTH EAST LONDON: SIMPLIFIED DRIFT GEOLOGY

(overlay: SIMPLIFIED RELIEF AND DRAINAGE)



170 and 171, and 1" Geographical Maps (Fourth Impression, 1962) Nos. 256, 257, 270 and 271.

which for South East London are illustrated in Fig. 2.1(b) . The simplified drift geology is shown in relation to the principal relief and drainage features. In chronological sequence the geology will be related to the topography for the study area. The southern limb of the chalk syncline is exposed in the south as part of the dip slope of the North Downs with land rising to 300 feet. The faulting and folding has resulted in small areas of chalk being exposed at Charlton and Lewisham.

Deposits of mud, coarse sand and shingle laid down in shallow coastal waters in tertiary times (Blackheath and Woolwich beds) cover the major part of the area and form the dominant land forms. These Eocene deposits are discontinuously overlain by London Clay, laid down when the sea reached its greatest extent some 50 million years ago. During recent times the Thames and its tributaries have etched out the relief of the present surface and laid down sand, gravel, mud and alluvium forming river terraces and floodplains. In South East London the Eocene deposits are dissected by the Quaggy, Kydbrook, Pool and Ravensbourne rivers leaving three interfluves of higher ground rising to above 300 feet; Chislehurst Common; Sydenham Ridge; Shooters Hill, the latter being capped by plateau gravel in the highest point in the study area (425 feet).

The major landforms and river courses are influenced by underlying faults and folds. The most impressive landscape feature is the steep terrace overlooking the Thames running from Blackheath to Bostal Woods and beyond, reflecting the downthrow of strata to the north of the Greenwich fault. In some places this feature rises by 100 feet in less than a quarter of a mile.

Between this terrace and the Thames are the floodplain and gravel terraces,

lying below 100 feet. These are most extensive in north Southwark, the Greenwich Peninsula and Plumstead Marshes. At Woolwich they are absent and Eocene deposits rise steeply from the river.

(c) Topography, Settlement and Open Space. Although primarily the product of social and economic processes, the development of south east London and its concomitant open space is, in a number of cases, affected and formed by the physical topography. There are three possible factors which may be of significance:

- a slope of greater than 15° which may inhibit development
- nature of underlying deposits, affecting drainage and water supply and consequently settlement.
- the course of rivers - flood and wash plains and marshes.

The instances where these factors have either promoted or limited settlement and possibly resulted in sterilised areas of open land which can be used for recreation, will be referred to in 2.2. The effect of these environmental factors must not be over-stressed as many steep slopes and poorly drained sites have been settled.

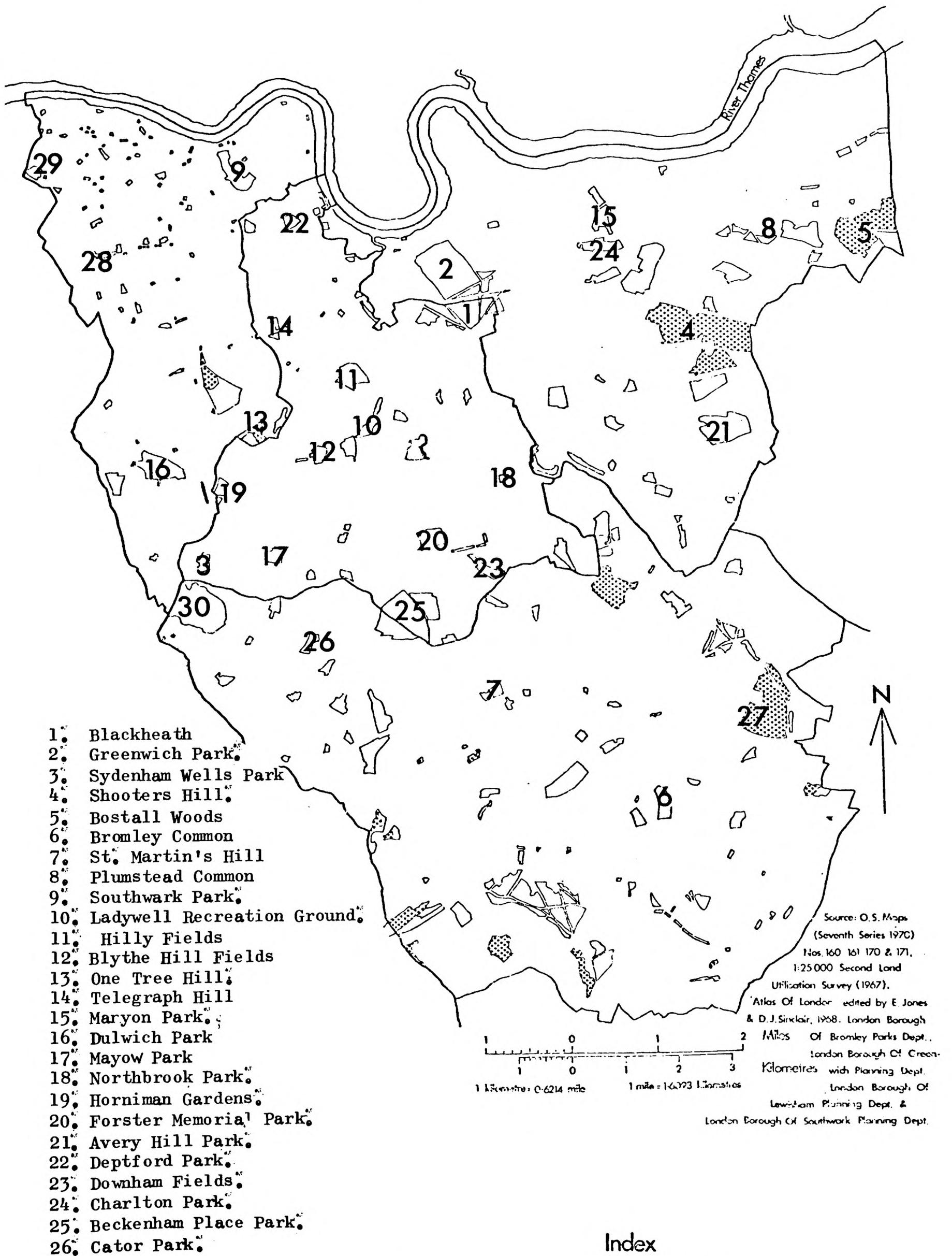
2.2 Urban Development.^{1.}

(a) Pre-Victorian. At the beginning of the eighteenth century the development of London south of the river was very limited. The localised residential area of Southwark was associated with the industry of the Surrey Docks; tanning and its associated trades of fell-mongering, wool-stapling and glue making. Further upstream were the timber yards of

1. Fig. 2.2(a)(i) provides location of major open spaces referred to in this Section.

Appendix II (d) (facing p.135) is a sequence of photographs of parks referred to in this Chapter.

Fig 2.2(a)(i) Public Open Space



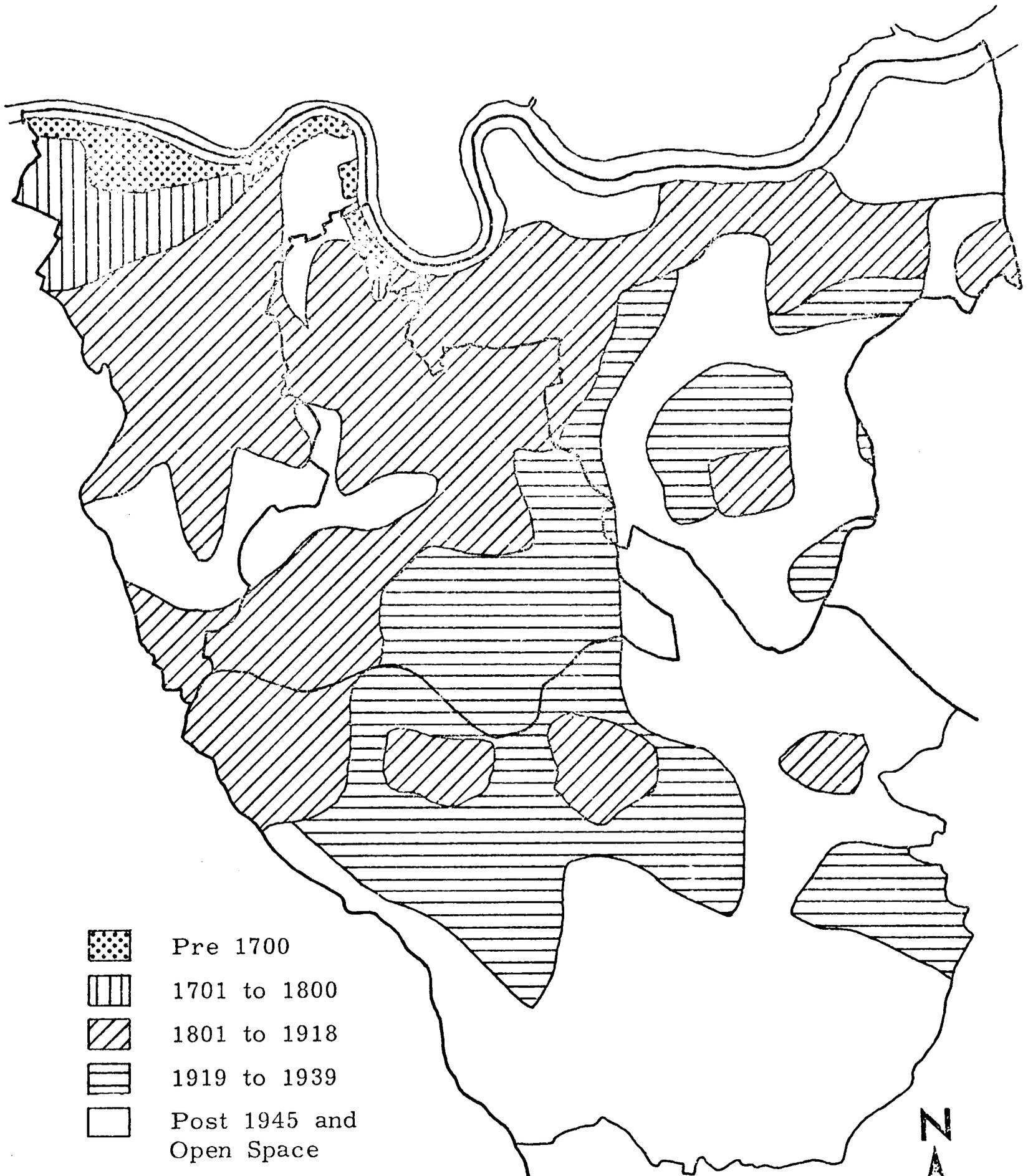
Lambeth.² Housing was densely packed and irregularly built, along the river wall and on patches of well-drained river gravels. With the opening of the approaches and links between Westminster Bridge (1750) and Blackfriars Bridge the area of St. Georges Field was rapidly developed, (Fig. 2.2(a) (ii)). Within this tightly packed urban area, the only open space was that provided in the form of squares in wealthy residential areas and by churchyards and cemeteries. Beyond this the only signs of urban development were the estates of wealthy merchants and the gentry.

At this time the private gardens of these estates were the main form of open space provision. Estates were to be found in areas with a good aspect, in particular the edges of Blackheath, which became very fashionable in the seventeenth and early eighteenth centuries. For example at the entrance to the Heath were the seats of the Countess Dowager of Dartmouth and the Honourable Admiral Legge. Perhaps the most impressive estate was that of Sir Gregory Page at Wricklemarsh. When he died in 1775 it descended to his nephew who sold it to John Cator of Beckenham for £22,500, who in turn sold it gradually for development from 1787 onwards.³ (See Fig. 2.2(a)(iii)).

Greenwich Park was unique to the area being a Royal Park, the first to be enclosed in 1433. Like the estates it was originally private open space belonging to the Crown for the purpose of hunting and was attached to the old Royal Palace at Greenwich.

2. O.K.H. Spate "Growth of London before 1800," Historical Geography of England before 1800, ed. H. Darby (Cambridge University Press, 1969).
3. J. Thorne, London and its Environs or the General Ambulator (12th ed; London, 1820). P. 120-3.

Fig 2.2 (a)(ii)
GROWTH OF SOUTH EAST LONDON
 (1700 to Present Day)



Source

O H K Spate. The Growth of London
 A D 1660-1800 (rep in H Darby.
 Historical Geography of England
 Before 1800 C U P 1969 Fig 85 p. 532).

O S Maps 1" (First Series 1805-1822) Nos 1, 6, 7 & 8

" " (Third Series 1909) No 116

" " (Sixth Series 1940) Nos 160, 161, 170 & 171

" " (Seventh Series 1970) Nos 160, 161, 170 & 171

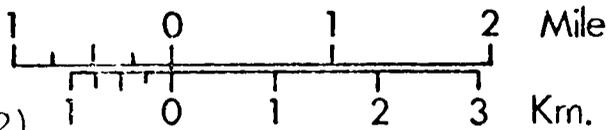
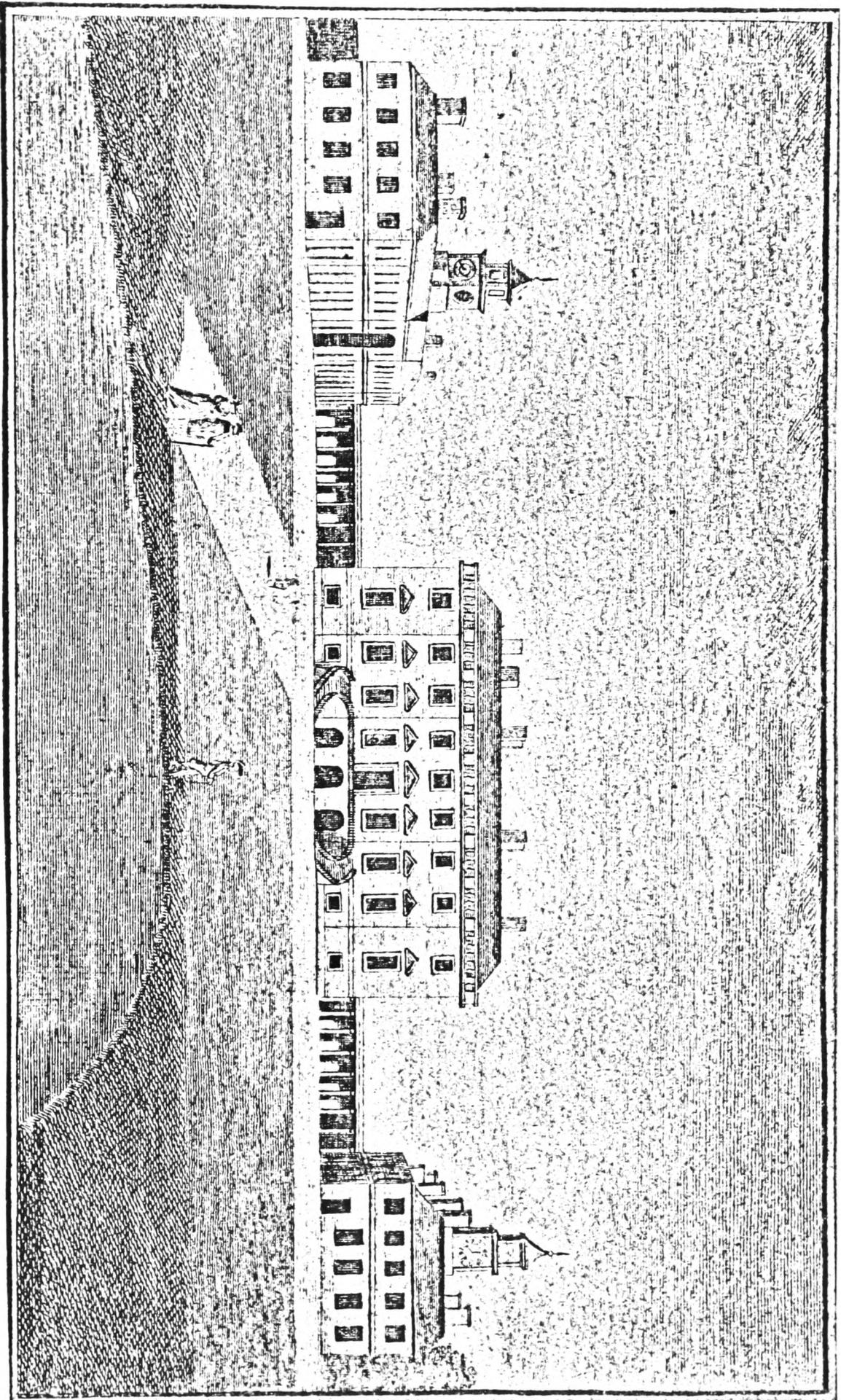


Fig 2 2 (a) (iii)



VIEW of the SEAT of the Late SIR GREGORY PAGE on
BLACKHEATH in KENT.

Source: Series of prints from Woodland's Library
90 Mycenae Road, S.E.5.

Charles II had the park laid out in its present form by Le Notre in the 1660's and it was stocked with deer and timber.⁴

In the eighteenth century the now densely settled parks of Camberwell, Bermondsey and Rotherlithe were the resorts of the wealthy and were surrounded by pasture land. Bermondsey had a spa and an amusement garden which flourished in the 1770's and 1780's and Camberwell contained:

"the respectable houses of people of property who retire here for air and recreation."⁵

Another spa resort at Sydenham Wells was mentioned by Evelyn in his diary of 2nd September 1675. After Visiting Dulwich College he returned:

"by certain medicinal spa waters at a place called Sydenham Wells, in Lewisham Parish, much frequented in the summer."⁶

A mineral spring at Shooters Hill became a favourite summer resort with tea gardens. Bostall Woods was popular with artists, naturalists and holidaymakers.

Commons and woodlands were beginning to acquire a recreational function. Blackheath was a gathering ground for military and ceremonial displays with the first fair being held in 1683 (Fig. 2.2(a) (iv)). It was popular with holidaymakers and the Royal Blackheath Golf Club used part of the Heath from the time of James 1st.

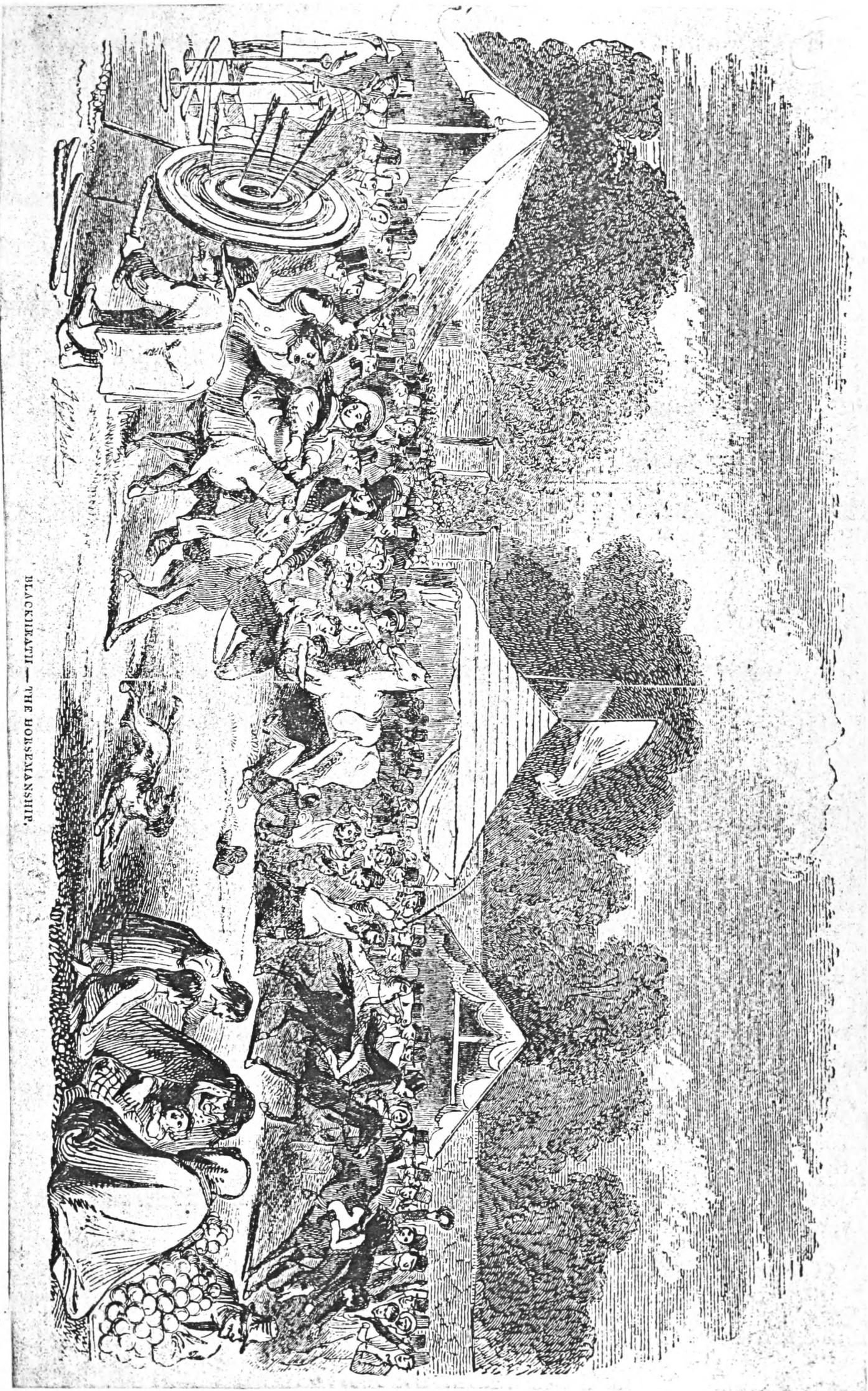
Thus before the Victorian era, open space was limited to the Royal Parks,

4. Ibid J. Thorne P. 467

5. Ibid J. Thorne P. 46

6. L.C.C. London Parks & Open Spaces (London L.C.C. 1906) P. 43.

Fig 2. 2 (a)(iv)



BLACKHEATH - THE HORSEMANSHIP

BLACKHEATH - THE HORSEMANSHIP

Source: Series of prints from Woodlands Library
90 Mycenae Road, S.E.3.

private open space, spas and pleasure gardens and some urban commons. The majority of this provision was only accessible to the wealthier members of society, and was provided mainly by individuals for their own use.

(b) Nineteenth Century. By the turn of the nineteenth century urban growth, although still limited, was gaining momentum. A Select Committee Report in 1833 recorded the population of the Borough of Southwark as 300,000 including out-parishes.⁷ It also describes the conditions of life in the Borough in a rhetorical way:

"are there now within the Borough of Southwark any open spaces in the nature of public walks reserved to the inhabitants, in which they enjoy themselves with their wives and families on holidays and Sunday evenings? None at all."⁸

Seven years later another Select Committee on Health in Towns noted the absence of public open space in the Metropolis:

"The large population of Southwark and Lambeth, to the south of the Thames are yet without such a source of enjoyment or salubrity!"⁹

The former pastures and resorts on the edge of London were being built over. In 1850 Bermondsey was "totally repellent" with cholera outbreaks occurring frequently. Not only were public open spaces not being provided within the newly developed urban areas but land was being provided for development

7. B.P.P. Select Committee on Public Walks 1833 (448) XV 337 para. 258

8. Ibid para. 261

9. B.P.P. Report of Royal Commission on the state of Large Towns and Populous Districts 1845 XVIII P. 68 para 30 et seq.,

by the enclosure of commons, hitherto the only truly accessible open space to the general public, e.g. in 1821 an Act brought much of Bromley Common into the hands of private owners and building estates gradually developed.^{10.}

A major catalyst to suburban expansion was the advent of the railways. The first steam railway in London was built between London Bridge and Greenwich (1836). At first the railway companies were not interested in local traffic but this developed rapidly after the 1860's. The original commuters were the wealthy, living in large houses adjacent to the newly developed railway stations, but later shopkeepers and clerks began to seek villas further out. Penge in the 1820's was a common noted for oaks and after the railway arrived in 1839 "the plague of buildings lighted upon it."^{11.} In 1854 Penge Place became Crystal Palace and part of the wood was converted to the Palace Grounds whilst the remainder was bought by the Freehold Building Society. This land was developed to become "in appearance a waste of modern tenements, mean, monotonous and wearisome."^{12.}

The same pattern occurred in Bromley, although the railways arrived later during the 1860's. Many old "wastes" became valuable with many attempting to erect fences quietly on disputable land. These activities made the need to retain open space for recreation more pressing. In the 1860's the townspeople of Bromley were agitating to secure Martin's Hill for the town as its ownership was uncertain and prospectors were keen to develop it. It was eventually bought by the Council in 1878 for £2,500 and was used as a

10. E.L. Horshburgh. Bromley, Kent. From the earliest times to the present

11. J. Thorne op.cit. P.467 century (London: Hodder & Stoughton

12. Ibid MCMXXIX) P. 57.

public park.^{13.}

This was one instance of the growing awareness that enclosure might result in the loss of all available open land. It was not just residential development that was the threat. On Blackheath, gravel digging was let by the crown for £56 rent in 1818 and this activity continued until 1865, when this and other encroachments were stopped by the Metropolitan Commons Act 1866.^{14.}

Before this legislation was passed the rights of Lords of the Manor as owners of common land were not questioned and many had disposed of it as they wished, in a frantic rush to enclose commons e.g. Plumstead Common. In the same year as the Act was passed the Lords of the Manor of Plumstead Common (the Provost and Fellows of Queen's College Oxford), who had previously enclosed a considerable portion of the Common, now enclosed Shoulder of Mutton Green and Bostall Heath. This was contested in the Courts and in 1878 the College was defeated - the Plumstead Common Act was passed which placed it under the jurisdiction of the Metropolitan Board of Works.^{15.}

By the mid-nineteenth century the "ad hoc" acquisition of land to be laid out for public walks was gaining momentum. In south east London various pieces of legislation were being passed to allow park development. In 1852 a park was developed at Kennington and in 1865 a site previously used for

13. E.L. Horsburgh; Bromley, Kent, From the earliest times to the present Century (London: Hodder & Stoughton MCMXXIX) P. 57.

14. See Ch. 1 P. 7.

15. L.C.C. op. cit. P. 34.

market gardens was acquired by the Metropolitan Board of Works for £57,393 in Rotherlithe. This was developed and opened as Southwark Park in 1869. The former use of this park implies that it was developed on the edge of the metropolitan area. It was also of considerable size, being over 60 acres, indicating the lack of physical and economic constraints acting on the development of the Park. Balmer suggests that as a general trend parks tended to be larger and located on the edge of the built up area in response to early legislation.¹⁶ Parks were developed in response to available opportunities, for example cheap land or donations of land, and consequently they were not always easily accessible to the people for whom they were intended.

After the 1870's as the urban area of London continued to expand, new parks tended to be smaller and developed within the urban matrix. A number of parks in south east London were developed by default insofar as the land was not built upon. Ladywell Recreation Ground in Lewisham was developed by the London County Council, formerly the Metropolitan Board of Works, on meadows of the Ravensbourne River prone to flooding:

"the flow of the river was formerly very irregular, so that at times the stream was quite dry, and at others the rush of water resulted in the flooding of the adjacent fields."¹⁷

Another type of residual site which building in some cases avoided was the hilltop. Hilly Fields was undeveloped in the late nineteenth century.

16. K.R. Balmer "Urban Open Space Planning in England and Wales."
(Unpublished PH.D. dissertation, Dept. of Geography, University of Liverpool 1972) Ch. 3.

17. London County Council. op.cit P. 33.

and was adjacent to the Parish of Deptford which was noted to be one of the poorest in London, on a par with those in the East End. In January 1892 a writer in "The Times" pleaded for the preservation of Hilly Fields showing:

"how unfavourably this district compared in respect of open spaces, with others in London in proportion to its population."¹⁸.

As a reason why this hilltop site was not developed Sexby suggests:

"It has long been recognized that it is especially important to keep the hill-tops around London free from buildings, so that the purity of the air blowing from the country may thus be preserved."¹⁹.

Despite the uncertain validity of this argument it may have resulted in a number of open spaces being developed on such sites. Other examples in South East London include Blythe Hill Fields, One Tree Hill, and Telegraph Hill.

A very important aid to the acquisition of open space by public bodies, such as the London County Council, at this time, was the donation of land by public-spirited landowners. John Wilson, the owner of grounds adjacent to Charlton House gave 12 acre Maryon Park to the London County Council in 1887 in honour of Queen Victoria's Golden Jubilee. This park was extended by two further donations of 5½ acres in 1909 and 2½ acres in 1925. In 1912 the son, Spencer Wilson donated the 32 acre site of Maryon Wilson Park and part of Hanging Wood to the Council. ²⁰.

18. Lt. Col. J.J. Sexby, Municipal Parks, Gardens and Open Spaces of London. (London: L.C.C.; 1898) P.116.

19. Ibid P.118

20. J. G. Smith Charlton (1970, privately published) PP. 242 - 245.

Another example of a donation made in honour of the Jubilee was that of the Lord of Bromley Manor who presented the town with 4 acres of land (a part of White Hart field) on condition that it be made into a public garden.^{21.}

Dulwich Park was originally meadow land belonging to the Governors of Dulwich College. In 1885 this was presented to the London County Council on condition that it should be laid out as a park with no music. The Council spent £40,000 on laying out the park providing a lake and a carriage road and horse ride to encircle the park.^{22.} There are many more examples of donations of land for this purpose. In Lewisham alone the following parks were developed on donated land: Mayow Park (1887) Northbrook Park (1897) Horniman Gardens (1901) and Forster Memorial Park (1919). Consequently parks were developed where opportunities arose, more by accident than design. Very little open space was provided in the inner areas of North Southwark and Lewisham, apart from the residual areas referred to earlier and smaller open spaces such as burial grounds and churchyards and some formal squares.

There was not only a lack of planning in the location of parks but also in their function. As the example of Dulwich Park indicates it was assumed that people would require a passive form of recreation, such as carriage riding or possibly the more middle class pursuits of horse riding. Parks were not designed for the masses whose plight had been drawn attention to half a century earlier.

The London County Council also acquired, a considerable amount of open space

21. E.L. Horsburgh, op.cit P.58.

22. L.C.C. op.cit. P.30

in South East London by purchase: in 1902 Avery Hill was bought^{23.} from Colonel J.T. North for £25,000, a former estate; Bostall Woods were purchased in 1892 from Sir Julian Goldsmid at £200 per acre;^{24.} Deptford Park was purchased in 1894 from Mr. Evelyn, the Lord of the Manor, for £36,031, of which he contributed £2000.^{25.} Opportunity was again the guiding principle in these purchases.

By 1914 the continuous urban area extended outward to Greenwich, Lewisham, Sydenham and Penge with an extension along the river to Woolwich (Fig.2.2(a)(ii)). This latter development was directly related to the downstream development of the docks and their associated industries. Even so this area was not completely developed as the marshland area adjacent to the river had little residential value. Beyond the urban area the villages of Beckenham, Bromley, Eltham and Chislehurst were developing in response to the railway, although at that time were still discrete settlements.

(c) Interwar. Between 1918 and 1939 the urban area of London expanded by 50% and the population increased by 17%. This represented the most rapid period of growth and the largest increase in London's size and population that the metropolitan area had experienced, either before or since. In South East London the open country between the built up area and satellite villages was infilled, mainly by low density private housing. As problems of mobility were being overcome with the development of the car and bus together with the electrification of the southern railway in the 1920's,

23. Ibid P.27

24. Ibid P.28

25. Ibid P.29

residential development could spread further out without problems of inaccessibility.

This rapid growth was assisted by low land costs and the newly available credit facilities available through Building Societies, enabling people to buy their own homes. The growing population of the suburbs was mainly due to immigration from the declining industrial regions of Britain, attracted by expanding employment prospects. This together with an increasing rate of natural increase and a smaller outward migration of population from the congested inner areas created a large demand for family type suburban dwellings.

At that time newly developing planning theories were advocating low density, spacious housing developments with private gardens. On such estates very little open space was reserved for recreation; presumably private gardens fulfilled this role. The London County Council was also developing public "out county" estates, designed primarily to rehouse those living in slum conditions in Inner London. In Catford the Downham estate was developed in 1925 designed for an ultimate population of 32,000.²⁶ By comparison this local authority housing was well provided in quantitative terms with open space (Downham Fields is centrally located). However considering the estate, in terms of size, is equivalent to early post-war new towns the distribution of open space leaves a lot to be desired. This central open space was developed to serve the whole estate. Some residents would have been required to walk over half a mile to this facility, and cross a busy major road.

26. J. Coppock & H.C. Prince eds. Greater London (London: Faber & Faber; 1964). P.160.

The low land costs which enabled private developers to build so easily also resulted in the acquisition of considerable amounts of open space, both public and private, for recreation. The location of such facilities was still being determined by opportunity rather than by positive planning. After the First World War there was considerable demand for playing fields for pitch sports and both the London County Council and private companies and commercial organisations acquired and laid out land for sports pitches. In 1925 Greenwich Borough Council bought Charlton House and Park for £60,000. Later 43 acres was transferred to the L.C.C. for playing fields and an athletics track.

At that time the L.C.C. was well aware that the demand for playing fields outstripped their supply. A survey was made, at the request of the Minister of Health, which concluded that the County Council owned 349 cricket pitches serving 1000 clubs, 358 football pitches serving also 1000 clubs, and 815 lawn tennis courts serving 85,000 registered players. On the basis of clubs being able to play home matches on each alternate Saturday it was estimated that a further 200 acres would be required for football, 200 acres for cricket and 30 acres for hockey.^{27.}

During the interwar period the role of the London County Council Parks Department had been simply to extend the amount of open space available to Londoners by buying, when opportunities arose, parkland and estates which became available. These were usually on the outskirts of the largely built up L.C.C. area.^{28.} The former estates and seats of Bromley were being sold

27. Journal of the Royal Town Planning Institute 1928-9
Editorial Comment Vol. 15 P.196.

28. T. Aldous Battle for the Environment (Fontana, 1972). P. 116 - 143.

and most had gone by the 1930's. Beckenham Place Park, formerly a private estate dating back to the reign of Edward the Confessor, was acquired by the Council in 1927 and opened to the public in 1929. Other estates were similarly acquired, for example Cator Park was developed from the Beckenham estate of Lord Cator.

Public acquisition, although substantial, was matched by a large number of industrial and commercial concerns acquiring land for sports grounds for their employees beyond the built-up area. Banks, insurance companies, public utilities, firms, secured considerable areas for playing fields. Also a large number of local sports clubs managed to lease or purchase their own grounds at this time when both physical and economic constraints were of little importance.²⁹

The pressure on open space for residential development is a phenomenon most noticeably associated with the post-war period when Green Belt and planning constraints begin to operate. Nevertheless, even during the "laissez faire" period of the 1920's and 30's some land was under threat from residential development. In 1925 a 150 acre area of Petts Wood came onto the market and residential developers showed considerable interest. The embryonic planning legislation of the time could not prevent such development. Faced with this situation local residents proposed to buy the Wood as a memorial to William Willett, the inventor of British Summer Time. A public appeal was launched and £12,000 was raised to purchase 87 acres of the Wood in May 1927. This was subsequently donated to the

29. A detailed analysis of private sports grounds is given in the next section.

National Trust.^{30.}

This example highlights another important factor in the preservation of open land; the important role of public-spirited individuals or groups in purchasing and preserving open space for recreation. It will be shown that even the comprehensive planning system of the post-war era cannot necessarily safeguard private open land from development.

(d) Post War. Since the Second World War there have been considerable constraints on the growth of London, imposed by the Green Belt and the comprehensive planning system. This ended the rapid outward extension of the urban area and the large scale acquisition of open space at its periphery. Despite this there have been considerable housing developments in both the public and private sector.

The County of London Plan made provision for the rebuilding of war damaged property and the redevelopment of slums in the inner parts of London. This involved the displacement of over 1 million Londoners out beyond the Green Belt to new and expanded towns. It also involved considerable housing developments within the Green Belt. Both the G.L.C. and London Boroughs have developed high rise flats in inner areas and newer estates in the suburbs. The Pepys Estate in Deptford exemplifies the high rise post war developments and Thamesmead and Kidbrooke estates have been developed in the outer suburbs in the 1960's. Boroughs have also developed post war Council estates such as those at Coldharbour and Abbey Wood.

30. C.L. Platt "In Trust for Chislehurst" (London: Pentagon Print, 1975) PP.5-14.

In the private sector smaller sites of maisonettes and town houses have been developed in the suburbs. In both sectors little attention has been given to the provision of amenity and recreational space within new housing developments, although a minimum statutory requirement for children's play space has been in force since 1957.³¹

The major effect of this residential development has been the loss of considerable areas of open space for recreation, rather than its provision, as stated above. Between 1970 and 1972, 178 acres of private sports grounds were lost in Greater London.³²

The acquisition and development of open space during the post war period has made very limited progress in comparison to housing development. The County of London Plan highlighted a serious maldistribution of open space as one of London's four main problems, the others being traffic congestion, depressed housing and the incompatibility of industrial and other land uses. The East End and the South Bank were identified as being the most deficient areas. The Plan suggested that substantial advances could be made towards a target of 4 acres of public open space per 1000 population by reclaiming bomb damaged sites and obtaining further space gains by the process of rebuilding. Metropolitan parks were to be developed by such means in the East End and in Southwark. The Camberwell Open Space

31. Housing Act 1957 (5 & 6 Eliz. c. 56, Sec. 93).

32. See Ch. 1 P. 41.

(now Burgess Park) has developed very slowly by piecemeal acquisition since the war. The target size is 135 acres and only 68 acres have been laid out at present.

Other limited additions to public open space have been made in areas of redevelopment. The London Borough of Lewisham has developed Fordham Park (14 acres) in New Cross and there are a number of open spaces proposed within Docklands. Small extensions to existing parks have occurred in a few instances as at Horniman Gardens (4 acres) and Charlotte Turner Gardens, Deptford. This development reflects park acquisition in earlier periods insofar as open spaces are acquired and laid out where opportunities arise. This may not always be the desired location in planning terms.

Apart from the planning constraints imposed by the Green Belt and the zoning of land under the 1947 Town and Country Planning machinery, the shortage of available land and the high land costs in London impose severe constraints on open space development. In this climate there has been an increasing emphasis on improving the use of existing resources. The capacity of sports pitches in some inner London parks has been increased by the use of hard porous or artificial surfaces. Floodlighting is another method of increasing the use of such facilities. Geraldine Mary Harmsworth Park in North Southwark - an area of considerable deficiency, has three such floodlit pitches.

In recent years there has been a growing tendency for speculative land to remain vacant or derelict until it is eventually developed. These parcels of land have in some cases been used for temporary open spaces or as sites for adventure playgrounds. Environmental improvement areas and sitting out

areas have been developed in both Southwark and Greenwich Boroughs. The Charlton Adventure Playground occupied a site for several years, at Westcombe Park adjacent to the approach road to the Blackwall Tunnel.

The ability to increase the provision of open space in deficient areas has been increased within the last few years with the Government's firm commitment to the Inner City. A good deal of the funds initially allocated to the partnership areas such as Docklands is being used for environmental improvements including open space provision.

Finally local authorities have recently made concerted efforts to increase the use of their parks. This is an attempt to move away from the Victorian passive approach to urban parks and the "Keep off the Grass" mentality. The Greater London Council are particularly active in providing a range of culture and leisure activities in their parks: fairs; concerts; exhibitions, as well as a number of sports coaching courses, some boroughs operate play clubs and holiday play schemes as well. The recent novel development is the operation of a sportsbus in Docklands which visits parks and housing estates. Sports teachers use mobile sports equipment to encourage local residents and park users to participate in low level sports activities.

All these measures are in response to the physical and economic constraints imposed by land use planning and the land market since the war.

2.3 Provision of Open Space.

(a) A Classification of Urban Open Space. The historical review of

provision indicates that open spaces have developed in response to a variety of needs under different physical, economic and social conditions, and range from public walks of the mid-nineteenth century, to the adventure playgrounds of the mid-twentieth century. The open spaces of South East London embrace this spectrum and this section will review the definitions and classifications of open space in order to provide a framework on which to base subsequent analysis of supply in the study area.

The definition of urban open space can be very restricted or very broad, including all uncovered or undeveloped space such as vacant sites, cemeteries and airports as well as sports grounds and parks. Several different definitions have been adopted for the purposes of planning and land use surveys:

(i) Under the Town and Country Planning Act 1947, local authorities were obliged to submit land use plans for the purposes of development control to the Ministry of Housing and Local Government. For this purpose "open space" included public and private open land as well as allotments and cemeteries, but excluded playing fields used for education purposes.^{33.}

(ii) This was superseded by the definition contained in the Town and Country Planning Act 1962:

"Open Space means any open land laid out as a public garden or used for the purposes of public recreation or land which is disused burial ground."^{34.}

33. Town and Country Planning Act 1947 (10 & 11 Geo.VI, c.51).

34. Town & Country Planning Act 1962 (10 & 11 Eliz 2, c.38 s.221)

(iii) There is another definition of open space currently in use in Great Britain:

"cared for, but non-productive open space, excluding agricultural land on the one hand and intended heath and rough land on the other. It includes private parkland, which is defined as those landscaped parts of private estates which are not either gardens, farmland or woodland. It includes public parks and ornamental gardens, recreational areas such as golf courses and school playing fields, tended open cliff top, village greens, cemeteries and so on."³⁵

The inconsistency and breadth of these definitions is unhelpful, although admittedly the last refers to rural as well as urban open space. Nor are North American definitions more helpful. Webster defines recreational urban areas rather than open space, the key being recreation. These:

"embrace a wide variety of uses (or use types) including parks, playgrounds, community centres, outdoor theatres, camp sites, beaches, golf courses, tennis courts, gymnasias, arboretums, zoological gardens, scenic and historical sites, pleasure resorts and open spaces of various kinds."³⁶

A more fruitful line of approach is to define urban open space in terms of its function. There have been many attempts to classify on this basis and these will be reviewed in an attempt to arrive at a suitable definition to

35. A. Coleman & K. Maggs. Land Use Survey Handbook (London: HMSO: 1968).

36. D.H. Webster. Urban Planning and Municipal Public Policy (Harper Row: 1958).

use in subsequent analysis. Other possible classifications will also be examined.

Open spaces can be classified by ownership, by topographical characteristics, by form, or as an economic commodity or factor of production in the urban land market. All of these have been touched on incidentally in the historical review. In terms of ownership all pre-Victorian open space was private, with the era of the public walk and recreation ground growing in importance in the second half of the nineteenth century. During the interwar period the private sector made a considerable contribution to playing field provision, whilst local authorities continued to acquire and develop open space.

Topographical classifications include physical characteristics such as hilltop sites, valley bottom or marshland areas. Historically these may have been of little value for housing or other land use activities. In terms of form open space may be cultivated (gardens, playing fields); semi-natural (woods and commons) or non-grass (tarmac, synthetic surfaces).

As an economic commodity open space can be planned or "reserved"³⁷ for some purpose; residual or sterile i.e. being incapable of alternative use such as marshlands or washplains; or "speculative"³⁸ i.e. land which is derelict or vacant pending future development. It is the development potential of urban open land which has resulted in its paucity in inner city areas where there is competition from more profitable uses and where land

37. J.J. Shoman, Open Land for Urban America, John Hopkins Ch.2. 1971.

38. R.H. Platt, The Open Space Decision Process; (Chicago Research Paper 142).

values are consequently high. The legislation and planning powers to preserve and acquire land have developed since the mid-nineteenth century in response to this competition. The development potential of open land is also the key to its pattern of distribution in urban areas:

"the suburban land we picture is completed by other extensive land uses such as parks, allotments, and playing fields, which are effectively squeezed out of more accessible locations by higher order uses."³⁹.

This land use pattern is true for South East London, the largest areas of open space occurring in the suburbs where few physical and economic pressures existed when they were originally established. Open space in the suburbs has in recent years become increasingly under pressure from residential development.⁴⁰.

Despite this variety of classifications the most important is by function. Clawson defines six functions of open space as follows:

- (i) it provides light and air to buildings, especially tall buildings in the city centre.
- (ii) it provides perspectives and vistas for the urban scene
- (iii) it provides recreational opportunities for a wide range of activities
- (iv) it provides ecological protection:-to redress air pollution, prevent flooding, conserve flora and fauna.
- (v) to give form to the city - making neighbourhoods and areas distinctive

39. B. Goodall The Economics of Urban Areas (Oxford: Pergamon; 1973) P.102

40. See Ch.2 P. 85 Also Ch.9 Section 9.3

(vi) to provide a stock of land for possible future use.^{41.}

Many of these functions will be performed simultaneously by the same open space. Examples of other functional classifications are as follows:

recreational, ecologic, aesthetic and circulatory;^{42.} productive, ornamental, protective, recreational;^{43.} to provide recreational opportunity, environmental amenity, maintenance of natural processes;^{44.} open space for service and open space for structure;^{45.} open space of which people are aware - that which is used (recreation), viewed (amenity) or felt (sense of privacy or space), open space of which people are not aware - that which is used for flood protection, water supply, safety (airports), space between buildings, land reserved for future use;^{46.} visual amenity, recreation, economic resource, positive means of controlling urban sprawl, disposal of waste, burial of dead.^{47.}

This review indicates the broad range of functions which urban open space can assume and recreation and amenity are consistently highlighted. This study will be concerned primarily with the recreation function and only incidentally with its amenity function insofar as it affects the quality of the urban environment. The recreational use of open space can further

41. M. Clawson. "Open (Uncovered) Space as a new urban resource." rep. in H. Perloff(ed) Quality of the Urban Environment. (John Hopkins Press 1969).

42. R.H. Platt op.cit

43. C. Tunnard B. Pushkarev, Man-Made America. (New Harvard. Yale U.P. 1963).

44. C.E. Little. The Challenge of the Land. (New York: Pergamon. Resource & Environment Library 1967.

45. C. Eliot cited by S.B. Tankel (see below).

46. S.B. Tankel; "The importance of Open Space in the Urban Pattern." ed. L. Wingo; Cities and Space, (John Hopkins.1963)
Most authors listed above are cited in this paper.

47. G.L.C. Greater London Development Plan, Report of Studies (London: G.L.C. 1969) Ch. 5.

be subdivided into open space for play, sport and passive or informal recreation. Again many open spaces perform all three of these functions. This study will concentrate on the second and third types. Both of these functions are performed by both public and private open space and the analysis of this chapter and subsequent chapters will attempt to examine the contribution of both sectors. Ideally the extent to which private facilities are "substitutable" for public should be reflected in any policy formulation. In practice this is extremely difficult to measure and at best it is possible to obtain only broad indications of the role each sector is playing.

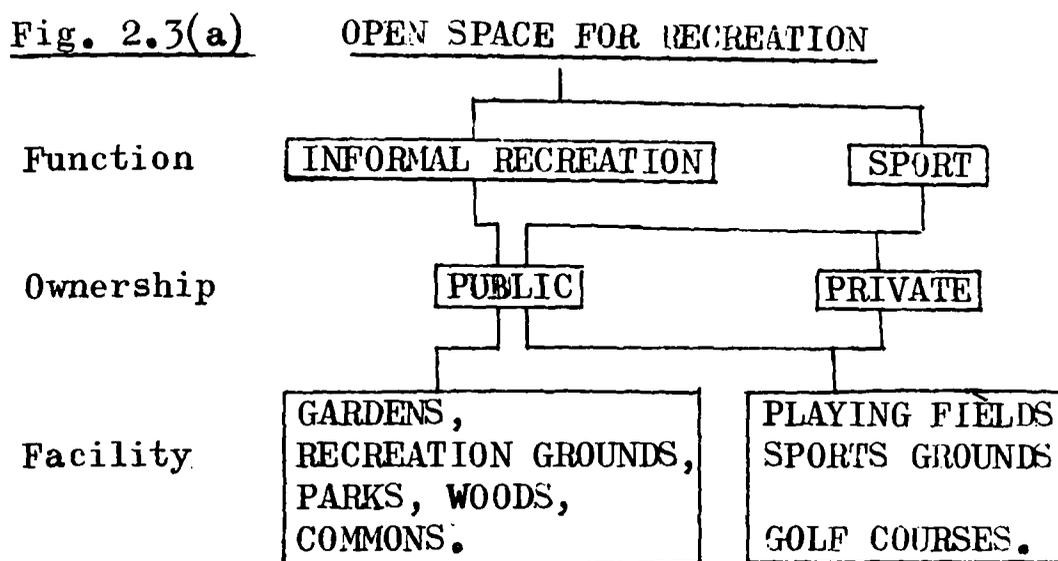


Fig.2.3(a) sketches a typology of open space that will be adopted in this study. It is not comprehensive and the categories are not mutually exclusive but it will serve as a useful basis on which to examine the main elements of the supply and use of open space for outdoor recreation in South East London. Only the main components of the open space system have been selected and there are some exceptions. No consideration will be given to private land which is open to the public for informal recreation or to private courts or greens. Finally schools playing fields have been excluded from the following analysis. Some assessment of the potential role of

educational facilities will be made in Chapter 10.

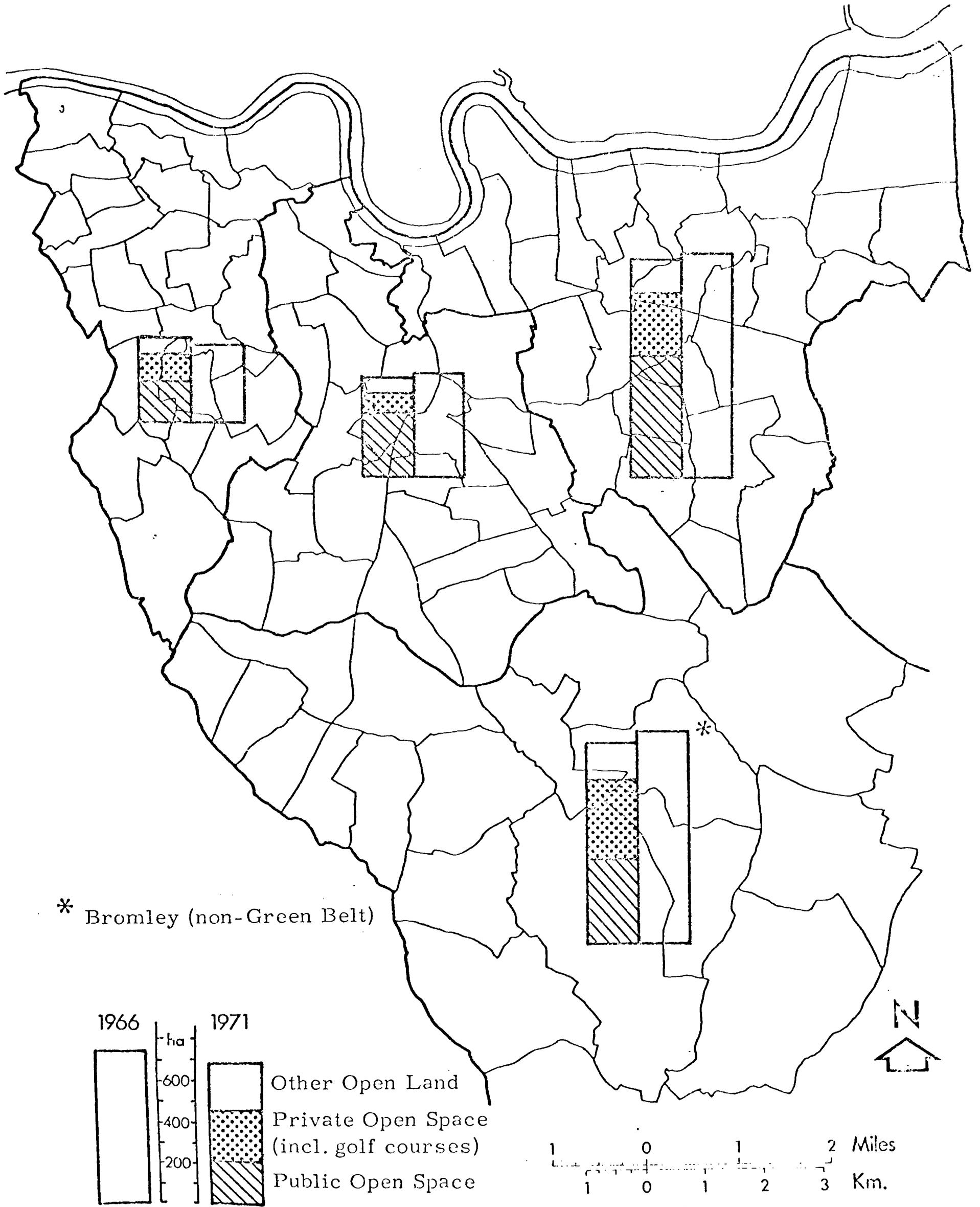
(b) Open Space for Recreation.^{48.} The 1971 level of open land provision in the four South East London boroughs of Bromley, Greenwich, Lewisham and Southwark is 23,700 acres (9,590 ha) or 36% of the total land area. Four fifths of this open land lies within Bromley and 70% within the Metropolitan Green Belt. The proportion of open land varies considerably between boroughs with Southwark and Lewisham containing the least (13% each), Greenwich (21%) and Bromley (51%). However when the Green Belt is excluded from the Bromley total the borough has surprisingly little open land (13.5%).

Half of all the open land in the sector is farmland, 98% of which is in the Green Belt. Public open space accounts for 23%, private (including golf courses) 20% and the remaining 7% are allotments, cemeteries and nurseries. Fig 2.3(b)(i) shows the distribution of types of open land between the boroughs. Greenwich, Lewisham and Southwark have proportionally more public open space and less private open space than that part of Bromley which is not in the Green Belt.^{49.} Three quarters of the open land in Bromley's Green Belt is farmland and nurseries, the remainder being almost equally divided between public and private open space. Since 1966, Greenwich, Lewisham and Bromley (non-Green Belt) have incurred some loss in total land:- 1.2%; - 4.6% and - 4.3% respectively. Southwark, the least well provided borough in absolute terms, has increased its open land

48. Section 2.3 is based on (a) my own survey of public open space,
(b) published data - Greater London Land Utilization
Surveys 1966 and 1971 - Greater London Recreation Study,
Supply Report 1975 - Material from London Borough
Planning Departments and Greater London and South East Sports Council.

49. This is broadly comparable with that part of L.B. of Bromley which lies within the study area.

Fig 2.3(bxi) Distribution of Open Land



Source: 1977 Annual Abstract of Greater London Statistics Vol. 12,
Director Generals Dept. GLC; 1978. See App. II(a) Table 1 p.122

by 5.8%. The reasons for these net changes have been referred to in the previous section and will be examined in greater detail in Part II ^{50.}

Open Space for informal recreation ^{51.} Within the study area open space for informal recreation is synonymous with public open space and vice versa; it is extremely rare for public playing fields to be used exclusively for sport. In 1972 the study area contained 3880 acres (approximately) of public open space comprising 230 units ranging in size from 2 to 278 acres, ^{52.} and in type from the small playground, square or garden, to either a multi-facility 250 acre park or a large expanse of semi-natural woodland or common.

The majority of these open spaces are administered by the London boroughs; although 13 of the larger open spaces are under the management of the Greater London Council. There are a small number of parks owned and managed by miscellaneous authorities. Greenwich Park is managed for the Crown by the Department of the Environment; Spring Park, Bromley, by the City of London Corporation; Petts Wood, Bromley, by the National Trust and Chislehurst Common by a Board of Conservators.

(i) Size and location of Open Space. Of the 230 public open spaces in the study area, 128 (56%) are of 5 acres or less, 79 (34.5%) are between 6 and 50 acres, 14 are between 51 and 150 acres and 8 are above 150 acres. This size distribution is highly skewed towards small

50. For source data for this section see Appendix II(a) Tables 1 - 3

51. For details of public open space survey see Appendix II(b)

52. Open spaces below 2 acres were excluded from the analysis, although these might have some significance at the local level.

open spaces. The implication of this feature will be examined in more detail in relation to a hierarchy of open space provision.⁵³

The pattern of public open space displays a lack of large open spaces in inner areas, although these comprise a large number of small units. Farther out the parks are larger and more widely dispersed (Fig. 2.2(a)(i) P. 68. A comparison of provision within a series of $2\frac{1}{2}$ mile width distance bands, from Central London, allows a more detailed analysis to be made.

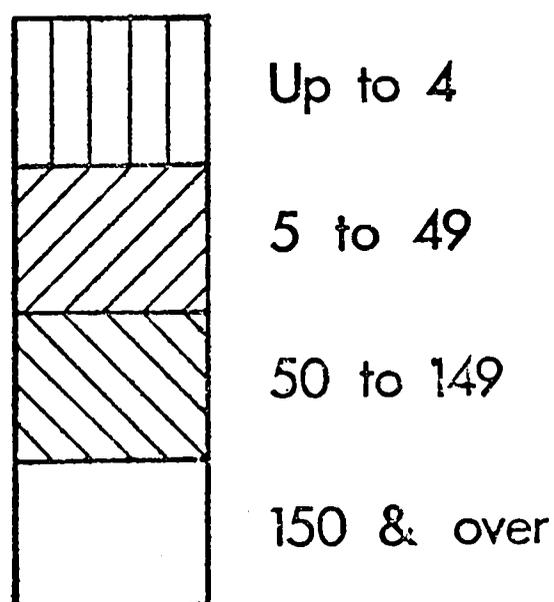
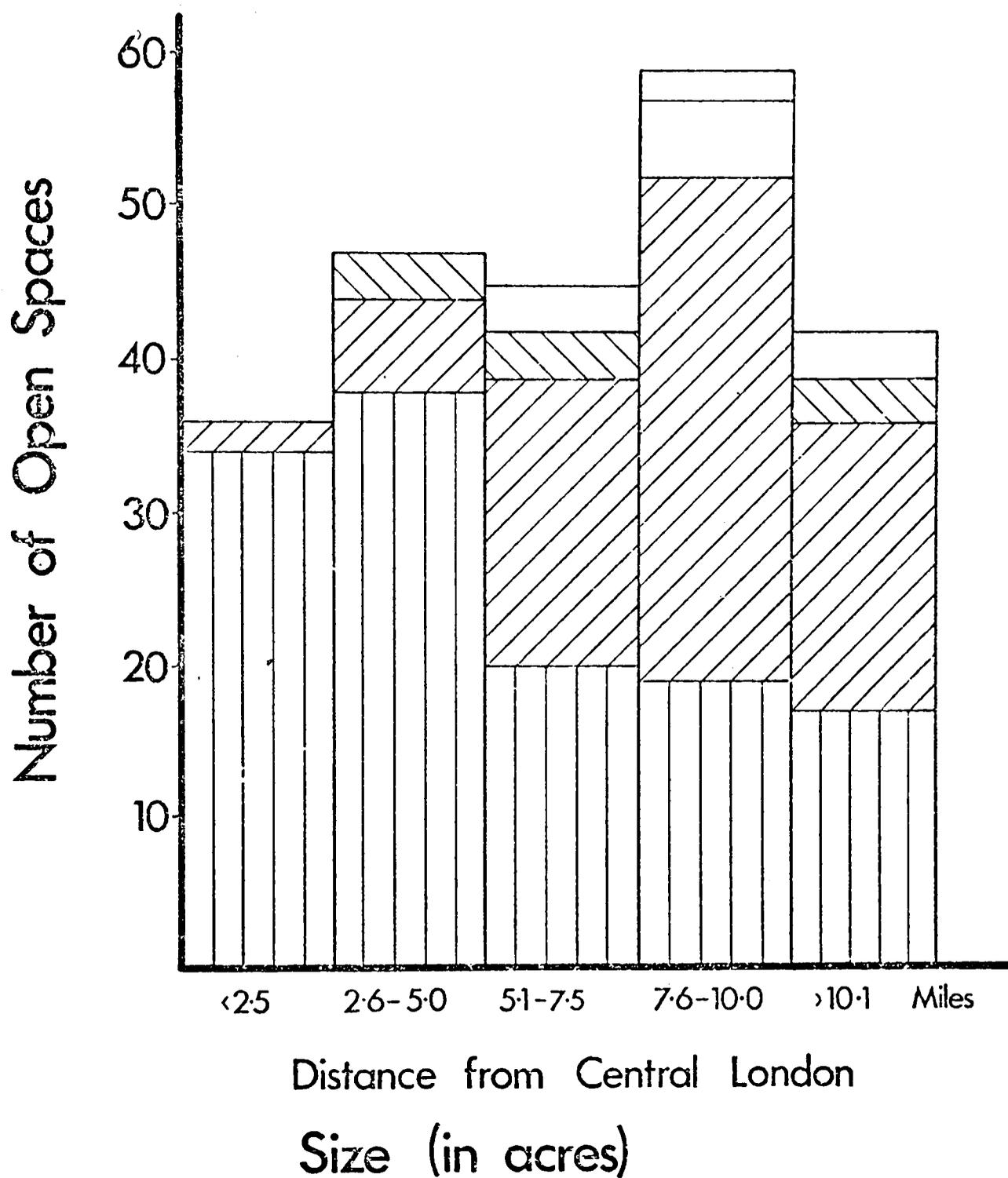
Fig. 2.3(b)(ii) shows that the number of open space units within each band does not vary greatly, the largest number occurring between $7\frac{1}{2}$ and 10 miles from the City Centre. As the total area increases for each successive distance band from the centre, a similar number of open spaces within each band implies a decreasing density of open space provision with increasing distance from Central London.

Furthermore the diagram indicates the large proportion of open spaces of under 5 acres within $2\frac{1}{2}$ miles of Central London and the increasing proportions of larger open spaces occurring in successive distance bands. Open spaces of over 50 acres only occur beyond $2\frac{1}{2}$ miles, whilst those of 150 acres or more are only found beyond 5 miles of the centre. The increasing size of open space and its decreasing density with distance from the centre is consistent with the processes of urban growth outlined in the previous section.

53. See Chapter 4 Section 4.1. P. 203.

Fig 2.3 (b)(ii)

Size and Location of Public Open Spaces In South East London



Source: Appendix II(a) Tables 4 & 5 P.124.

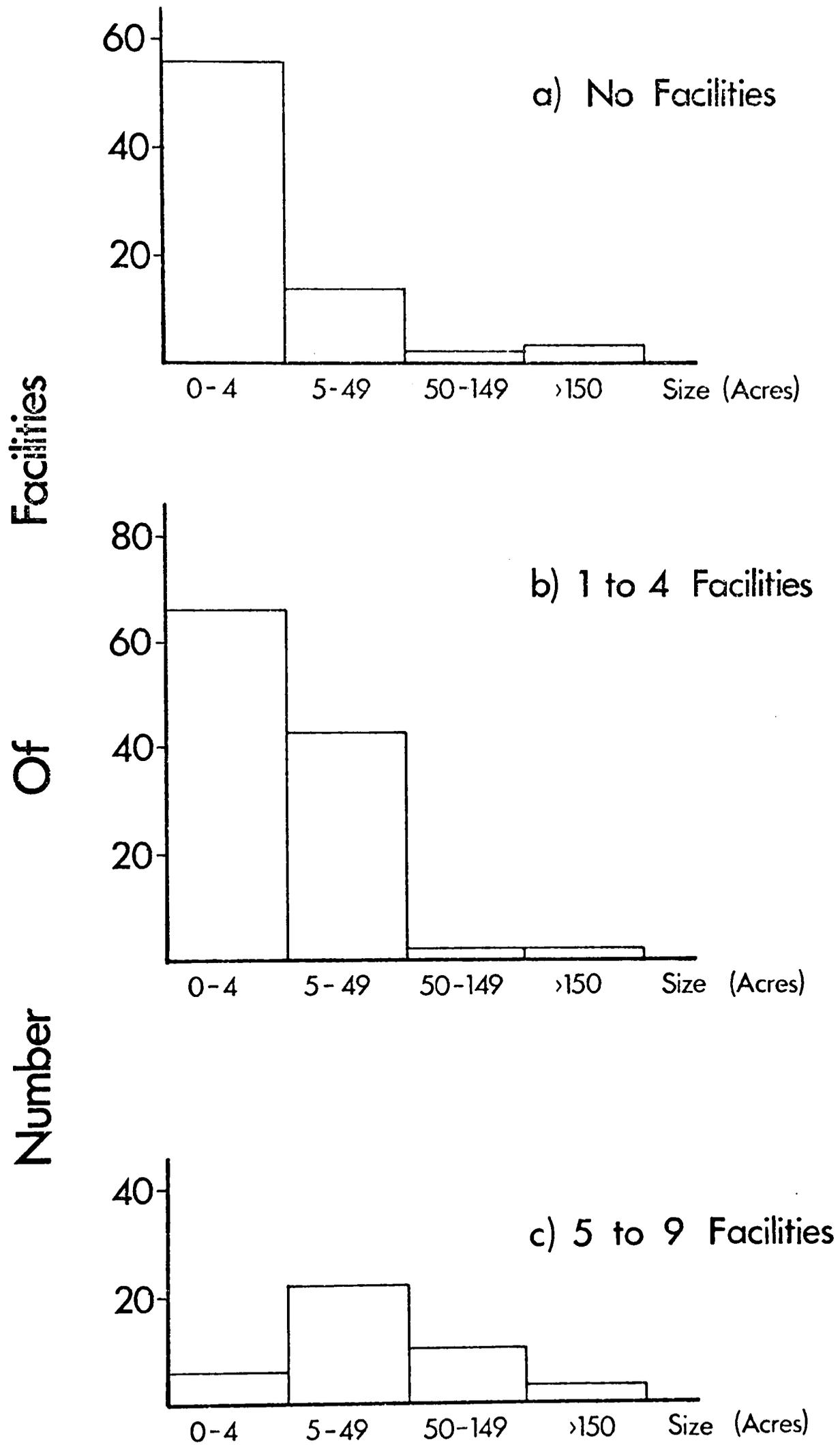
(ii) Type of Open Space. Over two fifths of the parks in the study area are grassed open spaces and just under one fifth are gardens. Woodlands and commons account for only 8% of the open spaces, although they represent 28% of the total public open space acreage. The remaining 31% of parks have a combination of these types of terrain. In terms of size there are proportionately more woods and commons among open spaces of 50 acres and over and fewer grasslands and gardens.⁵⁴ Woodlands only occur beyond 5 miles of the centre and commons and heaths beyond $7\frac{1}{2}$ miles, whilst there are proportionately more gardens within $7\frac{1}{2}$ miles of the centre.⁵⁵ This confirms the size/location relationships outlined in the previous section.

(iii) Open Space characteristics. An indicator of the function of open spaces is the range and type of facilities they contain. The parks of south east London have been subdivided into those with: no facilities, 1 - 4 facilities and 5-9 facilities, representing 33%; 49% and 18% of all parks respectively. A positive relationship exists between the size of open spaces and the number of facilities i.e. larger parks have more facilities than smaller ones. In Fig. 2.3(b) (iii) the one exception to this general rule is the slightly increased proportion of parks of over 50 acres without any facilities. This is accounted for by the large semi-natural woodlands and commons.

The location of parks with differing levels of facility provision is indicated in Fig. 2.3(b) (iv). There is a fairly even distribution

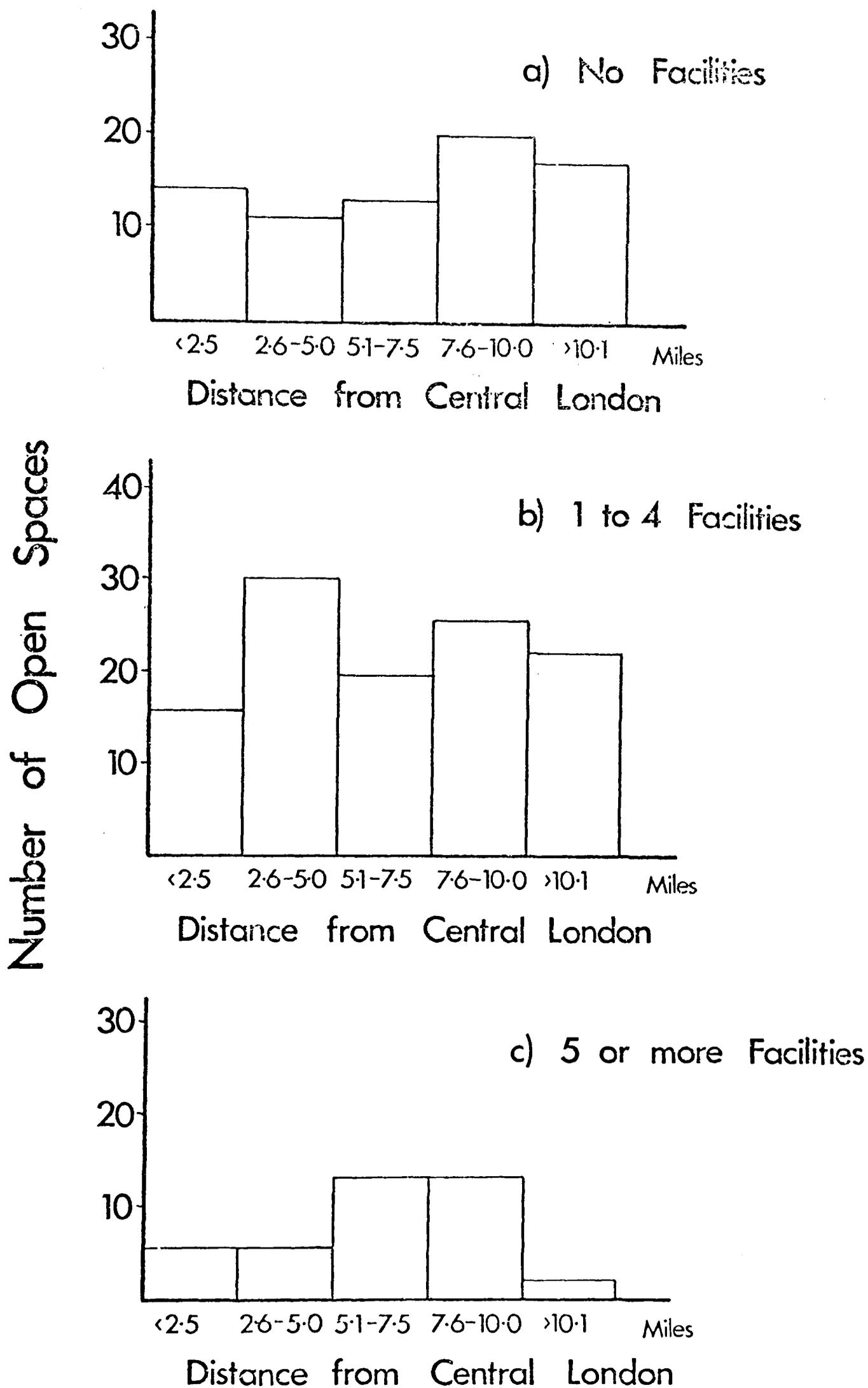
54. Appendix II(a) Table 4. P. 124
55. " " Table 5 P. 124.

Fig 2.3(b)(iii) Size of Public Open Spaces by Number of Facilities



Source: Appendix II(a) Table 6 P.125.

Number of Facilities in Public Open Spaces and their Location In South East London



Source: Appendix II(a) Table 7 P.125.

of parks with no facilities from inner to outer London. The largest number of parks with limited facility provision occur between $2\frac{1}{2}$ and 5 miles of the centre, with another concentration between $7\frac{1}{2}$ and 10 miles. Multi-facility open spaces are heavily concentrated between 5 and 10 miles out.

Analysis of the type of facility within public open space relates to three broad groups: sports, childrens play areas and specialist facilities:

- Sports facilities

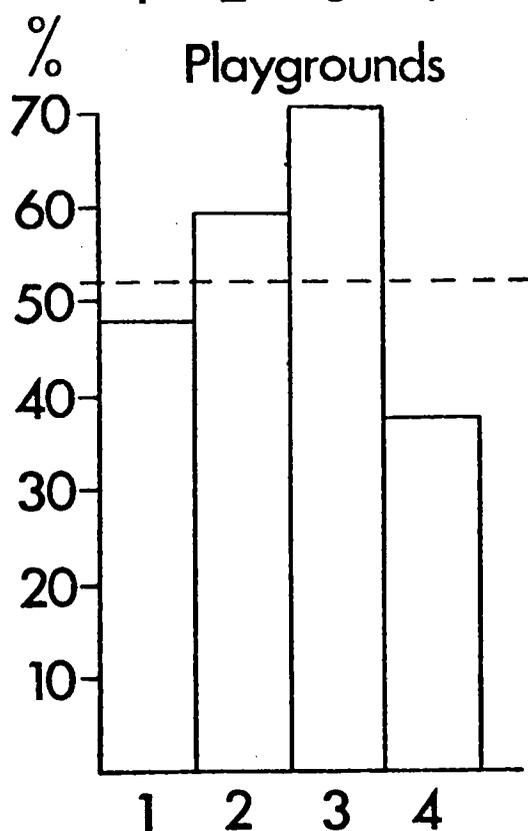
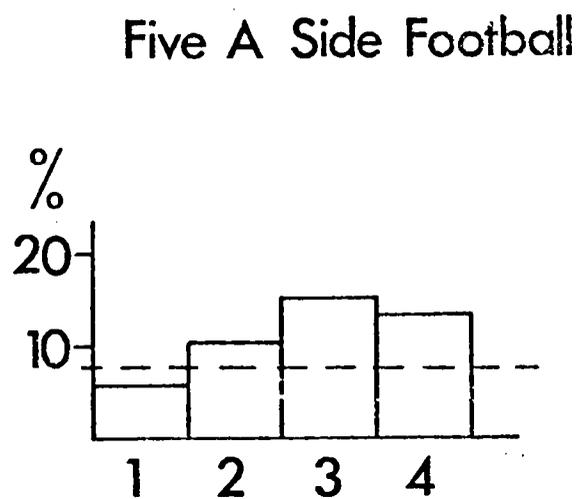
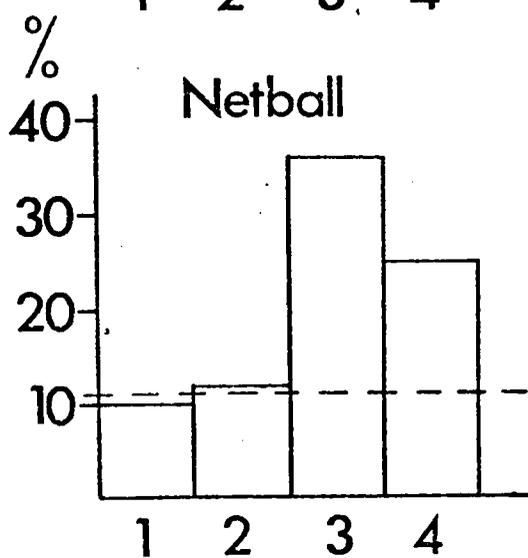
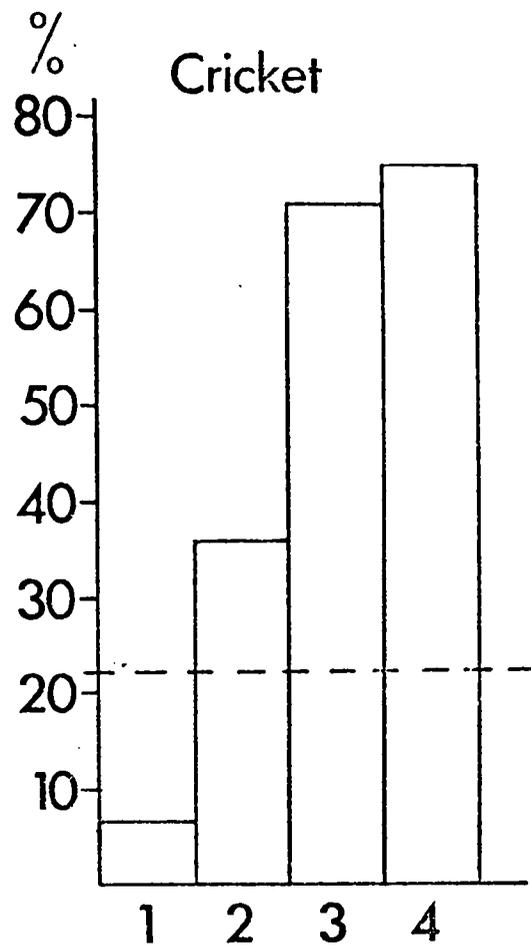
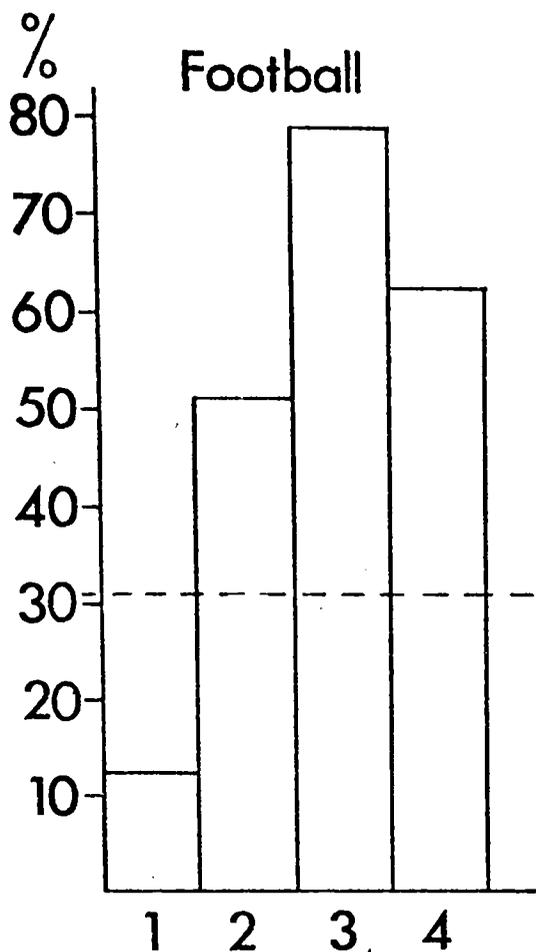
Without exception there are proportionately more parks between 50 and 150 acres containing sports facilities, than the overall average. This is to be expected as many facilities such as pitches are land extensive and are less likely to be contained in smaller parks. For parks of less than 5 acres, only the proportion of parks containing netball and 5-a-side facilities approaches the average as they use space more economically (see Fig.2.3(b)(v)). There is a tendency for fewer parks of over 150 acres to contain facilities explained by their semi-natural aspect. It is also a reflection of the small number of individuals in this category and as such should be treated with caution.

For the major team sports of football and cricket there are proportionately more parks containing pitches beyond 5 miles of Central London, than the overall average, (Fig.2.3(b)(vi)). The trend is reflected in the provision of all pitches, both public and private,⁵⁶ reflecting the development of land extensive playing fields in the suburbs with fewer

56. See 2.3(b) Open Space for Sport. P. 106.

Fig (b)(v)

Proportion of Open Spaces Containing Sports Facilities & Playgrounds by Size



Size

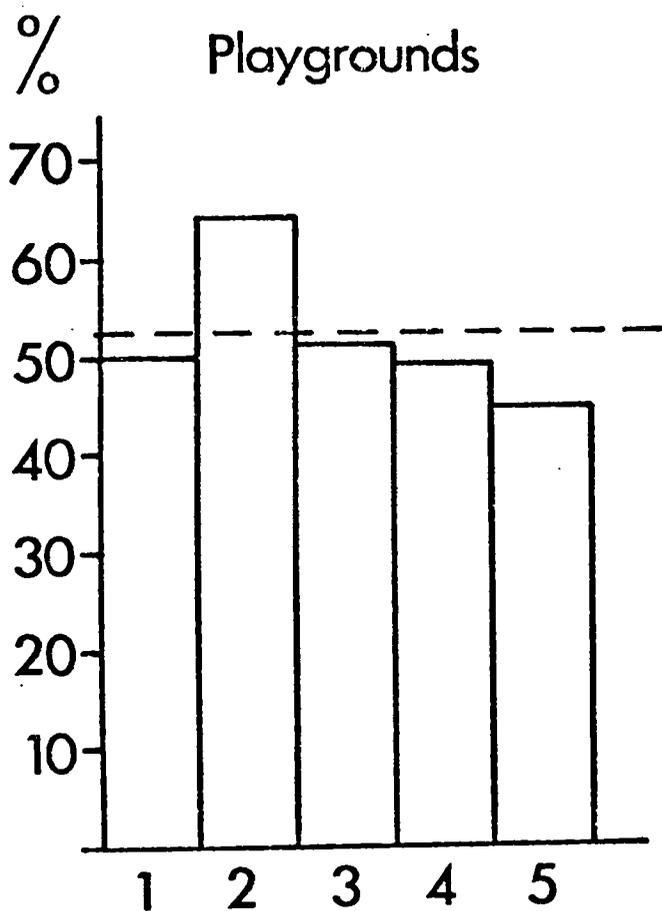
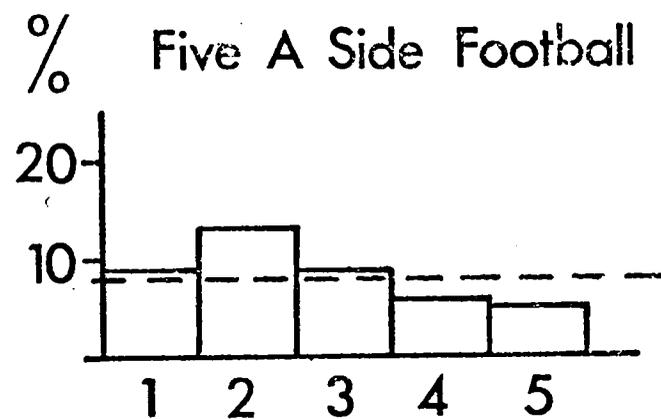
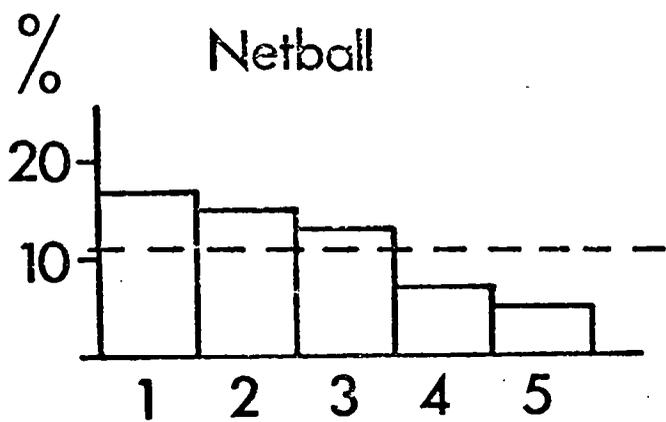
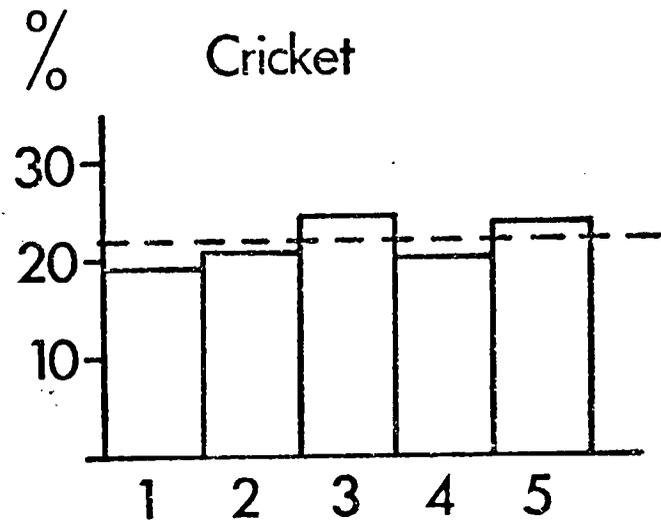
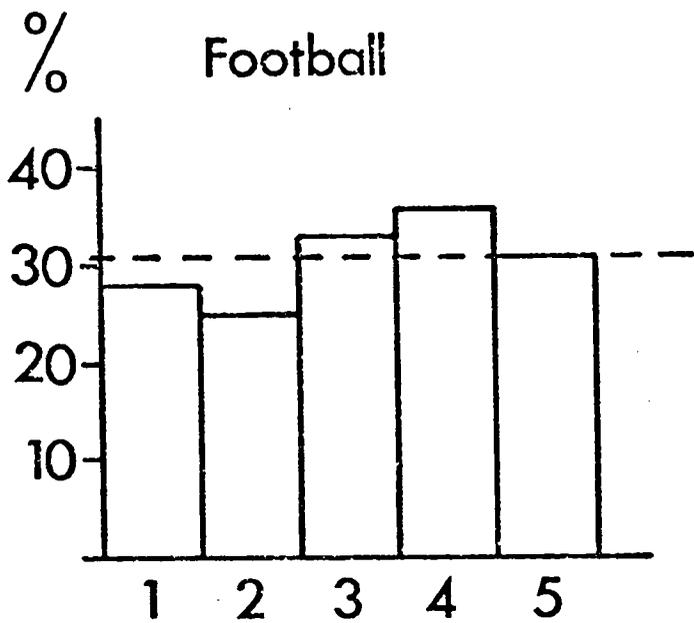
- 1 Under 5 Acres
- 2 5 to 49
- 3 50 to 149
- 4 Over 150

----- Average proportion of open space containing facility

Source: Appendix II(a) Table 8 P.126

Fig 2.3 (b)(vi)

Proportion of Open Spaces Containing Sports Facilities & Playgrounds by Distance from Central London



Distance Bands

- 1 Under 2.5 Miles
- 2 2.6 to 5.0 "
- 3 5.1 to 7.5 "
- 4 7.6 to 10.0 "
- 5 Over 10.1 "

----- Average proportion of open space containing facilities

Source: Appendix II(a) Table 9 p.127

physical and economic constraints.

A similar pattern is generally true for other sports facilities, except for netball and 5-a-side where parks have an above average proportion of these facilities within 5 miles of the centre. This cross-relates to size, smaller parks being concentrated in the inner city.

- Childrens facilities

For playgrounds and playclubs, there are proportionately more parks containing these in the 5-50 acre and 50-150 acre categories (See Fig. 2.3(b)(v)), than the overall average. Even for the smallest parks the proportion containing playgrounds approaches the average, indicating that playgrounds are a traditionally provided basic and ubiquitous component of all parks. This is also confirmed by the uniform distribution of parks containing playgrounds across the study area (Fig. 2.3(b)(vi)). There is a need for playgrounds to be provided within a short distance from home for young children to use. Their regular distribution has been confirmed for other areas.^{57.}

The distribution of play clubs is concentrated between $2\frac{1}{2}$ and 7 miles of the centre and mainly reflects the policies of individual boroughs to play provision.^{58.} The distribution of paddling pools shows no discernible pattern because of the relatively small number of parks with such a facility.

- Specialist facilities

57. L.S. Mitchell "An Evaluation of Central Place Theory in a Recreation Context: The Case of Columbia, S. Carolina." South eastern Geographer Vol. VIII (1968) PP.46-53.

58. See Chapter 9 Sec.9.2 P. 389 et seq.,

For athletics, boating, animal enclosures and public buildings, parks of over 150 acres have the highest level of provision. Intuitively specialist facilities are only likely to be associated with large multi-facility parks. However the small numbers involved cannot allow this to be adequately proved for South East London. The distribution of such facilities cannot be explained in simple land use terms, and no pattern is discernible.

Open Space for Sport.⁵⁹ There is another substantial group of open spaces in South East London whose primary function is for outdoor sports provision: golf courses; playing fields; sports grounds; courts and greens. Outdoor sports facilities are in part provided within public open space, an aspect already examined, although a substantial proportion are privately owned, either by sports clubs, industrial or commercial concerns or by schools and colleges.

In terms of land area, pitches for football, hockey, cricket and rugby account for 90% of the non-golf acreage for formal land sports.⁶⁰

Description of open space for sport will concentrate on the quantity, nature and location of pitches for team sports⁶¹ and golf courses in South East London.

The facility requirements for team games are, in the main, land extensive.

59. Based on my analysis of raw supply data provided by the Greater London Recreation Study and Greater London and South East Council for Sport and Recreation records.

60. Greater London and South East Sports Council. A Playing Fields Strategy for Greater London 1977 P. 1.6

61. This analysis does not include educational pitches.

Soccer, rugby, cricket and hockey require considerable pitch areas as well as space for associated ground equipment training areas and changing facilities. Such facilities for physical and economic reasons are provided in the outer, lower density suburbs of cities: south east London is no exception.

(i) Location of pitches.

In absolute terms there is an increase in the number of pitches from Inner London to the maximum provision between $7\frac{1}{2}$ and 10 miles of the centre, with a decrease beyond. When related to the total land area within each distance band a similar pattern occurs.⁶² There is a decrease in the provision of pitches beyond 10 miles of the centre, despite the large amount of open land (43% of total land area), although the greater part of this is given over to farming uses in the Green Belt.⁶³

Fig. 2.3(b) (vii) indicates the concentration of pitch provision in the study area, using location quotients to show the ratio between pitches and land area of wards and pitches and land area of south east London.⁶⁴

A band of high concentration is indicated stretching from north west Bromley and southwest Lewisham through south Greenwich to Charlton in the north. Particularly high concentrations are shown at the sports ground complexes of Beckenham, Eltham, Blackheath and Avery Hill. This sporadic distribution has important implications for the use of playing fields,⁶⁵ and also planning policies which seek to preserve existing grounds and make new provision.

62. See Appendix II(a) Table 10 P. 128

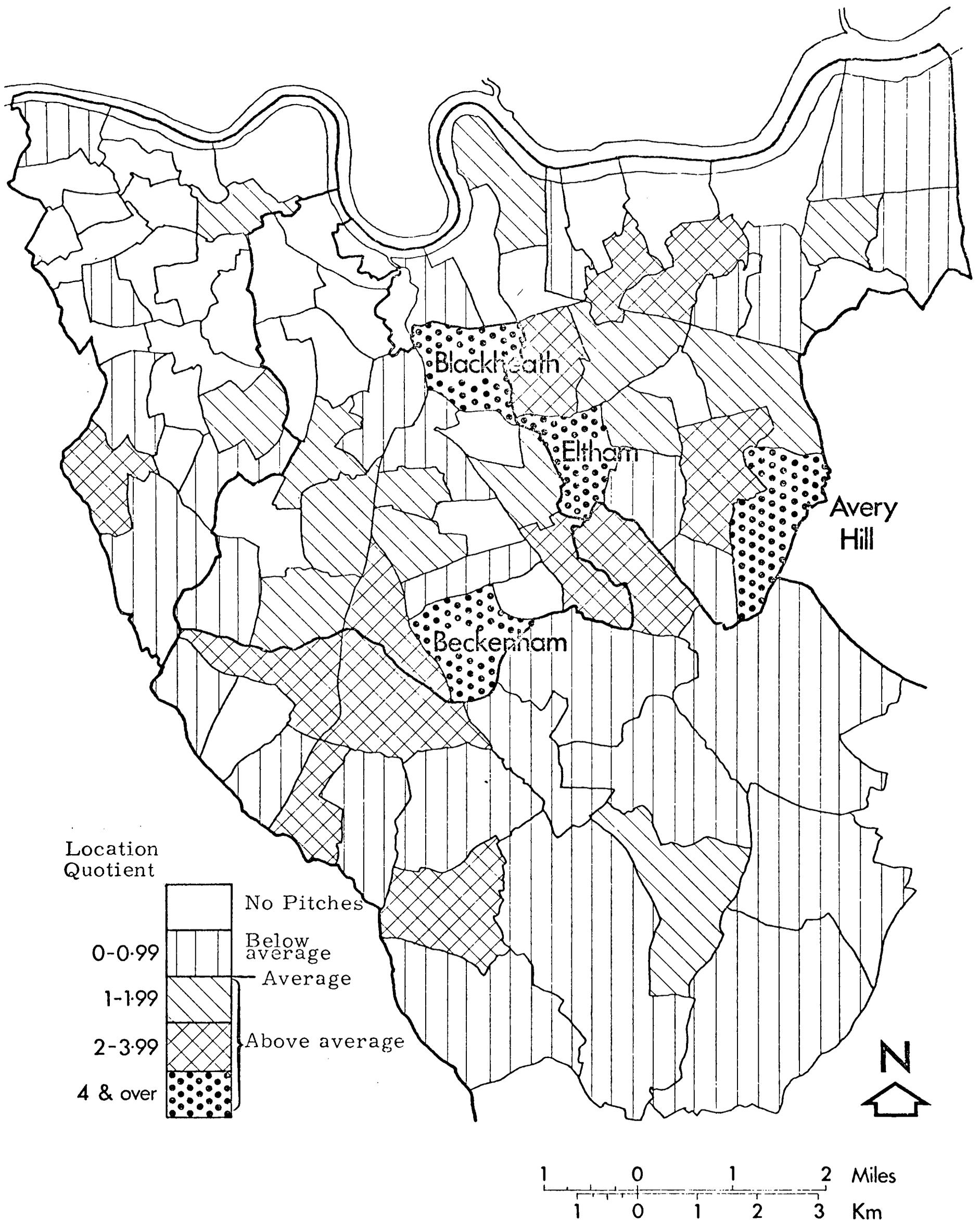
63. See Section 2.3(b) P. 94

64. See Appendix II(c) P. 134 et seq.,

65. See Chapter 7 Sec. 7.3 P. 338

66. See Chapter 8 Sec. 8.2 P. 370 et seq.,

Fig 2.3 (b)(vii) Location of Pitches for Team Sports

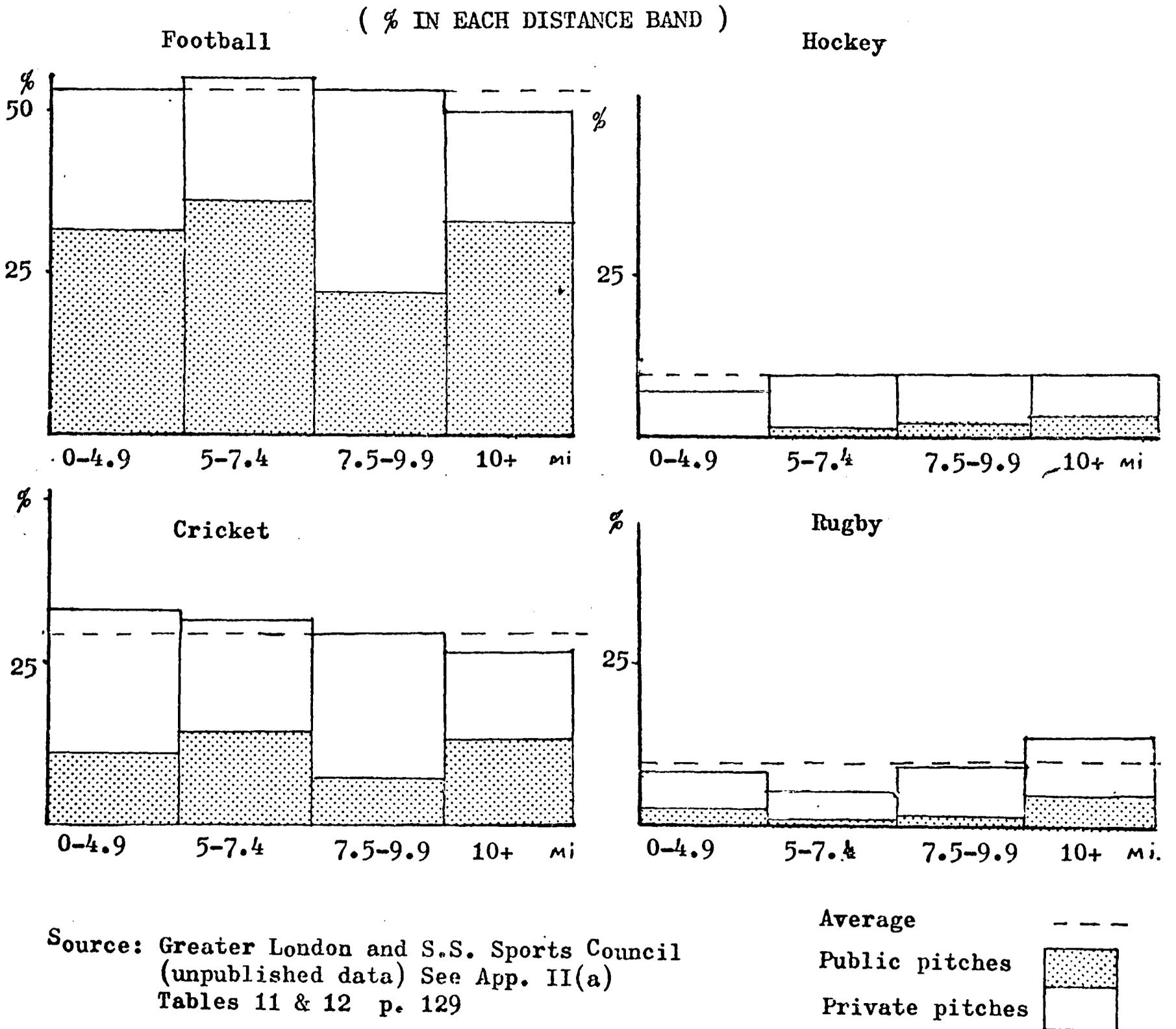


Source : Unpublished records of G. L. & S. E. Sports Council

(ii) Type of pitches

Just over half of the pitches in the study area are used for football and just under one third for cricket, the remainder being equally divided between rugby and hockey. Fig. 2.3(b)(viii) indicates that the proportion of pitches devoted to football, hockey and cricket is similar between inner and outer areas, and does not deviate greatly from the overall average. Rugby shows the greatest variation with above average provision beyond 10 miles of the centre.⁶⁷

Fig 2.3 (b)(viii)
Type of pitch by distance from central London



Source: Greater London and S.S. Sports Council
 (unpublished data) See App. II(a)
 Tables 11 & 12 p. 129

67. See App. II(a) Tab. 11
 p.129

(iii) Ownership of pitches.

Forty one percent of the pitches in the study area are public, although this proportion varies with distance from Central London. The highest proportion of public pitches occurs between 5 and $7\frac{1}{2}$ miles (53%) and over 10 miles (53%) and the lowest between $7\frac{1}{2}$ and 10 miles (32%).

Over half of the football pitches are public, compared with only one third of the cricket, one fifth of the rugby and 16% of hockey pitches.

Fig. 2.3(b) (viii) indicates levels of public pitch provision for the major team sports for different distance bands. The greatest proportions of publicly provided football and cricket pitches occur between 5 and $7\frac{1}{2}$ miles and over 10 miles, whilst private provision is most important between $7\frac{1}{2}$ and 10 miles. This reflects the development of private playing fields in the interwar period in the suburbs. Public provision is located in parks further towards the centre. The relative importance of public pitches beyond 10 miles may be explained in terms of the use of private land for agriculture.

(c) Open Space and the Urban Environment. The analysis so far has examined open space in isolation from other land uses in south east London. The second most important function of urban open space after recreation is that of the amenity it confers on the environment, and this has important implications for adjacent land uses. The benefits that the presence of open space include are light, air, aesthetic quality, a sense of openness or "rus in urbes." At an ecological level it provides a lung for the urban area and it also gives identity to urban neighbourhoods and breaks up residential areas. All these benefits may accrue to those who never use open space as a recreational resource - they are "externalities" in the

welfare economists' jargon. There may also be disbenefits of open space which affect adjacent areas such as the intrusion of park users causing parking congestion, noise, litter and vandalism.

Measurement of Amenity.

A number of attempts have been made to measure the benefits of open space, by examining the relationship between open space and residential land values. The pioneer work by Hoyt⁶⁸ suggested that higher quality residential areas and hence higher land values were associated with higher ground and features such as open space and beaches. This has been subsequently tested and confirmed by other researchers:⁶⁹

"local shops, high ground, parks, beaches and lakes have a favourable effect on residential land values, and appear to be of increasing importance."⁷⁰

In most of this work a relationship has been shown to operate at a very localised level with higher land values being found in residential areas in the immediate vicinity of parks, the effect diminishing rapidly with distance. These studies cannot quantify any casual relationship. It is virtually impossible to say that open space "per se" has the effect of increasing land values on adjacent sites. For example, it may be that

68. H. Hoyt. The Structure and Growth of Residential Neighbourhoods in American Cities (Washington D.C. 1939). U.S. Federal Housing Administration. U.S. Govt. Printing Office.

69. Brigham E.F. "The Determinants of Residential Land Values." Land Economics 41(4) (1965)

Yeates M.H. "Some Factors affecting the Spatial Distribution of Chicago Land Values" 1910-1960 Economic Geography 41(1) (Jan. 1965).

Daly M.T. "Land Value Determinants, Newcastle, N.S.W." Australian Geographical Studies 5(1) (1967)

70. B. Goodall The Economics of Urban Areas op.cit. P.103.

historically better quality housing areas were associated with areas of open space, as in the case of Blackheath, and that subsequently the prestige or "snob" value" of the area has maintained high property prices.

For this reason such analysis was not undertaken for parks in South East London. Interviews with Borough Valuation Officers and Estate Agents suggested that to use either gross rateable values, which are based both on estimated property value, or house prices inflated greatly by high demand pressures in Greater London, would mask the effect of open space on them.

Instead a simpler analysis will be adopted to show the relationship between open space and the quality of the residential environment. An indication of the quantity of open space will be related census indicators of housing quality at ward level.

Fig. 2.3(c)(i) shows the distribution of wards with less than 2.5 acres of public open space and net residential densities of over 70 persons per acre.⁷¹ There is some degree of association between these indicators, particularly in the northern halves of Southwark and Lewisham and the riverside wards of Greenwich. The closeness of the association is no doubt reduced by the size of wards and the consequent crudeness of the indicators.⁷²

71. Net residential density: This is strictly a net population density measure derived as follows:-

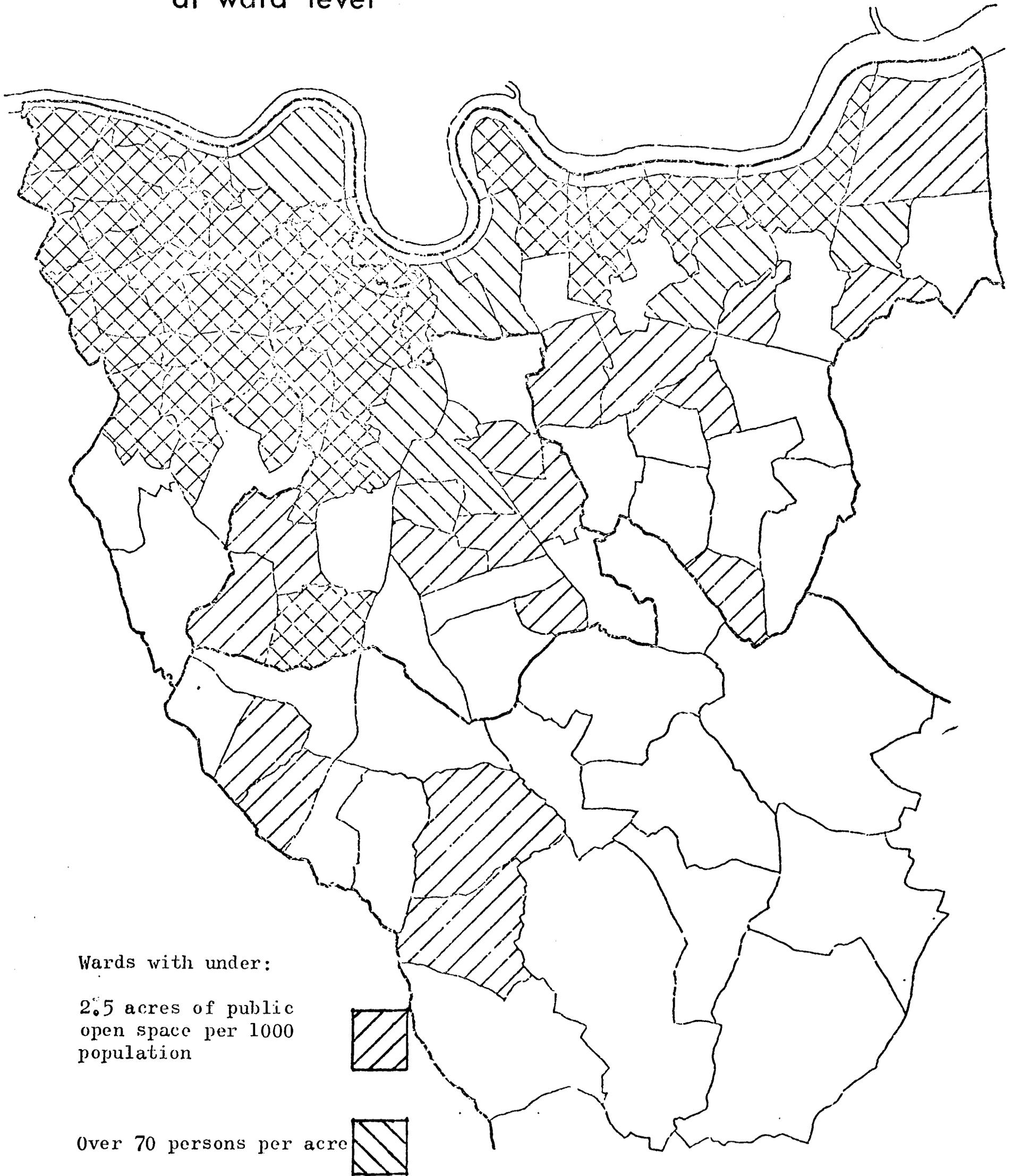
$$\text{NRD} = \frac{\text{Population of Ward}}{\text{residential acreage of Ward}}$$

Sources: OPCS Population Census 1971.

GLC Greater London Land Utilization Surveys 1966 & 1971.

72. See Appendix I(e) for critique of acres of open space per 1000 population ratio. P. 55 et seq.

Fig 2.3 (c)(i)
Open space deficiency and net residential density
at ward level



Sources: Greater London Land Utilization Survey 1966 and 1971.
O.P.C.S. Census of Population 1971.

Fig. 2.3(c)(ii) presents these indicators as a scatter diagram which suggests that there is a slightly inverse relationship, so that areas of open space deficiency are likely to be associated with higher net residential densities and vice versa.

Three indices were selected from the 1971 National Census as being representative of residential quality:

- (i) No. per 1000 households (3+ persons) with over 1.5 persons per room
- (ii) No. per 1000 households sharing a dwelling
- (iii) No. per 1000 households without a bath or shower.

These were then related to net residential density (Figs. 2.3(c)(iii), (iv) and (v)), showing positive relationships in each case.

Further evidence of the inter-relationship of the three census variables is provided by an analysis of census indices by the Greater London Council. A correlation matrix of all demographic, social and economic indices was produced of which a part is shown in Table 2.3(c) ^{73.}

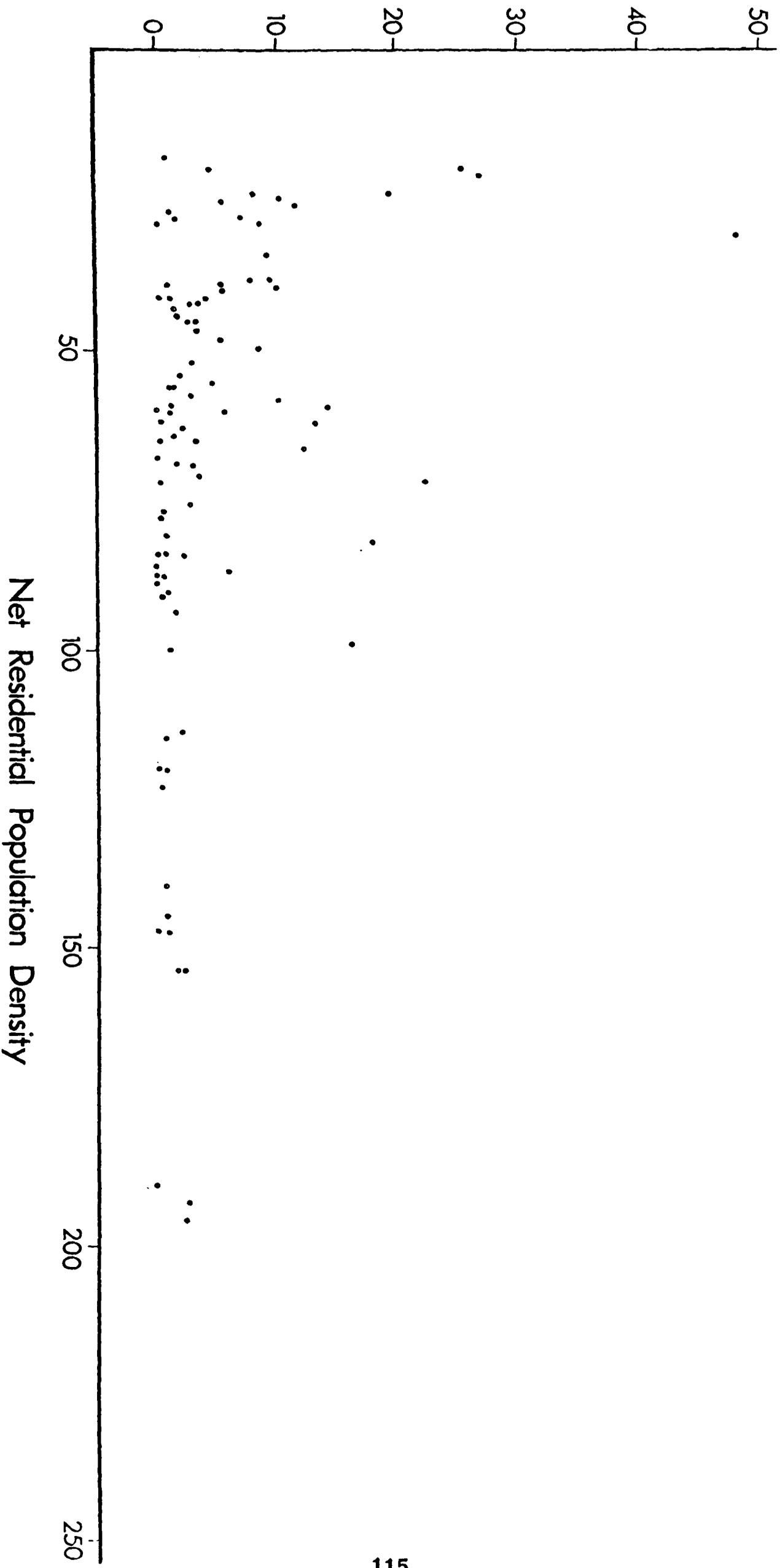
Table 2.3(c) Correlation between selected census indices.

		Correlation Coefficient (r)
No. per 1000 households (3+) having more than 1.5 persons per room.	x	No. per thousand households sharing a dwelling 0.708
No. per 1000 households (3+) having more than 1.5 persons per room	x	No. per 1000 households without a bath or shower. 0.489
No. per 1000 households sharing a dwelling	x	No. per 1000 households without a bath or shower. 0.460

73. G.L.C. 1971 Census: Demographic, Social and Economic Indices for Wards in Greater London. (2 Vols; Research Report 20; London: G.L.C. 1976) I, P.51. Appendix 20.

Acres Public Open Space per 1000 Population

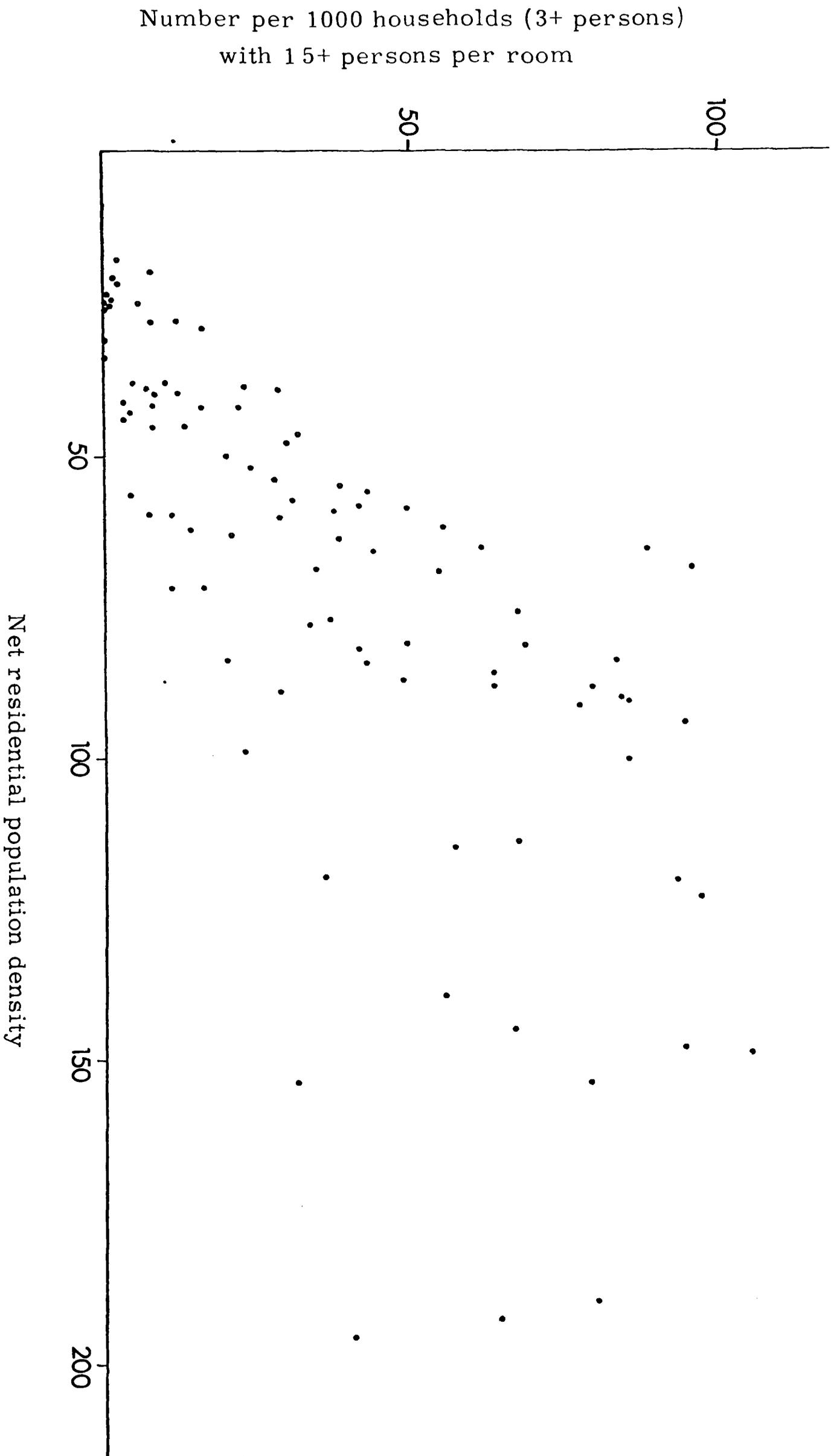
Fig. 23 (c) (ii) Relationship Between Net Residential Density and Acres of Public Open Space per 1000 Population For Wards In S. E. London



Sources: Greater London Land Utilization Survey 1966 and 1971
O.P.C.S. Census of Population 1971.

Fig. 23 (c) (iii)

Relationship Between Overcrowding and Net Residential Density For Wards In S. E. London



Sources: Greater London Land Utilization Survey 1966 and 1971
O.P.C.S. Census of Population 1971.

Fig 2.3(c)(iv)

Relationship between households sharing a dwelling
and net residential density; wards in S.E. London

No. per 1000
households sharing
a dwelling

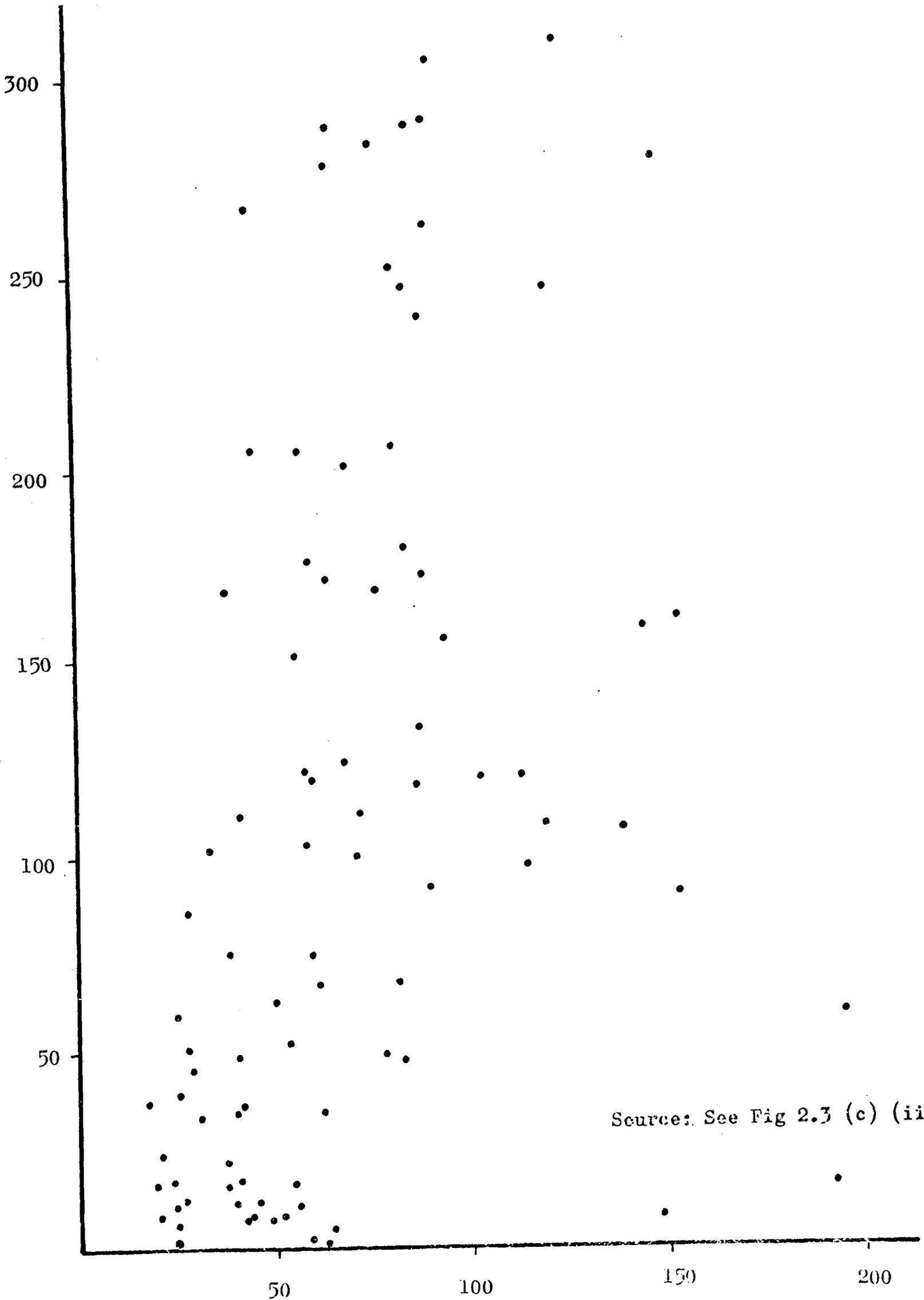
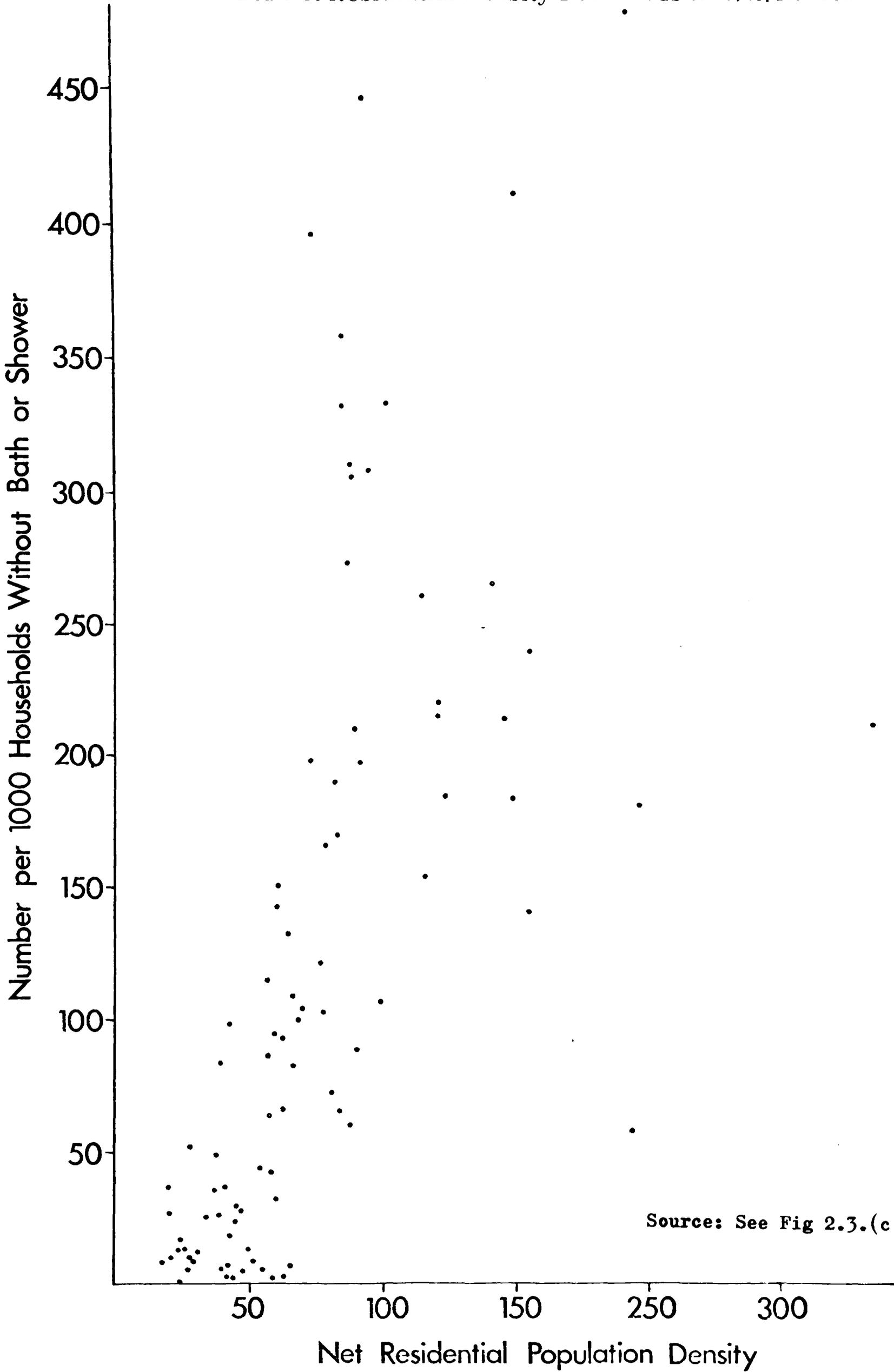


Fig. 23 (c) (v)

Relationship Between Households Lacking A Bath or Shower and Net Residential Density For Wards In S. E. London



Source: See Fig 2.3.(c) (ii)

This shows a good positive relationship between sharing and overcrowding for London as a whole and weaker positive relationships between households lacking a bath or shower and sharing households and overcrowded households.

Although a fairly simplistic and descriptive analysis, it is possible to detect a relationship between open space provision and the quality of the residential environment. The policy implications of this relationship together with that of the recreational function of open space will now be developed.

2.4 Policy Implications. The historical review of open space provision and the situation appraisal of the existing supply as a recreational and amenity resource raise certain questions as to the type of planning policies which should be adopted for London based on the experience of the South East sector.

In the simplest terms open space has been acquired and retained in the greatest amounts in the suburbs, where there have been fewer physical and economic constraints. In the same areas the residential quality is higher due to its more recent development and more generous space standards. Conversely the inner urban areas have always been deficient in open space with a poor, old and outworn physical fabric.

The deficiency in the inner city has been recognized as long ago as 1833⁷⁴ and although powers of acquisition and planning have developed, the physical and economic constraints of the inner city - the tightly packed urban fabric

74. B.P.P. Select Committee on Public Walks 1833 (448) XV 337.

and the high land costs, where more profitable land uses dominate - have mitigated against open space provision. Consequently there is the paradox that the most deficient inner areas with the poorest environment, which have the greatest need of increased open space, have the least opportunities for its development.

Postwar planning in London has attempted to redress this imbalance, although with a very limited degree of success. Burgess Park is possibly the grandest design in the study area - the opportunity for its development being provided by war damage and demolition of slum property. However progress has been slow and the costs high. It is probably more realistic to take a more modest approach with provision of small parks and additions to existing parks where the opportunities arise. It is also possible to develop the potential of the parks and open spaces that exist for recreation, by improving facilities and providing activities designed to promote sport and recreation. The Minister for Sport and Recreation under the Labour Government referred to urban parks as a most underused resource.^{75.}

In considering open space as a tool of environmental policy, this low key and incremental approach may not be very satisfactory in improving the urban fabric of inner areas. Section 2.3(c) only concludes that there is an association between open space provision and the quality of residential areas, not a causal relationship. The provision of open space in an otherwise poor environment will do little on its own to improve it. There is a need for a total environmental policy of which open space provision is one aspect.

75. At Conference of G.L. & S.E. Council for Sport & Recreation on "Recreation and the Quality of Life." September 1973.

Another important policy area is the preservation of existing open space from development. Open land has always been under pressure for development since large scale urbanization gathered momentum in the nineteenth century. The Metropolitan Commons Act 1866 was passed in response to this pressure. Nevertheless private open land is possibly under the greatest pressure for development at the present time. The shortage of available land within Greater London and the demand for housing, coupled with the high price of land, impose significant pressures for the release of open land for development. Whilst there are policies for large areas of open land such as the Green Belt, a number of sites within the urban fabric are particularly susceptible to development and are not sufficiently well protected by present legislation. The importance of the contribution of private open space to sports facilities in the suburbs was indicated in 2.3(b).

Clearly policies of acquisition and preservation need to be justified in terms of the recreational need for open space by the population so that they can be evaluated against other urban needs including housing. Chapter 3 will consider the background to demand for open space in South East London.

APPENDIX II(a)

OPEN SPACE FOR RECREATION - TABLES AND SOURCES

Table 1. Open Land in South East London, 1971
(hectares)

BOROUGH	Type of Land*						TOTAL
	GA	GC	GF	GN	GP	GR	
BROMLEY	95	40	4750	322	1119	1370	7696
GREENWICH	45	49	34	17	598	311	1054
LEWISHAM	27	42	-	3	308	72	452
SOUTHWARK	16	37	-	3	186	142	384
TOTAL	183	168	4784	345	2211	1895	9586

Source: Greater London Land Utilization Survey 1971.

Table 2 Open Land in Metropolitan Green Belt (South East London)
(ha)

BOROUGH	Type of Land*						TOTAL
	GA	GC	GF	GN	GP	GR	
BROMLEY -NON-GREEN BELT	79	32	77	8	392	399	987
-GREEN BELT	16	8	4673	314	727	971	6709
TOTAL	95	40	4750	322	1119	1370	7696

Source: Greater London Land Utilization Survey 1971.

* G.A. Allotments G.F. Farmland G.P. Public Open Space
G.C. Cemeteries G.N. Nurseries G.R. Private Open Space
(including golf courses).

Table 3 Change in level of total open land provision 1966-1971
- South East London. (ha).

	1966	1971	% change	Total Land Area 1971 % Open Land.	
Bromley- Non-Green Belt.	1031	987	- 4.3	13.4	7,343
Green Belt	6773	6709	- 0.9	85.6	7,836
Total	7804	7696	- 1.4	50.7	15,179
Greenwich	1067	1054	- 1.2	20.7	5,085
Lewisham	474	452	- 4.6	13.0	3,485
Southwark	363	384	+ 5.8	12.9	2,984
TOTAL	9708	9586	- 1.3	35.9	26,733

Source: 1977 Annual Abstract of Greater London
 Statistics Vol. 12.
 Director General's Department G.L.C; 1978.

Table 4.Type of Open Space by size.

Terrain	Size (acres)				TOTAL
	0-4	5-49	50-149	150+	
Woods	5	4	1	3	13
Grassland	59	33	6	1	99
Gardens	35	6	0	0	41
Commons/Heaths	0	2	2	1	5
Combination	29	34	5	3	71
TOTAL	128	79	14	8	229

Table 5.Type of Open Space by distance from Central London.

Terrain	Distance (miles)					TOTAL
	0-2.4	2.5-4.9	5.0-7.4	7.5-9.9	10+	
Woods	0	0	2	6	5	13
Grassland	18	20	13	27	21	99
Gardens	10	8	10	9	4	41
Commons/Heaths	0	0	0	0	5	5
Combination	8	19	20	17	7	71
TOTAL	36	47	45	59	42	229

Table 6.

Size of Open Space by number of facilities.

No. of Facilities	Size (acres)				TOTAL
	0-4	5-49	50-150	150+	
None	56	14	2	3	75
1 - 4	66	43	2	2	113
5 - 9	6	22	10	3	41
TOTAL	128	79	14	8	229

Table 7

Number of facilities in Open Spaces by distance from Central London.

No. of facilities	Distance (miles)					TOTAL
	0-2.4	2.5-4.9	5.0-7.4	7.5-9.9	10+	
None	14	11	13	20	17	75
1 - 4	16	30	19	26	22	113
5 - 9	6	6	13	13	3	41
TOTAL	36	47	45	59	42	229

Table 8. Type of facility by size of Open Space
(% of parks containing facility for each size category)

Type	Size (acres)				OVERALL AVERAGE
	0-4	5-49	50-149	150+	
<u>Sport</u>					
Football	12.5	50.6	78.6	62.5	31.0
Hockey	0.8	3.8	35.7	25.0	3.5
Rugby	-	5.1	7.1	37.5	2.2
Cricket	6.3	35.4	71.4	75.0	21.8
Netball	9.4	11.4	35.7	25.0	10.9
5-a-side	5.5	10.1	14.3	12.5	7.9
Tennis	7.0	40.5	71.4	62.5	24.0
Bowls	0.8	19.0	50.0	25.0	10.0
Putting	-	16.4	64.3	37.5	9.6
<u>Childrens Facilities</u>					
Playgrounds	47.6	59.5	71.4	37.5	52.0
Paddling pools	3.9	16.4	14.3	12.5	7.9
Childrens play clubs.	11.7	22.8	64.3	25.0	17.9
<u>Specialist Facilities</u>					
Swimming	-	3.8	28.6	12.5	2.2
Athletics	-	3.8	21.4	25.0	2.2
Boating	0.8	1.3	14.3	37.5	1.7
Buildings, Museums etc.,	1.6	3.8	14.3	25.0	2.6
Refreshments	2.3	30.4	57.1	37.5	15.3
Annual enclosures	1.6	6.3	14.3	37.5	3.9
Base (no. of parks).	128	79	14	8	229

Table 9. Type of facility by distance of open space from Central London
(% of parks containing facility for each distance band).

Type	Distance (miles)					Overall average
	0-2.4	2.5-4.9	5.0-7.4	7.5-9.9	10+	
<u>Sports facilities</u>						
Football	27.8	25.5	33.3	35.6	31.0	31.0
Hockey	-	-	8.9	5.1	2.4	3.5
Rugby	2.8	-	2.2	3.4	2.4	2.2
Cricket	19.4	21.3	24.4	20.3	23.8	21.8
Netball	16.7	14.9	13.3	6.8	4.8	10.9
5-a-side	8.3	12.8	8.9	5.1	4.8	7.9
Tennis	13.9	19.1	35.6	27.1	26.2	24.0
Bowls	-	6.4	13.3	16.9	9.5	10.0
Putting	2.8	10.6	13.3	13.6	4.8	9.6
<u>Childrens Facilities</u>						
Playgrounds	50.0	63.8	51.1	49.1	45.2	52.0
Paddling pools	-	10.6	13.3	8.5	4.8	7.9
Childrens play clubs	16.7	27.7	33.3	10.2	2.4	17.9
<u>Specialist Facilities</u>						
Swimming	2.8	4.3	-	3.4	-	2.2
Athletics	-	2.1	2.2	1.7	-	2.2
Boating	-	2.1	2.2	-	-	1.7
Buildings, Museums etc.,	2.8	-	8.9	-	2.4	2.6
Refreshments	-	12.8	37.8	16.9	4.8	15.3
Animal enclosures	2.8	2.1	13.3	1.7	-	3.9
Base (no. of parks).	36	47	45	59	42	229

Table 10. Location of sports pitches in South East London by Type and ownership (No.).

Distance from Central London (miles)

Type	0-4.9		5.0-7.4		7.5-9.9		10+		TOTAL	
	Pub.	priv.	pub.	priv.	pub.	priv.	pub.	priv.	pub.	priv.
Football	20	13	80	43	96	132	37	18	233	206
Hockey	-	4	3	16	6	35	3	7	12	62
Rugby	2	3	2	9	5	33	5	11	14	56
Cricket	7	13	32	37	30	93	14	16	83	159
TOTAL	29	33	117	105	137	293	59	52	342	483
Land area (acres) ^{1.}	7833		11,428		16,170		12,083		47,514	
Acres per pitch	126		52		37		109		58	

Source: G.L. & S.E. Sports Council Playing Fields Study 1971
(unpublished data).

1. Based on G.L.C. Land Utilization Survey 1966 involving an aggregation of Ward data to be approximately coterminous with distance bands. (see Fig II(a)(i) overleaf).

Table 11. Type of pitches by location

Type	Distance from Central London (Miles)				Overall Average
	0-4.9	5.0-7.4	7.5-9.9	10+	
Football	53	55	53	50	53
Hockey	7	9	9	9	9
Rugby	8	5	9	14	9
Cricket	32	31	29	27	29
	100	100	100	100	100
Base (No. of pitches)	62	222	430	111	825

Table 12. Ownership of pitches by location

Ownership	Distance from Central London (miles)				Overall average
	0-4.9	5.0-7.4	7.5-9.9	10+	
Public	47	53	32	53	41
Private	53	47	68	47	59
	100	100	100	100	100
Base (No. of pitches)	62	222	430	111	825

APPENDIX II(b) Inventory of Public Open Space in South East London.

A complete inventory of the public open space in the study area was compiled by means of a site survey conducted during the winter of 1971/72. The attached pro-forma was used as the means to record information obtained by site inspection. This was supplemented by information supplied by appropriate boroughs and the Greater London Council Parks Department.

Scope of inventory.

Originally it was hoped to collect information on both public and private open space. However problems of access made site checks of private facilities difficult. This data was collected from various secondary sources.¹

Consequently the inventory includes: parks, gardens, recreation grounds; woods; commons; and sports grounds with public access.

It excludes: private sports grounds; schools playing fields; private gardens; playgrounds (not contained within parks;) vacant sites; temporary sites; land adjacent to buildings and roads; golf courses.

A minimum size of 2 acres was adopted below which open space was not recorded. These small sites are difficult to locate and in many cases lack a clear recreational function, therefore were excluded.

Data collected.

Some of the data outlined on the pro-forma was subsequently not collected,

1. London Boroughs of Bromley, Greenwich, Lewisham & Southwark.
Greater London and South East Sports Council - Playing Fields Study - unpublished data.

where particular open space types had been excluded. Only data which was comprehensive and comparable between the site survey and published sources was eventually used.

Data processing

Simple one and two way cross-tabulations were produced using I.C.L. (XDSB)

Survey Analysis Package on Thames Polytechnic's ICL 1900 computer.

OPEN SPACES IN STUDY AREA

(a) Over 150 acres

Greenwich Pk.
Blackheath
Bostall Heath and Woods
Shooters Hill
Beckenham Place Pk.
Hayes Common
Crystal Palace Pk.
Petts Wood.

(b) 50 - 149 acres.

Hilly Fields
Avery Hill Pk.
Charlton Pk.
Eltham Parks (N & S).
Ladywell Fields
Southwark Pk.
Beckenham Place Pk.
Peckham Common & Pk.
Dulwich Pk.
Keston Common
Norman Pk.
Chislehurst Common
Plumstead Common
Woolwich Common.
Elmstead Woods

(c) 5 - 49 acres.

Sutcliffe Pk.

Maryon Pk.
Maryon Wilson Pk.
Abbey Wood Parks.
Eaglesfield
Fairy Hill

(c) continued.....

Hornfair Park.
Shrewsbury Pk.
The Course
Plumstead Gardens
Queenscroft
The Tarn
Well Hall Pleasaunce
E. Greenwich Pleasaunce
Horn Pk.
Middle Pk. P.F.
Sidcup Road O.S.
Forster Memorial Pk.
Downham Fields
Mountsfied Pk.
Chinbrook Meadows
Horniman Gardens
Sydenham Wells Park
Mayow Pk.
Deptford Pk.
Blythe Hill Pk.
Pepys Pk.
Senegal Fields
Telegraph Hill Pk.
Lewisham Pk.
Northbrook Pk.
Manor House Gardens
Home Pk.
Downham Woodland Walk.
Warren Avenue P.F.
Southend Pk.
Ravensbourne Pk.
Geraldine Mary Harmsworth Pk.
Burgess Pk.
Belair Pk.
Honor Oak Recreation Ground.

(c) continued.....

Brenchley Gardens
One Tree Hill
Betts Park
Alexandra Pk.
Blake R.G.
Cator Park
Churchfield R.G.
Crease Pk.
Croydon Road R.G.
Coney Hall R.G.
High Broom Wood
Kelsey Pk.
Southill Wood
Sparrows Den R.G.
Well Wood.
Stanhope P.F.
Hollydale O.S.
Church House Grounds.
Havelock R.G.
Kings Meadow R.G.
Magpie Hall R.G.
Martins Hill & Queens Mead.
Marvels Wood
Parkfields R.G.
Pickhurst R.G.
Southborough O.S.
Whitehall R.G.
Pickhurst Green
Chislehurst R.G.
Edgebury O.S.
Mottingham R.G.
Mottingham S.G.
Farnborough R.G.
Petts Wood R.G.
Willett R.G.
Farnborough Common
Shaftesbury Pk.

Poverest R.G.

(d) 0 - 4 acres

There are 128 open spaces of less than 5 acres in the study area.

ABBREVIATIONS

Pk.	Park
R.G.	Recreation Ground.
P.F.	Playing Fields
S.G.	Sports Ground
O.S.	Open Space.

SURVEY OF OPEN SPACES IN SOUTH EAST LONDON

General

Name	Grid Ref.	Size.
Public.	Owner.	Manager.
Private	" "	" "

Type of open space by major use

Children's Parks.	Gardens.
Sports Parks	Commons and Greens.
Mixed use Parks.	Woods.

Function.

Formal.	Informal.
Both	Agric. or Grazing.

Terrain %age of total area

Wooded	Grass	Rough heath
Landscaped areas		Cultivated gardens.

Specialised types of open space.

Sports grounds	Golf courses.
Bowling Clubs.	Tennis clubs.
Formal playgrounds	Adventure playgrounds
Allotments	Cemetaries
Educational facilities	Orchards.

Facilities

Pitches - Football	Rugby	Netball
Hockey	Cricket	Ball games
other - Changing rooms		Grandstands
Tennis Courts.		Putting greens.
Swimming pools		Boating pools
Fishing		Athletic stadia
Bowling.		Playgrounds
general- Museums		Bandstands
Car parks		Cafes
Toilets		Greenhouses
		Aviaries etc.,

Surrounding Area, (adjacent land use.)

Residential	Industrial
Commercial	Open space
Main roads	Nearest station

APPENDIX II(c)

Use of Location Quotient as an index of concentration in describing pitch distribution.

The location quotient is a simple descriptive measure which compares the ratio of number of pitches to total land acreage for individual wards with the ratio of total number of pitches to total land acreage for the study area. In this way the quotient indicates whether a Ward has higher or lower than average provision, the average having the value 1.

Calculation of Location Quotient.

$$LQ = \frac{C_3}{C_1} \times 100 \qquad \frac{N_3}{N_1} \times 100 = \frac{C_3 N_1}{C_1 N_3}$$

where C_3 = total No. of pitches in Ward.

C_1 = total No. of pitches in study area

N_3 = total acreage of ward

N_1 = total acreage of study area

e.g. Horn Park Ward

C_3 = 53 pitches

C_1 = 825 pitches

N_3 = 445 acres

N_1 = 47,515 acres

$$LQ = \frac{53 \times 47,515}{825 \times 445} = 6.83$$

LQ = 6.83 which suggests a high concentration of pitches in that Ward.

Limitations of use.

It is not possible to use the location quotient to measure locational concentration between two areas e.g. south east London and north west London, or to measure it over time where boundaries may change.¹ Neither of these conditions apply in this case and so provides a useful measure.

1. P. Haggett, A.D. Cliff & A. Frey Locational Methods.
(London: Edward Arnold, 1977) P. 301.

APPENDIX II (d)

SEQUENCE OF PHOTOGRAGHS OF PARKS REFERRED TO IN CHAPTER TWO.

PARK SITES

One Tree Hill (See p.68,78)



In both cases, the topography underlies the character of these parks where hilltop sites afford fine views across the River Thames to central London. One Tree Hill is part of the Sydenham Ridge and Greenwich Park is on a part of the river terrace.

Greenwich Park (See p.68,69)



PARK CHARACTERISTICS

Shooters Hill Woods (See p.68,72)

These parks contrast the semi-natural managed woodlands with the formal planting of flowers and shrubs. The reinforced but natural looking path of Shooters Hill contrasts with the ornamental path of the garden. Both park types serve passive recreation functions including walking, sitting and watching.



Peckham Park (See p.68)



PARKS IN INNER AREAS.

St.Gile's Gardens, Camberwell.



Originally squares and churchyards were the only residual open spaces in the densely developed parts of north Southwark, although more recently redevelopment has opened up larger areas. These parks serve a useful local function in high density areas (note the flats in the lower picture). Many disused churchyards have been converted to parks for informal recreation.

West Square, Southwark.



OCCASIONAL EVENTS AND ACTIVITIES IN PARKS.



Blackheath. (See p.68,69 & 72)

South East Londoners enjoy the traditional Bank holiday fair, this large area of open space being used for fairs and as a meeting ground since the seventeenth century. The large number of visitors necessitates that a large part of the Heath is given over to parking. Inevitably the grass suffers from heavy use, although the fair is infrequent.



OCCASIONAL EVENTS AND ACTIVITIES IN PARKS.



Margaret McMillan Park, Deptford.

This local community fair contrasts with the large commercial venture of Blackheath. Young and old from a socially and environmentally deprived part of North Lewisham take this opportunity to meet their neighbours. The park has been recently laid out in a redevelopment area of high rise flats



FACILITIES FOR CHILDREN.



Greenwich Park. Children enjoying inflatable structures, indicating the value of mobile facilities in parks.



Geraldine Mary Harmsworth Park, Southwark. This "One o'clock Club" for toddlers and the under fives is a permanent provision with huts for wet weather and hard and soft surfaces. It is a particularly useful facility in a high density residential area

FACILITIES FOR SPORT.

Greenwich Park. Cricket is one of a range of pitch and court sports provided in many of the larger parks. This pitch and similar pitches are used for football in the winter months.



Crystal Palace Park. This stadium, run jointly by the Sports Council and the G.L.C. is the national venue for national and international athletics meetings, set within a large metropolitan park



NEW PARKS

Burgess Park, (See Ch. 8 sec. 8.1)

The largest single park to be developed since the 2nd. War, aptly referred to as a "green desert" due to its lack of facilities.



Arklow Road Open Space, Deptford.

(See Ch. 9.
sec. 9.2)

This park is being laid out and landscaped. The catchment area of high rise flats is dissected by railway lines, and footpath links are being provided.

Fordham Park, Deptford.

(See Ch.9.
sec. 9.2)

This park in a high density area lacks facilities and character and consequently attractiveness.



CHAPTER 3. RECREATIONAL DEMAND FOR OPEN SPACE IN SOUTH EAST LONDON.

As a preliminary to a detailed analysis of the use of open space in South East London in relation to current planning policies and standards, the characteristics of recreational demand will be examined. The first two sections will review the general aspects of demand and participation, examining its theoretical and conceptual basis and relevant participation studies, especially those relating to Greater London. The latter two sections will explore the use of open space for informal recreation and sport in South East London, and the implications of background demographic, social and economic factors on present and future demand.

In this way the definitions and methodological problems associated with the subsequent analysis can be detailed and the background factors taken into account when planning for the recreational requirements of the residents of South East London.

3.1 Nature of Recreational Demand

Recreation can be regarded as the positive use of leisure time:

"time available when the disciplines of work, sleep and other basic needs have been met."¹

Recreational demand has been defined as:

"the use of existing facilities either now or in the future."²

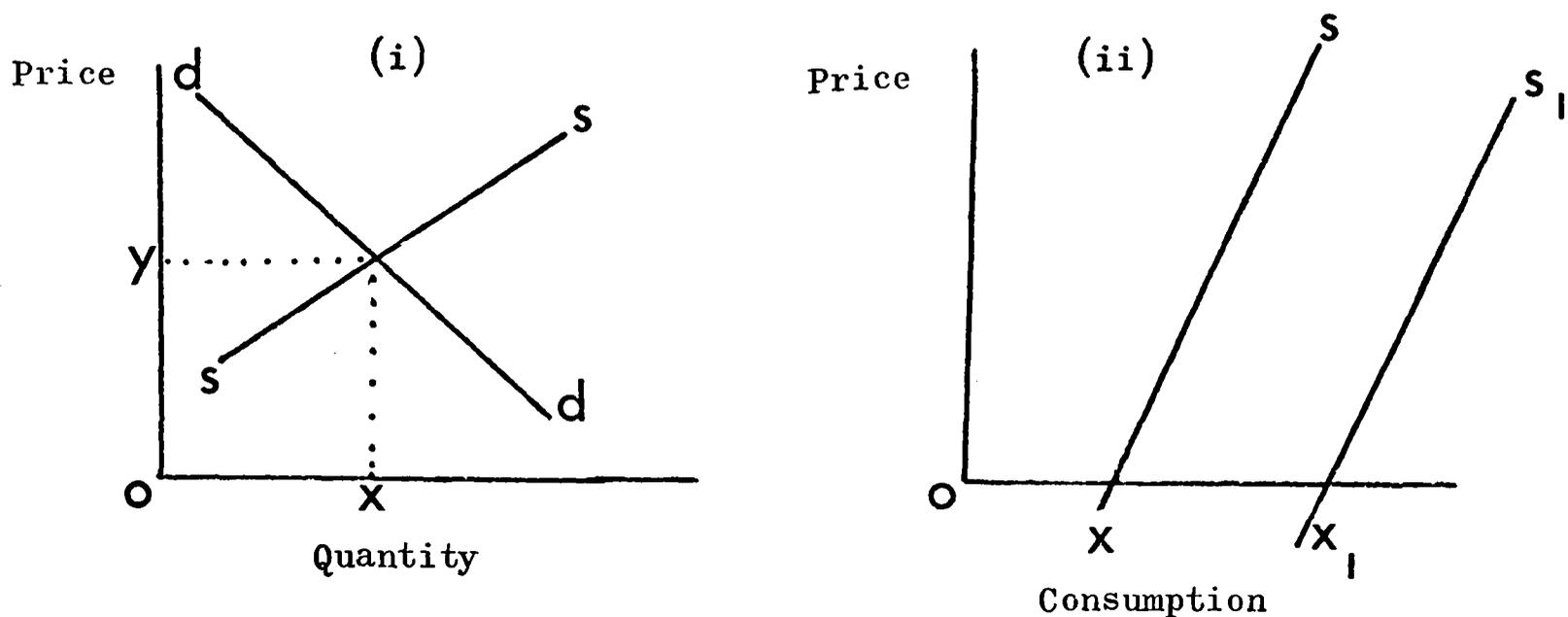
1. Countryside Commission. The Demand for Outdoor Recreation in the Countryside. Report of Seminar. (London: Countryside Commission Jan. 1970).

2. Ibid.

In this context the concern is with urban outdoor recreation and more specifically the demand for urban open space. This can be further subdivided into the demands for informal open space; parks, gardens and recreation grounds and for outdoor sports facilities; playing fields and sports grounds³.

(a) Effective Demand. In planning urban open space some notion of the level of demand is of key importance. Unlike economic demand, the demand for recreation cannot be measured by the price people are willing to pay. Historically the provision of open space has been made by local authorities either free as in the case of public parks and gardens or for a nominal charge as for sports pitches. This difference is illustrated in Fig. 3.1(a)(i).

Fig 3.1(a) Effective demand(economic and recreational)



(after T.L. Burton³.)

3. T.L. Burton. Experiments in Recreation Research Urban & Regional Studies No. 2. (London: George Allen & Unwin, 1971) PP. 24-25.

In 3.1(a)(i) the economic demand for a good is the amount OX which will be bought for a given price OY. In 3.1(a)(ii) there is no cost involved so that the quantity of open space that is used may simply reflect changes in supply. This simple analysis indicates that both economic demand and recreational demand in these instances refer to consumption or effective demand i.e. the actual quantity demanded at any given price (3.1(a)(i)) or level of provision (3.1(a)(ii)). In the former case the economist can test empirically the quantity that will be consumed at different prices and produce a consumption function or curve DD. There have been various attempts to develop recreational demand functions by using some surrogate for price. One of the most widely adopted methods of analysis was that developed by Clawson⁴ which uses the travel cost component of recreation. If the cost of a facility such as a park is zero then the cost of the visit is determined for each individual by his location relative to the site. The demand function can be derived from the distance decay function which relates the number of visits to distance from a park (see Fig. 3.1(a)(iii)). In 3.1(a)(iv) the distance travelled can be priced in terms of travel cost, time etc., and as this price increases then the quantity demanded (number of visits per 1000) will decrease. The axis of the distance decay function can be transposed to give the conventional demand function. This modification of the Clawson method was developed by the Greater London Council to show the function and attraction of parks of different sizes. The quantity demanded in this case is the ratio of parks visited to total visit opportunities (i.e. all parks of given size) within specified distances from home. The value of this kind of analysis is most clearly seen in the location and distribution of facilities and this aspect

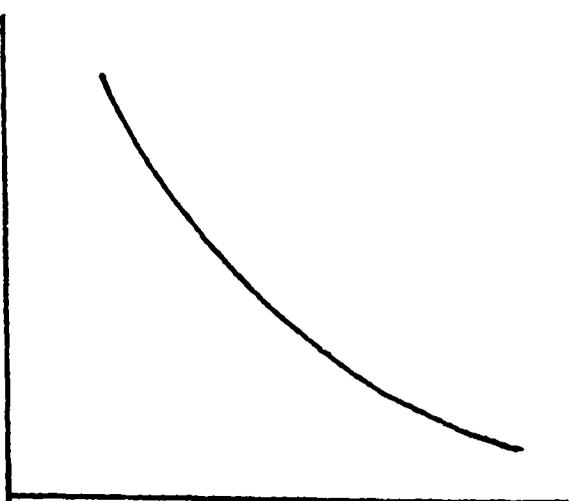
4. Clawson M. Methods of measuring the Demand for the Value of Outdoor Recreation. Reprint No. 10 (Resources for the Future (1959)).

Fig 3.1(a) Distance decay functions and demand for recreation.

(iii)

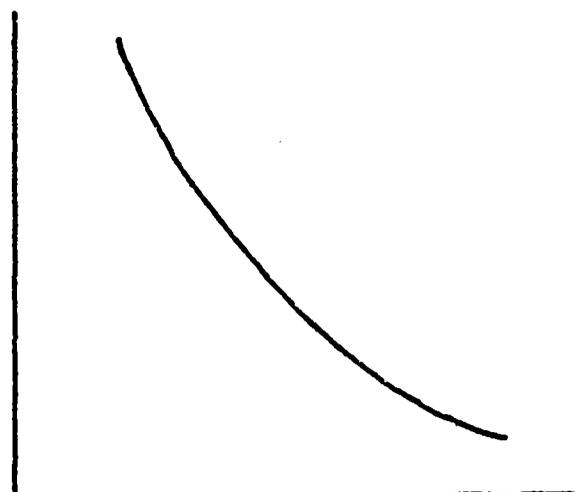
(iv)

Visits per 1000
population



Distance

Distance
Travelled
(price)



Visits as %
of opportunities
(quantity).

(after A.J. Veal^{5.})

(after G.L.C.^{6.})

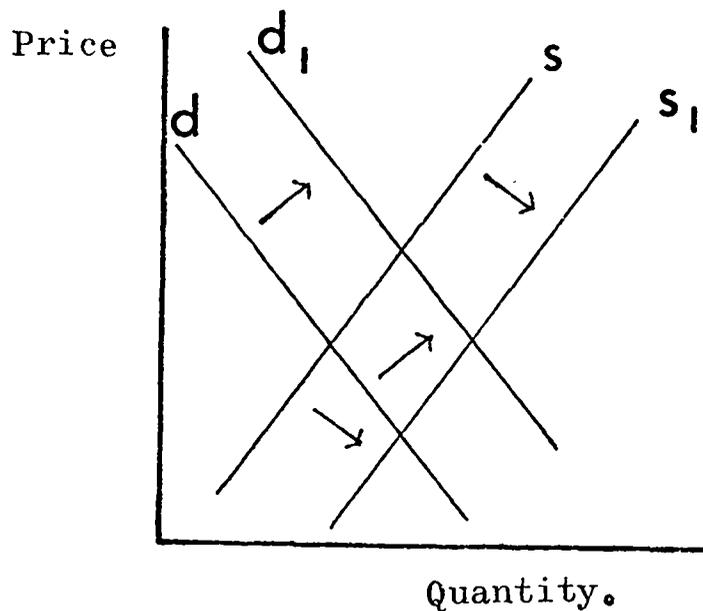
will be developed further. However it refers only to effective demand or use of specific facilities at certain sites. There are other aspects of recreational demand which need to be known for effective planning. As local authorities are the major providers of urban open space and as there are many competing demands on their limited resources, it would be useful to evaluate the benefits of its provision to the community - implicit in this approach is some assessment of community requirements for open space i.e. the level of demand both present (participation and use) and in the future.

5. A.J. Veal "Estimating Demand of Urban Recreational Facilities." Planning Outlook, Vol. 14 1974 PP. 58 - 64.

6. G.L.C. Surveys of the Use of Open Space (Vol. I. Research Paper No. 1 G.L.C. September 1968).

(b) Latent and Potential Demand. At this stage it is necessary to broaden the discussion from effective demand for recreation to look at what has

Fig 3.1(b) Potential, latent or deferred demand.



been variously called potential, latent or deferred demand.

Latent or deferred demand for recreation implies that there are certain constraints which need to be overcome if it is to become effective i.e. it has the potential to become effective. These constraints affect both demand and supply. Personal constraints such as leisure time available, disposable income, age, sex and education will all affect the individual's demand function. In Fig. 3.1(b)(i) an increase in leisure time or income may cause the demand schedule of an individual to shift from DD to D_1D_1 resulting in an increased use of leisure facilities. Demand may also be deferred due to lack of existing facilities or inaccessibility or lack of awareness of facilities. If the supply is increased or the access to existing facilities improved, then the supply curve will shift from SS to S_1S_1 also resulting in an increased use of facilities. Where a new facility is provided the deferred demand that becomes effective can be termed "induced." It is also likely that existing "effective" demand may be "diverted" from existing facilities. If the existing facilities are of a different type then the

new facility may be a substitute e.g. the provision of a football pitch may cause some individuals to give up swimming in preference for football. The substitutability of recreational facilities including urban open space has important implications for planning which will be referred to at a later stage.

Having identified deferred demand there are considerable methodological problems associated with measuring it. There are certain indicators of unsatisfied demand where supply is insufficient. Private golf clubs which are fully subscribed and have long waiting lists, and football pitches which are used to capacity do indicate a level of unsatisfied demand which could be measured in terms of length of waiting list or teams applying for pitches on certain days. The drawbacks to this approach are that it is partial and can only be applied to open spaces with some finite capacity. For planning purposes it is desirable to know the relative levels of effective demand for open space and other types of recreation facility and how these may change in the future.

The majority of studies of recreational demand have concentrated on measuring levels of participation in various activities and patterns of use of facilities. This can give an idea of the relative importance of different activities and facilities which reflect the current supply situation.

Some studies have attempted to isolate demand from the effects of supply by asking people what activities they would undertake if there were no personal

or environmental constraints. The results of such surveys of recreational aspirations are notoriously inaccurate as they are inevitably subjective and responses are conditioned by knowledge of existing provision.

This type of information is of limited value for production of future demand trends. Despite its limitations data on past and present use, combined with the knowledge of the background factors which influence use is the best available information.

3.2 Review of Empirical Demand Studies.

Three types of demand study have been identified:⁷ those which examine the whole pattern of demand of the total population over the full range of leisure activities;⁸ studies of a particular activity;⁹ studies of demand at a particular site. The first type are usually conducted by household interview techniques and measure relative levels of participation, whilst the latter are site surveys which measure use of a particular facility or resource. The second type might adopt either or both of these approaches.

This review will concentrate on the following aspects: the levels of participation in various open space activities measured against other forms of recreation; an outline of the patterns of use - visiting and trip

7. J.A. Patmore "Recreation" eds. J.A. Dawson, J.C. Doornkamp. Evaluating the Human Environment. (London: Edward Arnold 1973). PP. 224-248.

8(a) Outdoor Recreation Resources Review Committee. National Recreation Survey Study Report 19 (Washington 1962).

(b) British Travel Association/University of Keele. Pilot National Recreation Survey (Report No. 1. 1967).

9. G.L.C. Department of Planning & Transportation. Surveys of the Use of Open Space (2 vols; Research Paper No. 2; London G.L.C, 1968) I.

characteristics - for different types of open space; an appraisal of the background demographic, social and economic characteristics which influence the demand for open space. Information will be drawn from National Surveys¹⁰ with regional analysis relating to London and from studies of the recreational demands of Londoners.¹¹

(a) Levels of Participation. All studies highlight the high level of participation for informal park visiting compared with the low levels of activity in formal sports. The Greater London Recreation Study found that 54% of the sample (Londoners between 15 and 69 years) had visited London parks at least once within the previous twelve months, compared with 25% who participated in at least one outdoor team game. Rates for individual sports are much lower: football 12%; cricket 6.25% hockey 1.75%; rugby 1.5%. Although using different measures the General Household Survey and the National Survey confirmed this differential. Invariably team sports are male dominated (G.L.R.S. found 22% male participation rate for football and 12% for cricket), whilst the participation rates for park visiting are similar for both sexes.

Another measure of the relative popularity of different types of outdoor recreation is the frequency of participation. It was noted in both the General Household Survey and the Greater London Study that whilst park visiting was one of the most important informal pursuits in terms of numbers participating, the frequency was relatively low compared with football. Birch noticed that whilst football was the seventh most popular participant

10(a) B.T.A/University of Keele op.cit.

(b) Department of Education and Science/K.K. Sillitoe Planning for Leisure (London: HMSO, 1969).

11. G.L.C. Greater London Recreation Study (3 vols; Research Report No 19, London; G.L.C. 1975). Vol I Demand Study.

sport in terms of numbers it was the second most popular in terms of frequency.¹² The level of commitment is greater for formal sports.

Weather conditions can have a marked effect on the levels of participation throughout the year. This is most marked for informal park visiting, together with cricket which has a very limited season (not necessarily the effect of weather) and least marked for football where participation rates are relatively constant throughout.

Turning to the future demand for open space, the Greater London Study asked informants about sports and activities in which they would like to participate or increase their level of participation. It was found that the future growth in park visiting and team sports is likely to be small, whilst indoor sports, swimming, tennis, golf, squash and riding are seen to be "growth" sports.

The chief factors inhibiting further participation were found to be time and lack of facilities for pitch sports and simply time for park visiting. The National Survey obtained similar findings with spare time and expense being cited as the main constraints.

More recently Veal has attempted to forecast levels of participation in 1991 based on the results of the 1977 General Household Survey. By projecting trends in demography, income and car ownership, he estimates that park visiting will increase by only 6% compared with 23% for outdoor sports.

12. F. Birch. "Leisure Patterns in Britain." Population Trends. Office of Population Censuses and Surveys (London, Spring 1976).

He estimates considerable variation between sports with only a 7% increase for soccer compared with a 21% increase for cricket and 33% increase for golf.¹³ The value of these projections is limited due to the problems outlined earlier: they are based on current "supply led" levels of participation and on current social trends.¹⁴ Both supply and background factors may alter considerably over the next 12 years.

(b) Patterns of Use. The detailed aspects of visiting and trip characteristics are central to the planning and distribution of urban open space. Detailed findings will be examined in subsequent chapters, both for informal recreation and for the use of outdoor sports facilities. This review will concentrate on the broader influences of location on the levels of participation.

The General Household Survey concluded that Londoners participated less in outdoor sports and games (13% of adults had played once in the previous year) compared with 18% for the South East and 17% for Great Britain, whilst the proportion was slightly higher (24%) for open air outings (including park visiting) than nationally 21%¹⁵.

There have been several studies which have tried to measure the influence of location within the urban area on use of open space. These include the National Survey "Planning for Leisure" 1969, Surveys of the use of Open

13. A.J. Veal The Future of Leisure : monitoring and forecasting trends in Recreation and leisure in Britain (1979 Univ. of Birmingham CURS) P. 54.

14. C.J. Cichetti Forecasting Recreation in the United States. (Lexington Books, 1973).

15. Office of Population Censuses and Surveys, General Household Survey 1973 (London: HMSO, 1975).

Space (G.L.C.) 1968 and the Greater London Recreation Study 1975. The National Survey and the Greater London Recreation Study compare recreational use between inner and outer London, whereas the G.L.C. Survey measures recreational use by a grading of public open space from most to least well provided Wards in London.

The Greater London Recreation Study is the only report which attempts to remove the influence of social structure from the analysis by comparing the pattern of recreational behaviour of identical age and social groups in contrasted locations. For four broad recreation groups; participant sports, spectator sports, informal outdoor recreation and entertainment, social and cultural activities, there was found to be no significant difference in the level of participation between inner and outer London.¹⁶ This generalised analysis is of little value in this context. Certain significant differences were noted when examining individual pursuits, but at this more detailed level the influence of social structure was not isolated. It was found that for most pursuits a higher proportion of the population in Outer London takes part, reflecting the larger proportion of "white collar" population who are more recreationally active. The two outdoor pursuits which did not conform to this were playing football; traditionally more characteristic of "blue collar" workers, and visiting London Parks, where the proportion of participants were higher in inner than outer London. The former is explained in terms of social structure and the latter can be attributed to location relative to that of the London Parks.

The National Survey "Planning for Leisure" made several comparisons between

16. G.L.C. Greater London Recreation Study. op cit. I P.19 Table 3.12

inner (former L.C.C. boroughs) and outer London, concerning the frequency of use of public open space and the satisfaction with open space provision. It was found that the frequency of informal visits to public open space was similar between inner and outer London, although both were considerably higher than the national average, Table 3.2(b)(i).

Table 3.2(b)(i)

Average number of visits to public open spaces per person throughout Greater London (May - September 1965).

Inner London		Outer London		Total (National).	
<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
22	25	22	21	18	17
					17.

It appears from these findings that exceptional interest in park visiting was shared by all Londoners, despite the less congested environment with more private gardens in the suburbs.

Both of these surveys have examined in a general way the differing levels of participation in park visiting and other outdoor pursuits. The G.L.C. Surveys of the use of Open Space examine in more detail the various aspects of park visiting and relates them to the level of open space provision. The samples chosen did not attempt to isolate the influence of social structure, higher proportions of professional and intermediate social class groupings being associated with areas better provided with public open space, and higher proportions of skilled, semi-skilled and unskilled manual social class groups being associated with areas of poorer provision. The report outlined three

17. HMSO Planning for Leisure op.cit. P. 71.

findings. Firstly there was no discernible relationship between frequency of visit and level of open space provision except for the best provided areas where the frequency was a little higher. Secondly those in the most deficient areas travelled farther and visited smaller open spaces than those in areas well provided with open space. Finally the desire to visit open space seems little affected by the distribution of open space and those in deficient areas are prepared to travel farther but it still leaves those in less well provided areas with a smaller range of open space provision to choose from.^{18.}

The G.L.C. also conducted a survey of school children and compared open space use between deficient and well-provided areas. It was found that children in deficient areas use parks less and made more use of space adjacent to flats and houses. They also visited parks less frequently and walked and cycled markedly less, a greater proportion using buses to get to parks than those in well provided areas. Children in well-provided areas visited more large open spaces and fewer small open spaces than children in deficient areas^{19.}

From this review of the literature it would appear that for adults, levels of participation in park visiting are not significantly different between inner and outer areas of London. However the nature of the visit is affected significantly by the differing provision of public open space. This is more apparent in the case of school children whose mobility is more restricted, than that of adults and whose recreational opportunities are clearly lessened in areas deficient in public open space. The differing social structure between inner and outer London does not appear to be a significant factor

18. G.L.C: Surveys of the use of Open Space op.cit. I. P.37 para 130

19. Ibid P.62-65 Paras. 213-216.

with regard to park visiting characteristics.

Participation in active outdoor sports appears to be more affected by social structure and correspondingly less affected by provision of open space. For example, participation in football is higher in inner London where there are higher proportions in the manual occupations. However the provision of open space in the form of playing fields is confined largely to the suburban areas. With team games the proximity to open space is not so important as for more informal park visiting.

(c) Demographic, social and economic factors affecting the demand for recreation.

From the previous section it is apparent that the propensity to participate in outdoor recreation in London varies according to social characteristics of the population. Both national and regional recreation surveys have highlighted the relationships between three sets of factors and participation:

(i) Demographic factors: size, density of population, age, sex and stage in life cycle.

(ii) Economic factors: Income, leisure time.

(iii) Social factors: social groups, education and car ownership.

(i) The size of population and its density will determine overall levels of participation in sport and recreation and the need for facilities in a given area. The crudest standards relating population to facilities acknowledge this simple relationship. However within a given population, demographic characteristics have an important effect on participation. Both the National Survey and the General Household Survey have drawn those links between age and participation which in general terms have an inverse relationship; as individuals get older their participation diminishes. This is more marked

for participation in active sports and games than for park visiting. This is confirmed for Londoners as is indicated in Fig. 3.2(c)(i). With regard to sex, approximately twice as many men in each age group participate in active outdoor sports than women, except in the 15-19 year age groups, whereas for park visiting there are slightly more women than men participating for all age groups except the over sixties.

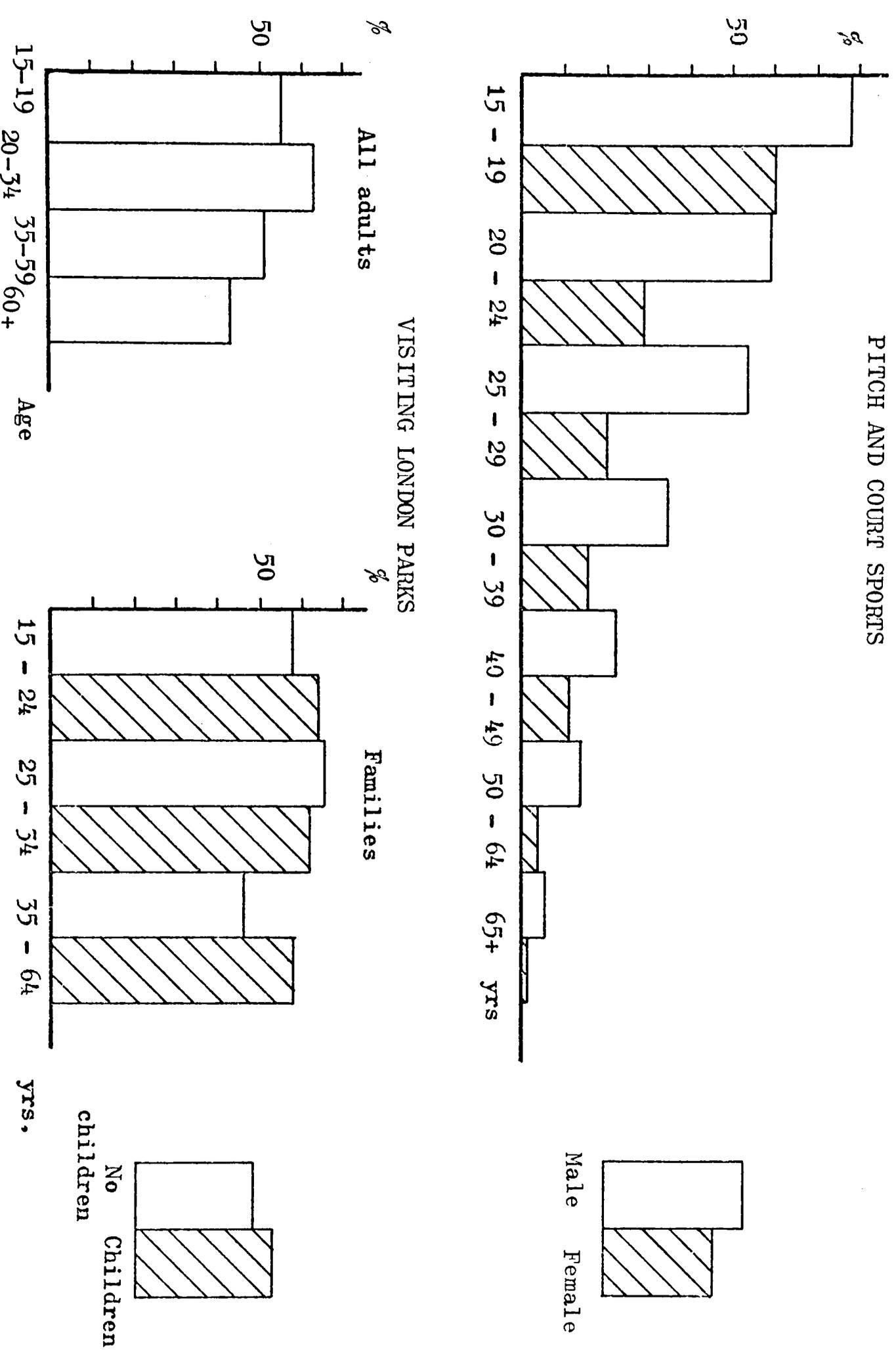
This simple picture is compounded by the effect of changing lifestyles e.g. there is a considerable fall off in participation in sports and games by both men and women when they get married. However participation in park visiting is highest at this stage among married females 23-30 years with children, followed by the 31-45 year group for both men and women.²⁰ The London study broadly confirms this finding by showing how park visiting is affected by family status, (Fig.3.2(c)(i)).

(ii) The decreasing length of the working week is a long term trend which is continuing and has given the population as a whole an increasing amount of disposable leisure time in which to follow recreational pursuits. However within the population there is no indication that differential amounts of leisure time among different occupational groups affects levels of participation between these groups. There is certainly no direct relationship as professional and managerial classes who have the shortest official working week often devote a large part of their leisure time on their occupations.

Again there has been a general trend of increasing disposable real income for all people in recent decades and this has undoubtedly led to increased

20. K.K. Sillitoe. Planning for Leisure. op.cit P.20

Fig 3.2(c)(i) Effect of age, sex and stage in life cycle on participation in sport and park visiting; Greater London



Source: Greater London Recreation Study (G.L.C., London 1975) Part II p4 Tab 1,1 p31 Tab 3.3.

expenditure on recreational activities. Within the population there are considerable differences in participation in sports and games and park visiting between high and low income groups i.e. participation rates increase in direct proportion to increases in income (Fig.3.2(c)(ii)).

(iii) Social class, educational attainment and car ownership tend to be inter-related with income. At each end of the spectrum from high to low income these other factors are directly related. In recent years car ownership has become more generally the prerogative of rich and poor alike; a "luxury" which has become a "necessity." Participation in sports and games is strongly associated with social class, educational attainment and car ownership; high participation occurring among the higher social classes, the better educated and car owners. There is one exception to this tendency in the case of football where levels of participation are greater among the manual occupation groups and less well educated. The same relationship is true for park visiting although it is not so marked as for participation in sports and games, (Fig 3.2(c)(ii)).

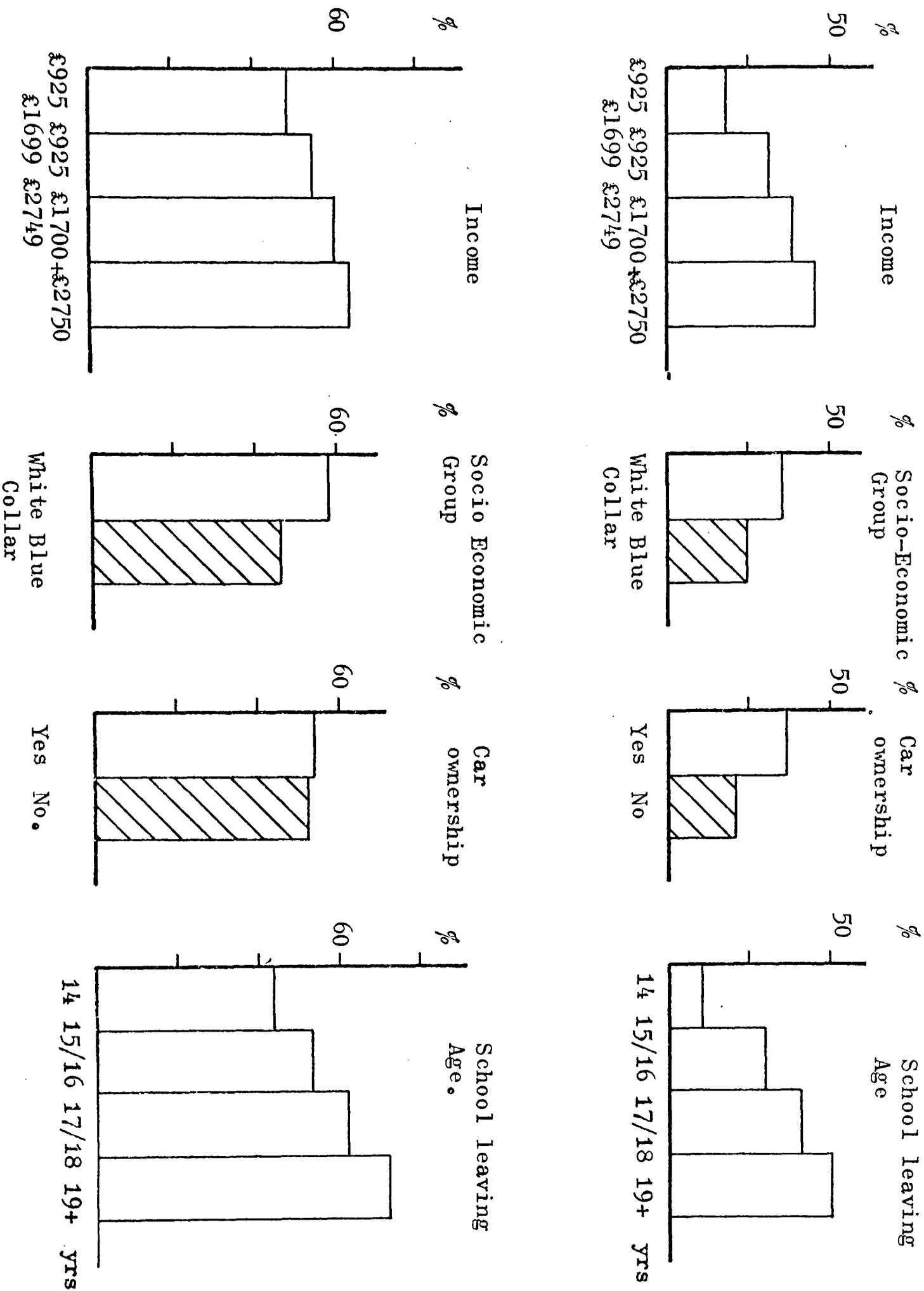
3.3 The use of Open Space in South East London.

From a review of empirical demand studies relating to the London region a more detailed analysis will be made of the level and type of use of open space in South East London. In this way it is hoped to establish the overall picture of the use of open space in the study area as a background to subsequent evaluation of policy. This will draw primarily on the surveys of use undertaken in 1972 and 1973 with supplementary information from other sources.²¹ Following the classification of use developed in Section 3.1, open

21. See Appendix III(a) for details of surveys and data sources.

Fig 3.2 (c) (ii)

Effect of socio-economic variables on participation in sport and park visiting; Greater London



PITCH AND COURT SPORTS.

PARK VISITING

Source: Greater London Recreation Study (G.L.C. London 1875) Part II p4 Tab 1.1 p51 Tab 5.3.

space for informal recreation by both adults and children will be considered and then open space for sport. For these two broad types of use the following aspects will be examined:

- levels of participation and intensity of use for different activities.
- types of open space used and attitudes to use.

The social and economic characteristics of the population and more specifically open space users and their implications for use, will be examined in 3.4.

Detailed analyses of visiting characteristics will be developed in Chapters 5 and 6 in relation to policy guidelines and standards.

(a) Use of Open Space for Informal Recreation

(i) Adults.

The two most important recreational activities undertaken by adults in South East London parks are walking(40%) and taking children out (27%). In each case over half the respondents had visited a park within the last week and virtually all within the last three months. The third most popular activity of exercising the dog (11%) tended to be a higher frequency activity with nearly three quarters of respondents visiting a park within the previous week.^{22.}

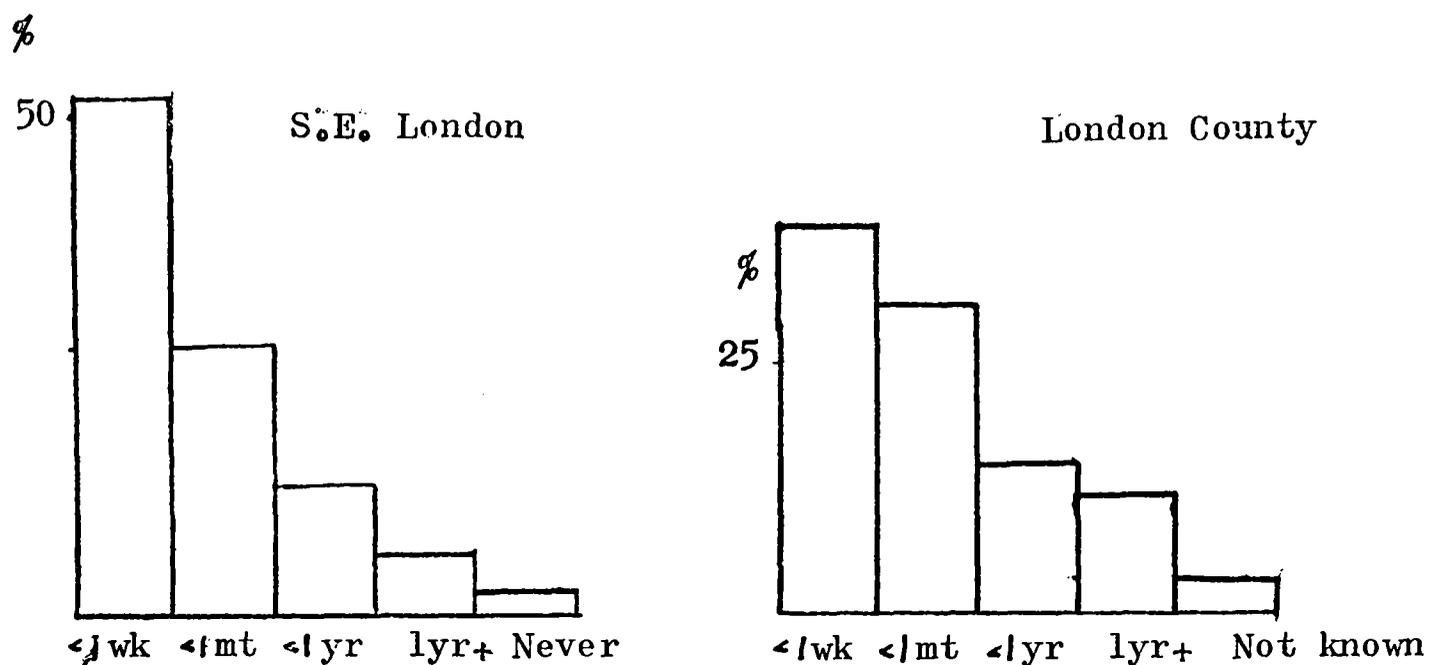
Of those interviewed just over half had visited an open space within the last week and a further 27% within the last month. Fig. 3.3(a)(i) indicates these findings for South East London and relates them to findings from the G.L.C. survey with which they are broadly comparable.^{23.} Despite the margin

22. See Appendix III(b) Table 1. P.192.

23. G.L.C. Planning Department Surveys of the use of Open Space op.cit. I. P.13 Table 1.

of error resulting from the small sample there is a significantly higher proportion of park users visiting within the last week in South East London than for the L.C.C. area whilst the proportions of less frequent visitors are higher in the latter case. This may be explained by the fact that the G.L.C. survey refers to Inner London (old L.C.C. area) whilst the South East London survey covers both inner and outer parts of that sector, and as such a higher overall level of open space provision in the latter might generate a more frequent use.

Fig 3.3(a)(i) Last Visit to Public Open Space



Source: Appendix III(b) Table 1 P.192.

G.L.C. Surveys of the Use of Open Space.
op.cit. Table 1. P.1.

Six per cent of respondents had not visited a park for over a year and a further 2% not at all. The main reasons given by this group for such infrequent visiting or no visiting at all were lack of time, being too busy with other things to do or simply not wanting to go to parks. A smaller number were too old or too ill, and some preferred their own gardens. Only one individual said that he did not like the local park. The ranking of these reasons is reflected in the G.L.C. Survey and also in a National Survey.²⁴ In all three surveys the main reason given was lack of spare time or being too busy. Specific comment about the inadequacy of parks was seldom made.

Respondents visited proportionally more large parks than small compared with the size distribution of public open space in the study area,²⁵ indicating a preference for large parks against small. Fig. 3.3(a)(ii) compares these distributions showing that 21% of adults visited parks of over 150 acres although these represent only 4% of all parks in the sector. The latter statistic masks the importance of such parks in terms of acreage; size undoubtedly being an important attraction.

These findings are confirmed by those of the G.L.C. Household Survey which indicated that larger parks of over 50 acres are visited by proportionally more people than smaller ones.²⁶

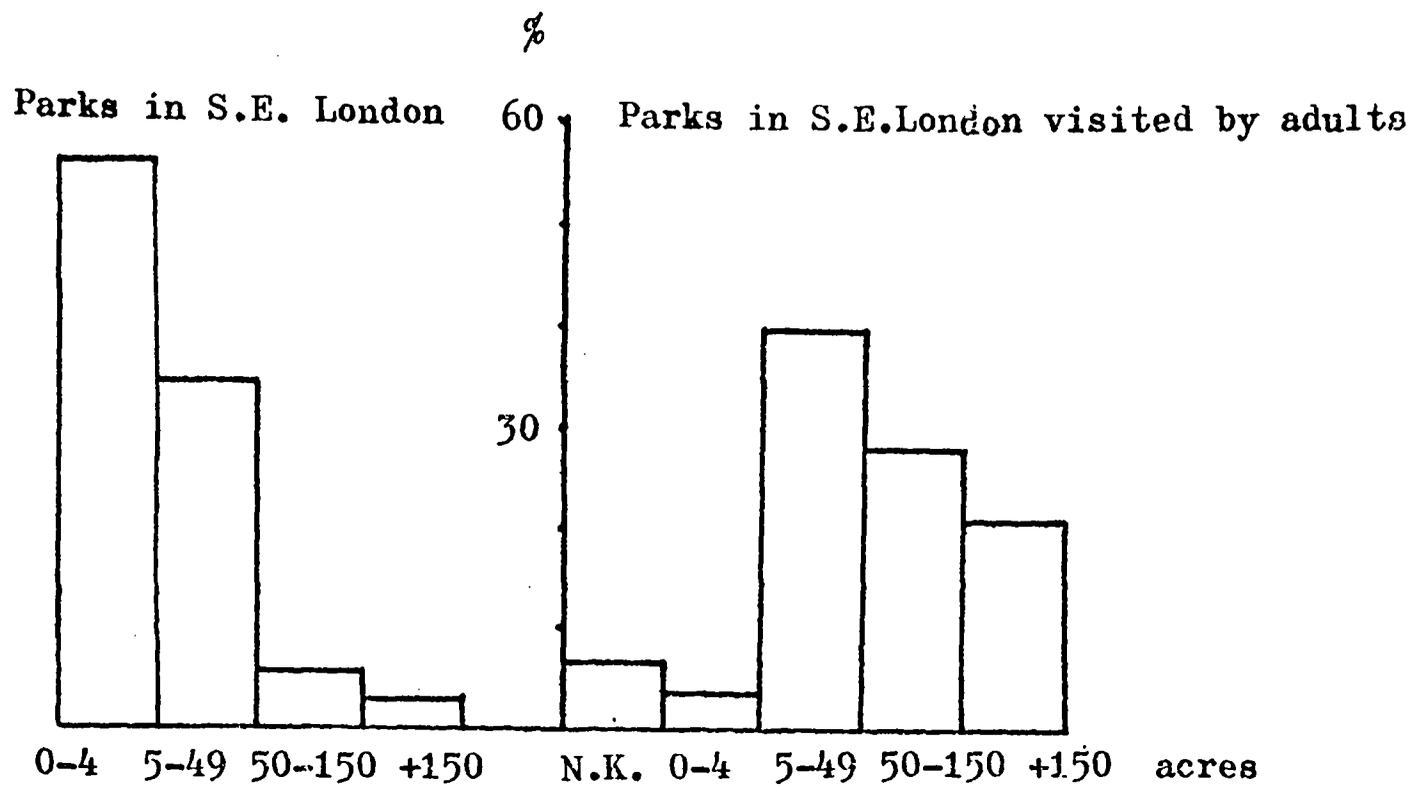
Of the sample interviewed just over a half visited parks with 4 or less

24. Ibid I, P.16 Table 4 K.K. Sillitoe (Ed.) Planning for Leisure op.cit. P.98 Table 51.

25. See Appendix III(b) Table 2, P. 192.

26. G.L.C. Surveys. op.cit, I, P.24 Table 17.

Fig 3.3(a)(ii) Size of Park and Visiting Preference



Source: Appendix III(b) Table 2

facilities and 41% visited parks with 5 or more facilities. A preference is shown for those parks with a larger number of facilities (5 or more) as these represent only 18% of all parks in the study area. The G.L.C. Household Survey found that the number of facilities a park contained had little effect on visiting preference.²⁷ Both these sets of comparisons between visiting preferences and size and number of facilities of parks in South East London must be treated with caution as they assume that the sample interviewed have uniform access to all park sizes and types in the area, which may not be the case.

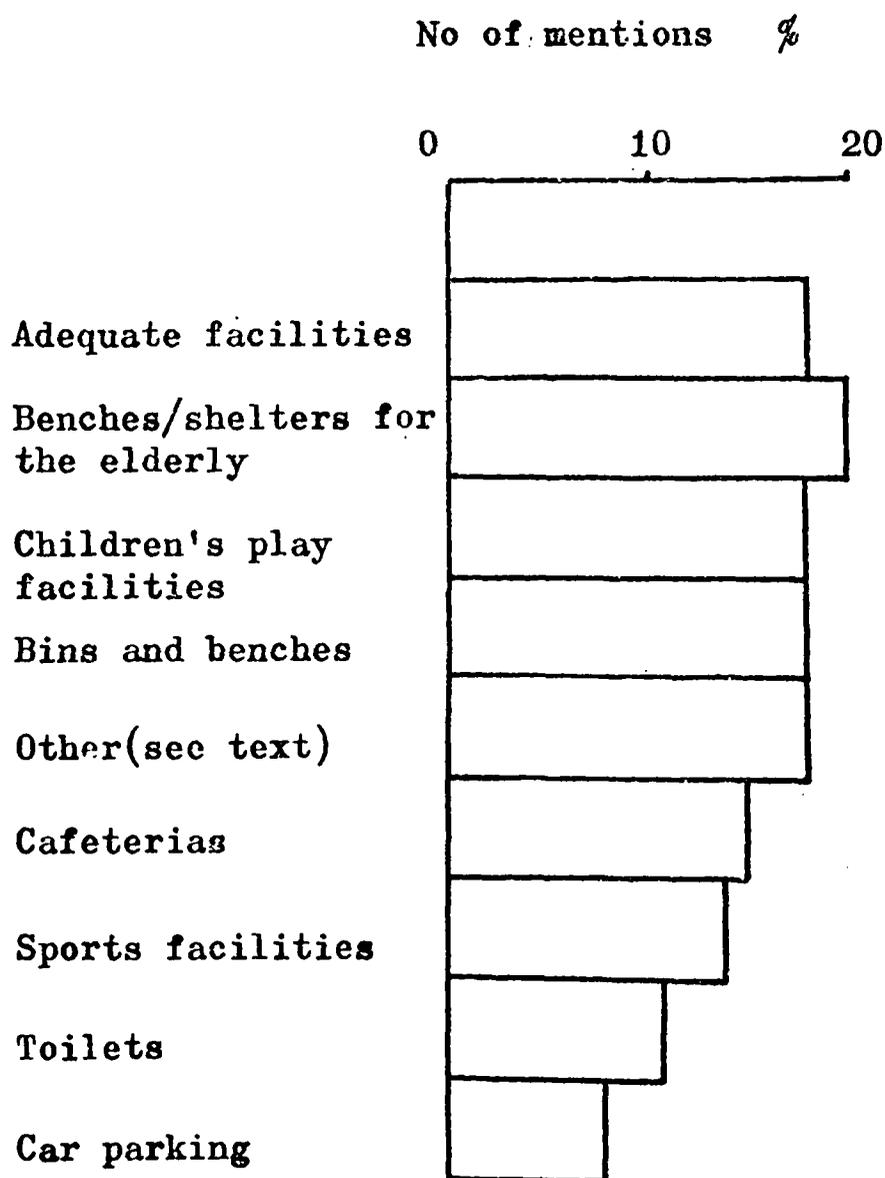
Just under two thirds of the sample thought the provision of open space in their area was adequate. Of the remainder just over two thirds wanted a larger number of small parks, with limited facility provision, close to their homes, and the rest wanted larger parks with more facilities at some distance.²⁸

27. G.L.C. Surveys of the Use of Open Space op.cit. P.25 para. 78.

28. See Appendix III(b) Table 4. P. 193.

Suggestions for the improvement of facilities are shown in Fig. 3.3(a)(iii). 18% of the sample thought that the facilities were adequate. Mentions of improvements in order of magnitude range from facilities for the elderly (20%) to improvement of car parking facilities (9%). Miscellaneous suggestions amounted to 18% of mentions and included the need for special events such as flower shows, concerts and festivals. Facilities such as ramps and toilets were suggested for the disabled, a small but constantly neglected section of the community.

Fig 3.3(a)(iii) Improvements to park facilities



Source: Appendix III(b) Table 5.

A broad comparison of these findings can be made with information given in

the National Leisure Survey.²⁹ Cafeterias, toilets and facilities for children were seen as the most urgent improvements needed, with sports facilities, shelters, benches and litter bins as a lower priority, which, with the exception of play facilities for children, suggests a reversal in the ranking to those given above.

Respondents were asked about their "likes" and dislikes" about the parks they visited. A sense of space, fresh air and quietness were the most frequently mentioned "likes," and scenery, natural quality of woods and beauty of flowers was noted. Another group of favourable comments referred particularly to the provision of play facilities and sports facilities. "Dislikes" covered the impact of other park users, including litter, vandalism, crowds and uncontrolled dogs. The congestion caused by car parking in streets adjacent to parks was seen as a minor problem. Finally, the low positive response to this question suggests an attitude of indifference to the parks visited.

(ii) Children

An important sub-group of park users are children, either accompanied by their parents, or visiting on their own or with friends. Of the adults interviewed, 32% had children of 11 years or younger who visited parks and over three-quarters accompanied their children. More detailed information was obtained from a survey of schoolchildren in South East London³⁰, the principal findings of which are given below.

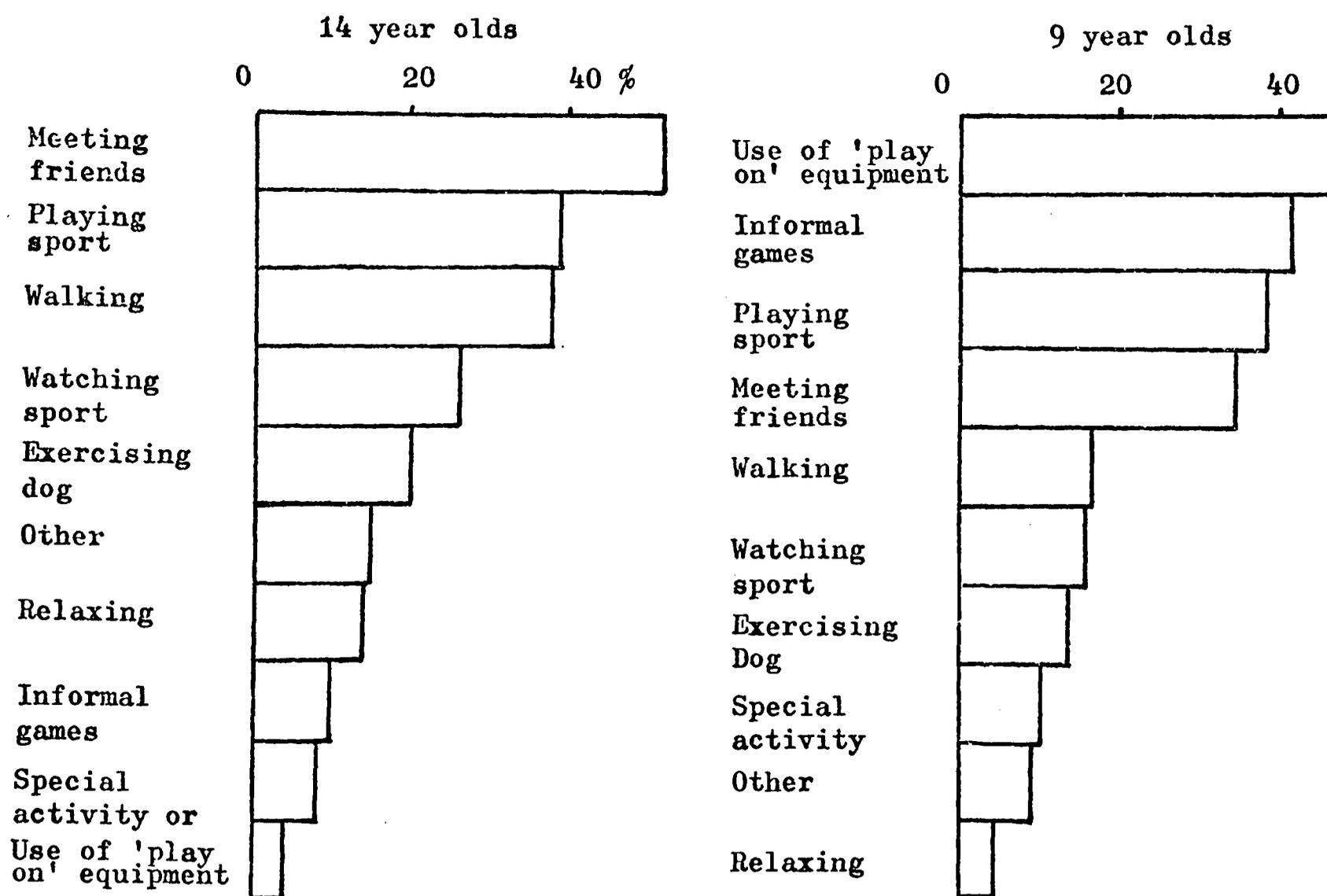
The modal age of children interviewed was 14 years. The most popular

29. K.K. Sillitoe (ed.) Planning for Leisure. op.cit. P.78 Table 33

30. See Appendix VI(a). P.298 et.seq.

activity was meeting friends in the parks they visited. The next most popular activities, in joint second place, were walking and playing sport. Of lesser importance were watching sport and exercising the dog. These findings conform to the G.L.C's findings for children 11-16 years.³¹ This same group of children were asked to recall the activities they used to do in parks when they were five years younger. This was done in an attempt to compare the use of parks between younger and older children. Fig.3.3(a)(iv) shows that the most popular activities among teenagers give way to the use of "play on" equipment and playing informal games among younger children.

Fig 3.3 (a)(iv) Activities in parks for older and younger children (ranked by popularity)



Source: Appendix III(b) Table 6

31. G.L.C. Surveys of the Use of Open Space. op.cit. II, P.228 Table 202

The latter group undertake more active pursuits whilst teenagers, with the exception of playing more sport, engage in more passive activities. This general trend is also noted by the G.L.C.^{32.}

Slightly under half the children interviewed visit a park at least once per week and a further 18% visit once per month. This conforms very closely with the adult frequency rate for visiting.^{33.} For more infrequent visiting 15% of children go to parks less than once every three months. Reasons for this were mainly related to lack of interest in outdoor recreation, although lack of facilities and things to do, as well as distance from parks, was mentioned in a few cases. 85% of all children said that the park they usually visited was easily accessible. For the remainder, distance was the most common problem. Dependence on public transport and the presence of barriers such as busy roads, dual carriageways and railway lines were cited in a few cases.

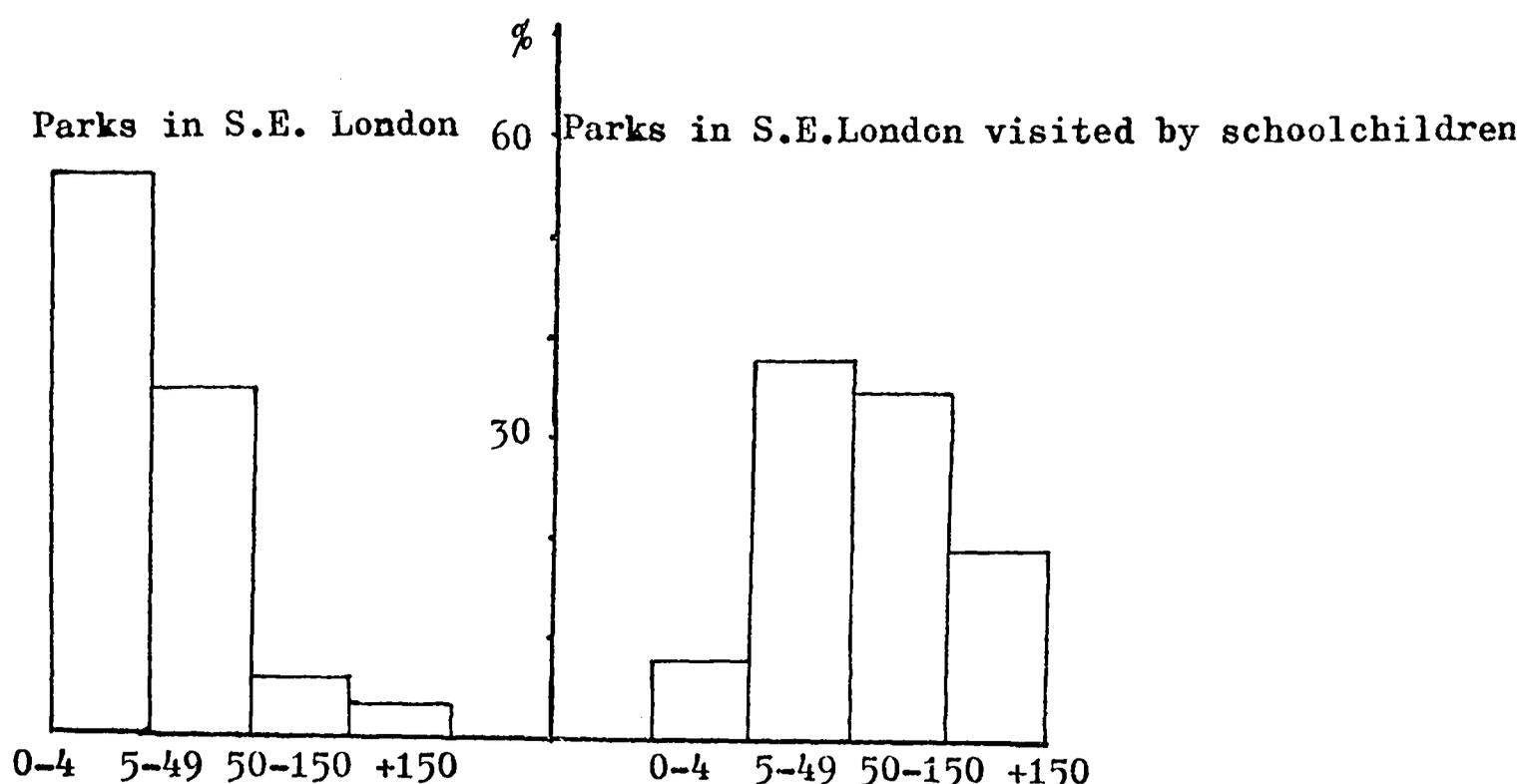
Four fifths of the schoolchildren visited public parks in the study area and a further 9% outside. Six per cent usually visited private open space. As with adults, informal recreation is primarily confined to public open space. Fig. 3.3(a)(v) shows the proportion of visits made by children to different sized public parks compared with the size distribution of existing provision. As with adults there are proportionally more visits to parks of 50 acres and over and fewer to those of under 5 acres. In the G.L.C. survey 58% of children visited larger parks compared with 54% for South East London, confirming this tendency.^{34.}

32. G.L.C. Surveys op.cit. I, P.65 para. 217

33. See Appendix III(b) Table 7. P.195.

34. G.L.C. Surveys op.cit. I, P.64 para 216 Table 38.

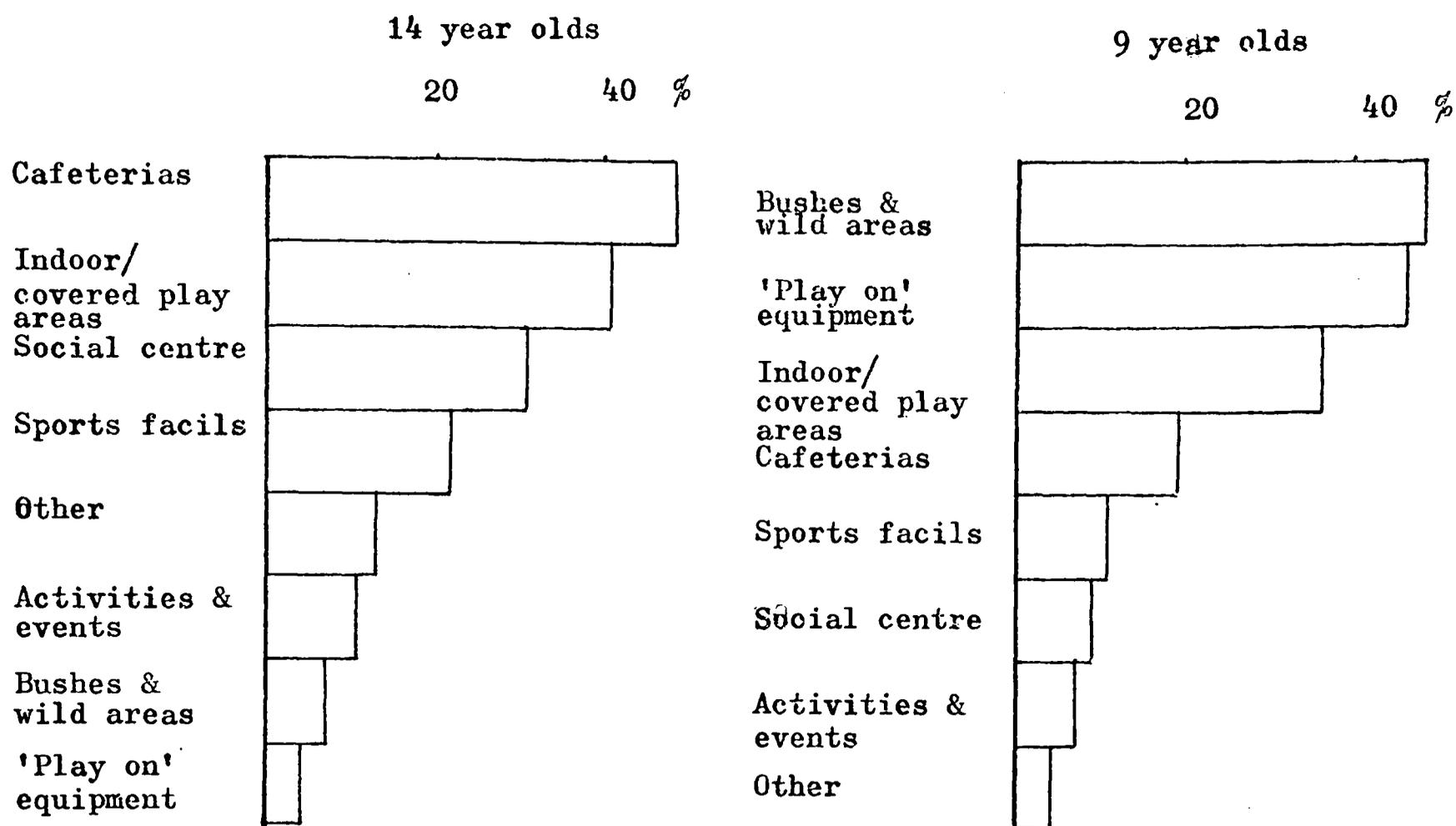
Fig 3.3(a)(v) Size of park and visiting preference of schoolchildren



Source: Appendix III(b) Table 8

Children preferred to visit parks with a larger number of facilities rather than fewer, 53% of visits being to open spaces containing 5 or more facilities, which represent only 18% of the total provision in the study area. The main facility improvements requested were more cafeterias, indoor/covered play areas and social centres, reflecting the passive pursuits of the teenagers. Respondents were asked to state what facility improvements they would have liked when they were 9 years old. Bushes and wild areas for imaginary games and "play on" equipment as well as covered play areas were the most popular requests, again reflecting the active play of the younger child, See Fig. 3.3(a)(vi). There was some call for the provision of events and activities within parks including pop concerts, competitions and fairs and the provision of more specialised facilities including swimming pools, motor cycle riding areas, shooting ranges, skating rinks, cycle tracks and angling. Slightly over one quarter of the children were taking part in

Fig 3.3(a)(vi) Improvements to parks for older and younger children
(ranked by popularity)



Source: Appendix III(b) Table 9

playschemes during the summer; a slightly higher proportion than had taken part five years earlier. This might suggest that playschemes were a relatively recent phenomena which had some attraction even for the older child.

The children were asked about their likes and dislikes. Although this information was not quantified it is possible to gain some idea of the relative importance of these. The feeling of space was the most positive reaction of the children to their parks and perhaps somewhat surprisingly peace and quiet along with a variety of natural park attributes, including

trees, flowers, water and scenery. Other likes included the ability to meet friends and people and the provision of sports facilities. Dislikes are other users of the park; bullies; younger children and dogs; park keepers and restrictions on where to play and finally lack of facilities or poor quality existing facilities and natural environment.

The G.L.C. Survey indicates a similar range of likes and dislikes, notably the provision of water features and natural environment was liked and authoritarian influences disliked.³⁵ Again the positive and negative attitudes towards the parks visited differ substantially from those of adults as would be expected.

(b) Use of Open Space for Sport

From the Household Survey 20% of respondents took part in some form of sport and only 10% took part in sports using open space: 3% football; 2% cricket; 2% bowls; 2% tennis; 1% golf. Because of the low percentages and small sample these figures should be treated with caution. They suggest a much lower participation rate than that determined from the Greater London Recreation Study,³⁶ where it was found that 12% of the adult population had played football in the previous year and 6% played cricket. The difference can be explained by the time period over which the participation rate is measured. The household survey refers to participants who are current members of clubs and probably regular players, whilst the London Survey may

35. G.L.C. Surveys op.cit. I. P.66 paras. 218 and 219

36. G.L.C. Greater London Recreation Study (London:G.L.C. Research Report 19, 1975) Part I. Demand Study P.8 Fig. 21

include a number of casual players and those who have played infrequently over the previous year.

Further corroboration for the lower rates is provided by estimates from the Playing Fields Research Study,³⁷ which suggests that 3% of the population of South East London are members of football clubs, confirming the minority nature of sport.

The most important use of open space for sport is for the major team games of football, cricket, rugby and hockey which use substantial amounts of private as well as public open space.³⁸ Football is by far the most important team sport, representing 65% of all teams in South East London,³⁹ compared with 23% for cricket and 6% each for hockey and rugby. In this area there are an estimated 1,500 football clubs fielding over 2,350 teams. Over two thirds of these teams depend on hiring public pitches, although these represent only 49% of the football pitch stock. With an estimated pitch stock of 591 this means that there are on average 5.5 teams per public pitch compared with only 2.6 teams per private pitch. Consequently the intensity of use of public pitches is considerably greater (2.75 games per pitch) compared with 1.3 games for private pitches.

This overuse of public pitches is confirmed by information from Borough pitch booking departments. In Southwark, Lewisham, Greenwich and Bromley football

37. Greater London and South East Sports Council Research and Planning Unit. Playing Fields Research Study. (Information Sheet 3, Dec. 1972) P.1..

38. See Ch. 2 P. 106 et. seq.

39. Includes London Boroughs of Bexley, Bromley, Greenwich, Lewisham, Southwark and Metropolitan Borough of Dartford.

pitches were fully booked on Sundays throughout the season and Greenwich had a considerable waiting list for Sunday pitches. Hockey and rugby could be adequately accommodated on the principal day of play (Saturday). A slight shortfall for Sunday cricket was noted in the Inner London boroughs of Southwark and Lewisham. The nature of pitch sports, whereby teams have to play each other within leagues, means that clubs tend to use home grounds on average once a fortnight, although some minor variations were noted in the Playing Fields Study.⁴⁰ Another facet of the structure of team sports is that the need to play away games involves teams in a considerable amount of travelling.

"In South East London only 20% of adult teams play in purely local leagues, 78% being in leagues covering all or large parts of the South East sector of London and 20% covering the greater proportion of London as a whole."⁴¹

From the "Playing Fields Study" it has been estimated that the average distance travelled between players homes and usual home grounds is $4\frac{1}{2}$ miles for football, using public grounds, and 6 miles for private, and 5 miles for both hockey and rugby. With regard to mode of travel for 5 adult football leagues in South East London 74% of club members travelled by car, 14% by bus, 6% by train and 6% walked.

Information on pitch provision in the Borough of Lewisham suggests that 57% of clubs owning their own grounds considered present facilities satisfactory compared with only 39% of those hiring grounds. Of the latter group the most

40. See Appendix III(b) Table 10. P. 196.

41. Greater London and South East Sports Council. op.cit.
Information Sheet 3 P.3.

important improvement requested was for better changing and washing facilities. In line with the shortfall of public pitches noted earlier there was also a call for more pitches for hire which would allow more games to be played. A general deficiency noted by all clubs was the lack of indoor and all-weather surfaces for training purposes.

3.4 Demographic and Social Characteristics of the Population and the use of Open Space.

In 3.2 the review of empirical demand studies indicated that participation varied within different parts of London and that it also varied between different demographic and social groups within the population. This section will seek to identify whether these groups form homogeneous social areas with South East London which may account for the variation in participation in informal recreation and sport. The effects of changing population trends on recreational participation will be examined over the next 12 years for the South East Sector. This will lead on to an evaluation of the effects of background social and demographic characteristics vis-a-vis the effects of supply of open space examined in the previous chapter. There are considerable policy implications if significant effects on participation can be shown by spatial and temporal changes in population characteristics.

(a) Social Areas in South East London.

There have been several studies of the population of Greater London published in recent years which attempt to define "social areas" with the aid of small-scale census information and multi-variate computer

analysis.⁴² These are based on extensive earlier research into social area analysis and factorial ecology, pioneered by Shevky, Williams and Bell in the late forties.⁴³

For London, the Greater London Council took eleven selected variables from the 1966 Sample National Census and applied cluster analysis in order to group wards in terms of similarity between the variables within them.⁴⁴

42. G.L.C. Department of Planning & Transportation. Characteristics of 12 clusters of Wards in Greater London. (London G.L.C, 1971) Research Report No. 13).
G.L.C. The Migration and Distribution of Socio-Economic Groups in Greater London - Evidence from 1961, 1966 and 1971 Censuses (Ed. K. Dugmore) (London: G.L.C, 1975) Research Memorandum 443.
43. Shevky E. & Williams M, The Social Areas of Los Angeles, (University of California Press, 1949) & Shevky E. & Bell W, Social Area Analysis: Theory, illustrative application and computational procedures (Stanford University Press, 1955).
A good summary of social area analysis and factorial ecology is to be found in Herbert D.T. Urban Geography A social perspective (David & Charles 1972) Chapters 5 & 6.
44. Census variables:- P.10 Table 3
- (1) % of population under 15
 - (2) % of households owner-occupied
 - (3) % of households renting from a local authority
 - (4) % of 3 or more person households overcrowded
 - (5) % of households sharing a W.C.
 - (6) % of households owning a car
 - (7) % of employers and managers
 - (8) % of skilled workers
 - (9) % of population born in New Commonwealth
 - (10) % of population born in Ireland
 - (11) % of population that have moved in last 12 months.

(Source G.L.C. Characteristics of 12 clusters. op.cit P.10 Table 3).

The eleven variables included demographic and socio-economic information as well as tenure, housing conditions, ethnic origin and mobility data. The twelve resultant clusters formed three broad geographical areas of Wards. Fig. 3.4(a)(i) indicates the boundary between two of these areas which occur in South East London. The outer area is typified by higher social status and car ownership and predominantly good quality owner-occupied housing, whilst the inner area is typified by lower social status and car ownership, poorer housing containing larger proportions of local authority rented and privately rented property, and in parts a more heterogeneous and mobile population. This latter group is located in the northern halves of Southwark, Lewisham and Greenwich with several outliers of local authority rented areas beyond.

A more recent cluster analysis of socio-economic groupings for Greater London⁴⁵ using 1971 census information confirms this pattern, with Wards with larger proportions in the manual occupations being located in the north of the boroughs extending along the river and in certain areas further out. Beyond this Wards contain proportionally more economically active males in "white collar" occupations.

These studies suggest that the simple concentric model of urban social structure developed by Burgess,⁴⁶ whereby concentric rings of poorer quality housing inhabited by lower income groups are replaced further from the centre by rings of better residential areas, is not replicated in South East London. An earlier descriptive study by Willmott and Young⁴⁷ of social class in London

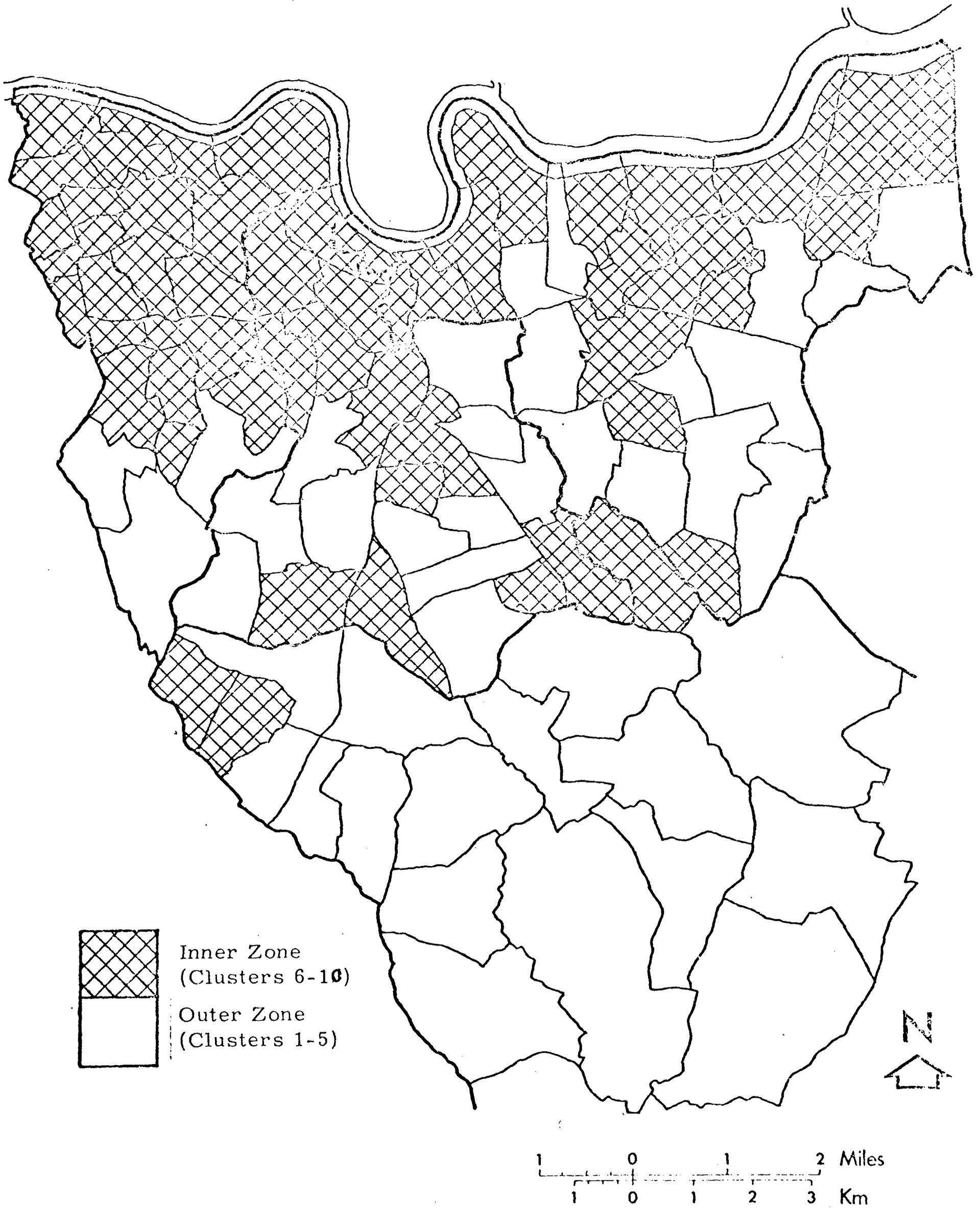
45. G.L.C. Research Memorandum 443 op.cit.

46. Burgess E. "The Growth of the City," ed. R.E. Park et. al., The City (University of Chicago Press, 1925) Ch. 2.

47. M. Willmott & P. Young "Social Class and Geography," D. Donnison & D. Eversley London: Patterns, Problems and Policies (London: Routledge Keegan Paul, 1973).

Fig 3.4(a)(i)

Inner & Outer Zones of South East London



Source: GLC Dept. of Planning & Transportation, Characteristics of 12 Clusters of Wards in Greater London Research Report No. 13 -Insert.

also refutes a simple concentric pattern. Using social class as the diagnostic variable they noticed that instead of concentric zones the class pattern is formed in the shape of a cross, whose arms extend north-south, east-west. This represents concentrations of social classes IV and V, the semi-skilled and unskilled and is associated with docks, industry and commercial routes and areas of lower land. They also noted that in the South East quarter, beyond the cross, the proportions in social classes I and II, professional, managerial, intermediate, were lower in some outer areas, reflecting the "out county" council developments.

These two important variations from the concentric zone pattern can be summarised for South East London as follows:-

- (i) the poorer inner zone is elongated from the centre and extends along the river associated with the development of industry and docks.
- (ii) local authority housing estates located in the suburbs and designed to re-house the population from outworn inner areas have resulted in outliers of less well-off population in manual social groupings occurring in generally higher social status areas.

The following analysis examines the distribution of two sets of census indices which are known to be highly related to recreation participation⁴⁸ in South East London. In order to do this the sample two fold classification of "inner" and "outer" areas of Fig.3.4(a)(i) will be adopted. The census indices are as follows:-

- I. Demographic:- age, sex stage in life cycle
 - (a) No. per 1000 total persons under 5
 - (b) No. per 1000 total persons under 16

48. See Section 3.2(c). For details of methodology see Appendix III (c)
p. 198.

- (c) Children under 5 per 1000 females aged 16-44 years
- (d) No. per 1000 families with 3 or more dependant children

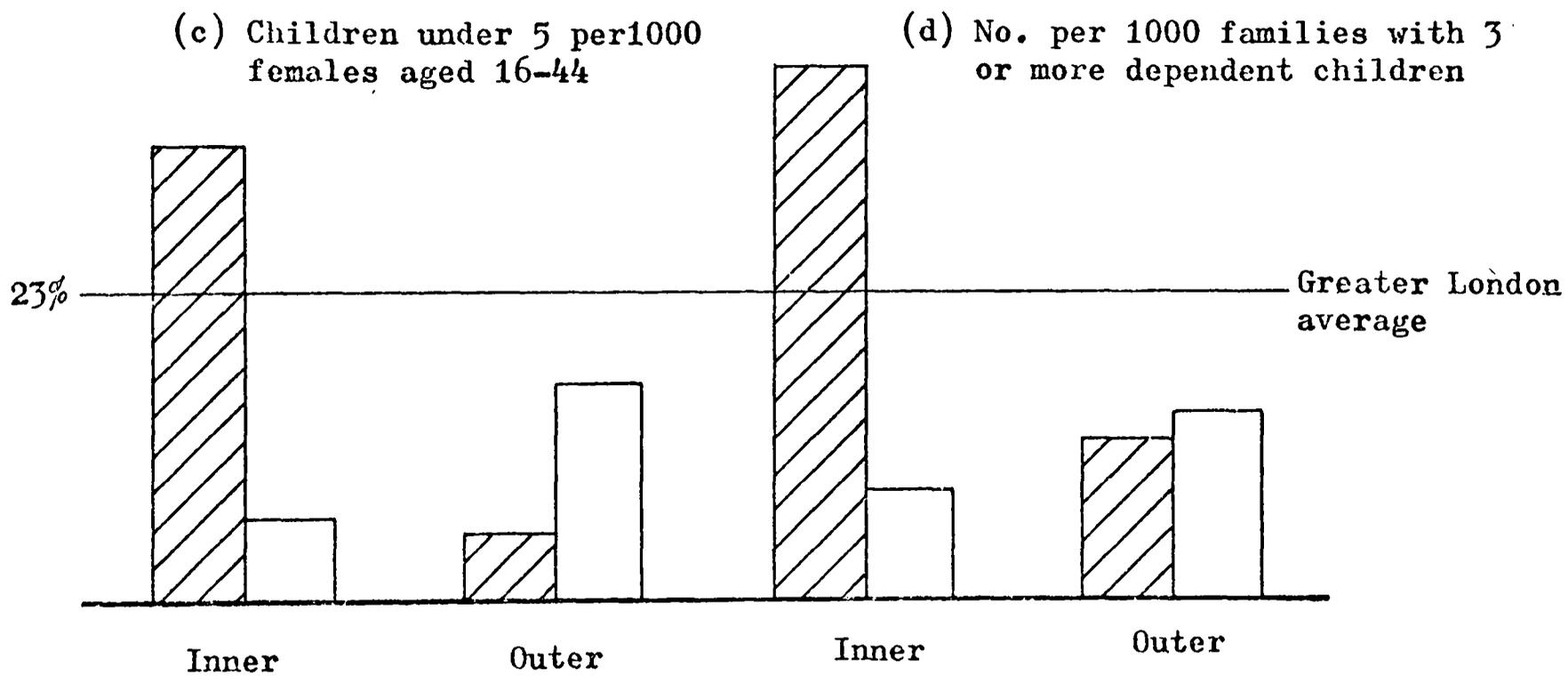
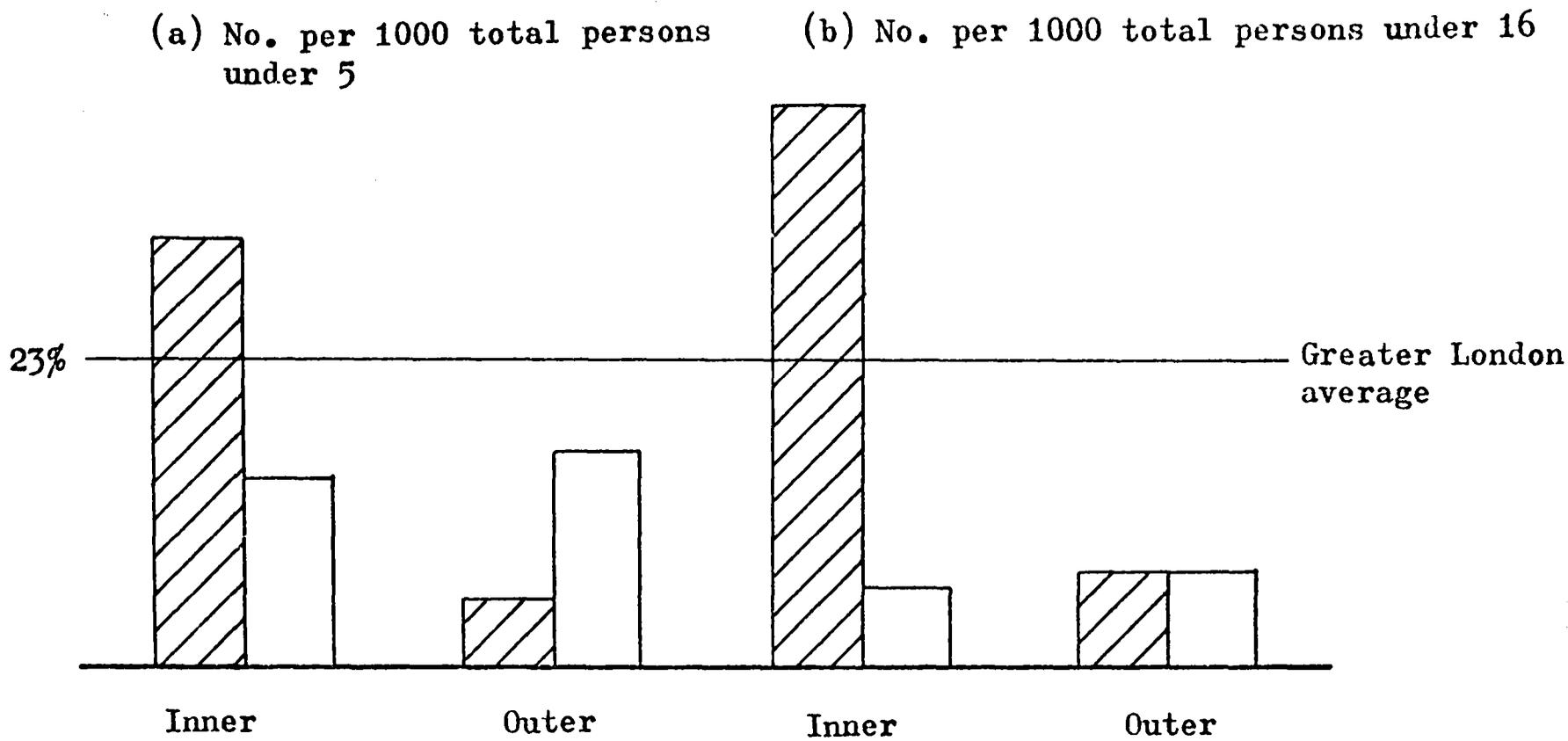
2. Socio-economic:- car ownership, socio-economic grouping.

- (a) No. per 1000 households with 1 or more cars.
- (b) No. per 1000 economically active males in socio-economic groups 7,10 and 15 (semi-skilled).
- (c) No. per 1000 economically active males in socio-economic group 11 (unskilled).
- (d) No. per 1000 economically active males in socio-economic groups 1,2 and 13 (employers and managers).

Fig. 3.4(a)(ii) indicates the proportions of Wards scoring high or low scores on the first set of variables for both the inner and outer zones of South East London. These are related to the average proportion of high and low scoring Wards for Greater London as a whole. Consequently a higher than average proportion of high or low scoring Wards within a zone indicates a concentration. The converse is true if there are proportionally fewer high or low scoring Wards than the London average within a zone. The Figure shows that for all the demographic variables there is a higher than average proportion of high scoring Wards in the inner zone, indicating a concentration of young people, large families and mothers with children. The corollary of this for the inner zones is proportionally fewer low scoring Wards for these variables.

In the outer zone there are proportionally fewer low and high scoring Wards for all the demographic variables suggesting a concentration of Wards which approach the London average.

Fig 3 4(a)(ii) Proportions of wards with high or low scores for demographic variables by zone



High score (7,8,9) Low score (1,2,3)

Source: Appendix III(c) Table III(c) (i)

The fact that all variables show similar patterns of concentration suggests that there may be a close relationship between them or with some other common factor. In an analysis of the 1971 Population Census for Greater London, the G.L.C. produced a correlation matrix for all census variables.⁴⁹ Table 3.4(a)(i) below indicates the "r" value (correlation coefficient) between these four demographic variables.

Table 3.4(a)(i)

Correlation coefficients between Demographic variables.

I(a)	X	I(b)	0.833
I(a)	X	I(c)	0.937
I(a)	X	I(d)	0.518
I(b)	X	I(c)	0.873
I(b)	X	I(d)	0.631
I(c)	X	I(d)	0.515

These coefficients support the relationship suggested in Fig. 3.4(a)(ii) indicating a strong positive correlation between the age indices: number per 1000 persons under 5 years I(a) and under 16 years I(b) and between these indices and the fertility ratio:- children under 5 years per 1000 females I(c). There are less positive relationships between these indices and family size I(d). Children and young families are important demand groups for outdoor recreation and their concentration within the inner zone raises implications for open space provision.

49. G.L.C. 1971 Census: Demographic, social and economic indices for Wards in Greater London. (2 Vols; Research Report No. 20; London: G.L.C, 1976) I.P.51 Appendix 2D.

Turning to the other group of socio-economic variables, Fig. 3.4(a)(iii) shows the proportion of Wards with high or low scores for the inner and outer zones in relation to the average proportion for Greater London. Again there is a consistent pattern:- for the indicators of high social status i.e. car ownership 2(a) and proportion of males who are employers and managers 2(b) there are proportionally more Wards with high scores in the outer zone and with low scores in the inner zone. Wards with low scores in the outer zone are completely absent, as are Wards with high scores in the inner zone. This suggests a sharp contrast in social status between inner and outer zones.

For indicators of low social status i.e. proportion of males who are either semi-skilled 2(c) or unskilled 2(d) the reverse is true, with proportionally more Wards than average with high scores in the inner zone and with low scores in the outer zone. Again Wards with low scores in the inner zone and high scores in the outer zone are virtually absent. Taken together these four variables suggest a concentration of higher social status groups in the outer zone and lower social status groups in the inner zone. The similarity of pattern between high status variables and between low status variables in Fig. 3.4(a)(iii) suggests that each pair may be positively related and negatively related between pairs. This is confirmed by the Greater London Council's correlation matrix. Table 3.4(a)(ii) lists the correlation coefficients between these variables.

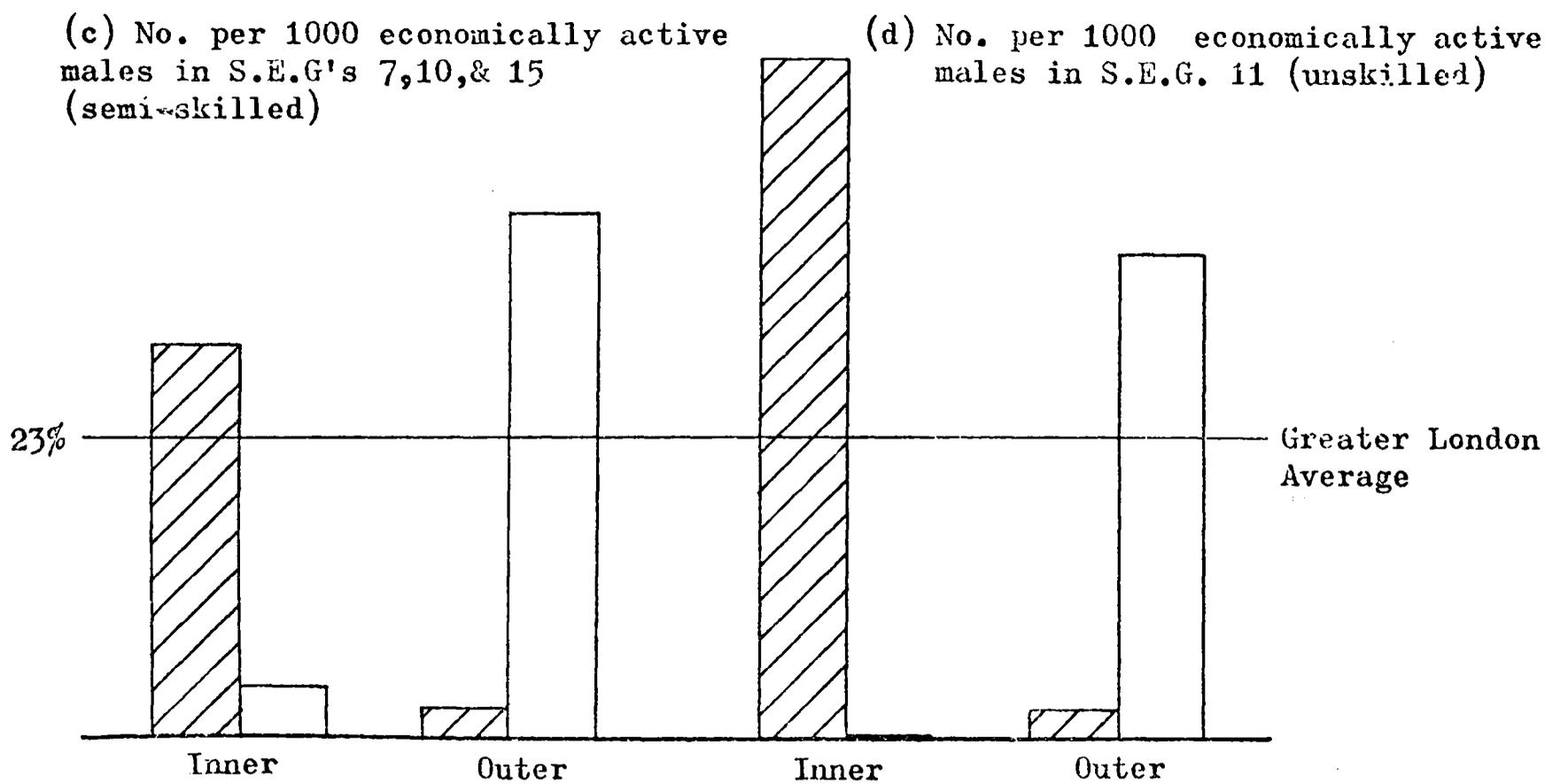
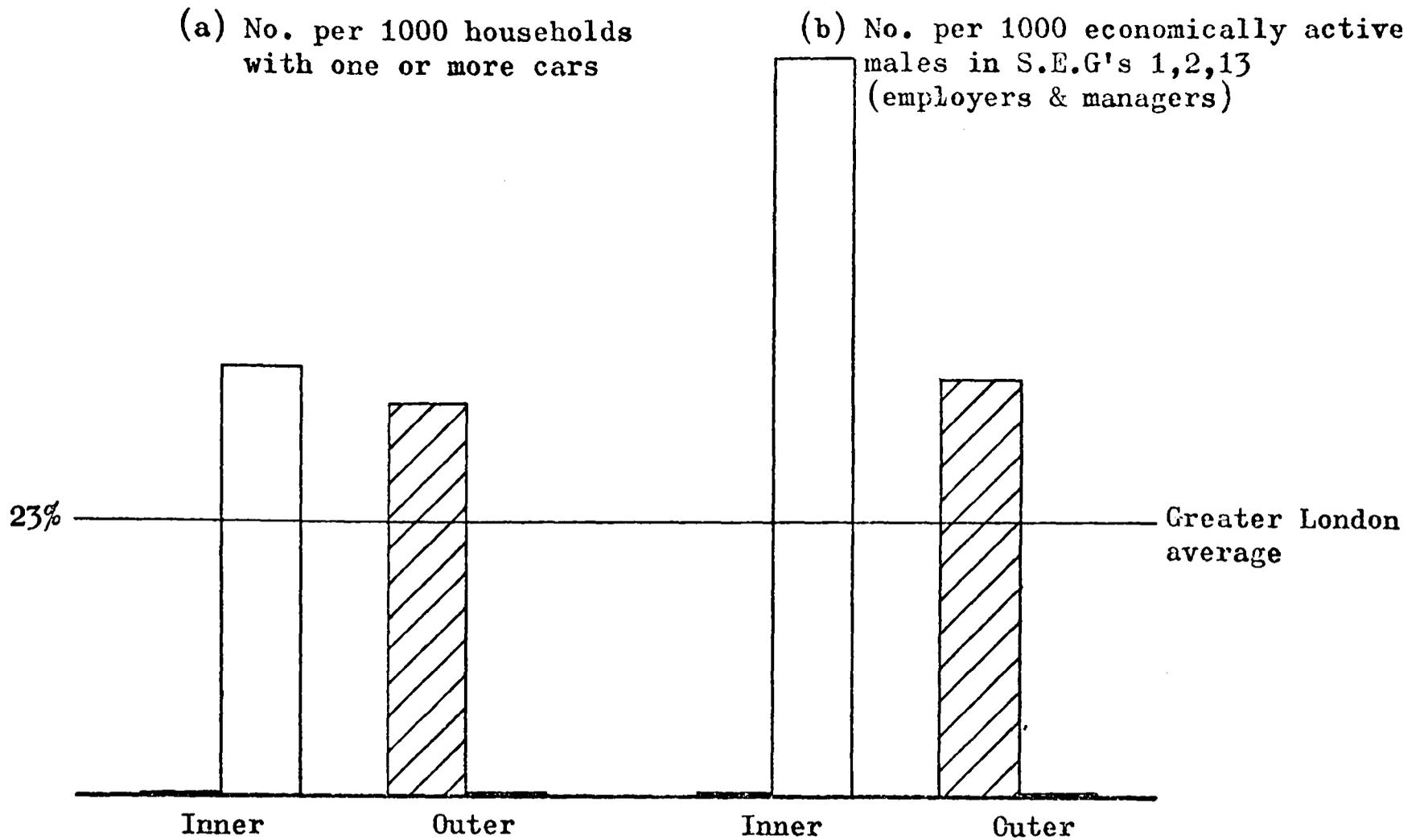
Table 3.4(a)(ii)

Correlation coefficients between socio-economic variables.

			r
2(a)	X	2(b)	0.653
2(a)	X	2(c)	-0.669
2(a)	X	2(d)	-0.730

Fig 3.4 (a)(iii) Proportions of wards with high or low scores

for socio-economic variables by zone



Source: Appendix III(c) Table III(c) (ii)

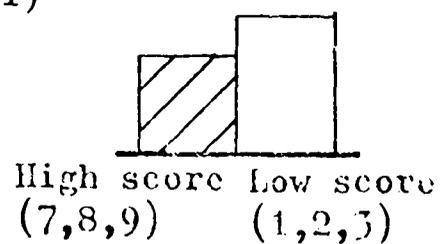


Table 3.4(a) (ii) continued.....

			r
2(b)	X	(c)	-0.806
2(b)	X	(d)	-0.747
2(c)	X	2(d)	0.708

There are positive relationships between 2(a) and (b) (high social status variables) and between 2(c) and (d) (low social status variables) and negative relationships between individual high and low social status variables.

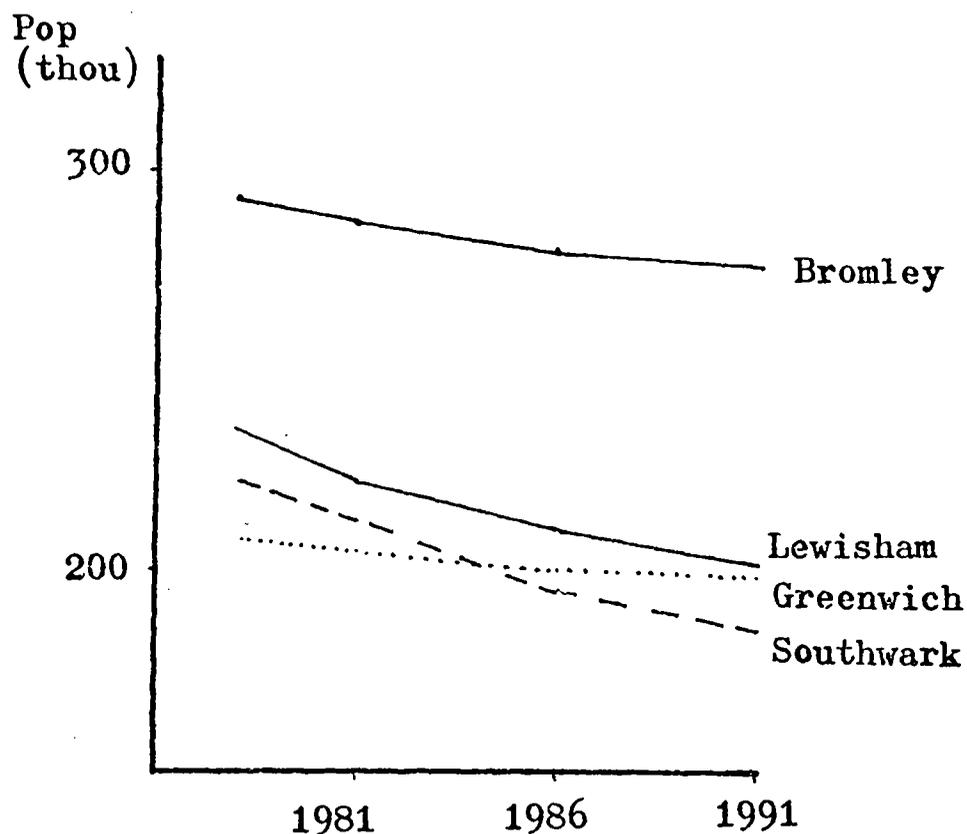
In summary, the inner zone has concentrations of Wards with above average scores for young children, mothers and large families and also concentrations of Wards with lower socio-economic groups. The outer zone shows no concentration of high or low scores for demographic variables, although has concentrations of Wards containing higher socio-economic groups. The significance of these groups for recreational demand and provision will be evaluated in 3.5 following an analysis of changing demographic and social characteristics over time for South East London.

(b) Future trends in demographic and social characteristics of population in South East London.

It is likely that over the next twelve years, the population of South East London will decline, mainly as a result of net outward migration. This trend will be greater for inner areas than for the suburbs. This is shown clearly on Fig. 3.4(b) with Lewisham and Southwark losing population at a greater, though decreasing rate, than the outer boroughs of Greenwich and Bromley. The net demand over the period ranges from 16% for Southwark to 3.5% for Greenwich.⁵⁰

50. See Appendix III(b) Table 11. P. 197.

Fig 3.4(b) Population projections 1978 - 1991
South east London Boroughs



Source: G.L.C Population Studies 1977-8 Round of Projections
(see Appendix III(b) Table 11)

This overall trend represents a reduction in the gross outflow of population over the last two decades.

The demographic structure of the population will also alter over the next decade with an increase in the number of young adults and a decrease in the school age population.

3.5 Policy Implications.

Whilst in theory it is desirable to attempt to quantify the demand for open space as a guide to the quantity, type and location of provision, in

practice this is difficult to achieve. Most "demand" studies, so called, are participation or use studies which measure effective demand i.e. current use of facilities. This approach implies the effect of the existing supply of recreation facilities on use. Attempts have been made to project recreation demand based on socio-economic factors which have been found to be highly correlated with participation.⁵¹ Nevertheless these studies are based on findings which are supply led and include personal constraints which affect levels of participation. These existing factors may alter considerably in future years which could severely limit the predictive value of such work.

Consequently one is left with the imperfect tools of use surveys and reliance on statistical inference. Another approach being developed recently is that of small-scale "in depth" behavioural studies of recreational needs.⁵² The findings of this chapter, based on the former approach, do provide some useful descriptive background although their predictive value is questionable.

The use of public open space by adults appears to be fairly conventional and some indications are given as to the type of open space which is preferred and the facilities it should contain. It is not possible to determine the levels of park use, except in terms of frequency of visit, although the impression is that of under use. Conversely with sports pitches, with a fixed capacity, it is possible to measure intensity and levels of use and suggest increases in supply accordingly. In summary:-

51. A.J. Veal The Future of Leisure op. cit

52. R. Rapoport DART/IFER Study of Brent Unpublished at present.

- (i) policies for public open space provision for informal use, based on use surveys, can suggest
 - the size of open space and facilities that should be provided
 - its location
 - (ii) policies for playing fields provision can suggest
 - type of pitches and facilities
 - location
- and - the quantity that should be provided.

These aspects have been contained in open space policies developed for London and these will be evaluated in Part II.

The other element of demand analysis is the prediction of open space requirements based on background social and demographic factors. The analysis of 3.3 shows that the population of South East London is not a homogeneous entity, but rather has a differing demographic and socio-economic structure from place to place, and possibly over time. These variations will affect the rates of participation for recreation and may also suggest recreational needs of specific demand groups. For instance, an area of new local authority housing may have a young and expanding population with a high proportion of under fives. In this circumstance it would be appropriate to make more provision for toddlers in the form of playspaces closer to home than in more established areas.

There is a danger of taking this approach too far in attempting to provide for all the specific needs of demand groups. This deterministic approach suggests that demographic, social and economic characteristics are the only factors influencing demand. Changing tastes and fashions are also significant

e.g. skateboarding. As Rapoport and Rapoport have pointed out:-

"age, sex and social class are not a sufficiently comprehensive guide to social policy."⁵³.

Simply because the participation rate for sport is higher among the better off who live largely in the suburbs, this does not mean that provision should be higher there than in the inner city. There is some considerable evidence that participation is affected by access to facilities,⁵⁴ and by this argument more should be provided in the inner city where access is worst. A policy which simply takes cognisance of social factors is likely to reinforce existing deficiencies and maldistributions of provision.

There are other problems associated with the use of social indices in this predictive way. They only indicate certain general relationships between social factors and participation, and do not indicate the types or amount of provision that should be made. They do not consider recreational "need."

The analysis in 3.3 is fairly coarse-grained using Ward data which refers to large heterogeneous administrative units of unequal size. It also considers indices above or below some notional average which is meant to infer levels of participation. As such this approach is only useful as a first stage in planning for open space. It indicates broadly where priorities for future

53. R. Rapoport & R.N. Rapoport. Leisure and the Family Life Cycle. (London: Routledge Keegan Paul, 1975) P.8.

54. M. Hillman & A. Whalley. Fair Play for All: a Study of Access to Sport and informal recreation. (London: PEP, 1977) PP. 107- 108.

provision should be made in conjunction with information on the existing provision of open space. More detailed policies involve more information on levels and patterns of use.

APPENDIX III (a) Details of Household Interview Survey on Recreational use of Open Space.

Sample: To obtain a representative cross-section of the households in the study area a stratified random sample was taken. The stratification was based on the G.L.C.'s Cluster analysis of Wards in Greater London which grouped wards with similar demographic, socio-economic characteristics, tenure patterns and housing conditions.¹ The twelve resultant clusters of which ten are represented in the study area form two broad concentrations of wards.² The outer area is typified by higher social status and car ownership and predominantly good quality owner occupied housing, whilst the inner area is typified by lower social status and car ownership and poorer housing containing larger proportions of local authority and privately rented property.

Of the 91 wards in the study area a sample of 11 was taken, the minimum sample size required to represent all clusters within the study area. Within each ward a random sample of approximately 0.6% of households was taken as a manageable base level

The sample was drawn by plotting points with the use of grid squares and random number tables on 6" O.S. maps. The dwellings nearest to the points plotted in any direction were selected.

Sample Size:

In 1966 there were an estimated 345,720 households in the study area, and any sample would be a minute fraction of the total. Using a formula for the standard error of proportion it was estimated that a sample size of at least 400 would be required to ensure a standard error of 2.5%. Given the manpower constraints it was decided to conduct 250 interviews and accept a larger sampling error. The distribution of households selected for each ward is given in Table III(a) (i). In the event manpower problems proved to be even greater and only 167 interviews were attempted and only 122 were successfully completed.

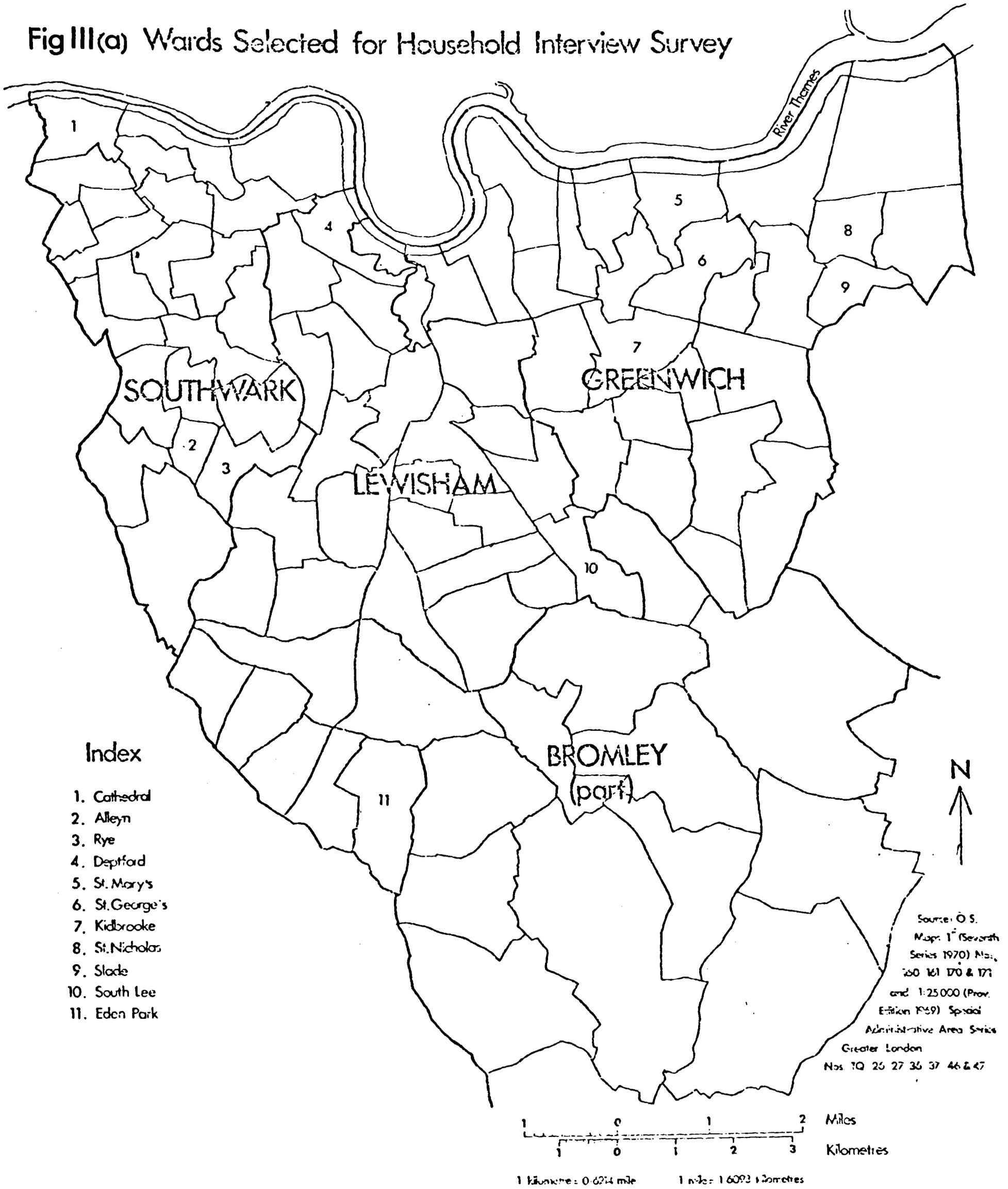
Table III(a)(i)

Wards	Households selected	Interviews completed	Coverage of Households
Eden Park	25	18	Complete
Rye	22	11	Complete
Slade	16	15	Complete
South Lee	20	8	Incomplete
Kidbrook	20	6	Incomplete
St.Nicholas	33	11	Incomplete
Deptford	32	5	Incomplete
St.Mary's	28	27	Complete
St. George's	12	7	Complete
Alleyn	20	12	Complete
Cathedral	<u>22</u>	<u>2</u>	Incomplete
	250	122	

Six of the eleven wards were completed in accordance with the original sample and for these wards there was a 73% response rate, a 5% refusal rate and a 22% non-contact rate. Of the remaining wards

1. G.L.C. Department of Planning and Transport. Characteristics of 12 Clusters of Wards in Greater London, (Research Report No. 13; London; G.L.C. 1971)
2. See Fig. 3.4(a)(i) p.170.

Fig III(a) Wards Selected for Household Interview Survey



the bias that might have resulted from incomplete coverage is summarized in Table III(a)(ii).

Table III(a) (ii)

	% of households	Interview %	
Outer area (clusters 1 - 5)	45	44	36
Inner area (clusters 6-10)	55	76	64
	345,720	122	

122 questionnaires were completed of which 36% were from Wards in the outer area (Fig.III(1)) which accounts for 45% of the households. This indicates an under-representation of suburban households and a corresponding over-representation of inner area households.

Sampling errors.

According to sampling theory the larger the sample in relation to the total population the smaller the range of error. Nevertheless a sample which has been randomly drawn will be normally distributed and certain confidence limits can be set on the estimates it produces;

e.g. one can be 95% confident that the range ± 2 Standard Error of Mean will include the population mean.

Similarly the range with 2 Standard Errors of Proportion one can be 95% confident that the population proportion or percentage will occur within that range.

In Table III(a)(ii) the 95% confidence level (± 2 S.E's) has been calculated for a series of proportions for the Household Interview Survey.

Table III(a) (ii) Standard Error of Proportion.

$\bar{11}$	(1 - $\bar{11}$)	+ 2 SE	%
50	: 50	9.0	
45	: 55	9.0	
40	: 60	8.8	
35	: 65	8.6	
30	: 70	8.2	
25	: 75	7.8	
20	: 80	7.6	
15	: 85	6.4	
10	: 90	5.4	
5	: 95	4.0	

With such large standard errors resulting from the small sample size only the larger differences will be significant e.g. it is not possible to say that 50% is significantly greater than 45% although it is significantly greater than 40%. Consequently the findings of the survey need to be treated with caution.

Questionnaire Design.

The questionnaire comprises four sections:

- General use of open space for recreation.
- Use of open space by children.
- Active recreation (sport).
- Profile data.

The attached specimen copy indicates the questions asked. For multiple answer questions a limit of three answers was imposed by the interviewers.

PART 1. GENERAL USE

1. When did you last visit an open space?

within the last week	(1)	
" " month	(2)	
" " three months	(3)	
" " year	(4)	
over a year ago	(5)	
never	(6)	

2. Which open space do you usually visit?

..... (7)

3. Do you ever visit any other open space at weekends?

yes	(8)	
no	(9)	
if yes, which one do you visit		
.....	(10)	

4. How often do you visit these open spaces?

	<u>Usual</u>	<u>other</u>
more than once per week	(11)	(46)
once per week	(12)	(47)
once every two weeks	(13)	(48)
once every month	(14)	(49)
once every three months	(15)	(50)
less than once every three months	(16)	(51)

5. Did you visit these open spaces

on a weekday?	(17)	(52)
at weekend?	(18)	(53)
and at what time?		
morning	(19)	(54)
afternoon	(20)	(55)
evening	(21)	(56)
all day	(22)	(57)

6. How long do you stay there?

less than 2 hours	(23)	(58)
over 2 hours	(24)	(59)

7. What is your main reason for going?

for a walk	(25)	(60)
to exercise the dog	(26)	(61)
to watch sports or games	(27)	(62)
to take out children	(28)	(63)
to go for picnic/outing	(29)	(64)
to attend open air activity (other than sport).	(30)	(65)
to visit something of particular interest	(31)	(66)
to use facilities (specify)	(32)	(67)
.....		

8. Was this the main purpose of your visit?
- | | | |
|-----|------|------|
| yes | (33) | (68) |
| no | (34) | (69) |
- if no, was it combined with a
- | | | |
|-------------------------------------|------|------|
| shopping trip | (35) | (70) |
| Worktrip/lunchbreak | (36) | (71) |
| a visit to see friends or relatives | (37) | (72) |
9. How did you travel there?
- | | | |
|--------------------|------|------|
| walking | (38) | (73) |
| car | (39) | (74) |
| bus | (40) | (75) |
| train | (41) | (76) |
| cycle | (42) | (77) |
| motorcycle/scooter | (43) | (78) |
| other | (44) | (79) |
10. How long does the journey take (45) (80)
-
11. (If interviewee visits open spaces less than once every three months)
You rarely/never go to an open space. Can you tell me why you don't?
- (81)
12. Is there anything you particularly like about the open spaces you visit?
-(82)
- or anything you particularly dislike?
-(83)
13. Do you think certain improvements could be made such as
- | | | | |
|-------------------------|------|---------------------------|------|
| cafes | (84) | facilities for old people | (88) |
| toilets | (85) | " " children | (89) |
| parking space | (86) | " " sports/
games | (90) |
| litter bins/
benches | (87) | other | |
| | | | (91) |
14. Do you think there is enough provision for outdoor recreation near your home?
- | | |
|-----|-------|
| yes | (100) |
| no | (101) |
- if no, would you like to see a large park some distance from your home? (102)
- or a number of small open spaces near your home? (103)
15. For either choice above what facilities do you think should be provided?
- | | | | |
|---------------------|-------|---------------------------|-------|
| cafes | (104) | facilities for old people | (108) |
| toilets | (105) | " " children | (109) |
| parking space | (106) | " " sports/games | (110) |
| litter bins/benches | (107) | other | |
| | | | (111) |

PART II USE OF OPEN SPACE BY CHILDREN

- 16. If you have any children of 11 years and younger, do they visit any open space on their own?

yes	(112)
no	(113)

If yes, which one

.....(114)

- 17. (Refers to school children of any age)
Which type of open space do your children visit most?

playground	(115)	adventure playground	(120)
playing field	(116)	recreation ground (exc. playground)	(121)
sports ground	(117)	heaths/commons	(122)
parks	(118)	woodlands	(123)
gardens	(119)	other	(124)

- 18. How often do they go there?

more than once per week	(125)
once per week	(126)
once per month	(127)
once every three months	(128)

- 19. When do they go there?

term time (evening)	(129)
(weekend)	(130)
summer holidays	(131)

- 20. How do they get there?

walking	(132)	cycling	(133)	public transport	(134)
---------	-------	---------	-------	------------------	-------

- 21. Do they join any playschemes or similar organised groups in the summer months?

yes	(135)
no	(136)

If yes, which?

..... (137)

- 22. Do you think that more organized activity should be provided for children?

yes	(138)
no	(139)

PART III ACTIVE RECREATION

- 23. Are you a member of any sports/social club in which you actively participate in outdoor recreation?

yes	(140)
no	(141)

if yes, please give name and address (142)

.....

- 24. Which outdoor sport do you play?(143)

- 25. How often do you play?

more than once a week	(144)	once a month	(146)
-----------------------	-------	--------------	-------

once a week (145) once every three months (147)

26. How do you travel there from home?

walking	(148)	cycle	(152)
car	(149)	motorcycle/scooter	(153)
bus	(150)	other	(154)
train	(151)		

27. How long does it take you to get there?

.....(155)

28. On what day of the week do you play and at what time?

.....day (156) time.....(157)

29. Are the outdoor facilities for sport adequate in your area?

yes (158) no (159)

if no what provision should be made?

.....(160)

PART IV PROFILE DATA

30. Age/sex matrix.

size.	relation to head.	0-9		10-19		20-29		30-39		40-49		50-64		65+		
		m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.	m.f.		
1.																(161)
2.																(162)
3.																(163)
4.																(164)
5.																(165)
6.																(166)

31. Employment/education matrix.

size.	employment.			occupation.	education (school leaving age)
	ft.	pt.	unemp. retired		
1.					(167)
2.					(168)
3.					(170)
4.					(171)
5.					(172)
6.					(173)

32. Do you own a car? yes (174) no (175)
 if yes, do you go for day trips to the countryside in it? yes (176) no (177)
 if yes, where do you go? (178)
 why do you go to this place? (179)

33. Do you own your house? (180) rent from council(181) rent from landlord (182)

34. Do you have a garden? yes (183) no (184)

Fieldwork

A pilot survey was undertaken in two Wards in Lambeth and Bexley boroughs, outside the study area. In this way questions were tested for precision and ambiguity and for any omissions.

A team of 10 student volunteers were briefed on methods of approach to interviewees, on asking questions and recording responses. The survey was conducted in May and June 1972. Interviews were carried out on weekday mornings, afternoons and evenings, avoiding meal times, so that there should be no bias in type of respondent. Response and refusal rates were not recorded. As the sample was open ended, if no contact was made then the interviewer would go to the next randomly selected household. Very few problems were encountered in the field.

Data processing

The complete questionnaires were coded and punched cards produced to be input to a survey analysis programme (I.C.L. XDSB) which produced simple one and two way tables. This was run on the I.C.L. 1900 computer at Thames Polytechnic.³

3. All computer processing for this survey and park users and schoolchildrens survey was undertaken at Thames Polytechnic, with the exception of the cluster analysis (Appendix IV (b)) undertaken at the Polytechnic of North London.

APPENDIX III(b)

Table 1. Main reason for visiting open space by time of last visit. %
(adults)

Reason.	Time within last						never	
	week	month	3 months	year	over 1 year			
No answer	2	1	0	1	6	2	12	
Walking	23	13	3	1	0	0	40	
Exercising Dog	8	2	1	0	0	0	11	
Watching Sport	2	1	0	1	0	0	4	
Taking out children	14	9	2	2	0	0	27	
Other	3	1	0	2	0	0	6	
	52	27	6	7	6	2	100	

Base: 122.

Table 2. Visiting preference by size of park (%)

Size (acres)	Parks visited by adults		No. of parks
0-4	4		56
5-49	40		34
50-149	28		6
150+	21		4
Not known	7		0
	100		100
Base	122		229

Table 3. Visiting preference by number of facilities in parks (%).

Facilities	Parks visited	No. of Parks.
0 - 4	52	82
5 - 9	41	18
Not known	7	-
	100	100
Base	122	229

Table 4(a) Adequacy of Provision for outdoor recreation (%)

Adequate	61
Not adequate	33
Not known	6
	100
Base	122

(b) Improvements required if inadequate provision (%)

Large/multi-facility park some distance from home	7
Small limited facility park close to home.	24
Both	2
Not applicable	67
	100
Base	122

Table 5. Improvements to park facilities (% of mentions). *

Adequate facilities	18
Benches/shelters for the elderly	20
Children's play facilities	18
Bins and benches	18
Other (see text)	18
Cafeterias	15
Sports facilities	14
Toilets	11
Car parking	8

* Figures do not sum to 100 as more than one improvement mentioned.

Table 6. Activities undertaken in open space (% of mentions).*
- Ranked in order of popularity

Age	14 yr. olds	Rank	9 yr. olds	Rank
Activity				
Walking	38	3	17	5
Exercising Dog	20	5	14	7
Relaxing	14	7	4	10
Meeting Friends	52	1	35	4
Watching Sport	26	4	16	6
Playing Sport	39	2	39	3
Informal Games	10	8	42	2
Use of "Play On" equipment.	4	10	51	1
Special activity or feature of interest	8	9	10	8
Other	15	6	5	9

* Figures do not sum to 100 as more than one activity mentioned.

Table 7. Frequency of Park Visiting: Adults & Children (%)

Age	Adults	Children
Frequency		
More than once per week	33	22
Once per week	15	25
Once per month	27	28
Once per 3 months	5	7
Less than once every 3 months	7	15
No answer	13	3
	100	100
Base	122	343

Table 8. Visiting preference by size of park (%)

Size (acres)	Parks visited by children	No. of parks
0-4	8	56
5-49	38	34
50-149	35	6
150+	19	4
	100	100
Base.	274	229

Table 11. Population Projections 1978-1991 South East London.

	1978	1981*	1986*	1991*	Percentage decrease 1978-91 %.
Bromley	293.1	287	280.1	277.1	5.4
Greenwich	207.4	204.4	201.5	199.8	3.7
Lewisham	235.2	223.3	210.5	202.8	13.8
Southwark	222.9	209.7	195.6	187.3	16.0

Source: G.L.C. Population Studies Group

1977-78 Round of Population Projections.

* These projections represent the mean value between the highest and lowest sets of projections i.e. those with high fertility and low migration and low fertility and high migration.

APPENDIX III(c) The use of Indicators from 1971 Population Census to show the spatial distribution of demographic and social characteristics associated with recreational participation in South East London.

The analysis of census indicators relates to two broad geographical areas identified from population studies outlined in Section 3.4: an inner zone and an outer zone. The boundary was based on the simple two-fold classification shown in Fig. 3.4(a)(i).

Two groups of population characteristics have been identified as being closely associated with recreational participation.

1. Demographic
2. Socio-economic.

The following variables from the 1971 Population Census were used to represent these groups.

1. (a) No. per 1000 total persons under 5
- (b) No. per 1000 total persons under 16
- (c) Children under 5 per 1000 females aged 16-44
- (d) No. per 1000 families with 3 or more dependent children

2. (a) No. per 1000 households with 1 or more cars.
- (b) No. per 1000 economically active males in socio-economic groups, 7, 10 and 15 (semi-skilled)
- (c) No. per 1000 economically active males in socio-economic group 11 (unskilled).
- (d) No. per 1000 economically active males in socio-economic groups 1, 2 and 13 (employers and managers).

In a G.L.C. report on the 1971 census for Greater London Wards were given

a standardized nine point (stannine) score, which shows in which part of the range of values for each variable the Ward falls.

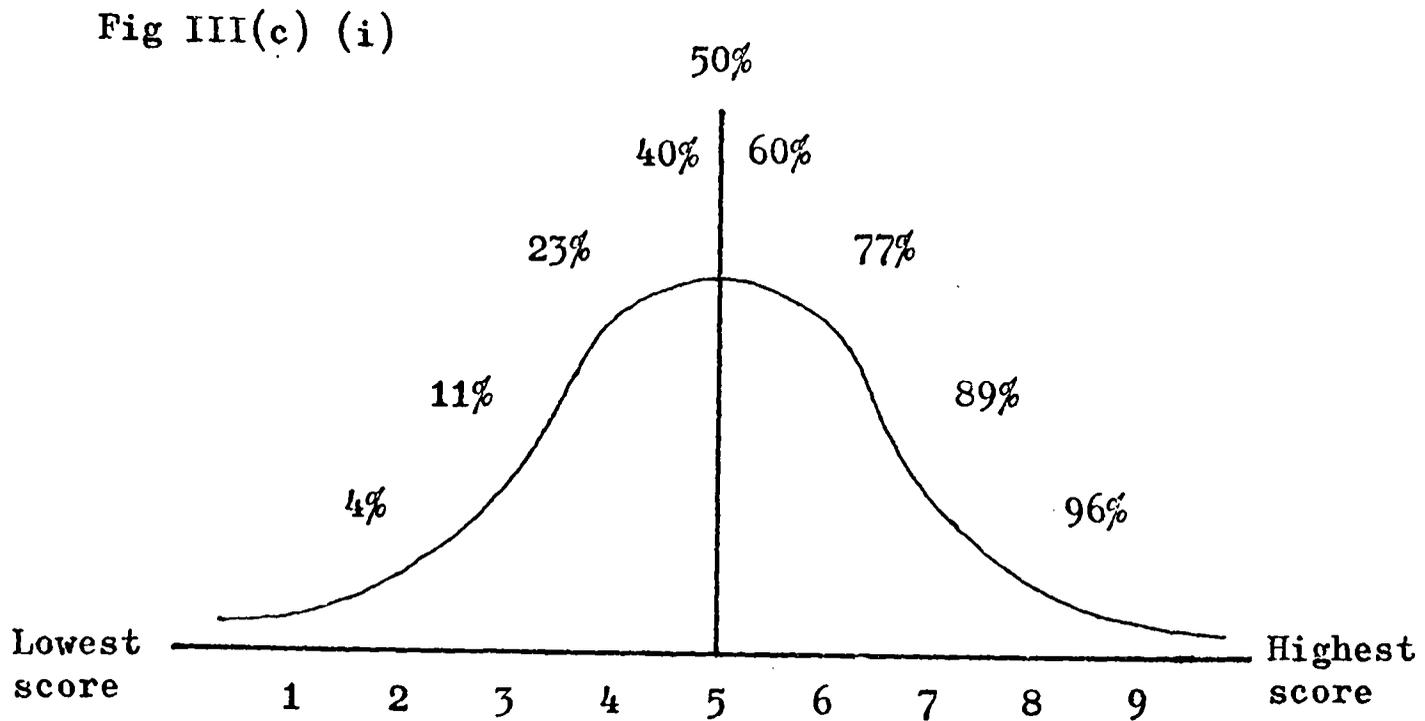


Fig. III(c)(i) indicates this range of values so that 4% of all Wards in London which have the lowest values on any variable are given a score 1, the next 7% a score 2 and so on, the 4% of Wards in London with the highest values on any variable being given a score 9.

Using this scoring system it will be indicated whether there is a concentration of high or low values for the variables selected in the two zones.

An arbitrary "cut off" point of 23% was chosen and the proportion of Wards scoring 1,2,3 (low values) or 7,8,9 (high values) was estimated for each zone. Assuming that all the Wards are distributed for each zone in the same way as for all Wards in Greater London, then 23% of Wards should have values 1-3 and 23% should have values 7-9 for any variable. If the

proportion of high or low scoring Wards exceeds this then a concentration within the zone is indicated. The converse is true if there are proportionally fewer high or low scoring Wards than the London average.

Table III(c)(i) tabulates the number of Wards in each borough with high or low scores according to the above definition for the two sets of indices. The totals for each indice are expressed as a percentage of all Wards which are used in Fig. 3.4(a)(iii) and(iv).

Table III(c) (i).

Outer Zone.

	No. per 1000 under 5.		Total persons under 16		No. per 1000 females aged 16-44 yrs, of children under 5.		No. per 1000 families with 3 or more dependent children.	
	h.	l.	h.	l.	h.	l.	h.	l.
Bromley	1	2	1	1	0	1	1	1
Greenwich	1	2	2	1	2	3	1	3
Lewisham	0	1	0	1	0	1	3	1
Southwark	0	2	0	0	0	2	0	1
Total	2 (5%)	7 (16%)	3 (7%)	3 (7%)	2 (5%)	7 (16%)	5 (12%)	6 (14%)

Inner Zone.

	h.		l.		h.		l.	
	h.	l.	h.	l.	h.	l.	h.	l.
Bromley	3	0	0	0	1	0	1	0
Greenwich	6	3	6	2	8	3	7	4
Lewisham	6	2	9	0	6	0	4	0
Southwark	2	2	6	1	3	0	8	0
Total	17 (32%)	7 (14%)	21 (42%)	3 (6%)	18 (34%)	3 (6%)	20 (40%)	4 (8%)

Outer Zone.

	No. per 1000 households with 1+ cars.		No. per 1000 economically active males					
			7,10,15		SEG 11		1,2,13	
	high	low	high	low	high	low	high	low
Bromley	10	0	0	12	0	12	11	0
Greenwich	3	0	1	3	0	3	3	0
Lewisham	0	0	0	1	1	1	0	0
Southwark	1	0	0	1	0	0	1	0
TOTAL	14(33%)	0	1(2%)	17(40%)	1(2%)	16(37%)	15(35%)	0

Inner Zone

	high	low	high	low	high	low	high	low
Bromley	0	0	0	0	1	0	0	1
Greenwich	0	2	5	0	5	0	0	8
Lewisham	0	3	3	1	4	0	0	7
Southwark	0	13	7	1	17	0	0	15
TOTAL	0	18 (36%)	15(30%)	2(4%)	27(57%)	0	0	31 (62%)

