WHEN WE BUILD AGAIN

The PLAN of BIRMINGHAM, Survey'd in the Year 1731.

Between 1700 and 1731 the population of Birmingham increased by 50 per cent. In the next 200 years the number of its inhabitants grew from 23,286 to over 1,000,000.

In the Year 1700 Birmingham Contained 20 Streets 100 Courts and Alleys, 2504 Houses, 15032 Inhabitants, one Church dedicated to St Martin & 2 Chappel to St John & 2 School founded by Edward 6th also 2 Dissenting Meeting Houses.

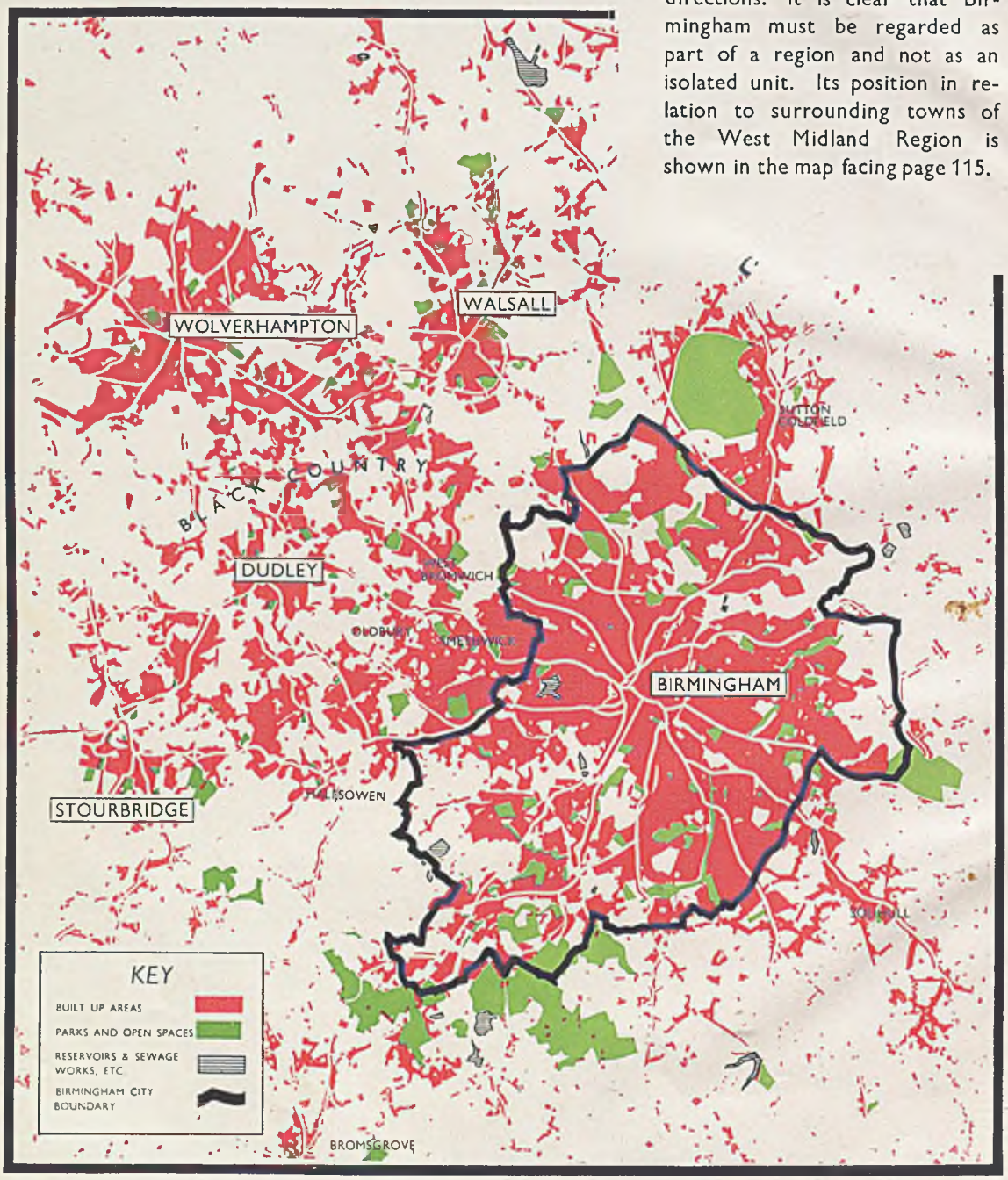
the Increase of this Town from 1700 to y Year 1731 is as follows: 25 Streets, 50 Courts & Alleys, 1215 Houses, 8274 Inhabitants, together with a new Church, Charity School, Market Cross, & 2 Meeting Houses for a further account of y same

Compare this map of Birmingham in 1731 with that of the same area to-day, as shown on the inside of the back cover. The whole area covered by that map is only a tiny part of the built-up city of to-day.

WHEN WE BUILD AGAIN

BIRMINGHAM "CONURBATION"

This map shows the relation of the Birmingham boundaries to existing built-up areas, and particularly to the Black Country. Already dense building extends beyond the city boundaries in many directions. It is clear that Birmingham must be regarded as part of a region and not as an isolated unit. Its position in relation to surrounding towns of the West Midland Region is shown in the map facing page 115.



WHEN WE BUILD AGAIN

A STUDY BASED ON RESEARCH
INTO CONDITIONS OF LIVING AND
WORKING IN BIRMINGHAM

A Bournville Village Trust Research Publication

With a foreword by

LORD BALFOUR OF BURLEIGH

1941

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THIS BOOK is issued without any named Author. It is the work of a number of people. The original research for which the Trustees and Staff of the Bournville Village Trust were responsible was carried out under the direction of Mr. C. B. Parkes, the Trust's Research Architect. For the preparation of the report, a small Research Committee was formed, the members of which were Councillor P. S. Cadbury (Chairman), Mr. G. W. Cadbury, Mr. C. B. Parkes, Mr. S. P. Dobbs, Mr. F. R. Barlow, and Mr. P. B. Redmayne who undertook the preparation of this book for publication.

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They also acknowledge their indebtedness to the many other people who have helped them to carry out the work, including the 7,000 citizens who supplied information when interviewed.

Their especial thanks are due to Mr. H. J. Manzoni, City Engineer and Surveyor, Dr. H. P. Newsholme, the City Medical Officer of Health, Mr. Wallace Smith, Manager of the Estates Department, and The Copec House Improvement Society Limited, for help with statistics and permission to reproduce photographs.

The reader will appreciate that this book has been produced under the exigencies of war which have naturally limited the nature and character of permissible maps and photographs.

FOREWORD

TO-DAY, save for the successful prosecution of the war, no subject is so much in the public mind as Reconstruction. During the last war most people took it for granted that a better world would emerge almost automatically from victory. Hardly anyone doubted that Homes for Heroes and all that that phrase stood for would be achieved. This time we know better, and we realise that the defeat of Germany is not enough of itself to secure a perfect world. We have also, thanks to German bombers, a much greater opportunity for physical reconstruction. Above all, we have the experience of 1919-39. Surveying these two decades so full of effort, of achievement and of failure, it is clear that not the least of our present advantages is the enforced halt in our house-building and the opportunity to take stock.

During those twenty years 3¾ million houses were built. In Birmingham by 1938 one-third of the whole of the million population were living in houses new since 1918. But no one can pretend that all is well with our rehousing, or that we have only to go on as we were going, when war interrupted our progress, in order to achieve a housing millennium within a given period of time.

When the great housing effort began after the last war the need for planned development was not realised and much avoidable damage has thereby been done to our national estate. We can see now, our eyes opened once again by war, that thousands of good agricultural acres have been wasted, that much precious countryside has been wantonly spoiled, and that the unregulated overgrowth of the large towns is a menace to national wellbeing.

Why has town and country planning failed to prevent those things? Because it has been too local and too negative. It could prevent bad things, but could not initiate good things on a large scale. It lacked central direction and inspiration. Above all, because the key to good planning was absent; that is, the national control of the use of the land.

Nothing could be more timely in this context than the appearance of this book, at this moment. Here are the fruits of three years' research into Housing in Birmingham, scientifically carried out, and related to the industry and development of the whole surrounding region. It is to be hoped that the book will have a wide circulation, for the problems discussed are universal. The sociological part of the book is particularly valuable. There is a mass of information on such points as the time it takes and what it costs the wage-earner to travel to and from work, what proportion of the people can get home to dinner, how the gardens are cared for, and where the children play. All these things accurately ascertained we want to know, as well as hard facts about the houses themselves and the rents paid for them.

From the siting of a factory to the provision of a children's playground we are concerned with the right use of the land, and that is Planning.

Now is the time to secure this necessary control, the lack of which has cost us so dear, so that when peace comes we may reconstruct upon a sure foundation.

BALFOUR OF BURLEIGH.

Brucefield,
Clackmannan.
August 4th, 1941.

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TABLES AND PLANS—*continued*

PLATES & ILLUSTRATIONS

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The children usually play in the courtyards or streets.

Birmingham's Central Wards

Back-to-back houses are the most typical feature of Birmingham's Central Wards. The houses often consist of three rooms, one above the other. The living rooms open directly on to the street or court (for typical plans see page 34). These views show (1) a typical street, (2) a living room opening on to the court, (3) the court itself. Such houses now let at an inclusive rental of about 8s. per week (see page 58).

2

3

5

Birmingham's Central Wards

Another feature of the Central Wards is the intermixture of houses and factories as shown in (5). The entrances to the courtyards of the back-to-back houses and some of the factory buildings are up narrow passageways (6).

The W.C.s for all the houses round the court are always in the courtyard, and often there is only a standpipe in the middle of the yard to supply all the houses with water. The yards are generally paved, but sometimes they have diminutive gardens (7).

6

7

8

Birmingham's Middle Ring

Miles of "tunnel-back" houses line the roads of the Middle Ring. Up-to-date in their day, they had an interior water supply and outdoor W.C. and later, during the early years of this century, this type of house was equipped with hot water for a bath and sink—a great attraction to tenants. The rents of this type of house—of which there are well over 50,000 in Birmingham—vary, but are generally 10s. to 11s. The "tunnel-backs" are clearly seen in the lower picture.

9

10

Birmingham's Outer Ring

Allen's Cross Estate at Northfield is typical of the earlier large municipal estates. There is little variation in design, but the layout provides variety and retains many of the natural features. It contains over 2,000 houses let at weekly rentals of 10s., 11s. 2d. and 16s. 6d., and is about six miles from the centre of the city, which can be reached in about three-quarters of an hour by bus to the Bristol Road and thence by tram. (10) Shows a typical road; and (11) an approach to the shopping centre.

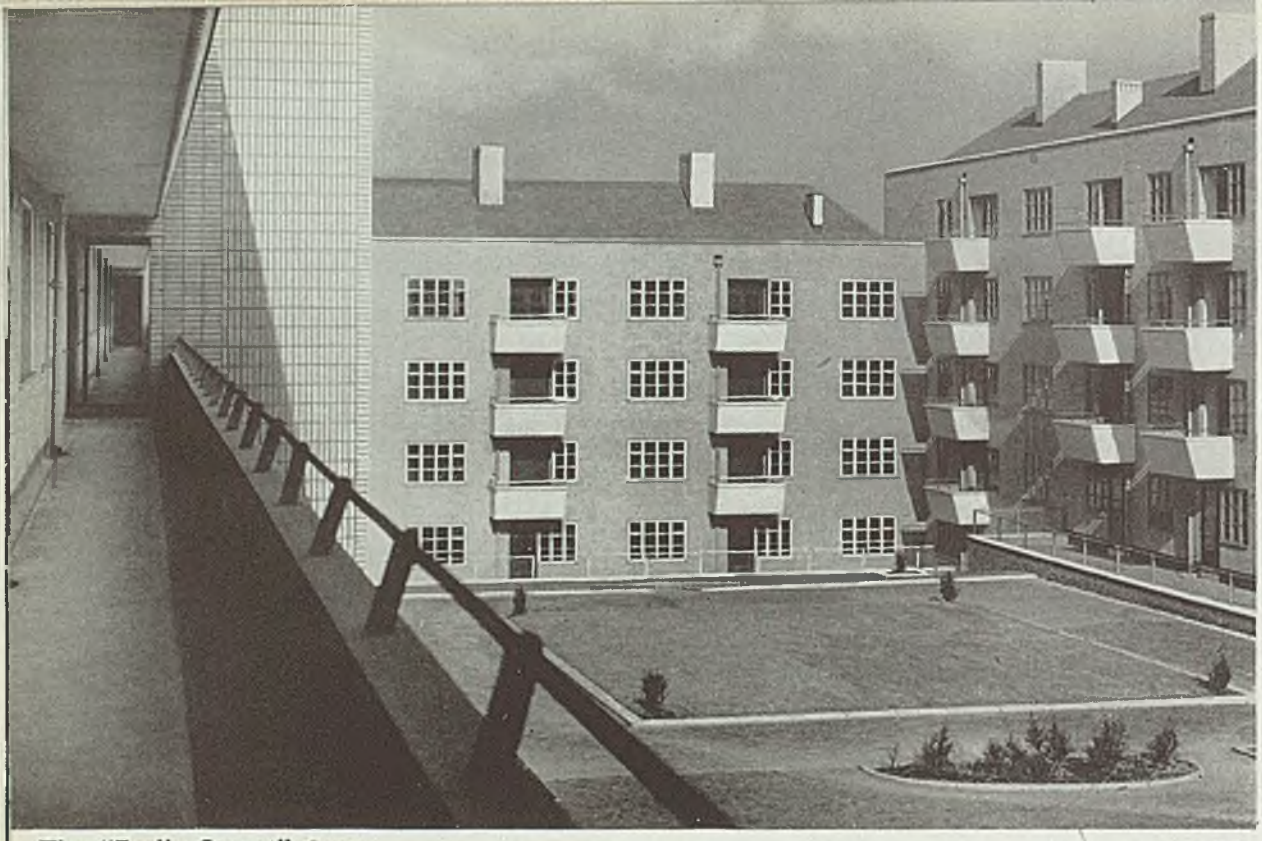
11

12

Birmingham's Outer Ring

Weoley Castle is one of the later estates and is slightly nearer the city than Allen's Cross. These two pictures show that a considerable advance has been made in architecture and site layout in the intervening years. The main criticism one might offer of this fine estate is the lack of a compact centre. The shopping centre surrounds a very large green (see No. 33), and the schools, public houses and cinemas are scattered over the estate.

13



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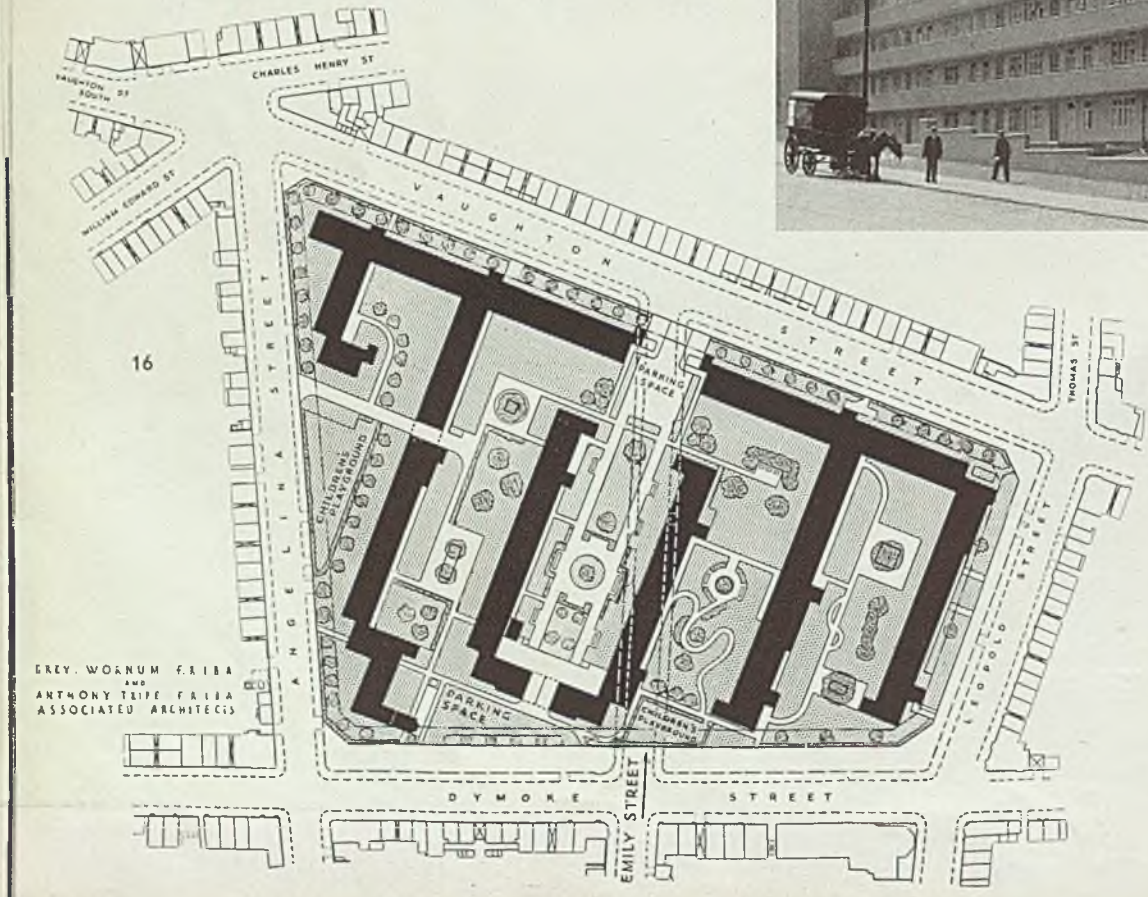
The "Emily Street" Area

The name is derived from the street which ran through the centre of this once slum area rebuilt in four-storey blocks in 1938-1939 (see plan), and now known as St. Martin's flats. A vast improvement on the district they replace, the flats lack the communal services of nurseries, recreation, and heating, which would add so much to their amenities. For the most part they are three- and four-room dwellings let at inclusive rents of 12/6 to 15/- per week. The block provides 267 flats at a net density of 53 dwellings to the acre.

These flats are only the first part of a larger scheme.

16



17

18

Maisonettes in Birmingham

Some of the more successful rehousing in the Central Wards has been carried out in two-storey maisonettes. The top picture shows the Gee Street Scheme which was built under the auspices of COPEC. The lower view shows those at Great Brook Street erected by the Corporation. They are built 32 dwellings to the acre in three- and four-room dwellings, and let at rentals up to 11/6 per week. Maisonettes are more popular than flats, as they provide small gardens and play-space for children with large courts away from the street.

19

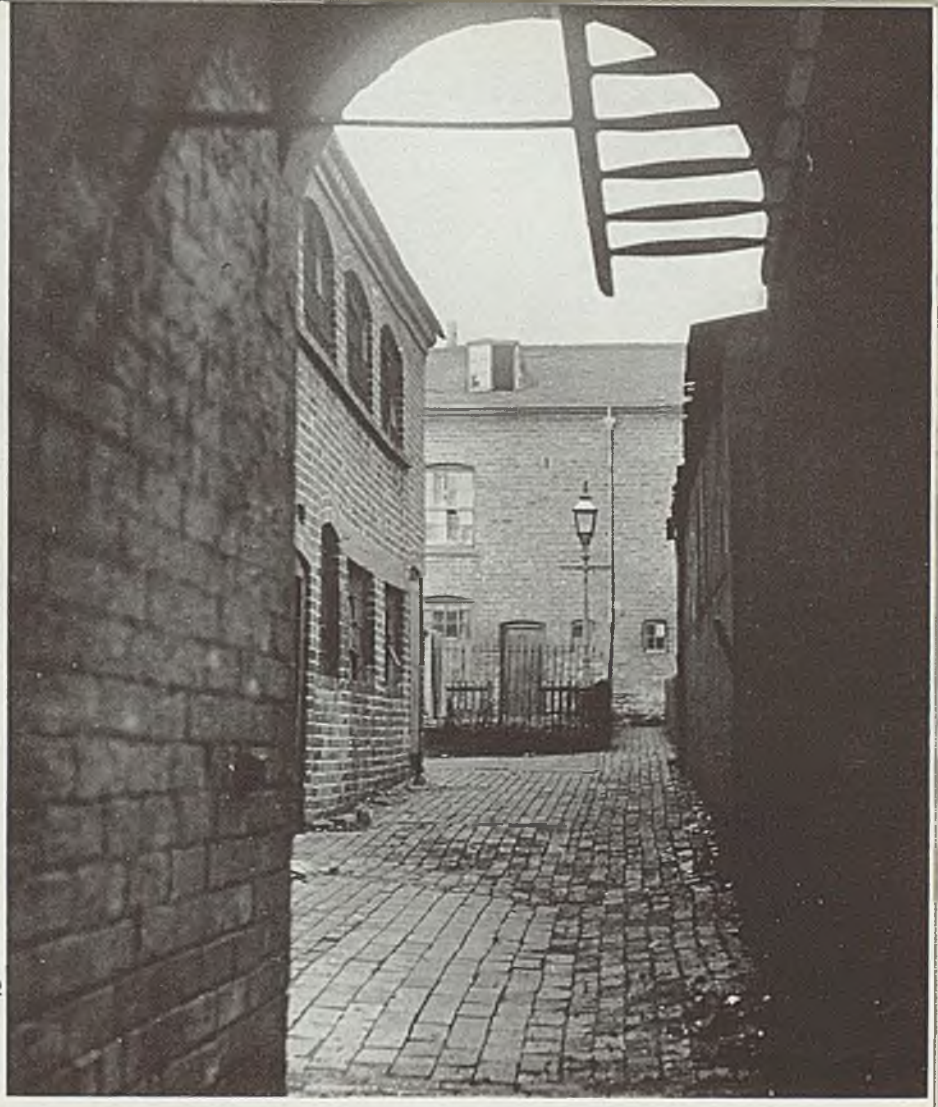
The Jewellery Quarter of Birmingham

Birmingham's Jewellery Quarter is widely known. It consists for the most part of small factories and workshops housed in old dwellings or in buildings squeezed into the old courts.

20

21

(19) Shows the conversion of typical houses into business premises; (20) and (21) show how even the better houses, where the skilled craftsmen of this district once lived, have now been turned into business premises. (22) Depicts the entrance up a passage to a court; and (23) shows the factories and houses that are packed together behind this narrow alley. The whole district is ripe for redevelopment.



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24

Gardens in Birmingham

The research brought to light two facts about Birmingham; firstly, the large number of gardens which at present exist—even in the Central Wards, and secondly the general desire for gardens among householders, and the interest taken in them (see pages 83-86). The first picture, "Her only garden", typifies the desire for a garden among those even in the most congested parts of the city. The lower pictures show some of the gardens in Birmingham Central Wards; (25) shows a block reconditioned by Copec with gardens in the foreground; (26) is a courtyard group of back-to-back houses built in 1870—you can see the outside lavatories, the washhouses and the tiny gardens.

25

26

27

Other Gardens in Birmingham

As Birmingham extended with the rows of "tunnel-back" houses (27), gardens were still provided —they are small, usually littered with sheds and completely hemmed in by straight rows of houses. At the same time as these rows of "tunnel-backs" were springing up, Bournville was built (28). Here, from the commencement, the estate was carefully laid out; the density is about six houses to the acre, and gardens form an important feature of the plan. Many of the houses in the two pictures are comparable in rent and accommodation—compare the two views carefully.

28

29

30

31

Gardens on Municipal Estates

Municipal houses have both front gardens and back gardens and are laid out at twelve houses to the acre. Our research showed that in the outer ring 43·5 per cent. of the gardens were well kept; 43 per cent. were in fair condition, and only 13·5 per cent. were badly cared for. (29) and (30) show typical gardens—a proportion of the back garden is usefully employed for vegetables; (31) shows what an ambitious tenant can achieve.

Shopping Centres

The shopping centre should form a convenient and compact architectural unit in a residential district. At Acock's Green (32) the lack of architectural control is apparent. At Weoley Castle (33) the shops are spread out round an inconveniently large green and the public houses and cinema are elsewhere. Bournville (34) and (35) has a compact unit which is a real centre and includes shops, schools, hall and church built round the Green. See also Northfield "Main Street" on the next page.

32

33

34

35

36

How Birmingham Grows—the example of Northfield

The village of Northfield lies about 5½ miles to the south of the centre of Birmingham—just off the main Bristol Road. It has now been swamped by the sprawling suburbs and may be taken as an example of the types of development that occur all round the city. (36) Shows the Church and Inn—the centre of the old village. The shopping centre (37) is now on the main Bristol Road which narrows at this point from the wide double track to a single carriageway. The newer buildings are set well back to allow eventually for the widening of the road, which is held up until the older and smaller shops and houses can be demolished. Through this bottle-neck the greater part of the traffic from the Austin Works (38) passes every day.

37

38

39

Northfield continued

The speculative builder cares nothing for preserving the amenities of the district he develops. In the top picture you can again see Northfield Church (top left) and how it is hemmed in by incongruous and untidy building. The lower picture was also taken within a mile of the Church and shows the very different treatment by the municipality in its care for the preservation of natural amenities—even in cheaper houses—from the speculative building shown above.

40

41

Still Northfield

Here are two more views—both close to Northfield Church. The top one is of the fronts of the houses shown on the previous page. It speaks for itself. The lower view is of the development in Hole Lane by the Woodlands Housing Society Ltd.

42

· I ·

THE PROBLEM

In 1935 the Bournville Village Trust decided to inaugurate a programme of research into housing in Birmingham, its relation to industry and the development of the surrounding region. They had experience of town planning extending over many years, and were uneasy about the trend of urban development. More accurate knowledge seemed necessary. The fruits of that research are set forth in the following pages. As the reader will see, the range of survey extends far beyond the municipal boundary. The research was thoroughly and competently done and took three years to complete. Its results show that there is no simple panacea; the problem is revealed as complex and one for which no single solution seems possible.

The Terms of Reference

The main objects of the research were to ascertain:—

(*a*) What are the present housing conditions of the city?

(*b*) What has been the effect of the policy of suburban development pursued with such energy since 1919?

(*c*) What indications are there of the lines along which the future local policy should be directed, as indicated by the logic of ascertained facts?

In the work of compiling the relevant facts and figures use was made of published statistics, such as the volumes of the 1931 Census of Population and the Reports of the Birmingham Medical Officer of Health. Valuable as are these official compilations, they do not cover the whole field. An independent sample survey was, therefore, undertaken with the object of filling in the gaps in our present knowledge.

The Research Described

The work fell naturally into two parts:—

(1) A detailed survey of Birmingham housing.

(2) A general survey of development of the area of which Birmingham is the centre.

The first part took the form of a sample enquiry based upon house-to-house visitation; one in thirty-five working-class houses was visited, yielding a total of some 7,000 interviews. (The method employed in this part of the work is fully set out in the Appendix.)

The second part of the survey was made by recording on six-inch scale ordnance maps the areas already built over*; the location of existing factories; and the sites of permanent open spaces. The total area taken into consideration was 1,100 square miles, extending approximately from Stourport and Kenilworth in the South to Newport (Salop) and Ashby-de-la-Zouch in the North, and throughout the book the reader should bear in mind the important point that the survey was carried out with *regional* and not merely *municipal* problems in view.

The first step towards the solution of any practical problem is a proper understanding of its nature. This research, even if it has produced no clear-cut solution, constitutes, we hope, a not unimportant contribution to that end, since it goes some way towards clarifying the issue.

Since the research was completed, enemy action and the tide of war industry have altered the picture of Birmingham to some degree. But the essentials remain even in wartime, and will probably be unaltered when peace comes.

So far, the destruction of war has made amazingly little difference to the general picture we give of how and where Birmingham lived and worked. When, therefore, we talk of rebuilding Birmingham we are not primarily concerned with the problems of war damage, but we do advocate seizing the opportunity the war has created to look at our city anew and to plan its rebuilding with a new vision.

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* See Appendix B.

In the same spirit we have tried not to be obsessed with the immediate and urgent problems at the expense of the future. We have looked not at the next five but at the next fifty years. It is the control of future building that will provide the practical solution. Some clearances and removals may be necessary, but they are incidental to a long-term plan. Zones in which no further industry may be located, or in which only certain types will be allowed to settle, agricultural areas reserved because they are first-class land, tracts kept for recreation, "green belts" designed to prevent separate towns agglomerating into huge urban areas: these are subjects for town and regional planning.

For the same reason we suggest that the life of buildings should be licensed and demolitions enforced to enable whole districts to be replanned without the private owner holding the community to ransom. The composite character of the old and the new must be studied in terms of their capacity to produce the maximum happiness and efficiency for those who live in them.

This book is only a beginning. It is an example of method, and its suggestions are a first contribution to a great problem. We realise that our city is a part of a greater whole, and that the planning of a town is but a part of the larger plan for a region. That is why the Bournville Village Trust is working closely with the West Midland Group on Post-War Reconstruction and Planning which—in the full tide of the war—is carrying out further research work. For only thus can we be ready when peace comes to rebuild on sure foundations.

. II .

THE EARLY CITY

THE TREND OF BIRMINGHAM'S DEVELOPMENT before the Industrial Revolution was largely the result of the circumstance that the ancient market town had no charter. Towns with charters suffered in some ways from the very instrument from which their security and privileges were derived; for such towns were exclusive urban units whose workers and craftsmen enjoyed monopolistic rights as freemen, as against the enterprising craftsmen seeking admission from without.

THE FIRST INDUSTRIAL CITY

Birmingham had no charter until 1838 and was, therefore, Tom Tiddler's Ground for the able worker possessing skill and a craft, but lacking guild membership.

As far back as the sixteenth century the town attracted many such men. They came to found one-man businesses—smiths, naylors, lorimers and the like—and so, upon the pattern of the old-established market town, with its rural bias, there grew a steadily increasing industrial element. On all sides sturdy craftsmen were producing pikes, swords, nails and, later, fire-arms, so that Birmingham became a town of forges whence arose perpetually the music of the anvil. But it remained, nevertheless, a market town, making its exchanges with the fertile countryside all about until the coming of the machines. This is shown on the map on the inside of the front cover.

The dawn of the nineteenth century found Birmingham much larger, but still a country town of folk working in base and precious metals, makers of utility and luxury wares, and working mostly in the one-man business way which was traditional to the city.

Town into City

The century's close revealed the features of a new Birmingham. The town became a city, dynamic and, in some aspects, terrible. It expanded from a smoke-darkened centre, devouring pleasant green places in the ever-widening periphery of the old market town; a city of mean and ignoble streets, of gaunt and hideous factories, warehouses and yards. This change was brought about by the Industrial Revolution and the radical change in methods of production as the result of scientific discovery and invention.

Such was the city during the period when the doctrine that each man is the best judge of his own advantage and all are free to contract as they will was generally accepted; the period of *laissez-faire* in municipal government and of great wealth divorced from any conscious responsibility. If men, women and small children cared to toil incredible hours in great factories for starvation wages and to live in sunless and squalid slums, that, it was argued, was their own affair. Birmingham became increasingly rich, and, paradoxically, as she did so, ugliness spread like a disease over the pleasant features of the former market town; poverty increased and became more and more degrading.

The reader who cares to do so can form a very good idea both of the condition of the workers of England at the time of the Industrial Revolution and of the backwardness of the social ideas of the period, in the moving and terrible pages of the biography of the great Lord Shaftesbury.* And the conditions in Birmingham were merely typical, just as to-day the problems which have inevitably developed out of them apply equally to Birmingham and every other city whose growth and development have been stimulated and determined by the vast transition.

Joseph Chamberlain

It has been shown how Birmingham, by reason of its open door, attracted skilled craftsmen in large numbers during the period of transition

* Hodder's *Life and Work of the Earl of Shaftesbury.*

from market town to industrial centre. The establishment of mechanised industry which followed brought another type of man of ability to the town—the man with the qualities of character which go to the making and maintaining of great and complex business organisations. Among such men, who played a large part in the municipal development of the town and improvement of the condition of the people, the name of Joseph Chamberlain is outstanding.

He first came to the Town Council in 1869, and in four years he was mayor. Twice thereafter he was re-elected to the same office.

There are men who dream dreams and see visions, but lack all power and purpose to harness them to material ends; and there are men who possess force and great executive ability, but are without constructive social ideas or civic aspirations. In Joseph Chamberlain both characteristics were combined. He was a man of business, shrewd, hard-headed and eminently practical. He was also a statesman imbued with a deep sense of local patriotism and an active social conscience.

The coming of this dynamic personality to the Town Council was an event of real importance to the city. Joseph Chamberlain grasped the magnitude of the task of slum clearance which faced the Council, and, characteristically, made a frontal attack upon it which was at that time (1875) without precedent for boldness and extent in the whole country.

The Council which stood behind the scheme was composed largely of practical and experienced men of outstanding ability, but they were by tradition and instinct individualist, often Nonconformists and Radicals, a circumstance that gives us to-day the measure of the forcefulness of the man who dominated them. No less than £1,500,000 was sunk in a slum clearance and rebuilding project which resulted in the disappearance of a large area of generally vile and particularly insanitary property and the emergence of so fine a thoroughfare as Corporation Street. It was under the same administration that gas and waterworks undertakings were—in the face of opposition—taken over from private interests, and

the era of municipal reform inaugurated which put Birmingham in the forefront of the country's progressive cities.

The Birmingham Tradition

When the city was incorporated in 1838, it took as motto the single inspirational word Forward. Since then what is now referred to throughout the world as the *Birmingham tradition* of civic administration has been a living part of the city's public life.

By the second half of the nineteenth century, during which the greater part of the "Middle Ring" of the city was built, there was a quickening of the social conscience. It is reflected in the Statute Book by many measures of housing reform. The complacency that characterised the century's first decades gradually gave place to a growing social sensibility. City dwellers, it was felt, needed not only decent houses, but also free access to fresh air and outdoor relaxation, and their children the boon of safe and pleasant playgrounds.

The provision of parks and recreation grounds in the Middle Ring was, consequently, on a scale more generous than in the centre which had little beyond converted cemeteries for the purpose. Unfortunately, the provision of such amenities depended at that period mainly on the munificence of private donors, and from this circumstance flowed the lack of equable distribution of recreational space in relation to the population clots where such city "lungs" were most badly needed.

Some districts fared fairly well; others came off very badly. The first public park was opened in 1846. This was Adderley Park, covering a space of 11 acres in the Saltley Ward. Next, in 1857, came Calthorpe Park (31 acres), and this was followed in 1864 by Aston Hall and Park (49 acres), and in 1873 by Cannon Hill Park (81 acres), which last is still considered the finest in the city. All these were the result of the generosity of private donors.

The first open space to be entirely purchased by the Corporation was Highgate Park (8 acres)—incidentally the only genuine park in the Central Wards—which was opened by Joseph Chamberlain in 1876.

In 1878, a private Act of Parliament enabled the Corporation to obtain possession of certain burial grounds in the central area and to lay them out as public gardens. Notable among these are the churchyards of St. Martin's, St. Mary's, St. Paul's, St. George's, and St. Philip's. The last-named in particular, in the very heart of the city, has become a very important addition to its amenities.

About the same period came the first provision of playgrounds within the built-up areas of the town. The first of these was the Burbury Street Recreation Ground, $4\frac{1}{2}$ acres in extent, which was opened in 1877. Several others followed during the next two decades, some being acquired and paid for by the Corporation, and others being presented by private individuals—notable amongst whom was J. S. Nettlefold. In the activities of this prominent Birmingham industrialist and his friends one can see the germ that was to develop into a great national movement—the National Playing Fields Association.

Bournville Village Trust

A different approach to the same problem of securing better living conditions for industrial workers was inaugurated by another famous Birmingham figure—George Cadbury. It was in the year 1879 that his firm of chocolate and cocoa manufacturers, situated in Bridge Street and facing a steady deterioration of local conditions, inimical alike to the manufacture of food and to the health of workers, moved out to a site beside the Bourn and there founded their pioneer "factory in a garden".

In 1893 the late George Cadbury, for many years deeply concerned with the problems of Birmingham's slums, decided to forestall the speculative builder bent on acquiring a fortune from the opportunity presented by the migration of the factory from the city's centre to Bournville and the consequent demand for local housing accommodation. For, in the past, it had often enough been in just this way that bad housing had come into being.

Between 1893 and 1899 George Cadbury bought, piece by piece, the

land on which the original village of Bournville now stands. His object was to create a village of cheap but good houses near the factory, but not tied to it. Every house had its own garden, and this new garden village was meant, to use his own words, as "a small contribution to the solution of the housing problem in large cities". In the late 'nineties, as a result of well-meaning by-laws, the terrace of "tunnel-back" houses was the general method of building. George Cadbury introduced variety by building in pairs or small groups. It is an essential feature of Bournville that it is not reserved for the employees of the firm, and in this it differs from tied villages like Port Sunlight and several American examples. Bournville has influenced, as a practical experiment, all subsequent garden city planning and the development of modern municipal estates.

In 1900 George Cadbury created the Bournville Village Trust in which he vested the ownership and management of the village, which at that time consisted of an estate of 330 acres with 800 houses. It was worth £170,000*. The objects of the Trust were wide and included "the amelioration of the conditions of the working class and labouring population in and around Birmingham and elsewhere in Great Britain". Since its foundation the Trust has been self-supporting and progressive. Its profits have been devoted not only to the improvement of the Estate, but to the general improvement of housing and town planning, and it is from the resources of the Trust that the research which is the subject of this book has been financed.

Copec

In 1925 there was held in Birmingham a conference which founded the Copec (Conference on Politics, Economics and Citizenship) House Improvement Society. When this body embarked on a policy of reconditioning decaying slum houses in Birmingham and converting them into reasonably habitable dwellings, the Trust's Architectural Department assisted in the work which has now been extended to rebuilding as well

* The present area of Bournville is 1,100 acres and its assets are nearly £750,000.

as reconditioning Between 1928 and 1936, nineteen reconditioning schemes were prepared.

Anyone sufficiently interested can identify the 355 houses taken over by the Society in the Central Wards. Their distinctive characteristic is green paint, and they also stand out from the drabness of their neighbours on account of their tidy and clean appearance. Where there were dismal and unhygienic courts, there are now gay little gardens; where there were dingy, airless rooms, adequate windows now give access to sun and air.

Put at its lowest, the work accomplished by Copec represented the amelioration of housing conditions for many hundreds of slum dwellers. At its highest it has an educational and inspirational value that cannot be measured.

But because the problem of the slums is vast, reconditioning can never hope to go beyond its plain limitation. Copec, in fact, continues a policy which goes back to the pioneer efforts, in the same direction, of J. S. Nettlefold.

The Common Good Trust

In 1917 a son of the founder of Bournville initiated a scheme which was both ingenious and unique in England.

It happened frequently at that time that a local authority had to stand impotent while land of potential value to them passed into other hands.

The Common Good Trust met and overcame this limitation by creating an instrument under which beauty spots, essential pieces of land, and buildings of architectural grace and historical importance, such as Blakesley Hall, Yardley, could be bought up at normal prices, and then re-sold to the Council at cost and held for subsequent public enjoyment.

In addition the Common Good Trust grants money for such purposes as road-making, park extension, and the planting of trees on new municipal estates, and is, in effect, a body to which the local authority can turn when it would act for the common good but lacks legal power to do so.

Birmingham's First Town Planning Scheme

In 1909, largely as a result of the efforts of a small group of Birmingham housing reformers, the first Town Planning Act had been passed. Its

provisions applied only to *undeveloped* building land and the control of the layout of main roads, the disposition and density of residential property and the zoning of industrial buildings.

Birmingham was the first city in England to put into execution a town planning scheme. It covered an area of 2,320 acres in South-West Birmingham—Quinton, Harborne, and Edgbaston. This was in 1913. Development was held up by the outbreak of the Great War. But while actual work was postponed, the planning went forward for the whole of the Outer Ring.

The second scheme was the East Birmingham Town Planning Scheme of the same year; it covered 1,443 acres.

The third scheme, for North Yardley and Stechford, covered 3,176 acres, which included 1,111 acres within the rural district of Meriden.

The fourth scheme was for South Birmingham. This covered 8,267 acres and was approved in 1925.

The fifth scheme covered 9,868 acres of South-West Birmingham.

Other schemes cover 7,000 acres to the north; 3,086 acres at Perry Barr, and 3,396 acres at Sheldon.

Of the city's total acreage of 51,147 acres, 38,509 have been town-planned.

In retrospect, the attitude of Parliament to the making and marring of towns and cities is seen to fall into three phases.

First, the phase of *laissez-faire* or non-interference; secondly, that of permissive legislation, empowering local authorities to act (if they were so minded, which they seldom were); and, last, compulsory legislation for such matters as the preparation of Town Planning Schemes, slum clearance and rehousing, with subsidisation.

This legislative progress is one in which delegation and decentralisation are extended step by step, but never at the expense of parliamentary authority. These phases reflect the changes in public opinion which began in Shaftesbury's time with the Royal Commission of Inquiry into the Condition of the Working Classes, 1843.

· III ·

THE INQUIRY OF 1913

In the Spring of 1913 the City Council instituted an Inquiry to "investigate the present housing conditions of the poor, to review the past policy of the Council in administering the Housing Acts and to report the facts with their recommendations as to any future action to be taken in its findings".

The Findings

The Committee completed its Report three months after the outbreak of the European War in 1914. It found 50,000 houses to be not only unfit for habitation, but in many cases overcrowded. The problem was revealed as both *qualitative* and *quantitative*.

The Committee rejected the policy of a thoroughgoing town planning and building scheme, which was, in any case, not practical civic politics with a major war developing and the great industrial heart of the city quickening its beat to meet the demands for armament production.

It advised the purchase of land in the undeveloped outer districts and planned development with such essential public amenities and facilities as roads and sewers, sites for public buildings, open spaces, and so on. It advocated long-term leases of frontage plots to building societies and private individuals with restrictive covenants designed to prevent the possibility of new slums for old, a scheme that ensured public control of the general lines of development without freezing public money in bricks and mortar. It was realised that rents in such a development would inevitably be higher than those existing in the city, but it was hoped that better-paid artisans and clerks would be willing to pay an extra shilling or two for the far superior accommodation.

Still looking ahead, the Committee hoped that a gradual process of "filtering up" would follow any such housing scheme.

The first-comers, it was anticipated, would be the higher wage-level working people from the Middle Ring, who, in turn, would be replaced by new-comers from the Central Wards, as they themselves replaced the former residents of the Middle Ring in the days of its prosperity.

Thus a general outward population movement, easing central pressure, was to be stimulated until, with the thinning out of the remaining inhabitants of the centre, the Council would be able to demolish and replan without any violent disturbance of population distribution in the city. The policy was based, it will be observed, partly upon an assumption, namely, that the voluntary drift from the city's crowded centre would follow the provision of better housing on the outskirts.

Flat *v.* House

Like Birmingham, Liverpool had a serious slum problem. As far back as 1869 the Council had tried to relieve the bad housing conditions about the docks by building cottage properties and flats. Under successive Acts vigorous slum clearance programmes had been carried out. But cities, like individuals, differ. Birmingham has never been "flat-minded"; Liverpool, to some extent, has.

The Committee visited Liverpool and saw the blocks of flats and cottages which that city had built on dock sites, and it was this that decided them against central development of that kind for Birmingham, in favour of suburban development, on the lines described above. One experiment, however, was tried—the erection of a block of workers' flats in Milk Street, under the provision of the Act of 1890—but it was not repeated at the time, such barrack-like buildings being regarded as retrograde.

The Committee recommended the preparation of a Town Plan for the Central Wards and Middle Ring; the immediate demolition of the worst houses and the reconditioning of the remainder.

In this way the Committee met and handled with skill and foresight an exceedingly difficult situation. For in its interim Report it accepted

the inevitable as temporary, while ensuring the fulfilment, in better days, of the full programme of future large scale town planning.

War Intervenes

But war put an immediate brake on reconditioning, slum clearance, the laying out of suburban estates, the building of cottages and all other replanning and rehousing reforms.

Meanwhile the population of the city continued to grow by natural increment and, abnormally, through the influx of workpeople and technicians drawn in large numbers to the city by the new war industries. The inevitable consequence was a serious aggravation of the housing shortage.

These were not the only factors at work to transform the housing problem during the war years. Following on the recommendations of a committee set up by the Ministry of Reconstruction, a new standard of housing for the workers had been generally accepted. The minimum accommodation for a normal family was laid down as three bedrooms, combined kitchen and living-room, and parlour, together with a separate bathroom, larder, scullery, coal-store and inside water-closet (or one approached under cover).

There was nothing Utopian about this standard, and it has since that time been generally observed with the exception of the insistence on a parlour separate from the living-room. Simple as were the amenities stipulated, they involved an onerous financial burden. This was due, not so much to the ambitions roused by the newly awakened "housing-consciousness" of the Government and the nation as a whole, as to the low standard formerly tolerated.

Birmingham in 1913

A picture of Birmingham on the eve of the last Great War provides a useful starting point for the present study. The circumstances of that time bear a striking resemblance to those in which, a quarter of a century later, the Bournville Village Trust undertook this research. Though

housing problems to-day are more numerous, pressing and complicated than those of 1913, they are basically identical. Then, as now, the problem of housing reform had two major aspects.

The first was that represented by the central slum area, which, as we have seen, the pioneer industrialists of the nineteenth century bequeathed to their successors. The second was that of developing the outlying parts of the city and the surrounding countryside without creating a legacy of new difficulties for future generations.

Both aspects of the problem have been aggravated by the events of the past twenty-five years, and have not been materially changed by the destruction wrought by air bombardment. Neither problem has yet been solved, but must now await the end of the war, and during the indeterminate period between now and then we can carry on with clarification of the issues—an essential pre-requisite to sound planning.

The Old City

Let us first see what was the condition of the city in 1913. Here the Special Committee's Report will tell us what we need to know. It opens with a description of what was termed the "Old City"*. This coincided, approximately, with the seven wards of St. Martin's and Deritend, Market Hall, Ladywood, St. Paul's, St. Mary's, Duddeston and Nechells, and St. Bartholomew's, which are shown on the map on page 19 and in the photographs. Its hub was the parish church of St. Martin's in the Bull Ring, in whose neighbourhood lay the principal shopping and commercial streets, the municipal and other public buildings and the main railway stations.

The rest of the central area was a jumble of mean streets, huddled terraces and dark, insanitary and badly ventilated courts. In its layout there was hardly any sign of intelligent planning, but everywhere evidence of a haphazard development. With the single exception of the Corporation Street improvement, which was carried out in the 1870's by Joseph

* From here onwards Birmingham is for convenience divided into three zones—the Central Wards, the Middle Ring, and the Outer Ring. They are generally recognised divisions for which statistics are available.

Chamberlain, and swept away a large area of bad slums that had replaced the cherry orchard shown in the map of 1731 (see inside front cover), no change had occurred in this area since the first half of the nineteenth century.

Most of the dwelling houses in this part of the city were unfit for habitation, even judged by the very low standards of working-class housing of that time. Some few were relics of the pre-industrial era, but the great majority had, as we have already mentioned, been put up by the speculative builders of the early nineteenth century. For the most part, these mean dwellings were occupied by the poorest class of unskilled labourer, for whom the low-rent factor was paramount. Others, however, housed some of the better paid workmen, who, for reasons that our research will reveal, preferred the drab centre of the city to less congested parts.

Some 200,000 people were housed in 43,366 dwellings of the back-to-back* type already long condemned as injurious to health because of lack of ventilation. For the most part they contained only three rooms, and so were overcrowded. In the six worst wards, from 51 per cent. to 76 per cent. were back-to-backs. Even more serious was the fact that 42,020 houses had no separate water supply, no sinks, no drains, and 58,028 no separate w.c., the closets being communal and exposed in courts. This meant that over a quarter of a million people lived in cavernous conditions. The real objection to back-to-back houses lies, as the Committee pointed out, not so much in their method of construction as in the degrading and disgusting conditions of their out-buildings, which frequently made decency impossible and inevitably tended to undermine the health and morals of the tenants.

What amenities had the people of these wards? There were some open spaces affording opportunities for rest and recreation, but they were limited, consisting chiefly of churchyards, peaceful and sometimes attractive, and a few drab asphalt playgrounds. That was all.

On the other hand, by comparison with other large industrial cities,

* For plans and description see pages 34 and 35.

Birmingham's central slums included a fair number of houses (roughly a third of the total) redeemed by tiny gardens. Some of these date from the time when the town was little more than a large village with open country within less than half a mile from the Bull Ring; others were to be found in the courts and terraces of the Victorian era, though these were the exception rather than the rule.

Overcrowding in 1913

Besides being dilapidated and insanitary, a large proportion of these slum houses were by 1913 already becoming increasingly overcrowded. A few years earlier there had been no housing shortage, but by the time the Committee reported, conditions had changed. To meet the needs of a population which was increasing at the rate of some 8,000 a year, the average number of new houses built annually during the period 1910 to 1913 was less than 1,400. The significance of these figures—which showed that only one new house was built for every five extra people—can be appreciated only when they are taken in conjunction with the number of demolitions over the same three-year period. These were considerable and included clearances for railway works, factories, warehouses and so on.

The result was that many houses in the central area, originally intended for the use of a single family and generally consisting of three rooms only (see page 34), were being sub-let to two or even three separate families. In these circumstances, the surprising thing was not that there was so much dirt, disease and immorality, but that there was so little.

In this connection it should be remembered that in Birmingham the back-to-back slum houses with their courts were comparable to old cottage property and less unhealthy than the crowded nineteenth-century tenements of some other cities.

The people of the worst parts of the city are comparatively free from the deficiency diseases—rickets and the scorbutic conditions—because the city has escaped the horrors of widespread and chronic unemployment,

such as that which has had such evil effects upon the people of Jarrow and Stockton-on-Tees, to name two examples. Epidemic diseases have been controlled because the city possesses a Public Health Department whose efficiency has a reputation second to none in the kingdom.

The Problem of the Small Factory

Even had bad housing and overcrowding been the whole of the trouble, the problem of abolishing the slums would have bristled with social and administrative difficulties.

But there was a further complication. The central areas were not a mere uniform, roughly geometrical, unplanned expanse of decaying working-class house property. Scattered among the dwelling houses, and often almost entirely hemming them in from the outside world, were numerous factories, workshops, and warehouses, some of which are reminiscent of the early days of the Industrial Revolution.

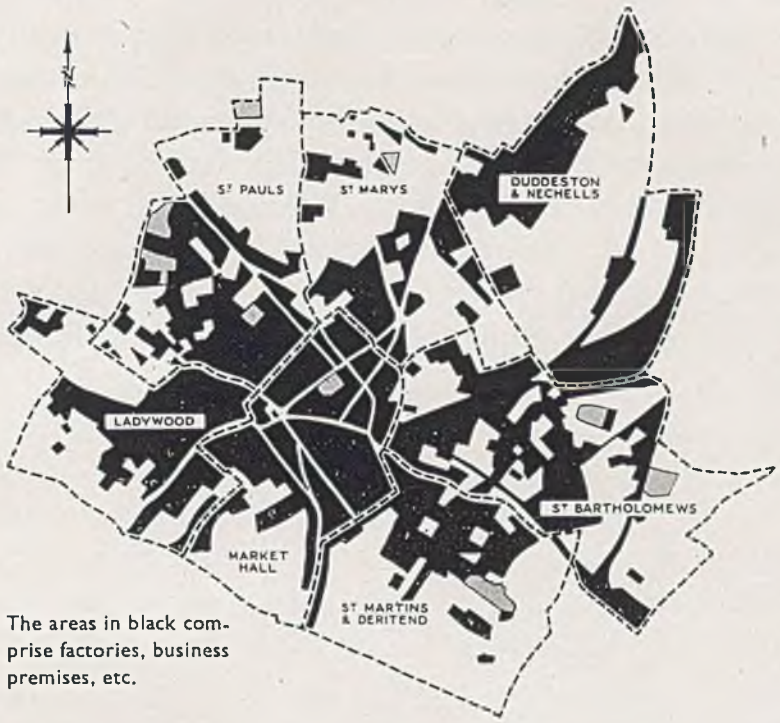
These were—and most of them remain—of every size and type, ranging from large factories to single rooms in the dwelling houses themselves, let off as workshops to sub-contractors in the small metal-ware and similar trades (see page 19).

Sometimes dwelling houses and workshops were not even structurally separate, and in many a court the huddled buildings, half-dwelling house, half-factory, sprawled in squalor.

The difficulties this class of slum property presented in 1913 to any radical clearance scheme were real. For example, the dwelling quarters of a site containing both houses and factories might be condemned as unfit for habitation, while the factory side passed municipal muster. If the domiciliary section were demolished, half the buildings would be left standing; if the method were employed widely—as it would require to be if it were to be of any practical use—then the net result would be sites disfigured by mutilated structures and the debris of semi-demolitions quite useless for any development scheme (see illustration No. 5).

On the other hand, a thoroughgoing scheme, sweeping away all the

MAP OF CENTRAL WARDS, SHOWING FACTORIES, BUSINESS PREMISES, &c.



The areas in black comprise factories, business premises, etc.

surviving buildings, would introduce another burdensome element—compensation. Moreover, the problem of rehousing the dispossessed would remain. Where were the workers to live? and how were they to get to work? For closely linked to the problem of rehousing is the problem of cheap and efficient transport between home and work.

The Middle Ring

By 1913 the broad articulation of Birmingham is clear. It is seen to have a three-fold character. First we find the city's inner core of the Central Wards which we have just described. About this nuclear core had grown the so-termed "Middle Ring", the character of which is the expression of the industrial, social and legislative influences operative through the last few decades of the nineteenth century.

Beyond this Middle Ring lay an Outer Ring continually expanding as the growing city's boundaries spread further into the surrounding country.

In the midst of this growth lies Edgbaston, spacious and typical of the high-class residential quarter of an earlier age. Its houses, ranging from the brick-red Italianate style to the colonnaded Palladian, belong to an era when there existed no problems of domestic labour. Its quiet and tree-shaded roads are dignified and pleasant, and a few moments' walk brings open fields and parks in sight. Edgbaston is the example of Birmingham's earliest planned suburb; it is still delightful, but it belongs to the age when planned amenities were reserved for the rich.

The Middle Ring developed in a haphazard way, as did the Central Wards. Factories and business premises were built entirely without reference to their relationship to a general city layout. Consequently, many of the bad features of the Central Wards were repeated in the Middle Ring, but in tones less grim, being softened by a scale of living at a somewhat higher wage level. The houses, for all their limitations, represented an advance, both as to convenience and sanitation.

By present-day standards, however, the majority of houses of the Middle Ring may be described as dark, inconveniently planned, draughty and devoid of architectural grace.

In 1913 they seldom had a bathroom, their sculleries were damp, dark and small, their staircases steep and narrow, their proportions horrid. Even so, they did possess sinks with running water—a big advance—and proper water-closets.

Their occupants, no doubt, considered themselves fortunate in moving to such homes from the old city. But, contemplating these thoroughfares to-day, and judging them by modern standards, one receives a general impression of a blighted residential quarter, destined, unless brought into a general plan, to descend in the end to the condition of slumdom.

Yet these drab streets of architecturally deplorable small houses had once been the homes of skilled workpeople—jewellers, craftsmen working

in precious or base metals, and the like—who moved into them from the dreary wastes of the Central Wards. It was a social advance symbolised by the separation of the home from the place of work; of such houses Birmingham can probably show a larger proportion than any other city in the kingdom, and to them it owes its general character. Some of the Middle Ring's inhabitants found local employment, but more travelled daily between home and shop or office in the city's centre, and to the craftsmen were added in course of time members of the "black coat" worker category.

The outstanding characteristics of this district, then, as now, were lack of local colour, and absence of adequate facilities for healthful recreation. Any great English city can show the stranger just such areas of drab and graceless streets, and so devoid are they of local individuality that they suggest, at a first glance, their counterparts in half a dozen cities to any one of which they might belong.

The Middle Ring is of the period when English domestic architecture touched its nadir after the golden Georgian age. It was the period of imitation, of the false and the uninspired, when the position was controlled by the speculative builder with no thoughts beyond profits.

Touring the Middle Ring (even to-day) one can pass through miles of red-brick villas and terraced houses designed without any sort of reference to a general plan, and often displaying misplaced attempts at style and decoration. They are punctuated by harsher and louder notes in the form of schools, churches, public houses and factories.

Life in these early suburbs was largely concentrated on the main roads which ran through them, connecting the centre of the city with the outside world, and each forming a kind of backbone to the districts through which it passed. With their busy shops and hurrying traffic, their cheerful noises and bright lights, they provided the only touch of colour and gaiety in a depressing wilderness of bricks and mortar.

The Outer Ring and the New Housing

The Outer Ring is the third of Birmingham's zones. It is not homogeneous, for it represents a process of territorial urbanisation that has been continued for many years, and most of it has been built since 1913. In this it differs from the other zones which have altered little in the last thirty years.

The swelling city, exerting pressure from its centre (see Plate I), where its population is densest, unrolled a great tide of bricks and mortar over ancient manors and small and charming townships such as King's Norton and Northfield, transforming them into ugly and untidy areas.

What contrasts can be found flanking the fine two-way Bristol road! On the one hand, such housing achievements as Weoley Castle Estate, with its wide, tree-planted roads, circuses and well-designed two-storey dwellings, and on the other hand the monotonous roads stretching from the bottle-neck of Selly Oak, and the new brick villas of Northfield and its patchwork shopping centre.

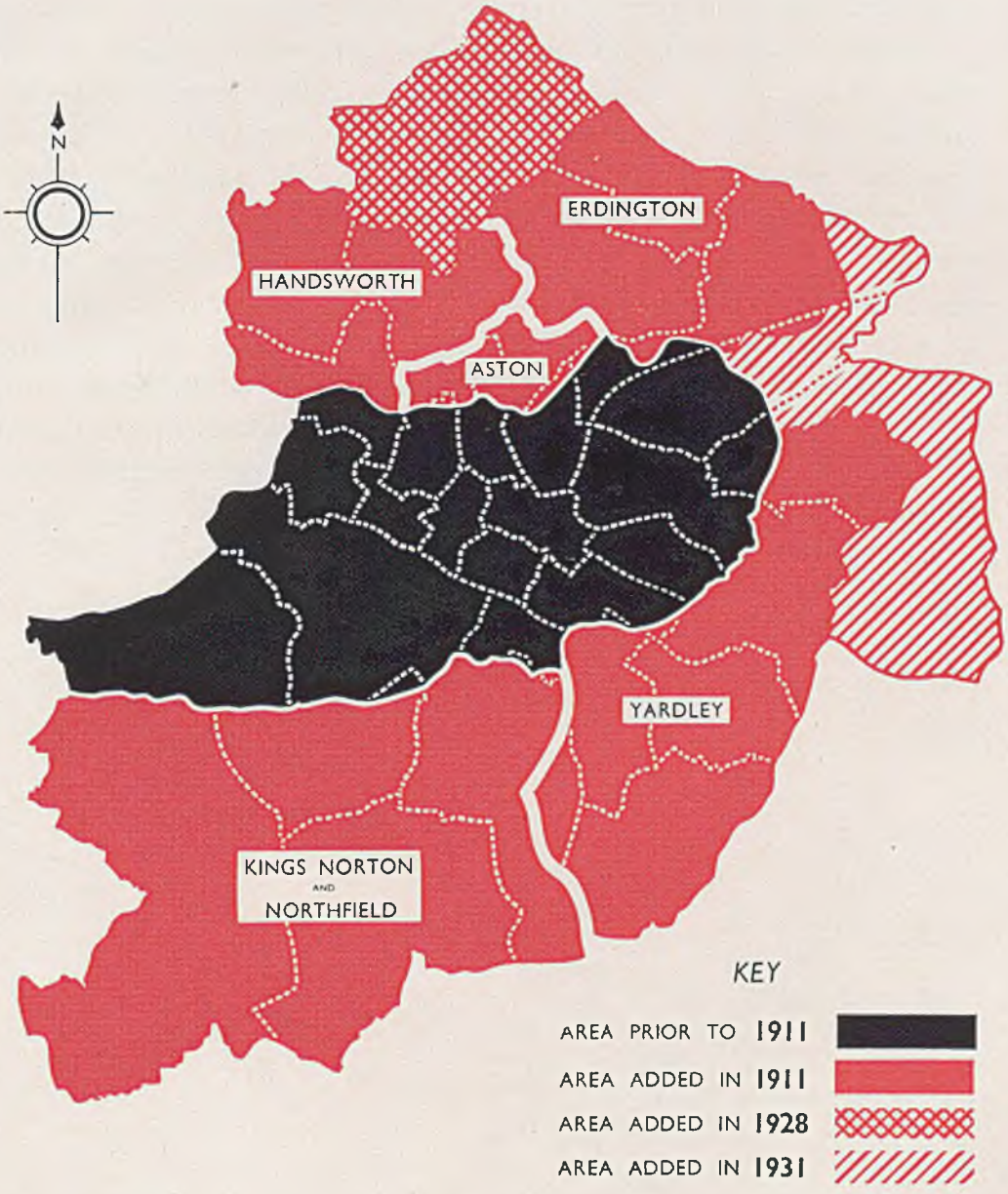
A glance at the map opposite will show the reader how the city's boundaries have grown. Since incorporation, its limits have been increased to the point that makes Birmingham England's second largest city.

In 1891 its 8,340 acres were increased to 12,365 by the absorption of Saltley, Little Bromwich, Harborne, and Balsall Heath. In 1909 Quinton was absorbed, and, two years later, the Greater Birmingham scheme resulted in the incorporation of Aston Manor and the urban districts of Erdington, Handsworth, King's Norton, Northfield, and Yardley.

These absorptions brought the total area of the city up to 43,600 acres. In 1928 a part of Perry Barr was taken in, and a year later large parts of Castle Bromwich and Sheldon, bringing the total area up to 51,147 acres.

The policy of adding so large an area to the city's boundary was a far-sighted move to anticipate the city's future needs for expansion. But as we shall see, the problem is not solved simply by the erection of a

GROWTH OF THE CITY BOUNDARIES 1911-31



The foresight shown by the City Council in taking over large sections of undeveloped land is clearly shown in this map. Already almost the whole of these areas have been developed.

PLATE I

Facing page 22

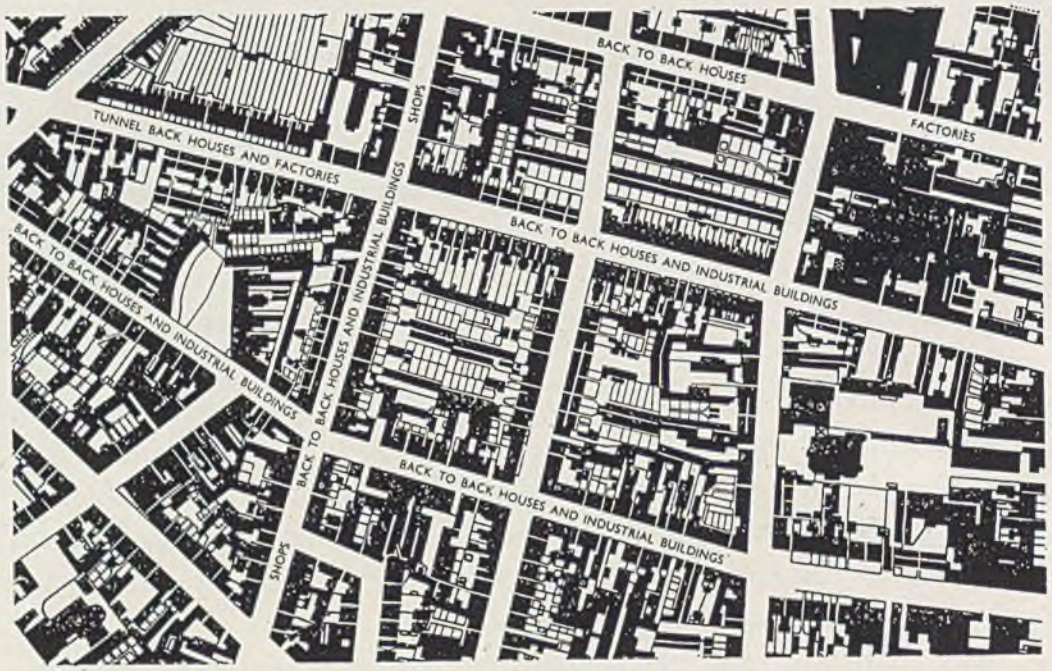
large number of well-planned houses at economic rentals. It is very much more complex than that.

Nothing could demonstrate more clearly the respective merits of uncontrolled building and public undertakings than the planned suburbs which are rising on the city's outskirts and the ugly rows of "builders'" houses that surround them. A good example of this can be seen in almost every suburb. On one side of a road are the products of private building —small, dilapidated, shoddy little two-storey villas. On the other side are substantial, well-designed houses giving a sense of æsthetic satisfaction and the impression of good workmanship. And such contrasts, of course, can often be met where local authorities have undertaken considered planning. The one is the work of a builder selling something to a lot of individual customers, and the other is carried out by an enlightened public body with skilled professional advice.

The centres of great cities and their suburbs behave rather like the foliage of vigorously growing plants. Early leaves often wither and die, while the later growth throws out leaves green and vigorous.

To see how true this is of Birmingham it is only necessary to walk or drive from the city centre towards the city boundary on any compass bearing. The experience will be uniform: a steady improvement as the nuclear districts are left behind.

TYPICAL QUARTERS OF BIRMINGHAM

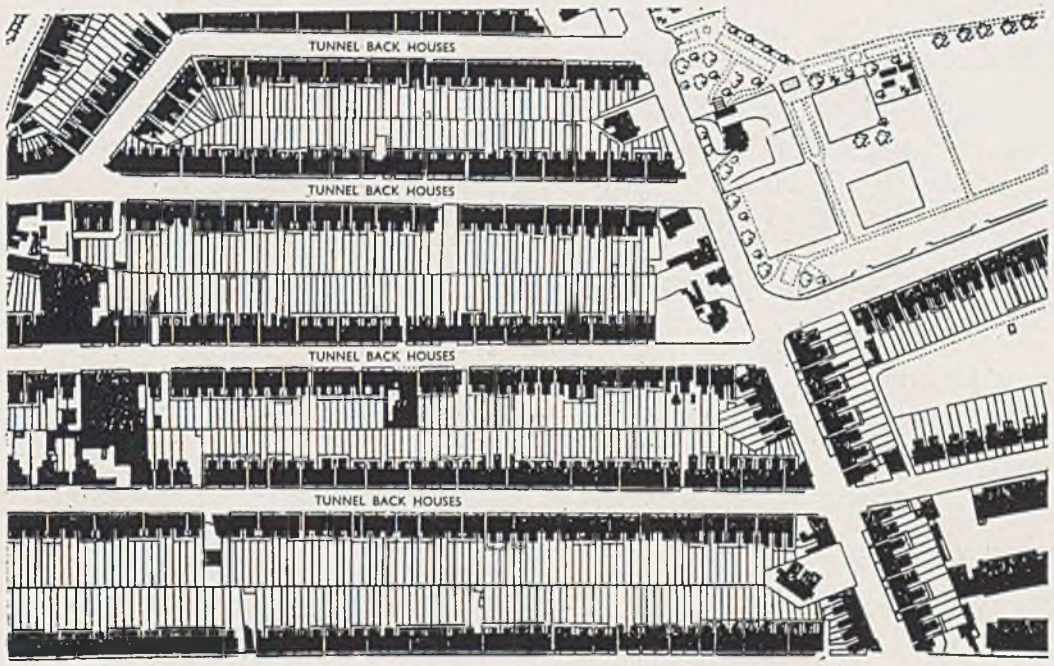


1

(1) and (2) show typical sections of the older parts of the city and how the original congestion is made worse by the conversion and building of factories among the old back-to-back houses.

2

Reproduced from the Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office.



3

(3) Shows typical Middle Ring development in monotonous streets of tunnel-back houses, while (4) is a section of a Municipal Estate developed at 12 houses to the acre.

These plans should be compared with the illustrations in the pictorial section.

4

Reproduced from the Ordnance Survey Map, with the sanction of the Controller of H.M. Stationery Office.

· IV ·

THE POST-WAR SITUATION IN 1918

A Formidable Housing Shortage had developed in Birmingham by the time building was resumed in 1919. The normal building requirements of the city had been put at 2,500 houses per annum. Quite apart from the urgent need for action with regard to insanitary and dilapidated back-to-back houses, the building of 12,000 new houses was a matter of urgency. Building had fallen into five years' arrears, a state of affairs serious enough in itself. But the position was aggravated by the permanent addition to the city's population of the wartime influx of workers, the majority of whom adopted the city as their home. Before serious consideration could be given to slum-clearance this new population had to be housed. So far as the slum houses themselves were concerned the pre-war position remained unchanged, except that the lapse of time and wartime difficulties in carrying out even normal repairs and redecoration had made their condition rather worse.

Meanwhile, building costs had risen sharply and rent control of existing houses established a level which made competitive building of working-class houses by private enterprise uneconomic. Before the war municipal house-building had been rejected as too socialistic. It was now seen to be the only practical solution. Consequently, for the next ten years, the local authorities had the field almost to themselves.

The Housing Act of 1919

Under the Addison Housing Act of 1919, the Government undertook to bear the financial loss on municipal house-building beyond the product of a penny rate. The Housing (Additional Powers) Act, of the same year, provided for financial assistance to builders, subject to fitness certificates from local councils. In Birmingham, as elsewhere, ambitious

plans for the rapid construction of new houses were at once set on foot.

In 1918 the Council had acquired 400 acres for post-war building; these and an additional 100 acres were assigned for immediate development. A "Survey of Housing Needs", made under the Act, gave the number of houses in the city as 194,352, of which 150,000 were working-class, and estimated that 14,500 new houses would be needed in the ensuing three years. The population of Birmingham was then 910,000.

The work was begun in the face of post-war difficulties. There were serious shortages of labour—in particular of bricklayers—and of materials, which caused delays and greatly increased costs. A controversy arose as to the relative merits of building by direct labour or letting the work out to private contractors. Even when this had been settled in favour of the latter there were further delays whilst a satisfactory organisation was being created, not only to control the erection of the houses but their subsequent management and repair. Ultimately a total of 3,234 houses were built under the 1919 Act during the four years between 1919 and 1923, out of the 10,000 originally planned. The cost of these houses, which were almost all of the parlour type, worked out at £900 to £1,000 apiece.

From one point of view, the Housing Act of 1919 was an epoch-making measure. It closed the era of permissive housing legislation, and for the first time placed fairly and squarely on the shoulders of the local authorities the responsibility of providing adequate housing. The Small Dwellings Acquisition Act of 1899 had established the principle of Local Authorities lending money for housing purposes; the Act of 1919 went much further, introducing the principle of Treasury support.

From another point of view, the Act may be regarded as a mere stop-gap. It is true that it made possible a start on post-war house-construction. On the other hand, its financial provisions were loosely drawn up and calculated to invite abuse. For example, the unlimited Government subsidy beyond the arbitrary figure of a penny rate was a direct encouragement to extravagance and inefficiency on the part of

the local authorities, a factor in the rise of building costs which reached their climax in 1921.

Housing Acts of 1923-1924

With the collapse of the post-war boom came the Government economy campaign and the "Geddes Axe", one of the victims of which was the Addison Housing Act. This Act was replaced in 1923 by the Chamberlain Act, which reduced the maximum Government subsidy to an annual sum of £6 per house for twenty years. During the interim period, house-building by local authorities was abruptly checked. Partly as a result of the general fall in prices, and partly owing to the sudden reduction in the demand for building, costs fell rapidly to about half their previous high level. But the new subsidy was not substantial enough to stimulate house-building enterprise on any extensive scale, and may be said to have failed as a measure.

In the following year the Wheatley Act increased the Government grant to £9 per house for forty years, with the proviso that a further contribution of £4 10s. per house per annum should be made by the local authority itself.

Meanwhile there had been some modification of the very ambitious housing standards of the first post-war years. The parlour-type house was scrapped, and the non-parlour, three-bedroom type became the new standard. The maximum housing density of twelve to the acre was retained (and sanctioned under the Wheatley Act), as were separate bathroom and w.c. and adequate coal-house and larder space.

The Wheatley Act and these changes brought in a new era of municipal house-building. It made possible mass-building and rentals for tenants at the normal artisan's economic level.

Subsidies for houses built after 1927 were reduced to £7 10s. from the Government and to £3 15s. from the Local Authorities, but this diminution of financial aid did not arrest building, as it was offset by further falls in building costs; consequently progress continued for about six years.

The total number of houses built in Birmingham under this Act in eight years was 33,612, compared with the 3,234 under the Act of 1919, and 3,433 under that of 1923.

Planning New Areas

All this building activity caused the outward movement of the population. This is brought out sharply on Plate III (facing page 32).

The boundary extensions of 1911 had brought under the jurisdiction of the City Council a large area of undeveloped land suitable for housing purposes. Most of it was open farm land appropriate for housing estates of considerable size. Such sites naturally appeal to the planner, since they provide him with a chance to plan *de novo*, and relieve him of the burden of tinkering with an existing muddle of bricks and mortar.

Besides this rural and semi-rural belt, there were several small pockets of undeveloped land on the fringes of the already built-up area. Small sites, near in, may cost more to buy, give much less scope to the town-planner, but involve less outlay for public utilities.

The New Municipal Estates

Both types of area, each of which had its advocates, have been fully developed, either by the Corporation or by private enterprise.

As early as 1928—although there was still a certain amount of unused building land on the southern outskirts of the city—the need for further boundary extensions was clear. In that year 3,086 acres lying to the north were taken in to form the Perry Barr Ward, four to five miles from the city centre.

Apart from a small portion, scheduled for industrial purposes, this and the adjoining areas have been developed on residential lines. They contain the contiguous municipal estates of Kingstanding, Kettlehouse, Witton Lodge Farm and Oscott College, covering nearly 1,000 acres, with between 8,000 and 9,000 houses, and a population as large as that of Shrewsbury. In their standard of convenience and services these estates marked a big advance. Their layout made provision for those services and amenities

without which no aggregation of dwellings can be considered to constitute an organised social group. Thus sites were laid out for churches, schools, playing fields, libraries, baths and shopping centres. Even so, as we shall see, it is not possible to create so large a suburb on a city's outskirts without creating a transport problem. (See Plate II opposite.)

Three years later another 4,466 acres to the east of the city were taken over from Warwickshire; again, primarily for housing. Development on this side of the city has proceeded steadily, partly by private enterprise, represented by speculative builders, and partly by the Corporation. The development was not complete when the outbreak of war in 1939 held up further building. So far some 3,500 municipal houses have been erected here on the Lea Hall Estate, and ultimately this number will be approximately doubled by further municipal building in the same neighbourhood.

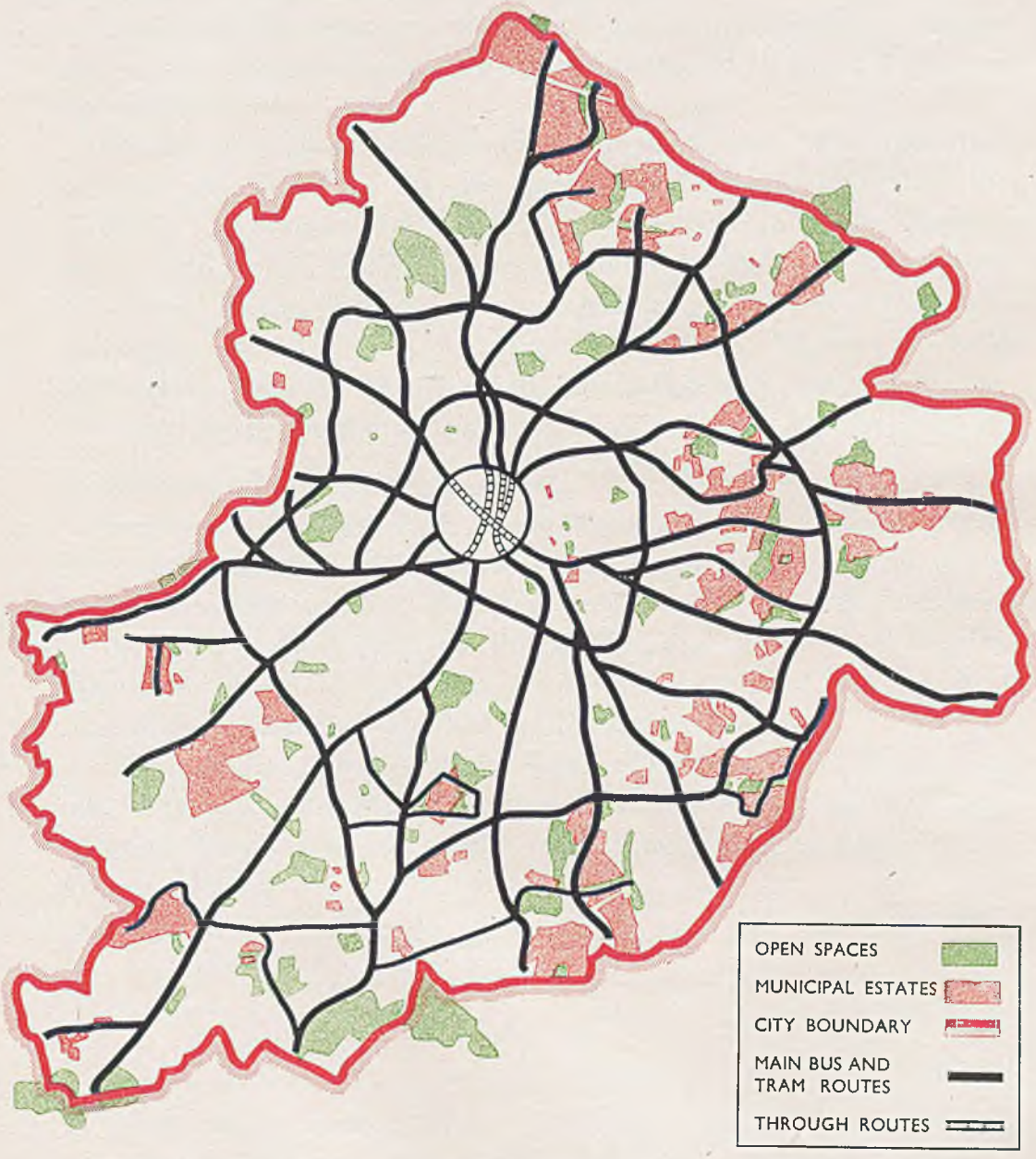
The Revival of Private Enterprise

On July 25th, 1930, the 30,000th house erected by the Corporation of Birmingham was opened by the Minister of Health, Mr. Arthur Greenwood. The year was a turning point in the city's housing history. It saw completed no less than 6,715 municipal houses, a record that still stands.

The year marked the end of the virtual monopoly of working-class housing which the Local Authority had enjoyed ever since the end of the war in 1918. Lower building costs, anxiety of building societies to use their accumulated funds, and the new Financial Act of 1933 allowing a mortgage up to 90 per cent. of the value of the house, all opened the way for private enterprise in co-operation with building societies.

For the better-paid artisans, who had hitherto been the principal clients of the Corporation's housing departments, the normal way of obtaining a house became that of purchase through building societies with low regular repayments, so that now about a fifth of the housing in the Outer Ring is held in this way. Finally, the fact that so large a number of municipal houses had been built during the previous decade to meet the needs of the growing population, and that a substantial portion

MUNICIPAL HOUSING ESTATES, OPEN SPACES AND PRINCIPAL TRANSPORT ROUTES IN BIRMINGHAM



This map shows how the Municipal estates are served by the Birmingham City Transport. For the most part the estates, which are situated on the outskirts of the city, are well served by direct routes to the city centre, taking 25 to 30 minutes. For a few estates there is an additional 5 to 15 minutes on a branch service. The small number of through routes, as shown on the map, is a feature of the Birmingham Transport System, and is caused by the congestion in the city centre. It is often more convenient to use the outer or inner circle routes to reach one side of the city from another.

Parks and open spaces are indicated in green.

of the burden was about to be taken over by private enterprise, foreshadowed a new phase in public housing policy.

The economic depression, which had just set in, ended very largely as a result of the great private enterprise building boom which dominated the middle 'thirties.

In this new phase both central Government and local authorities were to concentrate on the twin problems of slum-clearance and the abatement of overcrowding. This was made possible by the Housing Act of 1930, which provided a special subsidy for houses or flats erected to re-house persons displaced by slum-clearance; and by the more comprehensive Act of 1935, which imposed a definite obligation on local authorities to draw up schemes for the elimination both of slums and overcrowding, and provided subsidies for the erection of houses for either purpose.

Slum-Clearance and Overcrowding

Important as was the work accomplished, the slums remained. Apart from the installation of a separate water supply in a majority of the houses previously without, little had been done to improve conditions in the Central Wards since the time of the 1913 Committee of Inquiry. Here and there a few slum-houses had been demolished, but the great mass of them remained—and had deteriorated even further.

The inadequate progress in this aspect of housing made between 1913 and 1935 (when the Medical Officer of Health carried out the Overcrowding Survey required by the 1935 Housing Act) is shown by the following figures:—

TABLE I

CONDITION OF HOUSES

	1913	1935	Percentage Change
Back-to-back houses	43,366	38,773	–11%
Houses without separate W.C. ...	58,028	51,794	–11%
Houses without separate water supply	42,020	13,650	–68%

So far as overcrowding itself was concerned the position had also grown more serious.

This was a little surprising at first sight, as the percentage increase in the number of houses built between 1920 and 1935 was considerably larger than the corresponding increase in population. The key to the mystery lay in the fact that the average family was steadily growing smaller, or in other words that the number of *families* was increasing far more rapidly than the size of the population.

The campaign for slum-clearance was launched in 1930 with the passing of the Housing Act. But, writing in 1941, it has to be said that the slums are still with us. The 1935 Act gave the Government compulsory powers, but even so two or three years elapsed before the cumbrous machinery of Clearance Orders and Demolition Orders could be applied on an effective scale. Altogether the very modest total of 10,000 were condemned and about 8,000 actually pulled down between 1930 and 1938.

The Building Boom of the 'Thirties

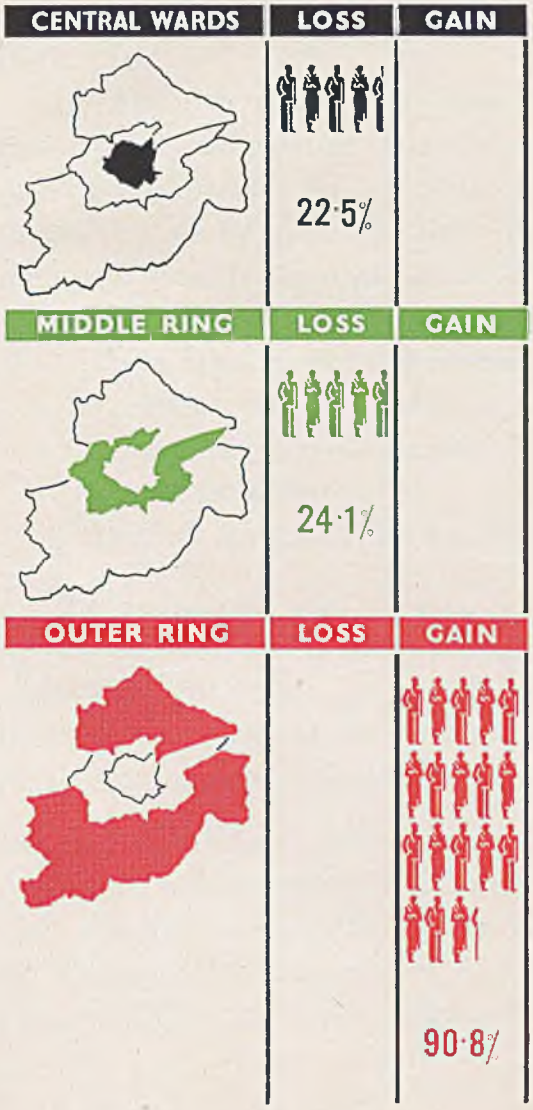
In another direction, however, progress during these years was far more rapid. The fall in building costs, as we have said, together with the reduction in the rate of interest brought about by the conversion operations of 1932 and the new Housing (Financial Provisions) Act, enabled the speculative builder to compete on something like equal terms with the now unsubsidised local authority.

Between 1935 and 1938, the latter being the year in which the Bournville Village Trust carried out its survey, building by private enterprise on the outskirts of the city was proceeding at the unprecedented rate of over 7,000 houses annually. This was sufficient, not merely to provide for the normal growth in the population, but substantially to alleviate the overcrowded condition of the older houses. Simultaneously, the Corporation had resumed house-building at a rate far below that of the previous decade, but nevertheless substantial—about 2,500 per annum. All these municipal houses were earmarked for the occupation of families displaced from the slums.

THE CHANGES SINCE 1920

The movement of the population from the Centre to the Outer Ring since 1920 is clearly shown. Since 1920 nearly eight times as many houses have been built in the Outer Ring as in the Middle Ring and Central Wards. This chart emphasises the small amount of new domestic building carried out recently in the Central and Middle Rings.

POPULATION
CHANGE 1921-1938
Each symbol represents 5% of the population



NEW HOUSES
BUILT SINCE 1920
Each symbol represents 1000 new houses

To-day, one-third of Birmingham's million inhabitants are living in houses built since the Great War, and this transfer of a large fraction of the city's population to good houses is an impressive example of a general tendency.

The progress in new housing made during these three years (1935-38) was striking compared with that of any earlier time, but it was hardly sufficient to ensure the abolition of the slums within any tolerable period. At their meeting in December, 1938, the City Council adopted a report of a joint committee. It revealed the magnitude of the task ahead of the city.

The report proposed that during the next five years the rate of municipal house-building should be doubled to yield a minimum of 5,000 houses per annum—or 25,000 houses in the five-year period. This total was actually 5,000 less than the very conservative estimate of the minimum actually required, as laid down in the report, which was made up as follows:—

To re-house tenants of houses represented by the Medical Officer of Health under the Housing Acts (i.e. Slum-Clearance)	17,500
To abate overcrowding	3,500
To meet normal needs for new municipal houses ..	8,000 to 10,000

The programme also presupposed a maintenance of house-building by private enterprise, if not at the peak levels of 1936 to 1938, at least on a very substantial scale. In view of the very small amount of undeveloped land still remaining in the city, the programme presented to the town-planner a formidable problem.

Birmingham's House Types

At this point, before we proceed to the findings of our research, a short description of the types of working-class houses in Birmingham will be of interest, for although the dwellings in all large towns have similar accommodation, there are differences in detail.

There are in Birmingham approximately 190,000 houses occupied by the workers which have been built by private enterprise. The majority conform to three basis arrangements of plan.

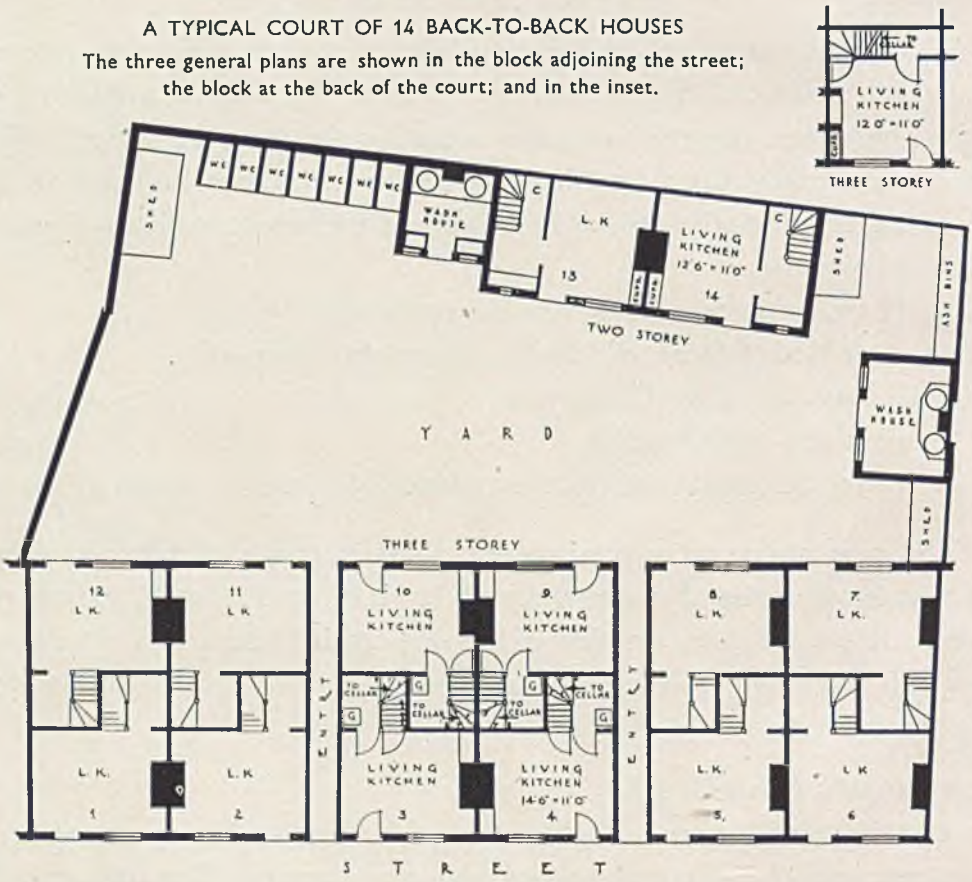
The Back-to-Back House

The smallest type, of which there are no less than 38,000, is the back-to-back, familiar to the housing reformers as the representative slum house of Midland and other provincial towns.

BACK-TO-BACK HOUSES

A TYPICAL COURT OF 14 BACK-TO-BACK HOUSES

The three general plans are shown in the block adjoining the street; the block at the back of the court; and in the inset.



Street after street of these houses is to be found in the Central Wards and in some parts of the Middle Ring. Their appearance is quiet and

unobtrusive, consisting of little more than walls with windows and front doors opening on to the pavement. Anyone walking casually along a street of back-to-back houses would never realise that each ground floor window represents a separate house with only one room on that floor. This, in fact, is so, as may be seen from the plan. Most of these houses contain three rooms, one above another—a kitchen-living room with a bedroom above, and over that an attic. These are known locally as "two up and one down".

The front door opens directly into the kitchen, which generally consists of a room about 12 ft. to 14 ft. by 11 ft., fitted with a cottage range and a cupboard. The height of the rooms varies from 8 ft. to 9 ft. for the kitchen to as low as 6 ft. 7 in. in the attic. There is usually some kind of larder provided, but this rarely has a window or any form of ventilation. Narrow, twisted stairs lead from the living room to the bedroom and to the attic. Sometimes these staircases are so steep that the stranger almost falls down them, yet the provision of a handrail was rarely thought to be necessary. These houses were originally built without internal water supply or sink, and many still have only one standpipe in the court to serve all the houses.

Coal is stored in the vaulted cellar, which is approached by dangerously steep brick steps. Many of the cellars are so damp that they are unusable except as dumps for rubbish.

The houses are built in a double row under a single roof, one row facing the street and the other looking on to a paved courtyard. Thus, almost every house is surrounded on three sides by a dwelling of similar type, which prevents any through ventilation or adequate daylight illumination of staircases and landings.

Most of the back-to-back houses were built in the early nineteenth century by speculative builders who were at pains to crowd as many houses as possible on to the sites. Whenever, therefore, the depth of the land permitted, an additional row of houses was erected along the back boundary of the site. The net housing density is often about 60 houses

per acre, which means a population of over 200 persons per acre on individual sites.

Between the two blocks of houses is a paved courtyard, which serves as a drying ground for washing and a playground for the younger children.

A few water-closets for the common use of the tenants are grouped in the courtyard. Beside them are the wash-houses which the tenants each use one day a week for the family washing.

The entrance to the houses in the courtyard is down the narrow passages (or entries) tunnelled through the block of houses fronting on to the street.

Such is the back-to-back of the Birmingham slums, in which between 100,000 and 150,000 people still live.

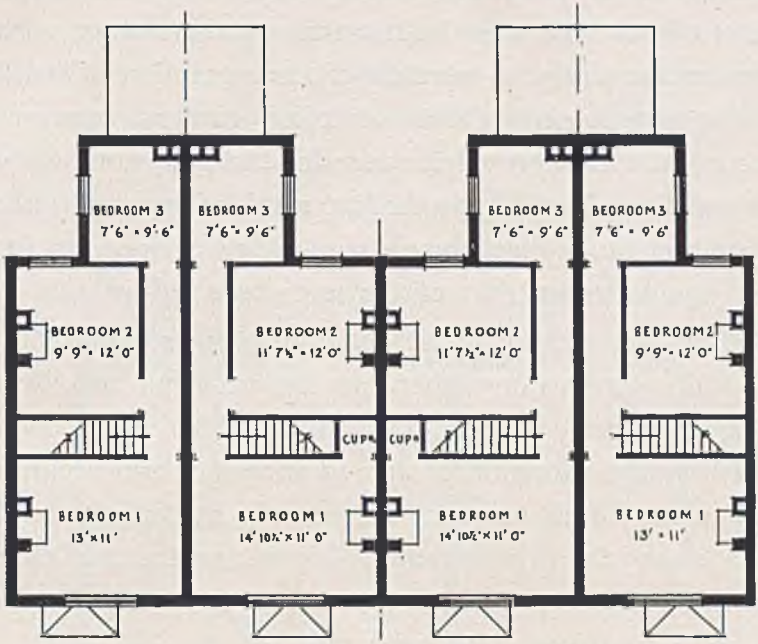
The Tunnel-Back House

The insistence of the early building by-laws on a minimum air space on at least two sides of every dwelling, compelled the speculative builder to develop another type of working-class house. This is known to housing reformers as the "tunnel-back" house. It is an ingenious means of crowding houses on to a site and of reducing the necessary roads to a minimum while keeping within the law. The plan on the next page shows a typical house of this type.

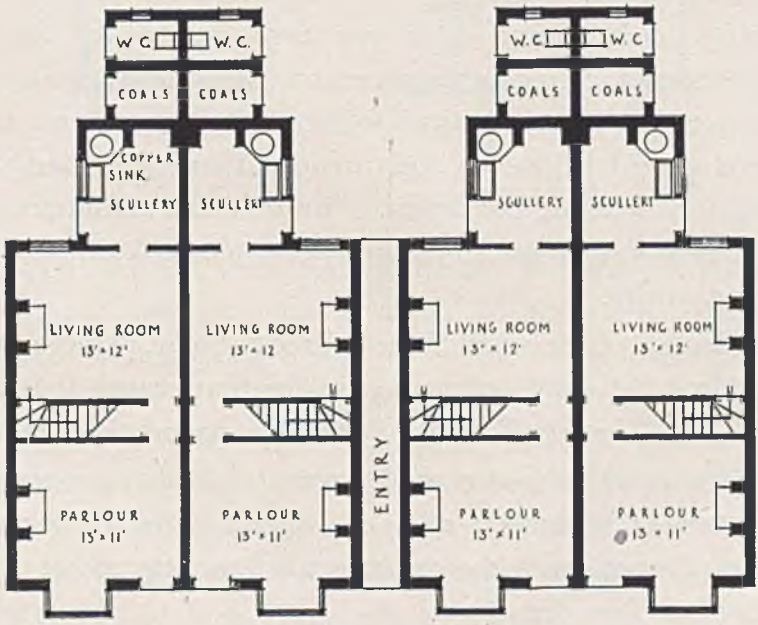
Miles of streets in the Middle Ring contain a monotonous repetition of this type of house. Each has approximately the same accommodation, and the same external appearance. The housing density is usually from 20 to 30 per acre, an improvement upon that adopted by the builders of back-to-back houses, but still too high to permit convenient planning and adequate daylight illumination.

The tunnel-back house became the basic plan for almost all town houses, with inclusive rentals (in 1914) varying from 6s. 6d. to about 12s. 6d. per week. It therefore catered for the artisan and the black-coated worker, while the unskilled labourer still remained in the lower rented back-to-backs, which were let at rents of 3s. to 6s. per week.

TUNNEL-BACK HOUSES



FIRST FLOOR PLAN



GROUND FLOOR PLAN

Later, many slight variations of the basic plan were adopted. The earlier houses of this type were built on the road frontages without front gardens, but subsequently, as a result of the regulation of building lines, small plots were provided. These so-called gardens were of little use for cultivation, but they provided space for the bay window, which was the *sine qua non* of respectability in the latter half of the nineteenth century. In those days the tunnel-back house with a bay window in front had a social status equivalent to that of the semi-detached villa to-day.

The smallest form of the tunnel-back house was reasonably compact because the stairs were arranged between the front and back living-rooms, thus avoiding waste space in halls and landings. Where the accommodation was increased by the provision of an entrance hall and separate kitchen and scullery, a long dark passage, lighted only by fanlights or borrowed lights, gave access to the various rooms. Gloom was the chief characteristic of this type of house, despite the fact that its window space and natural ventilation were controlled by model by-laws.

The "Universal" Plan

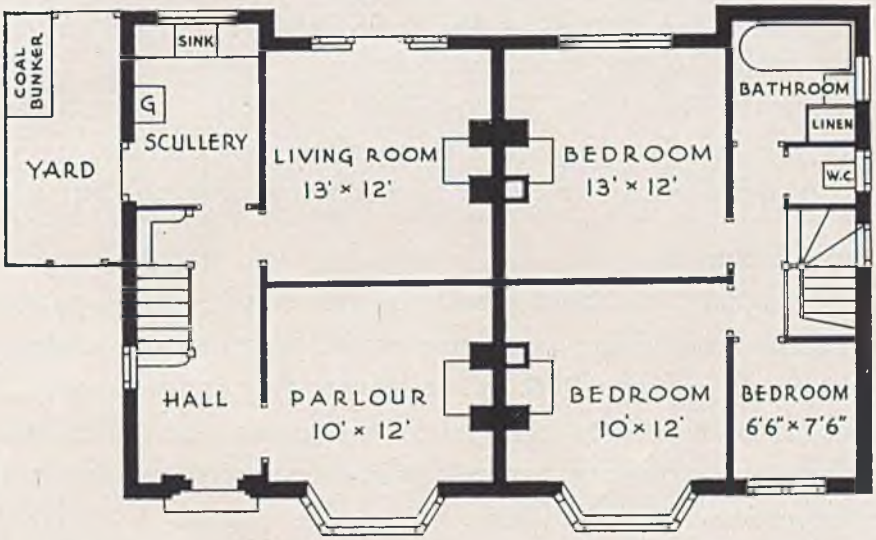
Just before the beginning of the twentieth century the Garden City movement attracted considerable attention, and the planning of small houses was considered as a worthwhile effort. Insistence upon the merits of open development led to the construction of large numbers of houses, built in pairs or blocks of four or six. The standard accommodation was two living-rooms, a small scullery, three bedrooms, a bathroom, lavatory, coal-store and larder.

The usual plan of the small three-bedroom house is more or less the same throughout the whole country, and for that reason it is known to architects as *The "Universal" Plan.* (See Plan on next page.)

In comparison with the two earlier types, this plan possesses decided advantages, but unfortunately it is used in its standard form without consideration of aspect, with the consequence that some rooms are sunless, and larders often face due south.

The compact planning of these newer houses, combined with the improvement in daylight illumination, and in ventilation, appealed particularly to those housewives whose husbands were earning rather more than the average worker's wage. It consequently superseded the "tunnel-back" as the house of the black-coated worker and artisan, who moved out to the new houses and still further away from their work in the Central Wards.

THE UNIVERSAL PLAN



GROUND FLOOR FIRST FLOOR

Speculative builders were quick to realise the possibilities of this type of dwelling, but they were not prepared to adopt the low density and comparatively wide frontages used by Garden City planners.

They soon built in the outer suburbs of Birmingham thousands of these "Universal" houses, dressed up in a variety of external treatments ranging from pseudo-Old English to the flat-roofed ultra-modern. These variants do not represent intrinsic merit, but are ostentatious additions that serve merely to justify higher rents, and also satisfy the desire of the individual to live in a superior-looking house.

These attempts to make up for lack of proper site planning and grouping by the introduction of ostentatious features have only made matters worse. Uniformity may be monotonous, but no officer would expect to improve the effect of a parade of soldiers by issuing a variety of headgear ranging from an Indian turban to a busby.

This disturbing restless vulgarity, which is common in suburban housing, has been carried out despite the powers for the control of elevations provided in the Town and Country Planning Act. But do not blame the builder alone—he is providing what his customers demand. They are willing to pay more for something "classy".

The "Back-to-Back", the "Tunnel-Back", and the "Universal Plan"—these are the standard types of Birmingham houses built by private builders. It remains to describe the dwellings erected by the Municipality.

Municipal Housing

In Birmingham, the houses built by the City Council, particularly on the more recent estates, are superior in planning and architectural treatment to the average work of the private speculative builder. More attention has been paid to the needs of the tenants, and orientation has been taken into account. Several typical examples are shown in the illustrated section, Nos. 10–13 and 40.

Such defects as they have lie not in the planning of the houses themselves, but in the more subtle details relating to the choice of building materials, layout, street design, and the provision of communal facilities. But in general the city's estates provide good, substantial homes for the tenants; their elevations are "well-bred" without the fripperies or pretentiousness that are so common in speculative building.

· V ·

THE POPULATION

In the Preceding Chapters the reader has been given, in broad outline, the main elements of Birmingham's housing problem. In the following pages the results of the survey made by the Bournville Village Trust in 1938 are set out before him. They build up into a picture of the results of the developments during the twenty-five year period which were described in Part I of this book.

The patient collection of such data is an essential part of the great task which lies before England after the war. For the difficulties which confront Birmingham are common to all great industrial centres and latent in smaller communities, any one of which, under the stimulus of some economic or industrial development, may enter on a period of very fast growth.

The whole lesson of the modern world is the explosion of the fallacy of isolationism. Rapid transport and communications, and the inter-dependence of communities for commodities and services, have finally destroyed the local character of life.

Size and Growth

A city's population may be likened to the cells in the blood-stream of the human body. Their numbers, their quality, and their behaviour are all important.

In dealing with the population increases in Birmingham, therefore, it is well to keep in mind its *movement trends* within the city, because these illuminate for us tendencies and processes that are highly significant.

In 1938, Birmingham had 1,048,000 inhabitants, according to the estimate of the Medical Officer of Health.

The population had grown since the start of the century thus:—

TABLE 2

GROWTH OF BIRMINGHAM

Year	City of Birmingham Population	Average Annual Increase	
		Number	Per cent.
1901 C.	759,063	—	—
1911 C.	840,202	8,114	1·07
1921 C.	919,444	7,924	·94
1931 C.	1,002,603	8,316	·90
1938 M.	1,048,000	6,486	·65

Total Percentage Increase in 37 years = 38%.

C. = Census. M. = Medical Officer of Health's Estimate.

This mere statement of figures means little until it is related to population increases of the region, and of the country as a whole. These figures are:—

TABLE 3

POPULATION CHANGES IN ENGLAND AND WALES

	Annual Average Increase (percentage)				Total increase in 37 years (percentage)
	1901-1911	1911-1921	1921-1931	1931-1938	1901-1938
Birmingham	1·07	·94	·90	·65	38·0
Sheffield	1·65	·68	nil	·22	26·5
Bristol	·54	·56	·53	·67	22·6
Newcastle-on-Tyne ...	·79	·32	·30	·41	17·8
Liverpool	·63	·65	·63	–·49 (dec.)	16·4
Manchester	1·15	·23	·42	–·65 (dec.)	13·6
Leeds	·52	·09	·43	·32	13·3
Midland Counties... ...	·97	·55	·69	·63	29·1
England and Wales ...	1·09	·49	·55	·45	26·8

London is excluded from the table, since the greater part of its extension has been outside the L.C.C. area.

These figures indicate that Birmingham has grown considerably more than any other large provincial city in the years 1901-1938.

Internal Movements

In considering a city's population it is not enough merely to tabulate increase or decline. It is also necessary to follow its internal movements, because the flow of the population within a city is as vital a factor in relation to well-being as changing numbers. In other words, overcrowding in one zone may result not only from an abnormal increase from outside the city, but from internal causes influencing mass population movements.

In the light of these considerations, look at the figures. We see at once that (*a*) the population has been increasing as a whole; (*b*) a steady decentralisation has also been in process. The population, both of the Central Wards and the Middle Ring, shows a *decline*, while that of the Outer Ring has almost doubled.

TABLE 4

POPULATION CHANGES WITHIN BIRMINGHAM

Zone	Population 1921 (Census)	Population 1938 (M.O.H.)	Increase or Decrease
Central Wards	242,437	187,900	— 54,537 (22·5%)
Middle Ring	380,248	288,600	— 91,648 (24·1%)
Outer Ring	299,482	571,500	+ 272,018 (90·8%)
ENTIRE CITY	922,167*	1,048,000	+ 125,833 (13·65%)

See Plate III, facing page 32.

* The discrepancy between this figure and that shown for the population of Birmingham in 1921 in the last Table but one is due to slight boundary changes in certain Wards. The major changes in the area of the city are taken into account in both Tables.

Here, already, we have two clearly defined population tendencies. The first, the centripetal attraction of the large city for the scattered population of its region; secondly, the tendency, at a certain point, or points, of a city's population to respond to the centrifugal process.

A survey of the distribution of the city's population, excluding those living in institutions and lodging-houses, showed us that in the Central Wards and Middle Ring 90 per cent. of the population is working-class, and that in the Outer Ring the proportion is 83 per cent.

The following table sets out the population distribution by zones and gives the proportion to total population.

TABLE 5

PERCENTAGE OF WORKING-CLASS POPULATION IN BIRMINGHAM

Zone	Estimated Total Population.	Estimated Working-class* Population.	Percentage of Total Working-class* Population in each Zone	Working-class* as Percentage of Total Population
Central Wards	187,900	169,640	18·8	90·3
Middle Ring	288,600	258,271	28·6	89·5
Outer Ring	571,500	473,392	52·6	82·8
ENTIRE CITY	1,048,000	901,303	100·0	86·0

* The term "working-class", for the lack of a better word, is here used in a statistical sense, i.e., it includes those living at that economic level—labourers, artisans, craftsmen, warehousemen and clerks, and unskilled labourers.

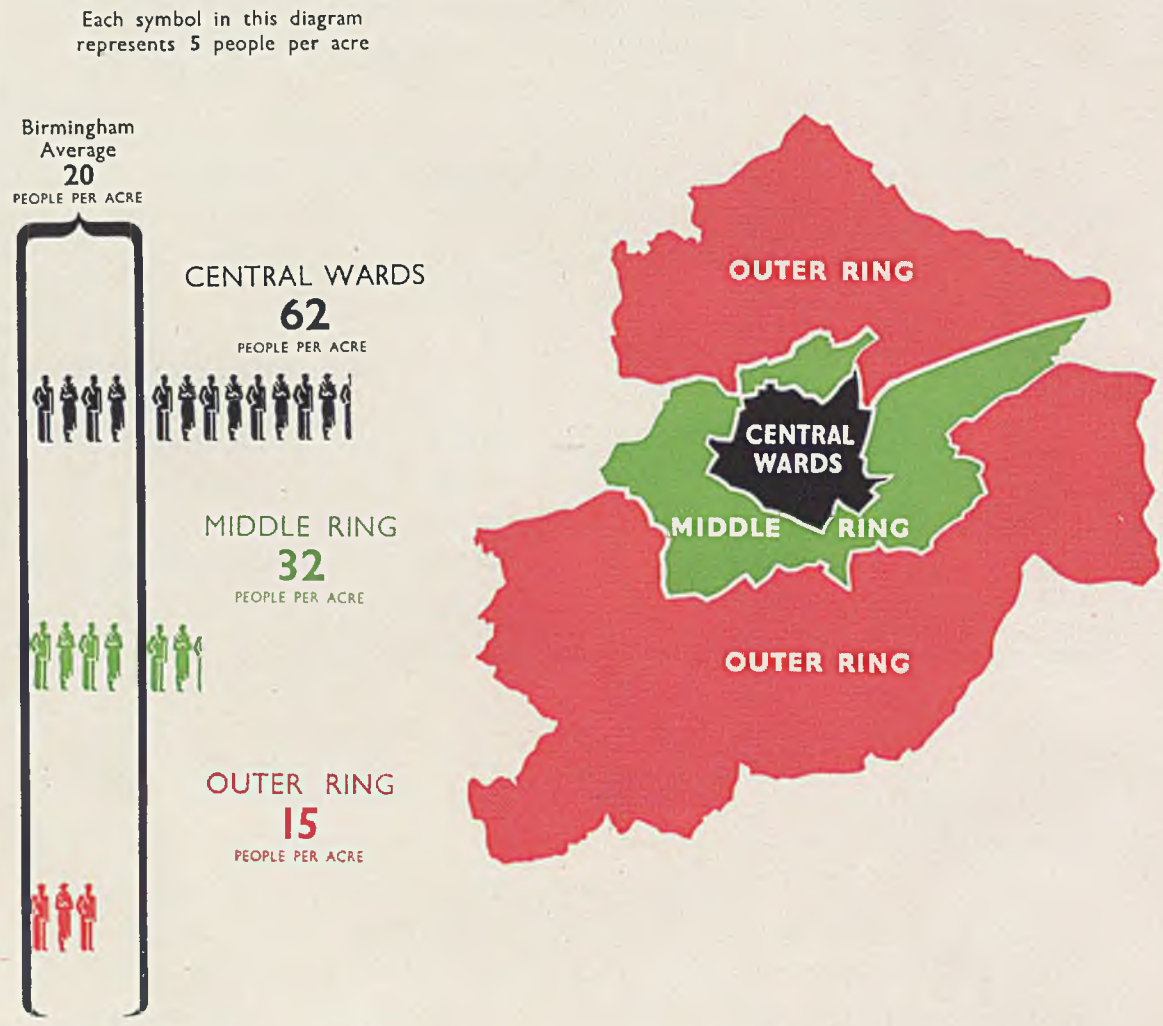
Population Density

It is a truism that statistics can be made to prove anything. And it is a fact that careful and correct presentation of them is as important as their careful compilation—and more difficult.

In considering the density of Birmingham's population there is a real danger of reasoning falsely from the facts. For example, we must take into account land occupied by industrial and other non-residential buildings, land accounted for by streets, railways, and open spaces of all kinds.

There is another possible source of error, namely, the artificial character of many city boundaries which may lie far beyond the city itself.

DENSITY OF POPULATION IN BIRMINGHAM



The figures in this chart give the **gross** density of population. The **net** density can only be arrived at by subtracting the land used for commercial and purposes other than housing, such as roads, open spaces, churches, etc. The Central Wards are still at least four times as densely populated as the Outer Ring. It is estimated that the net density of the Central Wards is over 120 per acre, and on individual sites it often reaches over 200 per acre.

Birmingham, however, is built up almost to the boundary at all four points of the compass. Let us see, then, how it compares with other large towns in its own size category.

The table given below shows that it occupies a favourable position.

TABLE 6

DENSITY OF POPULATION IN LARGE CITIES

	Population Mid-1938	Area in Acres	Density in Persons per Acre
London (L.C.C. area)	4,062,800	74,850	54
Liverpool	827,400	30,204	27
Manchester	732,900	27,255	27
Newcastle-on-Tyne	291,300	11,401	26
Birmingham	1,048,000	51,147	20
Bristol	415,500	24,406	17
Sheffield	520,000	39,596	13
Leeds	494,000	38,296	13

The entire city has an average density of twenty persons to the acre. The distribution of this population is illuminating, for it reveals, or strongly suggests, the existence in the city of dangerous population "clots".

For example, the Central Wards are twice as densely populated as the Middle Ring, which, in turn, has a density twice as great as that of the Outer Ring. This is brought out by the following table:—

TABLE 7

DENSITY OF POPULATION OF BIRMINGHAM, 1938

BASED ON FIGURES GIVEN BY THE MEDICAL OFFICER OF HEALTH AND THE CITY ENGINEER AND SURVEYOR

Zone	Population	Area in Acres	Density in Persons per Acre
Central Wards	187,900	3,023	62
Middle Ring	288,600	8,944	32
Outer Ring	571,500	39,180	15
ENTIRE CITY	1,048,000	51,147	20

Let us see to what extent these figures must be read in the light of the masked factor, namely, the inclusion of land otherwise occupied.

The ostensible average density of the population of the Central Wards is 62 persons per acre. If the area of land occupied by the larger groups of factories, shops, offices, and the few large open spaces, is deducted from the calculation, the density works out at about 120, an increase of nearly 100 per cent.

The same circumstances qualify the density figures of the Middle Ring.

In the Outer Ring the proportion of non-residential buildings is much lower, but the proportion of open space is larger, consequently, the density of houses on the ground in the fully built-up portions of this zone is also considerably higher than the over-all figure suggests.

For instance, in parts of the Outer Ring whole districts are of pre-war construction. The Bournbrook district of Selly Oak, with its dreary terraces of tunnel-back houses, developed at about 20 houses to the acre, is a typical example.

The three wards in which the density of population is greatest are St. Martin's & Deritend and Ladywood, both in the Central Area, and Lozells in the Middle Ring. The following table gives a comparison with a number of other large towns:—

TABLE 8

DENSELY POPULATED WARDS IN VARIOUS CITIES

Ward	Persons per Acre
St. George's-in-the-East (Stepney)	238
Netherfield (Liverpool)	227
Westgate (Newcastle)	150
Medlock (Manchester)	133
St. Paul's (Bristol)	97
St. Martin's & Deritend (Birmingham)	96
Richmond Hill (Leeds)	93
Moor (Sheffield)	89

These particular figures relate to census year 1931, and some change for the better has since occurred in most cities as a result of slum-clearance operations.

The Family

The total population of a city does not give the index of its housing requirements; only knowledge of the population in terms of family units can do that. Table 9 shows the proportion of working-class families (as previously defined) of various sizes in Birmingham in 1938, as recorded by the Bournville Village Trust Survey.

TABLE 9

SIZE DISTRIBUTION OF WORKING-CLASS FAMILIES IN BIRMINGHAM IN 1938

Zone	% of families consisting of the following numbers of persons:											
	1	2	3	4	5	6	7	8	9	10	11	12 and over
Central Wards ...	7·5*	23·7	23·9	18·4	11·9	6·9	3·5	1·9	1·2	·7	·1	·3
Middle Ring ...	5·2	24·8	28·0	20·5	10·8	6·1	2·6	1·0	·6	·4	—	—
Outer Ring ...	3·1	21·8	28·4	22·8	12·4	6·5	2·6	1·3	·5	·3	·2	·1
ENTIRE CITY .	4·6	23·0	27·4	21·3	11·9	6·5	2·7	1·3	·7	·4	·1	·1
Census Figures (1931), all families	4·5	20·4	24·4	20·7	13·4	7·7	4·4	2·2	1·2	·6	·2	·2

* The very high proportion of one-person working-class families in the Central Wards is due to the fact that many of the families of more normal size have migrated to the outskirts in recent years, leaving behind considerable numbers of unattached people. These are mainly elderly, single or widowed, who have no option but to live alone in the house from which their families have moved. For most of them the ideal solution would be properly designed old people's dwellings.

This table is instructive in view of the policy, widely followed during the past two decades, of concentrating on the three-bedroom type when building new houses for workers.

More than three-quarters (76·3 per cent.) of the families visited consisted of four persons or less; well over half (55 per cent.) consisted of three or less. Clearly, a properly balanced housing programme would include a considerable proportion of two-bedroom dwellings which would suffice for three-person families.

The size of the average family does not remain constant from year to year. It fluctuates as members are born, die or go away. A family may move because a house has become too large, or because it has become too small. The obvious course, it is suggested, is to build houses of various sizes, approximately in the proportions suggested by the size-distribution of families, whilst providing facilities for removal from one to another as family circumstances dictate.

A somewhat larger reserve of empty houses than now exists would be essential, but the total amount of unoccupied (and usually unwanted) accommodation would be considerably less.

Our Survey suggests that the policy of concentrating on the three-bedroom house was a bad one, for it was based on a count of heads and ignored the age factor. It is not the number in a family which determines the number of rooms required, but the extent to which individuals require privacy.

A family, for example, in which young children predominate requires fewer rooms as compared with a family of the same number of adults. The 1935 Housing Act laid down a standard of overcrowding under which children under twelve months old are not counted at all, and those under ten years of age are counted as half. On this basis the size-distribution of families works out as follows:—

TABLE 10

SIZE AND DISTRIBUTION OF FAMILIES

Number of "persons" in family (As defined in 1935 Housing Act)	B.V.T. Survey 1938, % of total families	M.O.H.'s Overcrowding Survey, 1935-6, % of total families
2 and under	29·5	28·0
2½ and 3	31·5	30·5
3½ and 4	20·0	19·8
4½ and 5	10·0	11·2
5½ and 6	5·2	5·7
Over 6	3·8	4·8

The small discrepancy between the Bournville Village Trust and the Overcrowding figures is accounted for by the different dates of the two surveys. Taking the later Bournville Village Trust figures as being the fairer for to-day, we see that no less than 81·1 per cent. of all the families contain four "persons" or less and only 3·8 per cent. over six "persons".

The standard to obviate overcrowding laid down in the Act requires a minimum provision of one room for every two "persons", as defined above. Since in practice very few people are prepared to sleep in a living-room, it would be more apposite to insist as a minimum on one bedroom for every two "persons", one room being regarded as a living-room, irrespective of the size of the family.

Thus, a four-person family would require a three-roomed (i.e. two-bedroomed) house, a six-person family, a four-roomed (i.e. three-bedroomed) house, and so on.

On this basis, Table 11 shows that less than one-fifth of the houses need contain more than two bedrooms, against more than four-fifths which actually do so (see Table 14). In practice, the figure of one-fifth would have to be slightly increased to allow for the separation of the sexes.

The Changing Size of the Family

Another aspect of the relationship between the number of families

and the size of the population, on which there has been frequent comment, is the rate at which the average size of the family is diminishing. The following table shows how rapidly matters have changed in the past few decades:—

TABLE II

PERCENTAGE OF TOTAL FAMILIES OF VARIOUS SIZES

	3 or less	4 or less	More than 6
	%	%	%
1911 Census (England & Wales) ...	40·8	58·9	16·3
1921 Census (England & Wales) ...	44·5	63·1	13·6
1931 Census (England & Wales) ...	52·7	72·1	8·2
1931 Census (Birmingham)	49·3	70·0	8·9
1938 Survey (Birmingham)	55·0	76·3	5·3

The bearing of this movement on the housing question is that it offsets the decline in the rate at which the whole population is increasing. Even when the anticipated fall in population begins to show itself in a few years' time, it may be expected that the number of families will continue to increase for a further period.

This means that for several decades, at least, the total number of houses required will not be less than it is to-day, although most of them will not need to be so large as those which have recently been built.

· VI ·

THE HOUSES

BIRMINGHAM'S MILLION CITIZENS live in rather more than a quarter of a million houses—of which some four-sevenths are in the Outer Ring, nearly two-sevenths in the Middle Ring, and a little over one-seventh in the Central Wards.

TABLE 12

NUMBER OF HOUSES

Zone	Number of Houses (October 1st, 1938)
Central Wards	46,851
Middle Ring	79,308
Outer Ring	162,677
ENTIRE CITY	288,836

The great majority of these houses, 268,608 to be precise, are ordinary dwelling houses. Of the remainder, 17,985 are combined shop and dwelling houses, and 2,243 consist of licensed and unlicensed hotels, and farmhouses. Hospitals, workhouses, prisons and other institutions are not included in the total.

AGE OF HOUSES

Of the 268,608 dwelling houses, as many as 104,881, or about 36 per cent., have been built since 1920, practically all the remainder being of pre-1914 construction. In the category of houses occupied by those earning £250 or under, our research shows a rather smaller proportion of modern houses, the figures being 33·7 per cent. built during the years 1921-38, less than one per cent. between 1915 and 1920, and 66·3 per cent.

in 1914 or earlier. This is natural because the older and less convenient middle-class houses tend to sink gradually to a lower status.

A fuller analysis of the age and zone distribution of these houses is given in the following table:—

TABLE 13

PERCENTAGE OF HOUSES ERECTED AT VARIOUS DATES

Zone	Percentage Erected			
	1914 and before	1915-20	1921-30	1931-8
	%	%	%	%
Central Wards	98·9	—	0·5	0·6
Middle Ring	92·2	—	5·6	2·2
Outer Ring	40·5	0·1	31·1	28·3
ENTIRE CITY	66·3	0·1	18·1	15·6

These figures show that, broadly speaking, the houses in the Central Wards are of pre-1914 construction. Most of them are well over fifty years old, and, whether their present condition justifies demolition or not, they are structurally so far below modern standards that they will have to be replaced fairly soon, say within the next twenty years.

In the Middle Ring, more than nine-tenths of the houses are also pre-1914, though, on the whole, not so old as in the centre. The very small number built since 1930 shows how completely this zone is now built up. By way of contrast with the other two zones, only 40 per cent. of the Outer Ring houses are more than twenty-four years old.

Size of Houses

A classification of houses by the number of rooms is shown in the following table. The figures, which, as always, here relate solely to working-class houses, are in percentage form.

TABLE 14

SIZE OF HOUSES

Zone	Rooms per House: 1 and 2	3	4	5	6 and over
	%	%	%	%	%
Central Wards	1·7	49·6	18·9	20·3	9·5
Middle Ring	·9	15·1	22·1	39·8	22·1
Outer Ring	·6	4·0	26·9	49·6	18·9
ENTIRE CITY	·9	15·7	24·0	41·2	18·1

The five-roomed house is the commonest type, and accounts for 41·2 per cent. of the total. Next comes the four-roomed house, 24 per cent., then the house with six rooms or more, then the three-roomed house, and, finally, the house with only one or two rooms, of which there are now fewer than one per cent. in the whole city.

In the Central Wards the three-roomed house predominates. In this zone the numbers of four-roomed and five-roomed houses are roughly equal, each being about a fifth of the total, whilst there are few large houses and, as in the other zones, few with only one or two rooms.

Condition of Houses

So much for age and size. What of condition?

More than one unofficial survey has been made to ascertain the proportion of houses suffering from such defects as dampness, bad structural condition, infestation by vermin, and so on. Probably the most useful figures are those already quoted from the Medical Officer of Health's Overcrowding Survey of 1935 (Table 1, page 31), showing the number of houses without through ventilation (i.e. back-to-back houses), separate water-closets, or inside water supply respectively.

This information may be supplemented by the Medical Officer's 1938 estimate that 17,500 houses were unfit for human habitation and ought

to be demolished within the next five years. Many unofficial observers would regard this figure as too low. On a broader definition of the term "unfit for human habitation", there can be no difficulty in justifying some such number as 50,000 to 70,000 dwellings as being ripe for demolition as soon as the necessary houses can be built to replace them.

Types of Occupier

The percentage of houses respectively rented and owner-occupied in 1938 in the three zones was as follows:—

TABLE 15

OCCUPANCY OF HOUSES

WORKING-CLASS HOUSES ONLY

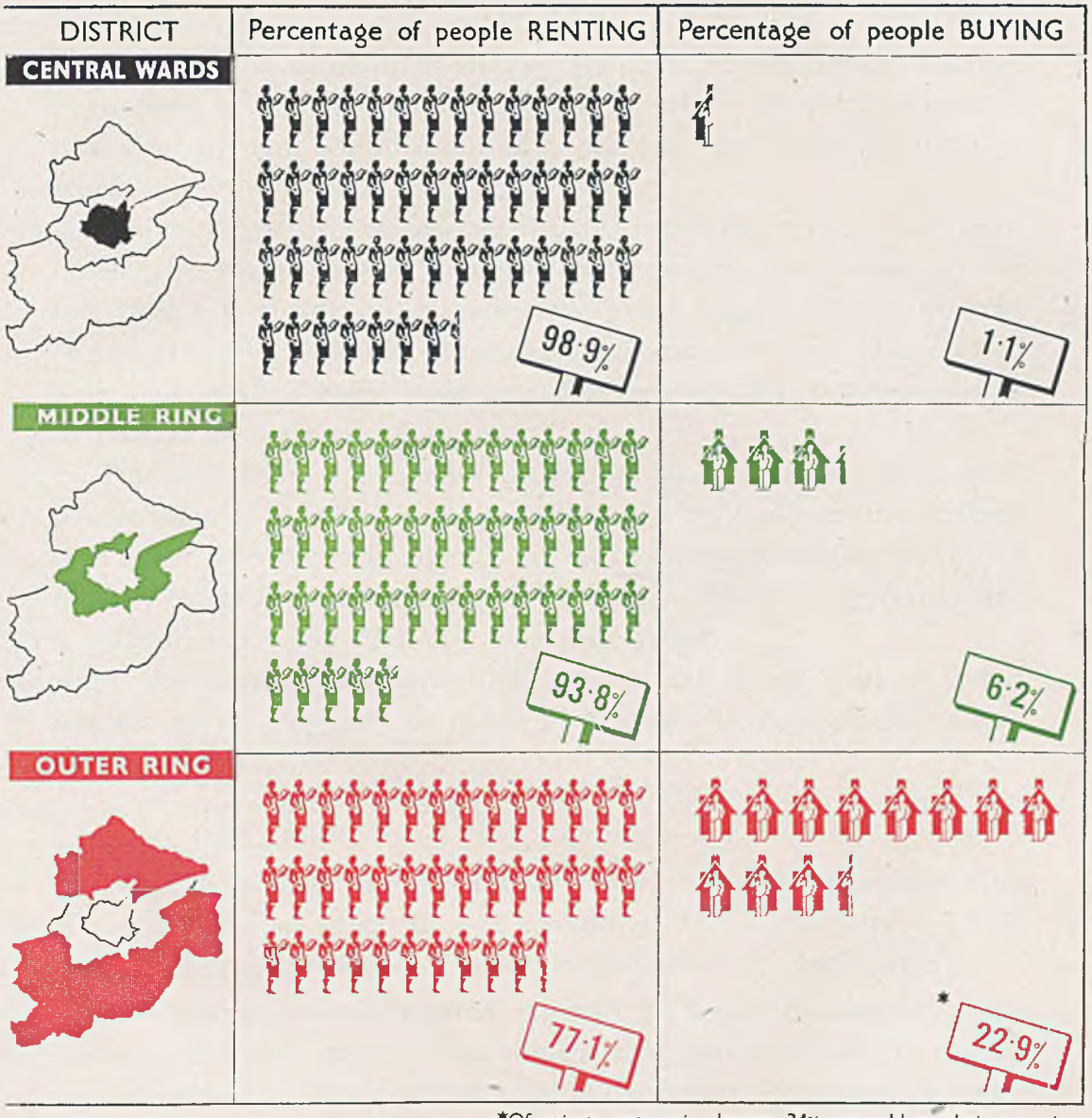
Zone	Rented	Owner-occupied
	%	%
Central Wards	98·9	1·1
Middle Ring	93·8	6·2
Outer Ring	77·1	22·9
ENTIRE CITY	86·0	14·0

This table and the diagram show that owner-occupiers are very few, except in the Outer Ring. Even here, in spite of the tremendous boom in cheap houses built by private enterprise in the middle 'thirties, less than a quarter of the houses are owner-occupied. If we exclude the 50,000 municipal houses in the Outer Ring, nearly all of which are rented, we still find that no more than a third of the houses are owned by their occupiers.

From the economic point of view, owner-occupiers buying on mortgage under a system of weekly payments should really be classed with tenants who pay rent, rather than with occupiers who own their houses outright. It is thus important to know that 65 per cent. of the owner-occupied

HOW MANY RENT AND HOW MANY BUY THEIR HOUSES?

Each symbol represents 2% of the population of the district



*Of private enterprise houses 34% are sold to their occupiers

The surprising predominance of those renting houses is shown clearly here. This corrects the general impression that the majority of people who live in the outer suburbs have bought or are buying their houses.

In the Middle Ring and Central Wards renting is the general rule.

houses are held on mortgage. In the case of 43 per cent., the weekly payments, including interest, rates and repayment of capital, are less than fifteen shillings, whilst in that of the remaining 22 per cent. they exceed this sum.

These figures mean that over 95 per cent. of the houses occupied by workers in the city are either rented or subject to weekly payments analogous to rent, whilst less than 5 per cent. are owned in the true sense.

Houses which are owned are usually leasehold, only 18 per cent. of all the owner-occupied houses (themselves 14 per cent. of the total) being freehold. So, assuming the great majority of the freehold owner-occupied houses are unmortgaged, then no more than 2 per cent. to 3 per cent. of all workers' houses are held by their owners unencumbered by charges of any sort.

This analysis of the quality of tenancy and ownership is a social phenomenon of interest. It suggests that, as a general rule, the working man either lacks the inclination or the means to buy his house, or, it may be, he hesitates before the terms of the lender. This is a very important consideration for any future housing programme.

It also provides a striking indication of the strong hold of vested interests in the provision of inexpensive houses in contradistinction to municipal enterprise.

Types of Dwellings

Table 16 indicates the proportion of working-class dwellings in each of the three zones which do not conform to the standard type, i.e. a complete house, the whole of which is occupied by a single family.

The figures shown in column (2) refer to houses in which a single tenant is the main occupier, but sublets some part *unfurnished* to one or more sub-tenants. They do not include the much more numerous class of houses in which *furnished* rooms are let to lodgers, whether occasionally or on a more or less permanent basis.

TABLE 16

TYPES OF DWELLINGS

Zone	Standard Type (complete house occupied by single family)	Complete House with one or more rooms sublet	House Flat not self-contained	House Flat self-contained	Block Flat
	(1)	(2)	(3)	(4)	(5)
	%	%	%	%	%
Central Wards	94·0	2·0	2·0	1·1	·8
Middle Ring	92·8	3·2	3·3	·7	—
Outer Ring	95·8	1·3	1·8	1·0	·1
ENTIRE CITY	94·6	2·0	2·2	·9	·2

Columns (3) and (4) both relate to houses in which there is no single tenant for the whole dwelling, all the rooms being let, either singly or in groups, to separate occupiers. In this case each occupier is credited with a separate dwelling described as "self-contained" if it has separate cooking, washing and lavatory accommodation, and as "not self-contained" where these facilities are shared. Thus defined, the self-contained house-flat may or may not have its own separate front door.

Column (5) relates to blocks of flats, properly so called, e.g. those erected by the Corporation in Garrison Lane and Emily Street.

It is clear that the practice of subletting *unfurnished* rooms is not common among tenants in Birmingham. Even rarer is the self-contained "house-flat" which is so common a feature of the older London suburbs.

The block-flat for workers is virtually unknown, almost the only examples of this type of building so far erected being the two or three experimental blocks built at different times by the Corporation.

Further light on the attitude of Birmingham people to flat life is shed by the results of our questionnaire on householders' preferences, which will be discussed in a later chapter.

Rents

The rents which tenants can afford to pay constitute the prime factor in the economics of house-planning. It would not be prudent to calculate from existing rentals the amounts which people would pay for new and probably much better houses. A man will gladly pay more for what is better if he can afford it.

Nevertheless, a knowledge of the range of present rents, by districts, can alone provide a background against which the problem may be profitably discussed. This emerges from the tables reproduced below.

The first table (17) shows the gross rental, inclusive of rates, of municipal houses of various types. In the year 1938 approximately 87 per cent. of these were situated in the Outer Ring, 12 per cent. in the Middle Ring, and a little over one per cent. in the Central Wards.

The other two tables relate to houses built by private enterprise. They show, first, the median rent of houses of different sizes in the three zones, and, secondly, the percentage distribution in each zone of houses with different rentals.

TABLE 17 GROSS RENTAL OF MUNICIPAL HOUSES*
INCLUDING GENERAL AND WATER RATES

No. of Rooms	Type	Weekly Rent
3	Small non-parlour (two-bedroom)	7s. 3d. to 11s. 2d.
4	,, ,, (three-bedroom)	8s. 2d. to 12s. 9d.
4	Non-parlour (three-bedroom)	8s. 11d. to 14s. 6d.
5	Parlour (three-bedroom)	12s. to 18s. 6d.
6	,, (four-bedroom)	15s. 8d. to 20s.
2	Maisonettes (one-bedroom)	5s. 6d. to 6s. 8d.
3	,, (two-bedroom)	6s. 2d. to 13s.
4	,, (three-bedroom)	8s. 1d. to 14s.
3	Flats (two-bedroom)	9s. 2d. to 12s. 6d.
4	,, (three-bedroom)	10s. 8d. to 15s.

* A rent rebate scheme is in operation.

TABLE 18

MEDIAN GROSS RENTS OF NON-MUNICIPAL WORKING-CLASS HOUSES

Number of Rooms	Central Wards	Middle Ring	Outer Ring	Percentage extra rent in Outer Ring compared with Central Wards
1	Number of houses too small to estimate median rental.			
2				
3	7s. 4d.	7s. 8d.	8s. 7d.	+ 17%
4	8s. 7d.	9s. 2d.	11s. 6d.	+ 34%
5	10s. 0d.	10s. 2d.	13s. 8d.	+ 37%
6	11s. 10d.	11s. 0d.	15s. 0d.	+ 27%
7	15s. 0d.	17s. 4d.	19s. 0d.	+ 27%
8 and over	Number of houses too small to estimate median rental.			

TABLE 19

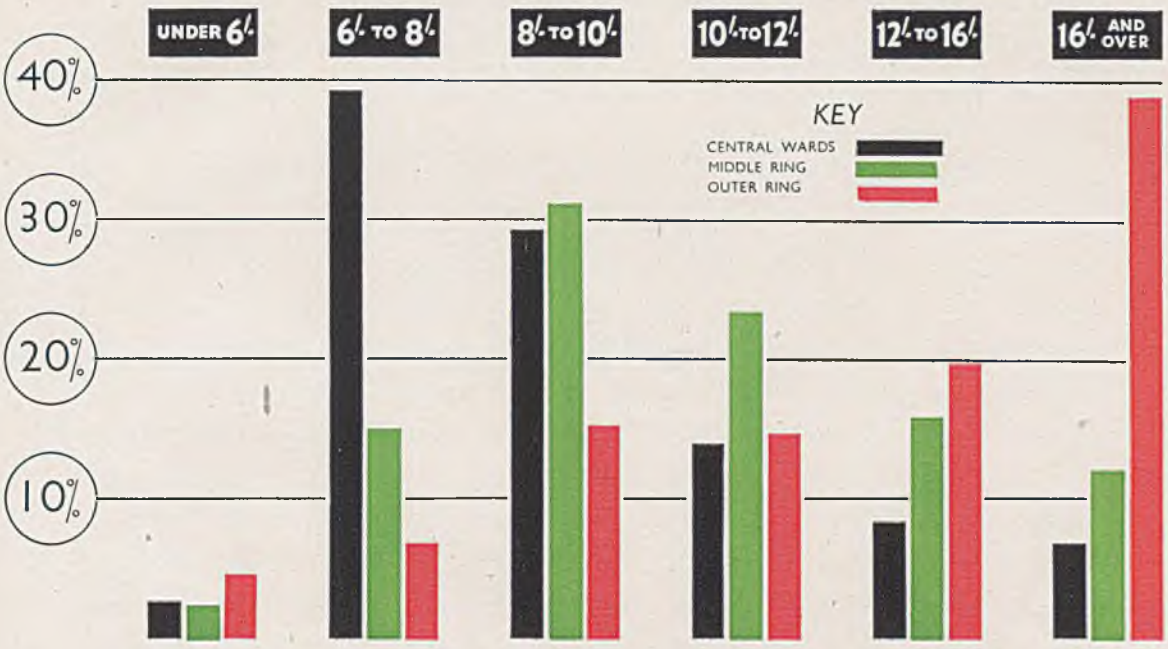
PERCENTAGE DISTRIBUTION OF NON-MUNICIPAL HOUSES AT DIFFERENT GROSS RENTALS

IN THE CASE OF OWNER-OCCUPIED HOUSES "RENTALS" INCLUDE MORTGAGE REPAYMENTS AND GROUND RENT

Gross Rental	Central Wards	Middle Ring	Outer Ring	Entire City
	%	%	%	%
Under 6s.	2·6	2·5	4·5	3·4
6s. to 7s. 11½d. ...	39·2	15·0	6·9	17·2
8s. to 9s. 11½d. ...	29·3	31·2	15·3	23·8
10s. to 11s. 11½d. ...	13·8	23·3	14·6	17·3
12s. to 15s. 11½d. ...	8·3	15·9	19·8	15·8
16s. and over ...	6·8	12·1	38·9	22·5

See Plate VI, opposite.

THE RENTS MOST COMMONLY PAID FOR PRIVATELY OWNED HOUSES IN THE DIFFERENT DISTRICTS



The black columns show the large percentage of houses let at very low rentals in the Central Wards; the green columns apply to the Middle Ring and the red to the Outer Ring. Note, that whereas nearly 40 per cent. of the houses in the Central Wards let at 6s. to 8s., nearly 40 per cent. of those in the Outer Ring let at 16s. and over. Thus the cheapest rents are still predominantly in the Central Wards, and so the poorer families tend to remain in the Centre.

The first two tables show that for average-sized houses the median (or middle) rental of those built by private enterprise competes with that of similar municipal houses. This is true even in the Outer Ring, where a large proportion of the houses are modern, though there are many, including most of the modern ones, whose rents are well over the median figure, offsetting the rent-controlled pre-1914 houses whose rents are below it.

Thus, a two-bedroom Corporation maisonette-dwelling varies from 6s. 2d. to 13s.; whilst a three-roomed non-Corporation house (presumably with two bedrooms) has a median rent varying from 7s. 4d. in the Central Wards to 8s. 7d. in the Outer Ring. A four-bedroom parlour-type Corporation* house has a rent of from 15s. 8d. to 20s., which compares with a range for the median rentals of six-roomed non-Corporation houses of from 11s. 10d. in the Central Wards to 15s. in the Outer Ring.

For the purpose of future planning, the third table is most significant. It shows that in the entire city more than 20 per cent. of the workers are at present paying under eight shillings in rent and some 44 per cent. under ten shillings. In the Central Wards, which contain the majority of the houses which would be demolished as a result of slum-clearance, the proportions are 41 per cent. and 71 per cent. respectively.

Since the average rent of a three-bedroomed non-parlour municipal house is about ten shillings, these figures go far to explain the difficulties which have hitherto prevented the adoption of large-scale schemes of slum-clearance. For while it is true that the tenant of a municipal house receives many amenities to set against the higher rent, the real trouble is the general increase in the cost of living in the Outer Ring—as shown by the comparative figures in Table 18 on page 58. Again, the most popular type of new house is that with four or five rooms; and it costs a third more than similar accommodation in the Central Wards. In other words, the higher cost falls mainly on the most-sought-after type of house. Against this increase in rent must be set the better standard of

* Corporation rents are subject to a rebate for necessitous cases.

housing in the Outer Ring. The tenant does get more for his money, but is not always willing, or perhaps is unable, to pay for it.

Overcrowding

In some ways more important as an index of human well-being than the density of houses per acre is the number of persons per house, or rather, per room. We were unable to get information on this point for the year 1938, but the Overcrowding Survey carried out in England and Wales in 1935 is enlightening.

The standard adopted to define overcrowding laid it down that (1) the house must be large enough to allow persons of opposite sex over ten years of age, and not living together as husband and wife, to sleep in different rooms, and (2) that for any given number of rooms the total number of persons should not exceed the "permitted" number (roughly two per room, counting children between one and ten years of age as half, and ignoring children under one year old). On this basis, the position of Birmingham, compared with the country as a whole, and with other large towns with a population exceeding 250,000, is shown in Table 20.

This table shows that in Birmingham as a whole the position is neither exceptionally good nor exceptionally bad. As must be expected, most of the overcrowding is concentrated in the Central Wards. An earlier table has shown that the practice of subletting is a rare one in Birmingham, and that, as a general rule, each house is occupied by one family and one only. This means that overcrowding is unlikely to occur on a serious scale, provided: first, that the average house is large enough to accommodate the average family; secondly, that the total number of houses is at least equal to the total number of families; and thirdly, that a certain small proportion of larger houses are provided for families of exceptional size.

We have already seen that the present-day family seldom exceeds six individuals and is usually much smaller. We have also pointed out that the type of three-bedroom house which is now usually built is amply large enough for the great majority of families.

TABLE 20

PERCENTAGE OF WORKING-CLASS FAMILIES "OVERCROWDED" IN LARGE TOWNS (1935)

FROM REPORT ON OVERCROWDING SURVEY, 1936

Town	Population	Percentage Overcrowded
Newcastle-on-Tyne	287,050	10·7
Liverpool	856,850	7·4
London (Met. Boroughs)	4,229,800	7·0
Stoke-on-Trent	274,750	5·7
Birmingham	**1,012,800**	**3·7**
Sheffield	518,525	3·7
Leeds	486,250	3·3
Hull	319,690	3·0
Bradford	293,650	2·4
Bristol	410,500	2·1
Manchester	754,608	2·1
England and Wales	—	3·8

On the other hand, there is a considerable fraction of the population —say, roughly 20 per cent.—for whom the two-bedroom slum house, which is typical in the Central Wards, is too small. Any rehousing programme ought to take account of both these facts. Future municipal estates should be designed to include a greater variety of houses, including a proportion with two instead of three bedrooms. It would then be possible to move families which are now occupying houses larger than they require into smaller ones, thus saving them rent, and at the same time setting free three-bedroom houses for those who need them. Action on these lines, if the total number of new houses is large enough to provide each family with a separate house, should make possible complete elimination of overcrowding in the most economical manner.

· VII ·

THE JOURNEY TO WORK

JUST AS GOOD CIRCULATION IS ESSENTIAL to the health of a human being, so is an efficient transport system the *sine qua non* of municipal well-being. It is the functional test. Wage-earners must be able to get to and from their daily work in a reasonable time and at a reasonable cost.

It is well known that the expense and time swallowed up by London transport form two of the chief drawbacks to the life of the Londoner. This is particularly true of those who have moved out to Dagenham and similar housing estates in the outer suburbs, but still work in factories and offices in the city.

The inevitable moment arrives when a city's traffic reaches its highway and railway peak capacity. Beyond this point it can go, but it becomes increasingly congested, sluggish, and so inefficient.

A great modern city can no more function properly with congested transport than a man can live in full health with high blood-pressure.

The existence of a somewhat similar difficulty has for some time been in evidence in the provinces, but little has so far been known of its exact dimensions. We know that people in the central area of Birmingham are often reluctant to move to the municipal estates on the outskirts, and that on the municipal estates themselves the cost of the daily journey to work amounts to a considerable tax on wages. The grievance is one which is keenly felt, as those who have to contest local elections know to their cost. But there has hitherto been no detailed statistical information on the subject, and the organisers of this Survey decided to make it one of the principal objects of their study.

GOING TO WORK

The distance which the average citizen has to travel to work depends primarily on the general layout of the city into residential and industrial

areas. In a place as large as Birmingham, it is clear that if most of the industries are concentrated in a small area, while the dwelling houses are scattered over the whole town, only a small proportion of the inhabitants can escape a long daily journey.

On the other hand, if factories and houses are fairly evenly distributed, everyone has a chance, in theory, of living reasonably near his work. Whether he actually does so will then depend on the relative ease with which houses can be obtained in various districts, the extent to which particular districts are popular, and the frequency with which the average wage-earner changes his employment.

In common with most other large industrial cities, Birmingham has a high concentration both of industry and population in the central area, whilst the inner and outer suburbs are both less industrialised and less densely populated.

A distribution of this type does not necessarily involve long journeys. It will only do so if the extent of the central concentration of industry differs considerably from that of the corresponding concentration of population.

A Sevenfold Analysis

In order to find out the exact position, the city was divided into seven districts of approximately equal size, and figures were obtained to show the proportion of the population living and working respectively in each. These districts are shown on the maps on Plate VII.* The first, numbered 1, comprises the seven Central Wards, and the remainder, numbered 2 to 7, include between them the Middle and Outer Rings.

The percentage of principal wage-earners (who are usually heads of households) working in the various districts is shown clearly in the following table, which also gives the corresponding percentages living in each district.

A study of this table makes it clear that the distribution of workplaces and dwelling houses, in relation to one another, is very uneven. The

* Between pages 64 and 65.

TABLE 21

PERCENTAGE OF EMPLOYED PRINCIPAL WAGE-EARNERS WORKING AND LIVING IN VARIOUS PARTS OF THE CITY.

District (as shown on the Maps on Plate VII)	Working in district	Living in district
	%	%
1. Central Wards	35·8	18·1
2. Perry Barr, Sandwell, Soho, Lozells, Handsworth...	5·3	15·2
3. Erdington, Gravelly Hill, Aston, Bromford ...	11·1	11·9
4. Washwood Heath, Stechford, Saltley, Small Heath, Yardley	10·1	15·9
5. Sparkbrook, Balsall Heath, Sparkhill, Acocks Green, Moseley and King's Heath, Hall Green... ...	9·2	19·8
6. Selly Oak, Northfield, King's Norton	8·1	10·2
7. All Saints, Rotton Park, Harborne, Edgbaston ...	5·1	8·9
Persons with no place of work	10·8	—
Persons working outside city	4·5	—
	100·0	100·0

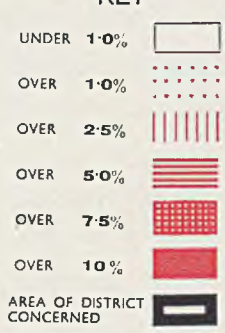
only district where there is a really close balance is the one numbered 3, which lies in the north-east corner of the city and comprises Erdington, Gravelly Hill, Aston and Bromford Wards.

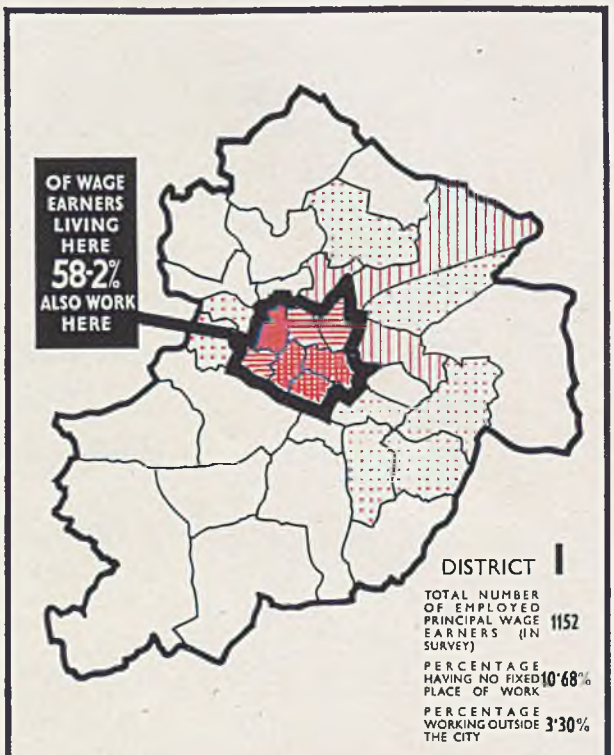
At the opposite end of the city, District 6 (comprising Selly Oak, Northfield and King's Norton), the position is reasonably satisfactory, but everywhere else there is a very considerable divergence between the number of workers living in the district and the number for whom employment in the same neighbourhood is available.

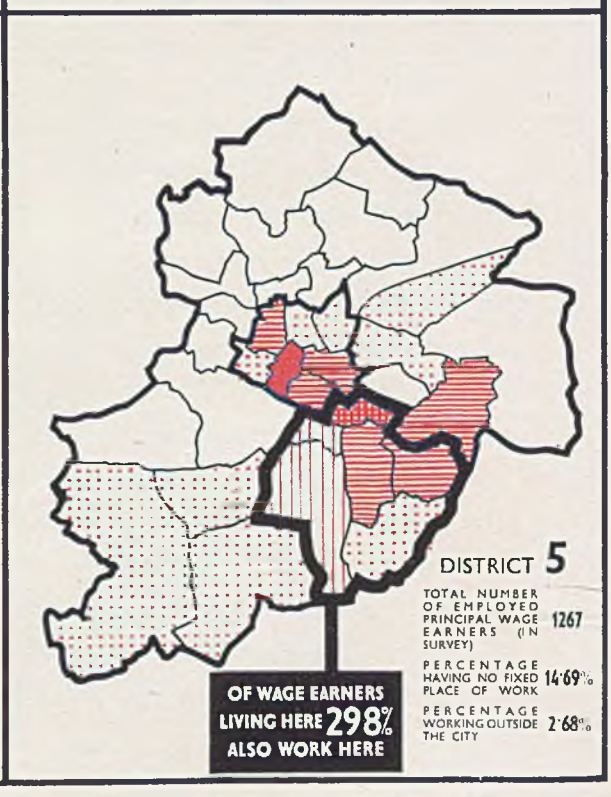
In District 4, which covers the eastern side of the city and includes the huge Stechford Ward, where the municipal estates in course of construction at the time the present war began will ultimately be even larger than Kingstanding, there was in 1938 only work for two out of

PERCENTAGE OF PRINCIPAL WAGE-EARNERS LIVING IN A GIVEN DISTRICT, WHO WORK IN VARIOUS WARDS

These seven charts show where the principal wage-earners who live in each of the seven districts go to work. On the whole, few travel across the city, but many travel to the Central Wards, and a surprising number work outside the city boundaries.







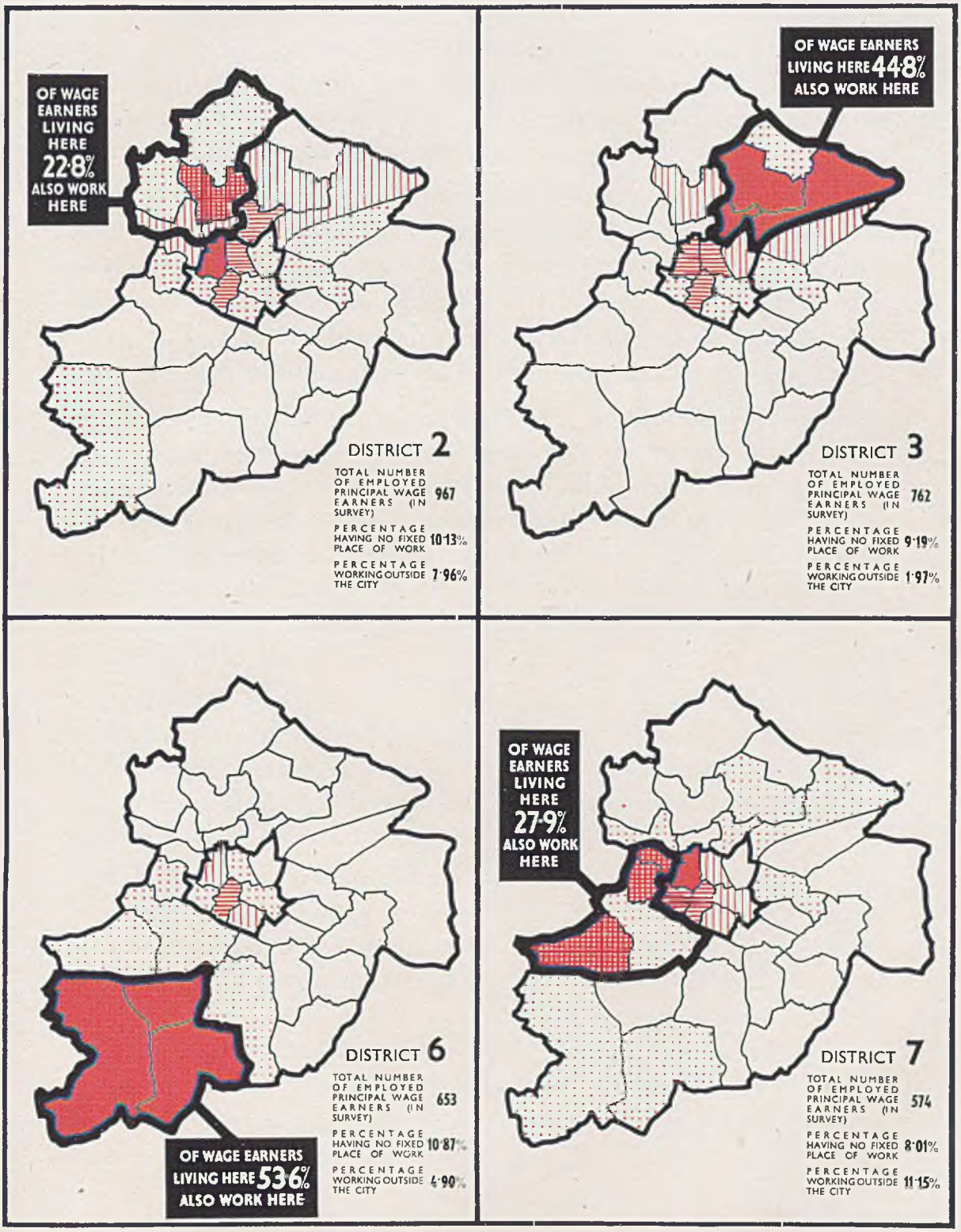


PLATE VII

Between pages 64 & 65

three of the inhabitants. Besides Stechford, two other wards—Yardley and Small Heath—are mainly residential, and the industrial section of the district is chiefly confined to the railway sidings, gasworks, and factories in Saltley and Washwood Heath.

In District 7, on the west, the proportions are very much the same as in District 4. Here, too, the greater part of the district, consisting of Harborne and Edgbaston Wards, is mainly residential, and only the small area covered by Rotton Park and All Saints' Wards is industrial.

In District 5, which includes the south-eastern portion of the city, there are workplaces for less than half the working-class population.

Finally, in District 2, on the north-west, at least two out of every three people who sleep in this predominantly dormitory area have to travel elsewhere to get work. Besides the sprawling estates (both municipal and private) in the Perry Barr Ward, the district includes much middle-class residential property in Sandwell and Handsworth. Such factories as it contains are mostly in the Soho Ward. A certain number also are situated in Lozells, which, however, is mainly composed of small working-class houses, many of them slums or near-slums.

To balance all these districts, in which there is insufficient work for the people who live in them, there is the predominantly industrial district in the centre of the city. In spite of the fact that this latter contains in its small area nearly a fifth of the city's total population, it provides work for over a third.

This detailed analysis of the various districts makes it clear that even if everybody made nearness to his work the sole criterion when choosing his place of residence, a great deal of daily travelling would still have to be done. At least a quarter of the city's inhabitants would, in fact, have to work outside the districts in which they live. The actual proportion is, of course, considerably greater, since there is a substantial amount of cross-travelling. How much greater, and with what consequences in time wasted and expense incurred, will be discussed in the next section.

The Seven Districts*

In practice, the ideal of homes and workplaces properly related for transport convenience is never found in cities. Only in a city organised with the hard mathematical logic of the beehive could it be done. Family habits and interests, changes of workplace of one or more members of the family, and personal preferences all come into play. In addition, there is the difficulty of finding a house near the place of work. All these reasons make any completely logical solution impossible.

There is, for instance, much more than enough work in the Central Wards for all their inhabitants. Actually, more than a third of them travel out each day to work in other districts.

Again, District 2, covering the north-west, contains 15·1 per cent. of the population, but employs only 5·3 per cent. Yet it imports workers from other districts of the city.

Maps, plans and charts are useful ways of bringing out sharply what mere words may fail to convey. The mind, through the eye, registers very quickly. Take the seven maps on Plate VII. They show not only the proportion of householders who have a considerable daily journey to work, but also *where* they have to go.

Since the principal wage-earner is usually the head of the household, and chooses the home location, the maps are based on his place of work. For other wage-earners the position, as we shall see, is not dissimilar, though, on the whole, they have to travel somewhat shorter distances. Why this should be so will also be discussed presently.

What are the high-lights of the picture given by the maps on Plate VII?

A rough average of these figures shows that around 40 per cent. to 45 per cent. of the principal wage-earners work and live in the same district. A similar proportion work regularly in other parts of the city. About 5 per cent. work outside the city, and about 10 per cent. have no fixed place of employment.

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* The maps on Plate VII illustrate the subject of this chapter.

District 1, that is to say the Central Wards, has the highest percentage, 58·2, of principal wage-earners both living and working in their own districts.

On the other hand, Districts 5 and 7, which form a band right across the city to the west and south of the Central Wards, show the lowest percentages in this respect. Here only 29·8 per cent. and 27·9 per cent. respectively work in their home districts.

It is interesting to note that the proportion of workers employed outside the city is much higher in the western and north-western districts, 7 and 2, than anywhere else. This is due to the fact that these districts adjoin Smethwick and the Black Country. Indeed, in District 7, which directly adjoins Smethwick, the percentage employed outside the city reaches 11·15, compared with figures of 2 per cent. to 5 per cent. in the rest of the city.

We considered how far an exchange of houses between some workers who live in the Central Wards, and others who live on the outskirts, would reduce the inconvenience of unnecessary travelling. Our figures show that in about 11 per cent., or about 5,000, of the families living in the Central Wards, the principal wage-earners work in the Outer Wards of the city containing the larger corporation estates. On the other hand, we found that 33 per cent., that is about 14,000, of the principal wage-earners of families living on municipal estates in the Outer Wards, work in the Central Wards. From these figures it appears that any scheme for exchanges of houses would not greatly affect the time at present taken up in travelling to work, because the number of workers travelling inwards so greatly exceeds those travelling outwards.

The Central Wards and the Municipal Estates

Slum-clearance as at present carried out in the Central Wards results in population movements to the outskirts of the city. These migrations

have two economic consequences—increased rents; increased transport overheads.

Let us see how it works out.

As we have seen, 58·2 per cent. of the principal wage-earners who live in the centre are at present employed there. A detailed analysis of the figures for the rest shows that another 14·9 per cent. work in one or other of the wards in the Middle Ring, making about 73 per cent. in all in the Central Wards who live within fairly easy distance of their place of work. Any increase in travelling costs resulting from a move out would be confined to these. Of the remaining 27 per cent., about 13 per cent. who already work in the outer districts would be likely to benefit rather than lose, since they could probably get a house on a municipal estate near their work.

A certain proportion also of those who work in the Middle Ring may be assumed not to lose, since some of them presumably work near its outer boundary. But the position of the majority would approximate to that of the workers in the Central Wards. That is to say, they run a *prima facie* risk of increased transport expense.

The transport situation of those already living in municipal estates does not necessarily tell us what it is going to cost newcomers from the Central Wards. Even so, it is of considerable interest since many, if not most, of the present municipal tenants have migrated from the centre of the city. An examination of their position will indicate what would happen to others who might move from the centre to the outer wards. But it must be remembered that as each batch of new-comers move from the centre the Outer Ring must be pushed further and further into the country, and the further they are housed from the centre the worse their transport situation.

Our figures indicate that 34·4 per cent. of these inhabitants of municipal estates, mostly in the Outer Ring, were in 1938 working in the Central Wards and consequently spending more than the average in travelling. The following table shows the figures in detail:—

TABLE 22

COMPARISON OF PERCENTAGE OF MUNICIPAL AND OF ALL HOUSEHOLDERS WHO WORK IN THE DISTRICTS WHERE THEY LIVE

PRINCIPAL WAGE-EARNERS ONLY

	Municipal Householders	All Householders
	%	%
District 1, Central Wards	*	58·2
,, 2, North-West	9·0	22·8
,, 3, North-East	46·6	44·8
,, 4, East	29·8	34·8
,, 5, South-East	23·1	29·8
,, 6, South-West	41·9	53·6
,, 7, West	*	27·9

* Number of municipal houses too small to tabulate.

These figures definitely suggest that, as a class, municipal tenants are worse off in this respect than the general population. The reason is that municipal estates taken as a whole are the most recent additions to the city and so had to be built on the outskirts. In districts 3 and 6 large factories are situated near the municipal estates.

Here we see the basic difficulty of all movements to improve great cities. We find always the same close interlocking of functional activities, and how easily, in seeking to improve one aspect, another may be thrown out of gear, dislocated, or its efficiency impaired.

The reader has, no doubt, seen the obvious remedy, namely, the relation of population migrations to industrial resettlement. If the homes of large sections of those who work in the centre are permanently transferred to distant parts of the city, then, unless transport is to be greatly increased, factories and workshops must follow them.

Length of Daily Journey

To come back to our maps. How do the facts represented on them work out in terms of actual miles travelled, and time and money spent on the daily journey?

Tables 23 and 24 show the proportions of principal wage-earners and of all wage-earners respectively who travel varying distances to work in the different districts and in the whole city. Note that the figures for distances in all these tables apply to the single journey only; they must always be doubled and sometimes quadrupled to get the actual daily distances.

TABLE 23

PERCENTAGE OF PRINCIPAL WAGE-EARNERS TRAVELLING VARIOUS DISTANCES TO WORK

SINGLE JOURNEY ONLY—MILES

District	Nil or under 1	1-2	2-3	3-4	4-5	5-6	6 and over	Variable
	%	%	%	%	%	%	%	%
1	48·6	24·2	8·2	4·8	1·6	·3	1·5	10·8
2	20·7	23·4	14·7	14·6	10·5	2·7	3·2	10·2
3	31·0	21·4	14·4	14·6	6·3	1·2	2·1	9·1
4	22·8	22·3	24·1	11·7	4·4	1·9	3·1	9·5
5	20·2	21·1	13·2	13·7	9·8	4·1	3·1	14·7
6	24·7	21·3	11·7	11·0	9·2	5·4	5·5	11·2
7	35·0	22·3	12·5	10·8	6·6	1·1	3·7	8·0
ENTIRE CITY	28·9	22·4	14·2	11·5	6·8	2·4	3·0	10·9

The distances are measured "as the crow flies"; the figures, therefore, understate the actual length of journeys. The discrepancy is not great, save in individual cases where the journey, because of route anomalies, exceeds the straight point-to-point distance considerably.

TABLE 24

PERCENTAGE OF ALL WAGE-EARNERS TRAVELLING VARIOUS DISTANCES TO WORK

BY DISTRICTS—SINGLE JOURNEY ONLY—MILES

District	Nil or under 1	1-2	2-3	3-4	4-5	5-6	6 and over	Variable
	%	%	%	%	%	%	%	%
1	58·0	21·9	6·8	3·4	1·3	·2	1·0	7·3
2	25·0	25·5	16·9	11·9	9·3	2·6	2·2	6·6
3	33·5	23·1	15·4	14·0	5·9	1·1	1·3	5·5
4	26·0	23·7	23·3	12·3	4·3	1·4	2·1	6·8
5	22·2	24·0	15·9	12·9	9·6	3·7	2·5	9·2
6	26·5	20·7	11·5	12·7	9·6	4·9	5·3	8·8
7	36·5	25·2	12·7	9·7	5·6	1·5	2·7	6·0
ENTIRE CITY	33·2	23·5	14·7	10·7	6·3	2·1	2·2	7·3

Of the principal wage-earners, 28·9 per cent. travel under one mile and another 22·4 per cent. between one and two miles—making a little over 50 per cent. whose journey is reasonably short.

A further 14·2 per cent. go between two and three miles, and 11·5 per cent. between three and four. Thus a little over a quarter of the total have journeys of moderate length, that is of four to eight miles daily for the double journey.

Of the remainder, 10·9 per cent. are those who have no fixed place of work, and consequently travel variable distances; whilst 12·2 per cent. —about an eighth of the total—have to make definitely long journeys in excess of four miles each way.

The number who make onerous journeys, such as are common in London, is very small. Only 3 per cent. travel more than six miles to work. But it must be remembered that no account is taken of those who live outside the city's boundaries and travel in daily to work.

The figures naturally vary from district to district, but except in District 1, the Central Wards, where nearly half the principal wage-earners go less than a mile, and almost three-quarters less than two miles, the variations from the norm are insignificant. Considering the size of the city, the figures are not unduly disturbing. Subsidiary wage-earners tend to travel rather shorter distances than the principal. This is clear from Table 24, where the figures are greater than those in Table 23 for distances up to about two miles, and less thereafter. The actual differences are greater than the figures indicate because principal wage-earners are included in Table 24.

The explanation is that a large proportion of the subsidiary wage-earners consists of young people, including many young girls, who find jobs, mostly dead-end ones, near home.

It is clear, from the experience of the London Transport Board, that the difficulties of transport increase beyond a certain dimensional point at an accelerating *tempo*; while distances to be covered and passengers to be carried *increase*, speed *decreases*. It is a paradox of applied science, that in an age in which the engineer has made 300 miles per hour possible, the average speed of city road transport is less than that of a trotting horse.

So let us look at the position from another angle—that of the different average distances travelled by those living in each of the three zones. Table 25 shows that the trend towards longer journeys for those living in the Outer Ring is already most significant. The particulars given cover all wage-earners.

The figures for the Central Wards are, of course, identical with those already described for District 1. They show that 58·0 per cent. of the wage-earners travel less than a mile (single journey), 79·9 per cent. less than two miles, and only 2·5 per cent. more than four miles. In the Middle Ring 38·0 per cent. travel less than a mile, 68·3 per cent. less than two miles, and 4·4 per cent. more than four miles.

By way of contrast, the proportion in the Outer Wards travelling less than a mile is only 21·0 per cent., and less than two miles 41·0 per cent.;

TABLE 25

PERCENTAGE OF ALL WAGE-EARNERS TRAVELLING VARIOUS DISTANCES TO WORK

BY ZONES—SINGLE JOURNEY ONLY—MILES

Zone	Nil or under 1	1-2	2-3	3-4	4-5	5-6	6 and over	Variable
	%	%	%	%	%	%	%	%
Central Wards	58·0	21·9	6·8	3·4	1·3	·2	1·0	7·3
Middle Ring ...	38·0	30·3	15·2	5·2	1·9	·5	2·0	6·8
Outer Ring ...	21·0	20·0	17·5	16·6	10·8	3·7	2·9	7·6
ENTIRE CITY	33·2	23·5	14·7	10·7	6·3	2·1	2·2	7·3

as many as 17·4 per cent. have to travel more than four miles—that is at least eight miles for the double journey.

Cost of Travel

The discrepancies in cost of travel between districts and zones are related to the distances travelled, but they are even more accentuated, since short journeys are walked and free, and bicycles are more frequently used for moderate journeys than for long. This can be seen from Table 26, which shows that in the Central Wards, District 1, as many as 56·7 per cent. of the principal wage-earners spend nothing at all, compared with 45·1 per cent. in the city as a whole, and only 37·7 per cent. in District 5, the South-West. Only 3·0 per cent. in District 1 spend upwards of 3s. weekly, compared with 11·3 per cent. in the whole city, 15·3 per cent. in District 6, the South, and 15·9 per cent. in District 7, the West.

On the whole, in cost and distance travelled, the great majority of Birmingham people come off pretty well. Only 3·3 per cent. spend over 5s., and even in District 2, the North-West, where the maximum of very expensive journeys have to be made, only 5·0 per cent. spend this amount.

The figures for expenditures in excess of 10s. relate, no doubt, to people in exceptional circumstances, and are unimportant.

TABLE 26

PERCENTAGE OF PRINCIPAL WAGE-EARNERS SPENDING VARIOUS SUMS PER WEEK IN TRAVELLING TO AND FROM WORK

District	Nil	Under 2/-	2/- to 2/11½	3/- to 3/11½	4/- to 4/11½	5/- to 9/11½	10/- and over	Varies
	%	%	%	%	%	%	%	%
1	56·7	18·2	10·7	1·6	·6	·6	·2	11·3
2	40·7	15·6	21·0	5·6	2·4	3·2	1·8	9·7
3	49·1	14·0	16·6	6·3	2·5	1·6	·5	9·4
4	41·3	16·8	19·5	5·5	2·0	2·6	1·8	10·5
5	37·7	15·0	19·9	7·1	2·7	1·7	1·7	14·2
6	44·1	11·2	17·5	8·1	2·8	2·7	1·7	11·9
7	48·1	14·7	13·1	7·5	4·4	2·4	1·6	8·2
ENTIRE CITY	45·1	15·4	17·1	5·7	2·3	2·0	1·3	11·0

Position on the Municipal Estates

We have seen that a larger proportion of the inhabitants of municipal estates than of their fellow-citizens have to travel to other districts to work. The full measure of their disabilities in this respect is shown by Table 27 and by the diagram on Plate VIII.

TABLE 27

LENGTH OF JOURNEY TO WORK (SINGLE JOURNEY ONLY)

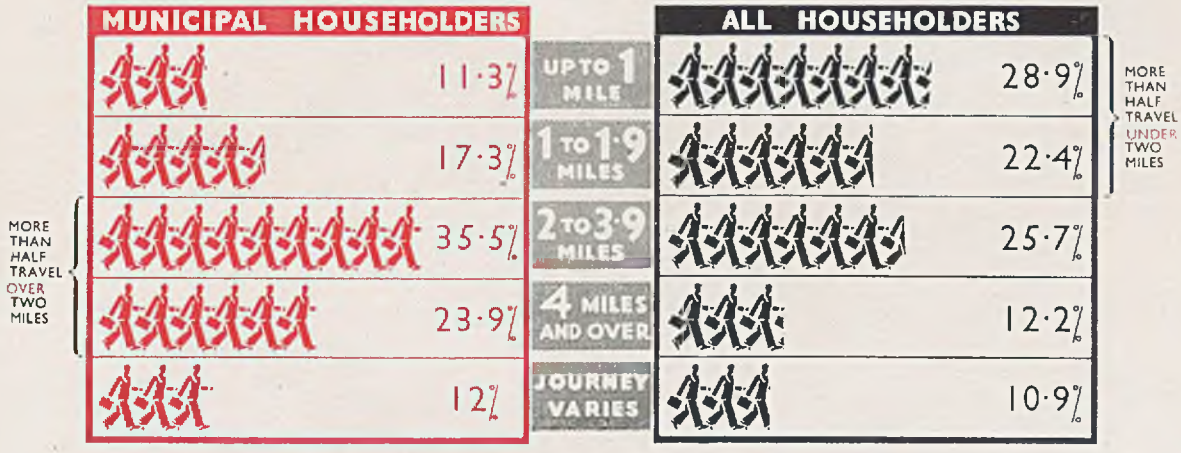
MUNICIPAL HOUSEHOLDERS *VERSUS* ALL HOUSEHOLDERS

Principal Wage-Earners.	Nil or under 1 mile	1 to 1·9 miles	2 to 3·9 miles	4 miles and over	Journey varies
	%	%	%	%	%
Municipal Householders ...	11·3	17·3	35·5	23·9	12·0
All Householders	28·9	22·4	25·7	12·2	10·9

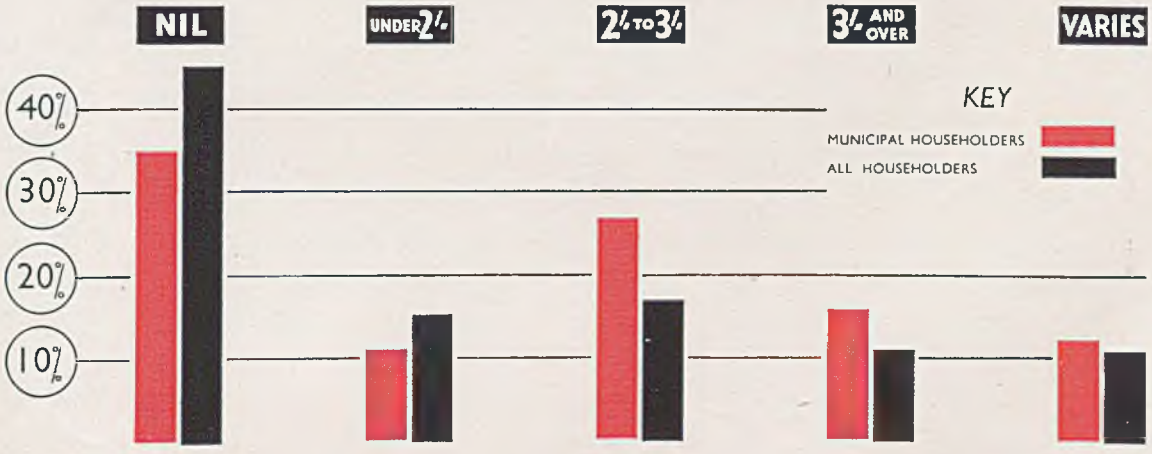
THOSE LIVING ON NEW HOUSING ESTATES TRAVEL FURTHER TO WORK

The transport map showed how the Municipal Estates are, for the most part, on the outskirts. This chart, based on figures for municipal householders, emphasises that dwellers on these estates have further to travel, and so spend more each week than those in the Central and Middle Wards. In the lower chart the red columns show the percentage of municipal householders spending various amounts in fares to and from work each week compared with the black columns which show comparable percentages for all householders. The chart demonstrates the extra expense incurred by living on outlying estates.

HOW FAR DO THEY TRAVEL?



HOW MUCH DO THEY SPEND IN FARES EACH WEEK?



Facing page 74

On municipal estates considerably more than half the principal wage-earners travel *over* two miles to work, whereas for the whole population more than half travel *under* two miles.

The cost comparison is also shown on the diagram.

For the longer journeys, costing over 3s. weekly, the cost difference is less marked than the relative distances warrant. This is due to the special fare concessions the City Transport Department has made for such journeys. In the 2s. to 3s. range, however, the principal wage-earners on municipal estates are in a very considerable majority. Altogether 42·3 per cent. of them spend over 2s. per week, compared with only 28·4 per cent. of the wage-earners as a whole.

Time Spent on Travelling

Yet another aspect of the journey to and from work is depicted in the diagram on page 76.

In every district the percentage of principal wage-earners taking half an hour or less to get to work is over 60 per cent. In the Central Wards, District 1, over 45 per cent. take fifteen minutes or less, compared with only 23 per cent. in District 5, the South-West, and 30·2 per cent. in the whole city.

These figures certainly compare well with those for London, and probably with other provincial cities of similar size to Birmingham.

Going Home for Dinner

Roughly speaking, if a man's journey to work takes him fifteen minutes or less, he can get home to his midday meal; if it takes more he cannot. This is important, not only from the man's point of view, but also from his wife's. Most men welcome the chance to eat by their own hearth. The viewpoint of the wife is not necessarily the same. For instance, the woman whose children are small may be able to cook her main meal for the whole family at midday and so be glad to see her man at the door, but if the family is out working, the evening may be the only opportunity when all can share a cooked meal at one time. The woman with a nursing

HOW LONG DOES IT TAKE PEOPLE TO GET TO WORK?

(PRINCIPAL WAGE-EARNERS)

DISTRICT	0–15 MINUTES	15–30 MINUTES	30–45 MINUTES	45 MINUTES & OVER	VARIES
1 	45·4%	30·4%	7·8%	6·6%	9·9%
2 	26·1%	38·4%	16·0%	10·0%	9·4%
3 	30·7%	38·6%	14·1%	7·8%	8·7%
4 	24·5%	41·6%	16·8%	8·6%	8·6%
5 	23·0%	38·3%	16·3%	9·7%	12·7%
6 	26·6%	35·5%	15·1%	12·3%	10·5%
7 	35·6%	32·3%	13·7%	10·7%	7·7%

child may feel the same; while one with toddlers may prefer an evening meal with her man, the children safely tucked away. Last, what suits a woman one day may not suit her another: fortunate the man who receives a welcoming smile and a hot meal on washing day!

Table 28 shows that in the whole city 26·9 per cent. go home, to

which must be added a further 10·3 per cent. who, because they work at home or are night-workers, or for some other reason, are already home at midday. These figures compare with 30·2 per cent. whose journey takes under fifteen minutes, and strongly suggest that most of those who can get home do so.

TABLE 28

PRINCIPAL WAGE-EARNERS GOING HOME AT MIDDAY

Zone	Go home at midday	Do not go home at midday	Workers already at home, such as night-workers, workers at home, and those who finish at or before midday, etc.
	%	%	%
Central Wards	34·9	52·1	13·0
Middle Ring	30·2	57·4	12·4
Outer Ring	22·5	69·2	8·3
ENTIRE CITY	26·9	62·7	10·3

Once again, those in the Central Wards are better placed than those in the Middle Ring, who, in turn, fare considerably better than those in the Outer Ring. Another small point of interest relevant to other aspects of the housing problem, is the much larger proportion of wage-earners who are already at home at midday in the Central Wards and Middle Ring than the Outer Ring. Doubtless, this reflects the greater numbers of small businesses and shops that are carried on at homes in the central and congested areas.

THE LUNGS OF THE CITY

Parks and Open Spaces

Compared with other Cities in Great Britain, Birmingham is fairly well provided with open spaces. This is evident from Table 29, showing the amount of public open space per 1,000 population in a number of large towns (taken from the Barlow Report, Cmd. 6153).

TABLE 29

AMOUNT OF PUBLIC OPEN SPACE PER 1,000 POPULATION

*Leeds	6·5 acres
Newcastle-on-Tyne	4·3 acres
Birmingham	**3·8 acres**
Manchester	2·9 acres
Glasgow	2·8 acres
Liverpool	2·5 acres
Cardiff	2·0 acres
London (L.C.C. Area)	1·9 acres

* Estimated from evidence of Corporation of Leeds to Barlow Commission.

These figures do not provide an altogether satisfactory comparison since they exclude private recreation grounds, of which in some towns, notably London, there are considerable areas†. They also make no allowance for the fact that the boundaries of some of the towns in the list extend well beyond the built-up areas, and thus include as public open space a higher proportion of playing fields than others which are

† See Report of the Royal Commission on the Distribution of the Industrial Population (Cmd. 6153), page 77.

built up right to the boundary. The difference between Birmingham and such places as Liverpool and Cardiff is, however, sufficiently marked to justify one in ignoring the qualifications for the purpose of the present general argument.

Although Birmingham compares favourably with other towns, none of the figures in the preceding table can be considered really satisfactory. The National Playing Fields Association has suggested a standard of 6 acres per 1,000 population for playing fields alone, apart from parks and other open spaces needed for amenity by people who do not play games.

When we come to examine the position in each of the three zones separately, the insufficiency of open space begins to appear in its true proportions. The relevant figures are:—

TABLE 30

PROVISION OF OPEN SPACES

(1) Zone	(2) Area of parks, recreation grounds, etc.	(3) Total area of zone	(4) Proportion of (2) to (3)	(5) Population	(6) Area of open space per 1,000 population
	Acres	Acres	%		Acres
Central Wards ...	35 (*a*)	3,023	1·2	187,900	·2
Middle Ring ...	422	8,944	4·7	288,600	1·6
Outer Ring ...	3,342 (*b*)	39,180	8·5	571,500	5·8
ENTIRE CITY ...	3,833 (*c*)	51,147	7·5	1,048,000	3·8

(*a*) In addition, there are 36 very small open spaces, making up a total area of 34 acres, the majority of which are situated in the Central Wards. The actual amount of open space in the zone is thus somewhat understated. It should be borne in mind, however, that these very small areas, averaging less than 1 acre each in size, are of little use for purposes of play and recreation, though in some cases very valuable from the point of view of amenity.

(*b*) This figure includes some open spaces such as The Lickey Hills (501 acres) and Warley Park (111 acres), which are adjacent to the City Boundaries and controlled by the Corporation. It does not include proposed open spaces in incompletely developed areas which have not yet actually been laid out.

(*c*) This figure includes the 34 acres referred to in (*a*), but not, of course, the proposed open spaces referred to in (*b*).

This table shows that even in the Outer Ring the standard laid down by the National Playing Fields Association is not fully reached. In the Middle Ring it is very far from being attained, and in the Central Wards it is quite inadequate.

Most of those which do exist in the Central Wards are the small patches of bare ground measuring a couple of acres or so, and often less, which provide the only substitute for the school playgrounds and the streets as places of recreation for the children who live in the neighbourhood.

Children's Playgrounds

The problem of children's playgrounds is linked with that of parks and open spaces generally. The point is often made that, even where parks are provided, children seem to prefer playing in the streets, and parents are naturally reluctant to let young children go far away.

One of the questions in the Bournville Village Trust Survey was designed to find out how far this is really true, and to discover the possible reasons for such a preference. Parents were asked to state where their children played in their spare time, a distinction being drawn between schooldays (Monday to Friday in term-time) on one hand, and week-ends and school holidays on the other.

Table 31 shows the results of this enquiry so far as it relates to fine days. On wet days most children naturally stay indoors, though it was found that even in wet weather a considerable proportion of those who live in the Central Wards remain in the streets, evidently because there is no room for them to play at home.

Who uses the Parks?

A number of very interesting conclusions emerge from a study of Table 31. The first is that it confirms the impression that parks and recreation grounds are not much patronised by one of the classes of the community for whom it might be supposed they are largely intended, namely, children of school age. This is true even in holiday periods, and still more so on schooldays.

TABLE 31

PERCENTAGE OF CHILDREN PLAYING IN VARIOUS PLACES IN FINE WEATHER

SCHOOLDAYS

Zone	House	Yard	Garden	Street	Waste Ground	School Play-ground	Recrea-tion Ground	Park	Combin-ation of fore-going	Else-where or no play
Central Wards	% 12·4	% 20·3	% 3·8	% 18·9	% 0·2	% 0·3	% 2·4	% 4·3	% 31·9	% 5·5
Middle Ring	20·6	5·3	8·6	13·9	—	0·9	0·6	5·6	37·0	7·5
Outer Ring	24·3	1·1	17·3	13·9	1·1	0·3	0·5	1·8	30·9	8·8
ENTIRE CITY	20·6	6·6	12·0	15·0	0·6	0·4	1·0	3·3	32·6	7·9

WEEK-ENDS AND HOLIDAYS

Zone	House	Yard	Garden	Street	Waste Ground	School Play-ground	Recrea-tion Ground	Park	Combin-ation of fore-going	Else-where or no play
Central Wards	% 3·2	% 20·1	% 3·2	% 16·4	% —	% 3·2	% 1·6	% 12·2	% 30·0	% 10·1
Middle Ring	10·2	4·5	10·2	12·4	—	—	—	4·0	41·8	16·9
Outer Ring	11·7	—	18·5	8·6	0·5	—	1·6	7·0	39·0	13·1
ENTIRE CITY	9·4	5·7	13·1	11·2	0·3	0·7	1·2	7·5	37·4	13·5

A factor which at first sight is particularly curious is that although there are plenty of parks in the Outer Ring and very few in the centre, a larger proportion of children use them in the latter than in the former. One reason for this is clearly the wider choice of alternatives in the Outer Ring. This is shown by the very large proportions in this zone

who play in the garden or the house itself. Another reason, which is partly suggested by the first, is that the suburban parks, though much bigger and more numerous than the small patches of open space in the centre, are more widely separated from one another. There is reason to believe that a young child will not normally walk more than a quarter of a mile to find somewhere to play, and this would prevent a large proportion of children in the suburbs from going to the nearest park.

It further suggests that there may be a case for supplementing the existing parks by a considerable number of quite small playgrounds situated in the immediate proximity of the children's homes.

Our research did not correlate the use of the parks and playgrounds with the provision of swings and chutes and the organisation of games. Nor did it cover the attitude of the park-keepers to the children—some welcome them, others merely "keep them off the grass".

A second conclusion from the table is that the streets are rather less popular with children than is often imagined. Even in fine weather there are two or three children playing in the house, yard or garden for every one on the street. The ratio is much the same in the Central Wards as elsewhere, though the yard in this case takes the place of the garden.

A third feature of the figures is the extent to which, even in fine weather, children stay indoors if there is room for them. The small number shown as playing in the house in the Central Wards is doubtless due, as already suggested, to lack of accommodation rather than to lack of inclination.

It seems clear that the mere provision of additional parks of the present type would not adequately meet the needs of young children. Where the house is provided with a garden of reasonable size, as is nearly always the case in the Outer Ring, this is no great matter, but where there is only a yard, as in the Central Wards, the position is more serious, and the provision of specially designed playgrounds on a liberal scale seems to be needed. The fact that school playgrounds are fairly well

patronised in the Central Wards, when they are opened during the holidays, suggests that they meet a real need, though concrete and asphalt are poor substitutes for grass and trees.

Gardens

In the Central Wards

A garden survey of the city produces two main conclusions. First that Birmingham people like gardens; secondly, that the city is well provided with them, from the tiny patches in slum yards to those on the new estates (see illustrated section, Nos. 24-31).

Our Survey showed that in the Central Wards 33·3 per cent. of the families visited had gardens. This is a very large proportion for an area in which the net density is often over sixty houses to the acre. These gardens are, of course, for the most part, very tiny, and in many cases are little more than a small area of about 100 square feet. Nevertheless, they are often intensively cultivated with flowers, for the hunger for beauty is deep-rooted in the human heart.

People take an interest in any bit of land adjoining their homes and will make it bright and cheerful, despite poor soil, lack of sunshine and the city's smoke pall.

And here one comes upon a curious fact, for while such tiny gardens are often tended with loving care, small allotments, away from the houses, even when only about a hundred yards off, are seldom eloquent of elbow grease.

Communal gardens, designed for joint cultivation, are nearly always unsatisfactory in practice. Here, as in all things, the English character, with its intense individualism, explains much. What is a garden if it is not *my* garden? What can I admire so wholeheartedly as my own efforts? Certainly not my neighbour's!

In the Middle and Outer Rings

Over 77 per cent. of the families in the Middle Ring have their own gardens. The development in this ring is more open in character and

the garden plots are usually larger in area than those of the Central Wards.

In the Outer Ring, which contains large numbers of municipal houses and semi-detached dwellings erected since the last war, almost every house has its own garden, the percentage of families with gardens being 95·7

Are Gardens Appreciated?

The figures just given do not by themselves prove the necessity or the desirability of providing separate gardens. They merely record the existing state of affairs. In the survey, therefore, we recorded the householders' views and also the fact as to the use made of the gardens.

When those who already had gardens were asked whether they liked having them, 96·3 per cent. of them answered in the affirmative. This large percentage would not be so convincing were it not supported by evidence that the majority of the gardens were kept in good or fair order.

In Table 32 the result of our examination of the gardens is set out.

TABLE 32

CONDITION OF GARDENS

Zone	THOSE WHO LIKE GARDENS — Condition			THOSE WHO DO NOT LIKE GARDENS — Condition		
	Good	Fair	Bad	Good	Fair	Bad
	%	%	%	%	%	%
Central Wards	33·4	44·6	22·0	—	24·2	75·8
Middle Ring	34·4	46·3	19·3	3·0	39·7	57·3
Outer Ring	44·5	43·4	12·1	9·7	29·1	61·2
ENTIRE CITY	40·9	44·3	14·8	5·9	31·9	62·2

The foregoing facts prove that Birmingham people really *do* like their gardens. Although gardens in the Central Wards are in many cases small and insignificant, the results are fairly consistent for the three Rings.

Householders who said they did not like gardens were also speaking the truth, as Table 32 has clearly demonstrated.

The Opinions of those who have no Gardens

In order to complete the investigation, we recorded the opinions of those who are without gardens at the present time. Table 33 gives the results.

TABLE 33

LIKING FOR GARDENS AMONGST THOSE WHO HAVE NO GARDENS

Zone	Would like a Garden	Would not like a Garden	No opinion
	%	%	%
Central Wards	78·7	20·3	1·0
Middle Ring	75·3	22·1	2·6
Outer Ring	82·9	15·2	1·9
ENTIRE CITY	78·1	20·3	1·6

Here, once more, the figures are so striking and so consistent for the three Rings that it is impossible to ignore their significance.

A combination of the totals upon which Tables 32 and 33 are based shows that out of 7,023 persons interviewed, 6,491 (92·4 per cent.) expressed their liking for gardens.

Allotments

Very little information was obtained on the subject of allotments, but we found that only 4·6 per cent. of the householders visited had allotments, and that about nine-tenths of these also had gardens. This suggests that, under conditions in 1938, people without gardens showed little inclination to take allotments instead.

The position might, however, be very different if more land were available for the tenants of the Central Wards, and if the schemes of allotments were properly planned in relation to the various residential areas, instead of being laid out on waste land for which other uses have not developed.

If it is to be successful, a group of allotments should be considered as a permanent communal scheme of gardens and not solely as a temporary means of enabling tenants to provide their own vegetables.

It may well happen that the need for more home-grown food to-day will result in a permanent interest in allotment work when the war is over. It has already greatly stimulated interest and so qualified our findings of 1938.

· IX ·

THE THREE ZONES CONTRASTED

TENANTS' VIEWS

It is now Possible to draw up a balance-sheet of the advantages and drawbacks of life in the Outer Ring, as compared with the Central Wards.

Better Houses and Living Conditions

Both the houses and the general living conditions in the Outer Ring, as we have shown, are better than those in the centre. The houses are bigger (see Table 14); they have not only a proper water supply and good sanitation, but bathrooms and electric light, and they are planned so as to avoid, as far as possible, dark passages and awkward corners.

Each house has its own garden; the streets are sunny and lined with trees. Although the country is still far away, there are open spaces and play and recreation grounds. The public buildings, particularly the schools, share with the houses the advantages of being built in accordance with modern ideas of comfort, convenience and good style.

High Cost of Living

Against these advantages, there is one serious drawback, namely, the higher cost of living. In the first place, rents are higher for houses with a comparable number of rooms by an average figure of three to four shillings a week (see Table 18). The fact that the larger sum is paid for better accommodation may make the difference economically justifiable, but affords only moderate consolation to an unskilled labourer with a large family.

Secondly, there is the cost of travelling, examined at length in the preceding section. Though its incidence varies widely, it probably averages two or three shillings more than is normally spent in the Central Wards.

Finally, there is the fact, which cannot easily be measured statistically,

but for which there is some evidence, that prices are often somewhat higher in suburban shops than in the main working-class shopping thoroughfares in the Central Area and Middle Ring.

Probably more important than the prices in the shops is the fact that there are fewer opportunities of cheap bargains such as those obtainable in the markets on Saturday nights.

In the case of clothing and household requisites, the higher prices are accompanied by a lack of the variety to be found in the big shopping centres of the town, so that in practice it is more economical to go into town on periodical shopping expeditions than to buy everything locally, even if this means a fairly substantial tram fare.

The combined effect of these factors is probably to increase the weekly cost of living of the average working-class family in the suburbs to a level of about ten to fifteen per cent. above that of a similar family in one of the Central Wards.

Lack of Certain Amenities

For the new-comer from the centre of the city, the additional cost of living in the suburbs is not always its sole drawback. He (or, since the person most affected is usually the housewife, perhaps we should say she) misses some of the amenities to which she has hitherto been accustomed.

Besides being dearer, the shops are less attractive, and shops mean much to women, even if their contact with them is limited to window-gazing. For most women shopping is one of the pleasures of life, and the average row of suburban shops cannot possibly be compared as a source of pleasure with the large departmental store or the brilliantly lit and smartly dressed windows of the central streets. There is a comparative scarcity of public-houses—which not everyone will regard as a drawback—and a definite scarcity of public halls and other buildings suitable for evening meetings and social gatherings, which is a disadvantage.

This lack is slowly being made good on some of the municipal estates by the provision of community centres. Broadly speaking, one can say

that the facilities for daytime and outdoor recreation are better in the suburbs, but those for evening and indoor amusements are not so good as in the more central districts.

What the Householder Thinks

We were particularly anxious to find out in the Survey what the householder himself thinks about the choice of a place to live in. Actions speaking louder than words, the investigators first found out the length of his residence. Only secondly did they ask him whether or not, all things considered, he would like, if possible, to move into a different district. Finally they asked him to give specific reasons for his decision. The results of all these three methods are set out in the following paragraphs.

Length of Existing Tenancy

Table 34 shows the proportion of tenants in the various zones whose tenancies have lasted for periods of different lengths.

TABLE 34

DATE OF COMMENCEMENT OF TENANCY

Zone	1914 and before	1915-1920	1921-1930	1931-1938
	%	%	%	%
Central Wards ...	34·4	11·3	16·7	37·6
Middle Ring	35·5	9·2	18·5	36·8
Outer Ring	14·5	3·2	25·0	57·2
ENTIRE CITY ...	24·3	6·5	21·6	47·7

Tenancies often pass from parent to child on death, without any realisation on the part of the new occupier that a new tenancy has actually begun. For this reason the table probably slightly overstates the true length of the average tenancy, though the error due to this cause is unlikely to be very great. It is clear that the average working-class

family tends to stay in the same house for very long periods. No less than 24 per cent. of the tenancies existing in 1938 dated from 1914 or earlier.

Both in the Central Wards and the Middle Ring, where the proportion of pre-1914 houses is largest, the percentage is in the neighbourhood of 35 per cent. Even in the Outer Wards, where only 40 per cent. of the houses are pre-1914, as many as 14 per cent. of the tenancies date from the same period. These figures afford a striking illustration of the conservative tendencies of the average working-class householder, though they do not, of course, give any direct indication of whether those who have lived in the same house for many years have done so from choice or necessity.

To find this out, it was necessary to ask tenants the direct question of whether, had they the chance, they would like to move or not.

How many Tenants would like to Move?

The results of asking tenants this question are summarised below:—

TABLE 35

PERCENTAGE OF TENANTS WANTING TO MOVE

	Central Wards	Middle Ring	Outer Ring	Entire City
	%	%	%	%
Wanting to move ...	55·8	39·1	27·8	36·0
Not wanting to move	44·2	60·9	72·2	64·0

This shows that in the whole city little more than a third of the tenants are, on balance, anxious to leave their present quarters. The actual number is probably smaller, as it is in human nature to carp, and many who grumble would refuse to move if the chance were given.

On the whole it seems reasonable to infer that choice—or failing that, apathy—is at least as important a factor as the pressure of circumstances in causing the long tenancies which we have seen to be the general rule;

though to what extent the environment has caused the apathy is not without sociological interest.

It is only in the Central Wards, where the houses are markedly inferior to those in other parts of the town, that the number wishing to move exceeds those who are content to stay. In the Middle Ring the would-be movers are fairly numerous, but in the Outer Ring they are only about a quarter of the whole body of householders in the zone.

Tenants' Reasons for Wishing to Move or to Remain where they are

Finally, tenants were asked to give the reasons for their respective choices. A summary of their replies is contained in Tables 36 and 37.

Table 36 shows that a large proportion of those questioned said they liked their present house, though the actual percentage varied from 61 per cent. in the suburbs to only 35 per cent. in the Central Wards.

Nearness to the principal wage-earner's job is a very weighty consideration in the householder's mind.

In the Central Wards this reason headed the list, 64 per cent. of the tenants giving it, whereas in the Outer Ring the percentage fell to 36 per cent.

Rent is another most important factor. In the Central Wards 56 per cent. of the tenants described their rent as low, and 30 per cent. said they would have to pay more if they left. The corresponding percentages in the Outer Ring were 32 per cent. and 27 per cent.

Many of the other reasons for not moving are negative, e.g. the desire not to leave one's friends or one's local church or club; or mere reluctance on the score of cost and trouble.

Two further motives are of considerable significance. One is satisfaction in possessing a garden, expressed by some 50 per cent. of those in the Outer Ring and 39 per cent. in the Middle Ring, and the other is the preference for living in a particular part of the city. In the Outer Ring 57 per cent. said they liked living away from the city centre, and in the Central Wards 59 per cent. said they liked being there.

TABLE 36

REASONS FOR LIVING IN PRESENT HOUSE

Central Wards	%	Middle Ring	%	Outer Ring	%
It is near place of husband's (or principal wage-earner's) work	63·6	It is near place of husband's (or principal wage-earner's) work	57·1	You like the house...	61·3
You like living near centre of city ...	59·3	You like the house...	50·9	You prefer to live away from centre of city	57·1
The rent is low ...	55·8	You like living near centre of city ...	44·5	You like a garden ...	49·9
You are near your friends	38·1	The rent is low ...	44·2	It is near place of husband's (or principal wage-earner's) work	36·4
You like the house...	35·1	You like a garden ...	39·4	It is the only house you can get... ...	35·4
You would probably have to pay higher rent if you left ...	30·3	You would probably have to pay higher rent if you left ...	36·5	The rent is low ...	32·4
It is the only house you can get... ...	24·2	You are near your friends	36·2	You would hate trouble and cost of moving	27·8
You would hate trouble and cost of moving	21·2	You would hate trouble and cost of moving	30·0	You would probably have to pay higher rent if you left ...	26·8
You are a member of local church, club, or societies	19·5	It is the only house you can get... ...	28·4	You are near your friends	26·0
You like a garden ...	18·6	You are a member of local church, club, or societies	18·8	You own the house...	16·6
Other reasons ...	5·2	You prefer to live away from centre of city	14·2	You are a member of local church, club, or societies	10·8
You prefer to live away from centre of city	3·0	You own the house...	7·5	You like living near centre of city ...	9·2
You own the house...	1·7	Other reasons ...	5·1	Other reasons ...	5·6

The figures given above represent the percentages of persons interviewed answering "Yes" to each question.

TABLE 37

REASONS FOR MOVING

From those who said that they wanted to move

Central Wards	%	Middle Ring	%	Outer Ring	%
You would like a nicer house	89·9	You would like a nicer house	80·1	You would like a nicer house	61·8
You want a garden...	66·7	You would like a new house	58·9	You would like a new house	51·0
You would like a new house	47·3	You would like to be nearer country or parks	54·1	You wish to be nearer husband's (or principal wage-earner's) work ...	36·1
You would like to be nearer country or parks	45·7	You want a garden...	45·2	Other reasons ...	24·7
You prefer to be further from centre of city	36·4	You prefer to be further from centre of city	43·1	Your present rent is too high for you ...	24·2
You wish to be nearer husband's (or principal wage-earner's) work ...	18·6	Other reasons ...	24·6	You want a garden...	22·7
You want to be near friends	8·5	You wish to be nearer husband's (or principal wage-earner's) work ...	24·0	You prefer to be nearer centre of city	19·1
Other reasons ...	8·5	Your present rent is too high for you ...	17·8	You would like to be nearer country or parks	16·0
You prefer to be nearer centre of city	7·0	You want to be near friends	10·9	You prefer to be further from centre of city	15·5
You wish to live in a flat	5·4	You prefer to be nearer centre of city	6·8	You want to be near friends	11·8
Your present rent is too high for you ...	4·6	You wish to live in a flat	2·0	You wish to live in a flat	2·6

The figures given above represent the percentages of persons interviewed answering "Yes" to each question.

The motives which make some people wish to move are, on the whole, similar to those which make others prefer to stay. This is shown in Table 37.

In the Central Wards nearly 90 per cent. of those who wish to move said they would like a nicer house, as against 80 per cent. in the Middle Ring, and as many as 62 per cent. in the Outer Ring. In the latter zone 36 per cent. said they would like to be nearer the principal wage-earner's job, compared with 24 per cent. in the Middle Ring and only 19 per cent. in the Central Wards.

The payment of too high a rent was given as a reason for moving by 24 per cent. in the Outer Ring and 18 per cent. in the Middle Ring. This reason was given by less than 5 per cent. in the Central Wards, as was only natural in view of the low average level of rents in that zone.

Love of gardens, parks or the open country was found to be widespread, particularly in the Central Wards where these are few or absent.

It is also interesting that very few people want to exchange house for flat. This shows plainly that Birmingham is not at all flat-minded.

In both tables, it will be seen, there is a marked similarity between the replies coming from the Central Wards and the Middle Ring. This suggests that the latter zone shares in the tenants' minds the characteristics of the centre, rather than of the suburbs. Since the Middle Ring, like the centre, is part of pre-1914 Birmingham, whereas the Outer Ring dates mainly from the post-1920 period, this is not surprising.

· X ·

LIFE ON A HOUSING ESTATE

Spaciousness is the Outstanding Characteristic of a housing estate. Each house has its own garden, instead of a backyard or a common court; roads are wider, and natural amenities, such as open spaces, belts of trees and, perhaps, a pond or a brook, please the eye.

So far in this book the subject of housing has been mainly studied from the statistical angle. Let us then, for a moment, turn to some of those human elements that have a way of emerging from dry statistical material like the proverbial cheerfulness that mars attempts at philosophy.

The Change from the Central Wards

The first is the upheaval caused in the common daily round of simple folk by removal to a new estate. For example, anywhere in the crowded centre of a city a woman can pop out of her home and find, a few doors off, in a dwelling similar to her own that has been made into a little shop, the common commodities that are her daily need. Where will she find like facilities in a great municipal housing estate? And the little shopkeeper behind the counter set up in his little parlour—where will he find a chance to drive his small trade in the grand new place?

It is no good dismissing such small considerations as too pettifogging to be taken into any reckoning of this great problem, because it is just such small factors that decide the fate of great enterprise. To add another instance: It is useless to erect grand blocks of flats if the people whom you have in mind as tenants want gardens, sheds, and a chance to keep live pets.

In dealing with human affairs one finds what people *ought* to like is not always the same thing as what they *do* like. For example, to many

folk from the congested areas the new spaciousness is not at first welcome, for it involves a radical change in way of life. The neighbours are not so handy, or so obviously neighbours at all, since they are up trim paths and behind trim curtains. A friendly and exhilarating quarrel in the court has become a thing of the past. The shop and the public-house and the cinema are no longer just round the corner. In winter the estates are colder than the concentrated living quarters in the older districts, and not uncommonly the tenants on the wind-swept roads and shopping centres compare their new homes to Siberia.

This attitude is sometimes not unreasonable, particularly when the centre of an estate, the potential focus of social life, is a new barren area fringed by shops which makes it quite a walk not only to the shopping centre, but from the butcher to the baker. Nevertheless, the majority of the tenants quickly adapt themselves to their new environment.

When an estate is very new there are no communal centres, and life is liable to be lonely. For women, social intercourse is over the fence or in the shops; for men, it is on the 'bus or in the garden. There is a time-lag before even a public-house appears. After a longer interval may come a cinema, if the population is large enough to support one Churches may be established, and possibly, though by no means universally, a community centre.

These temporary limitations are inevitable in any newly-made community which has not passed through the normal phases of social growth and cohesion. In the older districts, where social life has developed over long years, everyone knows his neighbours. There are, moreover, recognised meeting places—licensed premises, churches, political and recreational clubs. There are focal points, in street or market, where people, especially peripatetic youth, foregather.

The older district, cramped, smoky and unhealthy, without a single æsthetic attribute, and often depressingly drab, yet has a life and a soul of its own.

Social Centres

The social life of a housing estate, feeble at first, nevertheless grows steadily and naturally as does the plant from its seed, and the seed of human gregariousness is ever present. Men meet their fellows and talk about their gardens, or football, or the bus service. Women meet at the shops and talk about prices and their children, about friends and their relations. So is born a sense of community.

With the passage of time will come organised social activities. Churches will be established, branches of political parties formed, ex-servicemen will band themselves into a branch of the British Legion, the gardeners will become grouped into a gardeners' guild. In many estates throughout the country voluntary bodies of this kind have co-operated to form community associations which aim to develop a local community spirit and to promote recreational and social activities among the tenants.

A considerable number of community centres (there are already ten in Birmingham) have been erected to provide a meeting place for the organisations and a focus for social life. The centres range in type from simple, timber buildings to large premises containing meeting rooms, halls for social activities, club rooms, gymnasia, and youth wings. The more ambitious schemes are the exception, for the majority of the centres are the result of voluntary effort and limited funds.

It is not easy to estimate accurately the proportion of estate residents taking part in organised social activities. It depends to some extent upon the facilities available. A well-built, attractive and efficiently organised centre should exercise a greater appeal than the makeshift, inadequate building so often serving an estate.

It depends, too, upon the residents themselves, and it must be remembered that people vary considerably in occupations, economic status, tastes and outlook, not only on different estates, but also within the same estate. The skilled mechanic, the clerk or the salesman may not easily associate with the labourer or the hawker, for distinctions

range throughout society. The man who has already had experience in a trade union, a political party, a church, an adult school or some other organisation is the one who will continue to take part in organised community activities when he comes to live on an estate.

Those who through circumstances have not had this experience will only slowly and diffidently take their place with the others, or will seek the less exacting and commercially provided forms of recreation. It is at any rate safe to say that the socially conscious and active tenants are in a small minority. It may also be added that they are the leaven that leaveneth the whole.

Higher Cost of Living

Is worry a feature of life on a housing estate? It is often said to be. In at least one London estate it has been claimed that financial troubles have been so severe as to shorten the lives of the principal wage-earners.

The cost of living is higher in London than in the provinces, especially so far as rent and travel are concerned, and this may explain the presence of undue strain. The main items of expenditure in the family budget anywhere follow the same pattern—food, rent, clothing, travel, recreation, and perhaps furnishing.

Considering these items, as they apply to a city like Birmingham, food prices are little higher than in the centre of the city, if shopping is done with discrimination. In the poorer quarters of the city, where foodstuffs may be bought in minute quantities or on a weekly credit system from house-shops, prices may actually be higher than on the housing estate. The Saturday night market, at which goods are sold at a very low rate, does not generally exist on a housing estate, though one may not be far distant, and the visit to it may be regarded as part of the Saturday night outing.

Clothing is another matter. Shabby clothes fit shabby streets. The new estates are spruce, and exact of their tenants something better than of old.

While the rent of a municipal house is higher than that of a house

of comparable size in a poor quarter of the city, it is by no means necessarily higher than that of a similar house under private ownership. Tenants with whom the matter was discussed felt that even where the rent was higher than the one they had formerly paid, the difference was amply outweighed by the conveniences of the modern house with an indoor lavatory and a bathroom, by the improved surroundings, and by the regular service given by the authorities in repairs and decorations.

There is a story of a man who ruined himself by buying a costly silk tie. He discovered that a silk tie has to be lived up to, that it is not merely a decorative sartorial flourish, but a potential tyrant. In the story, the tie demanded to be displayed with a suit worthy of it; the suit, in turn, demanded new shoes; the cheap hat went and an expensive one took its place. In the end, magnificent, but impoverished, the owner regarded his meagre habitation with disgust and plunged on a villa far beyond his means.

People who migrate from the mean dwellings of mean streets run the same danger. Once it is moved from its familiar setting, the old furniture blushes for itself and soon its owner is blushing for it, too.

So nice a house, cries Mrs. X, demands nice furniture and nice window curtains as well.

It is at this moment that the genie appears, waving a hire-purchase form. It looks so easy with payments spread like that! The plunge is taken; a new suite for the front room follows. It is in danger of becoming a "rake's progress", for optimism is the common characteristic of those who like credit. This is a real danger, and one that may lead to perpetual financial worry.

Experience of housing estates over a number of years, however, indicates that only a proportion of the poorest tenants, or those from bad slum areas, fail to adapt themselves to their new environment. And even so, the reason is not necessarily financial, because in these cases the rent rebates allowed by the housing authority will meet the additional expenses.

A higher standard of cleanliness and conduct is required if the former slum-dweller is to conform to the general conditions obtaining on the estate, and this does not always come easily to those accustomed from birth to squalor and too easy-going habits of life.

This part of the problem, obviously, will cure itself in a generation. Indeed, it is often exaggerated. In the drabbest streets of the Central Wards, the cleanliness, neatness and high standard of self-respect among the rising generation are such as to catch the eye of the stranger and win his admiration.

The large majority of tenants in the new Outer Suburbs, even when grumbling, appreciate the quality of their houses and value the pleasanter surroundings as a means of promoting the health and contentment of their families. Not many, it is certain, wish to return whence they came.

· XI ·

WHEN WE BUILD AGAIN

Professor Patrick Abercrombie, in his book *Town and Country Planning*,* defines the scope of planning as the achievement of beauty, health and convenience. "If town planning", he says, "is to be complete and avoid lopsidedness, a just equipoise must be attained between these three".

That planning with these ends in view must be on a national scale is also a commonplace proposition to-day with town-planners, industrialists, sociologists, geographers and all who perceive the absence of planning as the source of most of the evils which confront us now.

Indeed, the basic need for co-ordination of purpose extends even to the activities of the agricultural community, and in the United States, in such areas as the Tennessee Valley, the salvation of the land is being achieved by subordinating the activities of the individual farmer to planned work based on considerations of land, soil and weather conditions.

In short, it is clear that individualism must be tempered to the requirements of the complex structure of modern civilisation. If, in the preceding chapters, the problem confronting Birmingham has been considered as an isolated subject for research, it has been done with the full appreciation of the fact that the city's problems must be integrated with those of the region. In the same way, those of the region must be related to those of the country as a whole and as, indeed, these in turn must be examined against the matrix of the world problem.

The work, the fruits of which have been put into these pages, was done by applying sociological methods of investigation to housing, namely, *that of thinking in terms of living.* The architect, not uncommonly, is preoccupied with form and buildings, the housing reformer with number of dwellings, standards of accommodation and finance, and both some-

* Home University Library.

times underrate the human factor. These considerations, which are now becoming more widely recognised, involved us in the task of examining Birmingham's problems in terms of how people live and not of housing standards alone.

National and Regional Planning

It is unnecessary to labour the point or press the case for national planning, for the need is everywhere recognised. A National Planning Authority was recommended by the Royal Commission on the Distribution of the Industrial Population; and, more recently, in the House of Lords, the Minister for Works and Buildings has based his speeches on the assumption that the need was one that could be taken for granted.

Such a plan must bring into the orbit of its considerations existing industrial conditions throughout the country, together with the trends of industry and drifts of population.

Not only that: it must ponder well the problem of the large town, for it has to decide, sooner or later, upon the policy of growth stimulation or growth restriction.

This book is concerned with urban development and does not cover the equally important subject of rural planning and the preservation of agricultural land. It is well known that over 500,000 of the most fertile acres were built over between 1918 and 1940 in the building booms that followed the last war.

It is against the skeleton outline of the national plan that the regional and local planner must do his work, and this fact was fully realised by the Bournville Village Trust when it was decided to extend the research over a considerable area of the West Midlands (see Appendix B) and to give their wholehearted support to the West Midland Group on Post-War Reconstruction and Planning.

Birmingham, then, is no isolated problem circumscribed by the city's boundaries. The city's responsibilities extend much further, for it is, in truth, a great regional capital, and, as such, has to relate itself to the region and apply to all constructional effort the regional criterion.

It was recognised that it would be fallacious to put forward, on the basis of the work done, any cut-and-dried scheme, and that public interests would be better served by tentative suggestions with the virtue of flexibility. These suggestions lead to certain definite lines and types of development for the city, but they are put out, not as final conclusions, or dogmatically, but as the conclusions of research workers with practical ends in view and no preconceived theories to be fitted, willy-nilly, with the discovered facts.

It is by control of future development that the best results will be obtained. In the following pages it may appear as if some of the suggested solutions of the problem imply wholesale removals of industry and population and the reshuffling of some of the remainder. So drastic and disturbing a plan is not intended; if each of the suggestions is viewed in terms of a fifty years' period of development to be achieved as the control of new industries or new housing makes it possible, it will give a more accurate picture of the contribution we are endeavouring to make. What is imperative is that the controls should be established *now* before further disorder is added to the existing disorder that our research has revealed.

We will now review the elements of the problem.

Control of the Land

Control of the use of the land must always be the key to good planning, and without adequate control there can be no large scale schemes. Many individual landlords have laid out their estates with great care and foresight, preserving the amenities and greatly increasing the pleasure of living or working within their boundaries. The Calthorpe estate, for example, has always had a long-term policy which has noticeably preserved the open character of Edgbaston to the great advantage of those who have been fortunate enough to live there. At the same time, many other estates bowing to the dictates of economic pressure have crowded on to their land all the development that the land can bear.

Another type of landowner—for whom no one to-day feels much sympathy—has been the speculator whose interest in the land has been quite transitory, but the result of whose exploitation has been to spoil the area as a pleasant place in which to live and work. Last of all, there are the thousands of individual owners of plots of land who, whilst they may have made good use of the plots under their control, yet find themselves by an accident of geography in a position to hold up the development of a much wider area and are not disposed to sacrifice their particular interests to the greater communal good, except at a prohibitive price. While such situations are often exploited by the speculator, the main problem revolves around the ownership of land by individuals who are not antipathetic to improvement of the layout of our cities, but who for financial, sentimental, or other reasons, or even from sheer inertia, are not disposed to make a voluntary sacrifice.

The right of the community to override such individual considerations has long been recognised in the powers of compulsory purchase granted for particular schemes such as railways and road improvements, and also in the Town Planning Acts already on the Statute Book. But the practical application of these measures has often been stultified by the opportunities that they have left for individual landowners to hold the community to ransom. We believe that the time has come for some comprehensive forward move to deal with this problem.

Some system of giving fair compensation must be devised. Experience of the past thirty years has shown the failure of existing methods to assess compensation and betterment with fairness to both landowner and community. They have even failed to save vast areas from undirected development.

A discussion of the intricate legal and practical difficulties is outside the scope of this book and is being actively pursued in other places. Some comprehensive reform is generally recognised as inevitable, and without it many of our suggestions would be impracticable.

Licensing the Life of Buildings

In our view all buildings should be subject to license for definite periods. Certain buildings would be scheduled for immediate demolition, others for demolition within periods of say ten, twenty or fifty years. A Committee of the West Midland Group on Post-War Reconstruction and Planning is making an investigation of this subject.

By synchronisation of demolition orders, which the termination of each license period would achieve, whole districts would ripen for rebuilding at given times.

The need for a scheme such as this is apparent on many arterial roads where main thoroughfares have narrow bottle-necks caused by retention of a section of old buildings following the original road frontage. In other places large areas of a district contain worn-out and undesirable, but not insanitary, property which remains because, short of purchase at inflated values, there is no way of acquiring power to remove them for redevelopment.

If the life of such buildings were limited by license, orderly re-development could proceed according to a time plan.

The Elements of the Problem

The congested Central Wards, the dreary Middle Ring and the expanding Outer Ring have been described. Because a journey from the centre of the city towards its outskirts in any direction shows progressive improvement in housing conditions, the conclusion is commonly drawn that the remedy for the congestion of the centre is more building where there is more land. But this ignores the basic relationship between the home and the place of work, and at once a major objection presents itself, namely, transport, about which we have already written here.

We have seen, for example, that on municipal estates already over 40 per cent. of the principal wage-earners spent more than two shillings a week in travel to and from work.

Now suppose that the proposed large housing development scheme

were put in hand near the village of Sheldon about six miles east of the centre of the city. The site is there and there are no obstacles save that of the journey to work.

As a matter of general interest, comparative costs were worked out for this site. They showed that a move from the Central Wards of 1,000 typical families would involve a 430 per cent. increase in transport (from 1·1 miles to 5·9 miles) and a fare increase of from eightpence to over three shillings for the principal wage-earner alone.

The travelling time of the Birmingham worker is not as yet excessive, but on the new housing estates the limits of convenience have already been reached and, perhaps, in places exceeded. Therefore, if new building schemes are put even further out, the transport difficulty will become acute in Birmingham.

Yet if we turn to the alternative we find the second prong of Morton's fork. Even were all the available land within the city used for new housing schemes, it is estimated that not more than some 25,000 houses could be sited.

As a matter of fact, the city at one time proposed to acquire further land for housing beyond the city boundaries, a policy, in the light of the foregoing considerations, which would seem to us to be open to criticism.

For not only would it create a serious transport difficulty, but it would inevitably thrust the country further from the city, isolate the city people from the open air, and increase difficulties of milk and market garden supplies, producing exactly those problems of overgrowth which are universally acknowledged as serious in London.

The Internal Problem

We will now consider how the city might be replanned, starting with the Old City. The task is in the main two-fold: To replace the areas of factories and house-factories such as exist in the jewellery quarter; to create space about the larger factories and rehouse their workers.

As we make clear at the end of this book, our recommendations from the research give no simple solution. They suggest a combination of several methods as the best way of tackling the problem of rebuilding Birmingham.

Problems of the Smaller Factories

It is estimated that there are at least 12,000 small firms employing less than a hundred employees apiece who work in the smaller factories in which the city abounds. These factories are, at best, built within the areas of the old houses and gardens, and, at the worst, are squeezed within the shells of worn-out houses or up back alleys. It is on these small factories that much of the city's prosperity depends.

The above figures go far to explain the unplanned congestion of the older parts of Birmingham, the City of Twelve Hundred Trades; it underlines the difficulties of improving industrial transport under present conditions.

Many of these numerous small factories are grouped in districts such as the famous jewellery district and the districts round Newtown Row and Summer Lane. From the planner's point of view this is a happy circumstance since it makes possible a consideration of the job in terms of units.

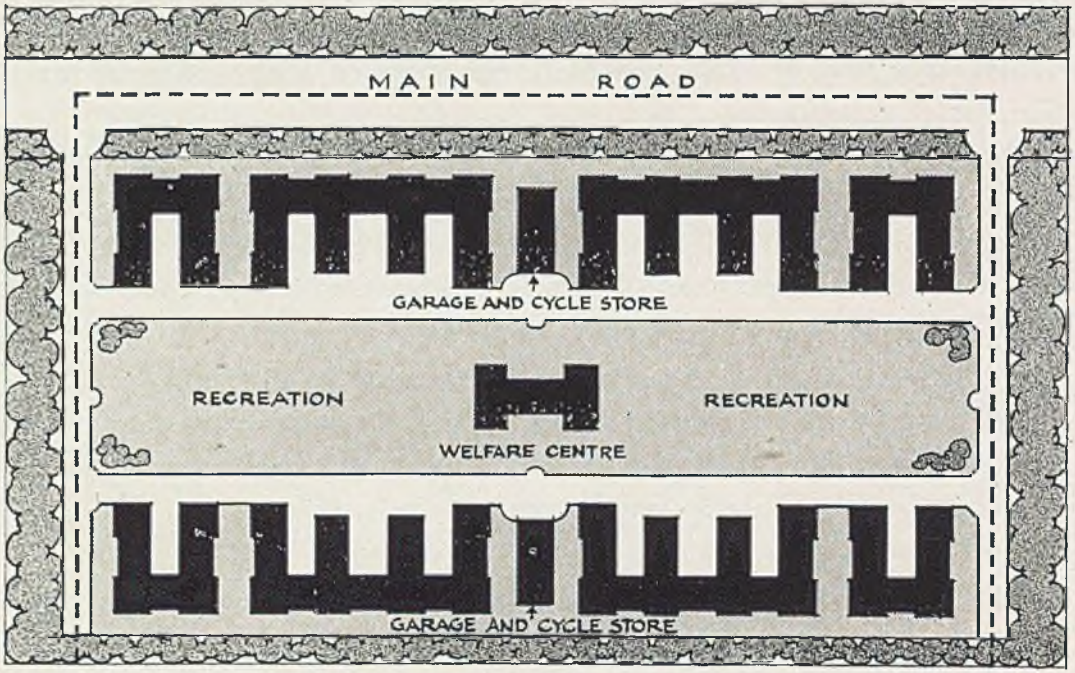
The solution suggested here for this state of affairs is the "flatted" factory. Such buildings, five or six storeys high, could rehouse existing factories in less than half the present space taken by them (see Plan, page 108), thus releasing land for road improvement schemes and open spaces for health and recreation.

Additional advantages which would proceed from this policy would include better working accommodation, proper factory services—canteens, laundries, central rest rooms, first-aid depots, garages, repair shops, car parks and cycle sheds—and a general modernisation. At present none of these amenities exists.

The scheme is, in fact, the adaptation of the modern large block of

THE JEWELLERY QUARTER

The top plan shows a section of the Jewellery Quarter as it is to-day—a congested formless jumble of old factories and houses. The bottom one shows how the same floor space could be provided in two groups of six-storey buildings with the surrounding open space that would be available. The central buildings give additional accommodation for communal facilities not now provided. (See illustrations 19–23.)



flats to industrial purposes, and, for the tenant, usually an employer of labour on a small scale, it offers a very real advantage, namely, the easy addition to his accommodation or the reverse, according to the state of business at a given period. Naturally, central heating, good lighting and sanitary accommodation and improved transport facilities are envisaged. Further, as some 20,000 of the workers are married women, the provision of crèches and nursery schools might be considered.

Since the majority of industries involved in this scheme are small, the transfer to the new conditions would not be a costly or difficult proceeding nor one involving heavy compensation. The new buildings themselves could be constructed to serve fully the purposes in view without a heavy expenditure.

From the architectural point of view, such buildings offer scope for dignified design as the alternative to the old ugliness replaced by them and to the competitive pretentiousness that too often characterises modern commercial architecture.

The Factory Centre or "Trading Estate"

The P.E.P. report on the Location of Industry (Chapter IV), after a thorough investigation, comes to the conclusion that: "Trading estates appear to be able to yield a return of at least 3½ per cent. on capital invested on a 40-year average". The report adds that this has been achieved despite the "lack of any planned relation between industrial facilities on the one hand, and labour and housing availability on the other".

In fact, the "trading estates" have depended on attracting new industries and have, more or less, left the provision of housing to take care of itself.

Now here is an opportunity to correlate the location of industry, housing and other amenities. Factory centres or "flatted" factories could be located throughout the city in centre and suburbs alike, so as to allow all workers to live near to their work.

The situation in the old-established districts of the city offers the most obvious opportunity for this type of development. By judicious redevelopment of the congested areas on these lines it would be possible to work out a proper relationship between factories and dwellings. If this were done the factory centres would have a flying start because established firms and labour would be available for the factories and housing would be provided nearby. These conditions should assure financial success.

Since the research was begun the war has changed to some extent the nature of the problem. In many places enemy action has made rebuilding inevitable, so that the opportunity is present, as is, also, the possibility of repeating the errors of the past, if we fail to grasp the essentials of the problem now. The whole scheme outlined above would require additional legal sanction particularly with regard to Land Tenure. The solution of this aspect of the problem without delay is a necessity. And for this reason: failure to prepare and present a complete scheme when the moment for reconstruction arrives, leaves the way clear for the individual speculator and a repetition of the muddle that proceeds from unplanned building. It scarcely needs to be added that a planned rebuilding of the district would be a quicker job than piecemeal reconstruction.

The Larger Factories

So far the problem of the Central Wards has been considered only as it concerns the small factories. But the congested districts contain several large and important firms of world-wide repute. Some of these are housed in expensive modern buildings with very heavy plant. The future of these factories must be brought into the planner's calculations, for they have large pay-rolls and form an important part in the economic life of their district and of the city.

It is one thing to rehouse an industry employing small numbers and light machinery; another to transplant one equipped with large quantities

of heavy plant for mass production and on which thousands of workers living in the district depend. At the same time, such is the lack of space that expansion on their present sites is often impossible. It is the old story of lack of *lebensraum.* A new wing or block involves the demolition of adjacent small house property; and every extension of the giant dwarfs further the pigmy and casts a shadow on him. There can never be any argument for the giant factory as neighbour of the poor man's home, yet in the Central Wards both need space, and neither have it.

What, then, is the solution?

The removal of the large factories out of the city has been advocated in some quarters. It presents great difficulties. True, it could be fitted into a long-term regional or national replanning scheme; but considered from the local viewpoint we see in the foreground the dangers of so radical a redistribution of industry and private life, and one that would drag in its wake a great new rehousing problem. Again, such removals would be exceedingly costly, for reasons already indicated.

In considering replanning, the composite character of the industries in the districts under review must be borne in mind. Each district must, as far as possible, provide employment for all categories of wage-earners, fathers and sons, women and girls. Thus some degree of variety is essential if the employment provided is not to become unbalanced.

Plans for industrial redistribution must take into account the nature of the employment involved. Some industries—to use an Americanism—are "footloose", may be located anywhere; others are "residentiary", such as baking and shopkeeping, and serve the local community; while others again, such as mining, are tied to a particular area by physical bonds. It is the first two that must be considered in replanning Birmingham. The traditional versatility of Birmingham's industry, upon which much of the city's prosperity depends, must be maintained.

Because of the physical difficulties of removal on the one hand, and the necessity of retaining balanced employment on the other, many of the large factories must remain in the city, and the problem remains—

how to make more room round them, space for recreation grounds and parks, for improved traffic and transport facilities, and for general civic amenities.

It is plain that such space can only be acquired by planned redevelopment of the district involving the demolition and removal of some existing factories, and by schemes of rehousing.

Already the reader has probably put the question: Yes, and where are these factories to be rebuilt?

This question must be answered before we can deal with the replanning of the hard core that must remain in the centre. Here we put forward a proposal solely designed to relieve the pressure in the centre of the city and so facilitate its redevelopment; it is not a solution in itself and must be considered only as a part of the larger scheme of replanning.

Satellite Towns

The city's previous housing policy involved clearance of the poorer houses and the condemnation of insanitary property, the tenants of which were rehoused on the city's outskirts—a policy extending further the already too remote city boundaries and creating the transport difficulty already explained.

An alternative plan which has been strongly advocated in certain quarters envisages many blocks of flats in the city on the lines of the group on the Emily Street site, but with more communal facilities and amenities than the present scheme provides. But even vertical development of this kind does not provide a solution: there is not sufficient land for the rehousing of the city's Central Wards' population without the danger of falling below the accepted minimum standards of modern planning.

Present advocates of city flats put the maximum population density at eighty persons to the acre. In the Wards under consideration, after allowing the needed site-space for industry, the density is about 120

persons to the acre. These figures indicate that flats alone could not provide the sought-for answer.

It is our considered view that, on the facts, it would be preferable to carry out a combination of various schemes, governed by the principle that industry and housing must be considered for replanning as the two parts of a single problem.

There is a strong case for founding one or more satellite towns to rehouse some of the worst accommodated scattered factories, together with workers from the older parts of the city.

Such more or less artificially created communities can be set going only by the establishment of local industries. Attractive terms for factory sites, therefore, together with all essential services, would have to form part of the project. Here, again, the application of the factory centre principle should prove useful to small firms and of advantage to the parent city.

The sites for such towns would have to be far enough out of Birmingham to assure individuality and avoid the danger of becoming mere dormitories: a satellite town is not a suburb, but an individual cell budded from the parent cell, the city.

A satellite town positioned twenty or even thirty miles out, would be brought as near the city in time by an express train service as are the city's outskirts under present transport facilities.

The conversion of an existing town or village to this purpose has, on balance, little in its favour. It would provide a civic start, it is true, but against that are weighty disadvantages: the unsuitability of the existing layout, local prejudices and the existence of legal rights. All these might constrict the nascent community based on a transplantation of work and workers.

Upon new sites, on the other hand, planning could start *de novo*, as at Letchworth. These new towns would naturally look to Birmingham as their centre for higher education and public services, luxury shopping and entertainment, but would be otherwise self-sufficient.

In other words, the parental link should be recreational and cultural, the fully grown town supplying its own labour and producing its own wealth from its own industries. This is essential, for if the main focus of interest remains in the parent or central city, then the satellite does become merely a dormitory, and as such fails entirely as a community, lacking the essential characteristics of one.

But the new satellite town could be owned and governed as a part of the parent city as is Wythenshaw, which in all respects is part of Manchester. Alternatively, it could be linked with the parent city through the medium of some new Regional Authority.

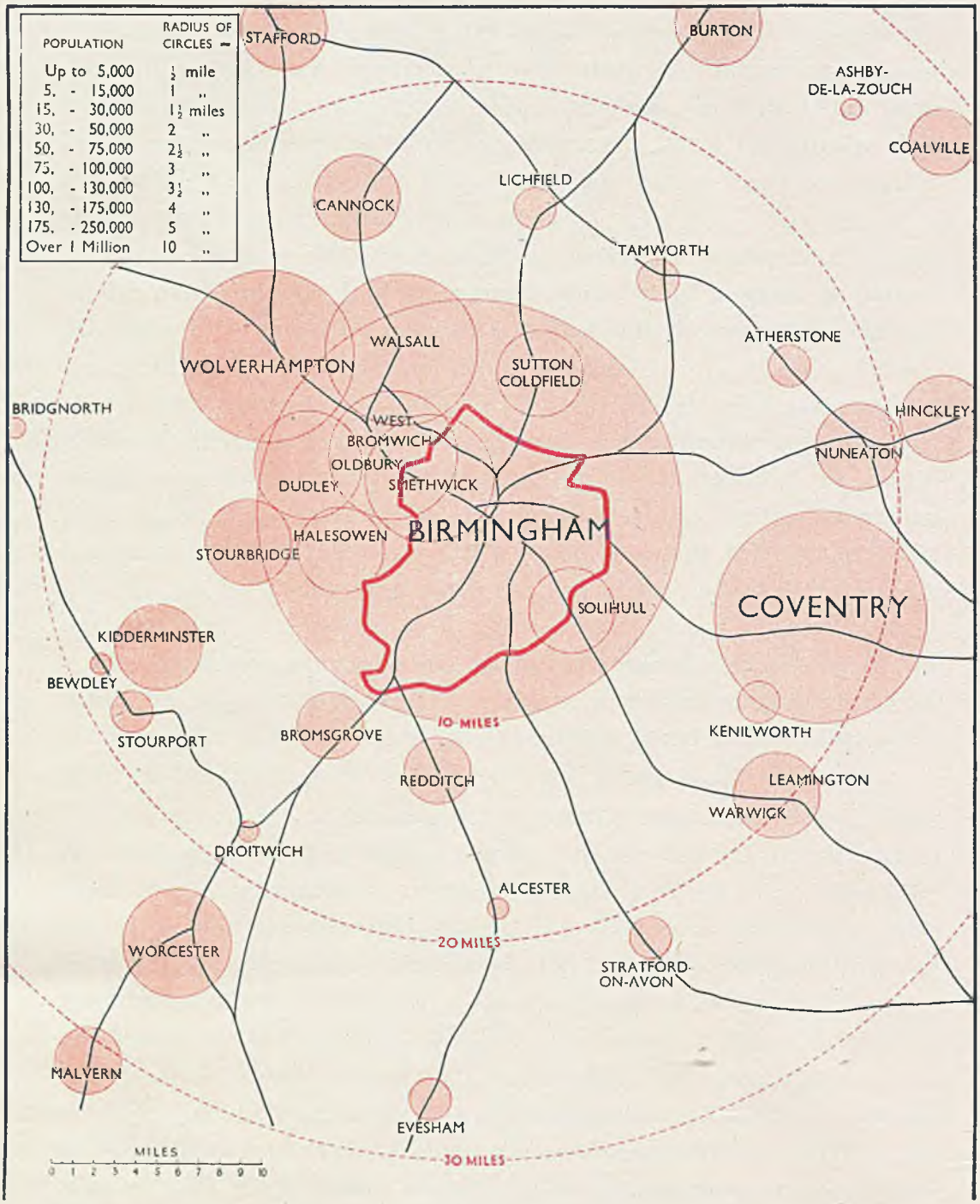
Such towns, from their start, should be planned as an integral part of the Birmingham improvement scheme. Their first settled industries would form, automatically, the first move of the clearance of the central parts of the city. They would thus be units with proved industries and trained workers, linked physically by good transport to the city. The planning of the satellite and the replanning of the congested district are one operation.

An optimum population has to be determined. Provisionally, we suggest 30,000 to 50,000, which, by virtue of the link with Birmingham, could provide greater facilities than could be found in an independent town of that size and yet be large enough to have a life of its own.

The advantages to Birmingham of satellite towns are clear. Their creation would at once relieve pressure on the Central Wards and so make easier the replanning of these older parts of the city. They offer an escape from the dormitory suburb, that distressing civic development of to-day, at the same time solving the transport problem by siting workers beside their work. The value of breaking the present trend to dormitories on the outskirts is great, for the whole tendency is for these settlements to sprawl further and further into the countryside.

Secondly, the satellite town would bring financial advantage to the parent city; for the capital outlay for such communities would be far smaller than for suburban acreage. It is reasonable to suppose, also,

WEST MIDLAND TOWNS



The Siting of a Satellite Town

This map of West Midland Towns is diagrammatic, the area of the circles being proportional to the population. No new satellite town should be sited where it would infringe on these circles, otherwise it would merely be an extension of existing congestion. It is clear that few free areas are now available and that those lie to the north-east and to the south.

PLATE IX

Facing page 115

that sections of the community rehoused in such circumstances would show a general improvement in health, and thus would lighten the financial burden on the city's public health services.

Last, the cost of providing ample recreational facilities would be much less, since the land price factor would apply to public gardens and parks and playing fields, as to house sites.

Siting the Satellite Town

The map on Plate IX has been drawn diagrammatically to show the present urban development within thirty miles of Birmingham. To the west and north-west, it will be seen, the city is hemmed in by the Black Country; to the east are Nuneaton, Hinckley, Coventry, and Leamington; and to the south lie Bromsgrove, Worcester, and Redditch.

It is clear that there is very little land available for our satellite towns, and that little will be found to the north-east and to the south. These local geographical limitations have to be considered, but any detailed examination of the problem of siting is not within the scope of the present work.

Replanning the Hard Core

A general plan for the congested Central Wards has been outlined—flatted factories, trading estates and the re-siting in satellite towns of some firms and their employees. Even so, the majority of the factories would remain, which means that housing must be provided for their workpeople.

In our view, this part of the job can only be done efficiently if the rehousing is carried out *as part of a general plan.* It is true there have been plans in the past; indeed, the City Engineer at the present time has plans prepared for considerable areas, involving the re-siting of factories and dwellings, and these are an example of what can be done under the present powers possessed by the city.

The Town and Country Planning Act and the Housing Act of 1930 give wide powers, but they are not sufficient to make possible the wholesale

replanning we envisage as essential. Further, before rebuilding can take place a substantial part of the existing property must be proved ripe for demolition. What is called for is "positive" rather than "permissive" planning. It must envisage the city, and indeed the region, *as a whole*, and it must be clothed with far wider powers than are at present sanctioned by Parliament.

Rehousing the Central Wards

It seems unlikely, from industrial considerations alone, that much more than one-third of the existing population of the Central Wards, say 60,000 out of 190,000, could ultimately be moved out to the satellite towns.

As the population density of these districts is over sixty, and if factories are excluded, about 120, persons to the acre, we are left with a probable density of eighty, even if a third are moved out. This is clearly more than can be housed in the area at the present accepted standard of twelve houses, or roughly, forty-three persons to the acre.

On the other hand, it is well within the numbers that could be housed in large blocks of flats. *Town and Country To-morrow**, for example, estimates eighty to the acre on a ten-storey flat basis; and the National Council for Research on Housing Construction considers an even higher density possible. Despite preferences, which our research indicates lean towards the individual home, the plain truth of the matter is this: there is no solution for our 130,000 people in the Inner Wards without a considerable transfer from small house to modern flat.

Midway between the small house and the large block of flats stands the third possibility: the use of maisonettes and terraced houses, providing gardens and opportunities for architectural diversity. But because of the density of the population to be rehoused, these could be built only for a minority.

The Flat as Home

At this point it will be well to set out our idea of the type of flat best

* G. Boumphrey (Nelson, 2s. 6d.).

suited to our purpose. We believe that the word "flat" is no synonym for "tenement"; far from it. Flats can be justified only if they provide communal advantages and economies: central heating, constant hot water, playgrounds, crèches, and lifts. In short, only if they take the flat principle a lot further than it has so far been taken in England when applied to the housing of working folk.

Before the large block of flats, designed and built for working people, can provide the answer for the overcrowded central cores of all great cities, large-scale experiment is essential.

Flat Economics

The many controversial points of flat *v.* single dwelling lie outside the scope of this book, as do the economics of flat design. Even so, it is certain that the economic building possibilities of large blocks of flats have not been explored in this country; nor have the possible economies to the civic authority been fully worked out.

For example: what is the ideal storey standard for flats? We mentioned ten simply because the figure we quoted had been worked out on this basis. It may well be that some other number would be preferable and any uniform standard would be undesirable. The answer, actually, depends on the equation of constructional costs, amenities, convenience, land values, and the provision of large open spaces.

The construction of flats should not be the excuse for crowding more people to the acre, but rather the opportunity of providing more open acres for those who must live in areas with a high density of population.

Maisonette Estates

Maisonette estates are another possible contribution to the redevelopment of congested areas. They approximate more closely to that type of dwelling most favoured by the majority of people, and, in Birmingham, they have proved successful at Ashcroft Estate, Great Brook Street, and in other parts of the city.

They are popular because they provide both gardens and playgrounds. They are possible because they accommodate sixty to ninety persons to the acre and thus are economical of land. Their constructional costs, per dwelling, are considerably below those of big blocks of flats. Anyone interested should pay a visit to the site already mentioned, which is an excellent example of interesting housing development.

The Terrace

Some of the most charming residential quarters to be found in our English towns are the terraced houses that characterised much domestic architecture of the eighteenth century. These serene and pleasant facades were unhappily succeeded by the rows of tunnel-back houses, which were built in such large numbers in the nineteenth and early years of the twentieth century. But there is no reason why squares and terraces should not again form a feature of our new urban patterns.

Flats, maisonettes and terraced houses, not as competing alternatives, but as complementary parts of a general scheme for rehousing, appear to us as the best method of rehousing those who must remain in the centre of the city.

Importance of Communications

The foundations of any city, whether new or old, are its communications, and to get these in efficient and satisfactory order is the prerequisite task of the town-planner.

There exists already a plan for arterial roads with connecting Inner and Outer Ring roads, and as new buildings are erected they are made to fall into line with this scheme. In course of time, the main arteries will grow in importance and in conformation to this master plan, but this will be a slow process. The time factor, indeed, is the vitiating limitation to this plan, and, in our view, a more urgent method will have to replace it.

The centre of the city is a maze of one-way streets. Drive with a stranger who is trying to navigate his way about the city, and you will

appreciate the puzzle that our peculiar street layout presents to others.

How, in a great city, can this lack of plan and logical road layout be tolerated? Yet that it should be so to-day is inevitable under existing legislation; the control of the land must be revised if this is to be overcome.

A wide-sweeping re-layout of the city centre is too vital a matter for indefinite postponement. Through routes, central termini for tramways and omnibus services, and better railway facilities, are all essential for the efficient transport function of the city. In this connection, the project for a tunnel under the centre of the city might well be reconsidered.

Finally, it is agreed that arterial roads should run through parkways, thus bringing "green wedges" towards the city's centre while accelerating the traffic *tempo*. The existing plans make no such provisions, and indeed, under the present method of piecemeal development, it would be difficult to provide them.

Around the framework of the boulevards envisaged, the remaining land should be allotted to housing, industry, open spaces, shops and public services, all as part of a single undivided plan.

The Large Housing Estates

The large estates, admirable as they are in many ways, remain one-class dormitories none too conveniently placed in relation to places of employment. This is true, although they provide their inhabitants with gardens, schools, cinemas, public-houses and limited shopping facilities. Even so, they lack the essential integration of communal life without which no settlement of people can emerge as an organic social whole.

Here, we think, some of the existing community centres provide a valuable pointer, the germ of a social centre for the district.

It is a cardinal mistake that is sometimes made to equate fine accommodation for communal activities with the reality itself. In all such matters it is the spirit and not the material resources that count. A Peace Palace at The Hague may cost a million sterling, but it wears a sorry

air in a world such as that in which this book was written. At some of the small existing community centres, communal life is full and varied because the human factor is present providing initiative, leadership and organisation. Good buildings are essential and must be provided, but they are no substitute for the personal element.

The community centres are run on a voluntary basis, but for a wider application of such centres it is, in our view, probable that some kind of municipal initiative is called for. We think centres should be built in all estates and should be assisted from the start by the city.

Looking further ahead, we see the possibility of extending to the estates health centres on the lines of several started in London with varying degrees of success. The object of these centres is twofold. First, they aim at treating the medical problems of the people from the viewpoint of the family as the normal social unit, and by early diagnosis checking disease while in its masked state; secondly, they are social centres in the full sense of the word, with social, athletic and cultural facilities, concert halls, gymnasia, libraries, youth organisations, crèches, hobby clubs and the like.

Only by such activities, in our view, can virtual dormitories be changed into organic communities where people "live".

Is Birmingham Big Enough?

One final point: Should Birmingham continue to expand? In our view, the solid city area has already stretched beyond its optimum size. The facts brought out by our research, and the object lesson provided by Greater London, alike reveal the dangers of excessive growth.

We advocate, therefore, the general limitation of building to the present city limits, and a policy of agricultural reservations immediately outside them, the latter to check the unwieldy development of the city and also, as already pointed out, to assure sources of food and milk near enough to the city to be consumed in a fresh and, therefore, most health-giving condition.

SUMMARY OF SUGGESTIONS

In presenting this report of our research work carried out during the years 1935-1938, it is, we believe, important to make a summary of suggestions arising from our findings. We wish to make these as crisp and definite as possible, but are conscious that it is dangerous to define too closely in a sphere of such magnitude, or to claim to have discovered a simple solution. This is particularly true where conditions are rapidly changing. As we have already stated, it is clear that there is no one simple solution to the problem of rebuilding Birmingham. The following points cover some of the more important ways in which we think rebuilding should be planned. It is not yet possible to weigh the importance of one method against another, but we have attempted to arrange them in order of urgency:—

(1) The creation of a National Planning Authority under whose ægis local planning would be carried out, unrestricted by existing administrative boundaries (pages 102-103).

(2) Reform of the present system of land tenure to ensure the greater control of the use of land in the public interest (pages 103-104).

(3) The limitation of any further expansion of the present solid city area by enforcing the maintenance of an agricultural or green belt (page 120).

(4) The replanning of the existing city to give improved amenities by—

  (*a*) The creation of satellite towns to relieve the pressure in the city (pages 112-115).

  (*b*) The provision, in various parts of the city, of factory centres, including "flatted" factories, with the necessary rehousing around them (pages 107-110).

  (*c*) The redevelopment of the areas around those factories which, for the time being, must remain in their present location in the city (pages 110-112).

(*d*) The rehousing of the residual Central Ward population in modern flats, maisonettes and terraced houses (pages 116-118)*.

(5) The adoption of the principle of licensing the life of buildings as a method of facilitating and synchronising ordered reconstruction (page 105).

(6) The construction as soon as possible of wide through roads with parkways, and of communicating ring roads, and the replanning of the traffic layout of the city centre (pages 118-119).

(7) The development of improved communal and social centres on the new housing estates with the object of making them into living communities (pages 119-120).

Underlying Principles

All enterprises having as their end object the organisation of human life under optimum conditions of health and happiness must link idealism with realism, for the past, if it teaches us anything at all, teaches us that idealism, divorced from realism, ends in wrecked hopes and shattered projects.

In considering the problem of Birmingham, as part of the greater problem of national replanning, we have kept always in the forefront of our minds the central hard facts, namely, that while attempting to achieve the ideal of beauty, health and convenience, we must relate housing to industry and home life, since it is by the toil of their hands that men live and by the strength of the family that the race will continue. In other words, the city must be viewed as a single organism designed for living and working. Consequently, research into existing conditions and a careful analysis of the elements of the problems are seen as the necessary prerequisites to action.

Before we set out, we must be in agreement as to where we desire to go, and upon the route by which we propose to reach that destination.

* See also page 48.

The major part of this book has been necessarily taken up with the realistic approach to the problem; but this does not mean that its other aspects have been absent from our minds. Among much else that has to be brought into an accounting, is the psychological make-up of our people and the elements of the English character.

As we know, the dominant characteristic of our race is love of freedom and the deep-rooted detestation of interference; the Englishman will, willy-nilly, live as he chooses. For that reason, any plan that proceeds without reference to this conditioning factor, is foredoomed to failure to the extent that it runs counter to general acceptance.

That is why, throughout, we have borne in mind the importance of diversity and the wisdom of the provision of alternatives. For in no other way could we hope to contribute, even in an admittedly small degree, to the ultimate solution of the destiny of our city.

APPENDIX "A"

NOTE ON RESEARCH METHODS

THE VISITS ON WHICH THE INFORMATION in the research was based were made from September, 1937, to August, 1938. The information was obtained by personal calls at addresses obtained from the Medical Officer of Health's list of working-class houses—prepared for the Overcrowding Survey—and brought up to date by the addition of new houses which had subsequently been built. From this list every thirty-fifth address was selected. In all 7,161 householders were questioned.

Twenty-nine investigators were employed whose previous experience as social workers qualified them for the work.

The questionnaires were checked at Bournville immediately on receipt. The analysis was subsequently made by the British Tabulating Co. Ltd. The planning and the execution of the research was carried out by the Bournville Village Trust Research Department with the assistance of Dr. M. A. Abrams, of the Research Department of the London Press Exchange Ltd., and of the Statistical Research Department of Cadbury Bros. Ltd.

Two completed questionnaire forms are given, together with extracts from the Instructions to Investigators, to show the way in which the work was done.

The results of the Survey were, in the majority of cases, analysed under headings of the thirty-four Municipal Wards within the city, but, as a single ward is too small a unit to yield useful figures, grouping has been necessary.

Two methods of grouping have been adopted. The first is the division into three rings of wards, as used in the City Medical Officer's Reports, i.e. (*a*) Central Wards, (*b*) Middle Ring, and (*c*) Outer Ring. The other method is the division of the city into seven districts. It will be noted that

the seven wards in the centre form a unit in both methods of grouping.

The division into three rings is convenient for recording such matters as age groups, density of population, etc., as comparisons with other vital statistics published by city authorities are more easily made. For the part of the Research dealing with time and cost of travelling to work, and kindred subjects, smaller and more compact units are required. The seven districts fulfil this need.

In grouping the wards into the smaller units an attempt has been made to make the areas of each district reasonably comparable, and, so far as possible, to place neighbouring wards with a community of interests into the same district. An inspection of the maps and tables show the general validity of the grouping.

Results are given to one place of decimals only. Consequently, in some of the tables the percentages do not total to exactly 100.

SUMMARY OF THE MAIN POINTS OF THE INSTRUCTIONS TO INVESTIGATORS

Addresses to be Visited

All interviews must be made with the occupiers of the premises on the list of addresses. At least *one-third* of the interviews must be with *men*, and if necessary, evening, Saturday and week-end calls must be made.

Return of Forms

Forms must be returned in batches on Mondays and Thursdays, and will be checked at the office as they arrive.

Persons to be Interviewed

The interview should be with the head of the household—failing this, the nearest adult relative who can reply accurately on matters of *fact*. Where the householder is not seen, arrangements must be made to call

again to ask questions on matters of *opinion*. If the named householder has moved, substitute the present occupier.

Substitution of Addresses

Where premises are found to be empty and where after at least three visits at different times of the day no one can be found at home or where an interview is refused, you must take the nearest house or flat on the same side of the street in order to avoid the introduction of bias into the survey. It is vital that substitution should not occur before three visits have been made, as otherwise this would omit from the survey the class of person who is away from home most of the day. Should the address now be a factory or office, an interview should still be attempted as there may be a caretaker whose house requirements need consideration.

Conduct of Interviews

Remember that the persons interviewed will be doing so quite voluntarily, and every effort should be made to gain their interest and co-operation. The interview might best be opened by saying, "We are trying to find out the real housing needs of the City of Birmingham, and we are, therefore, calling at a number of selected houses to ask if the householders will help by giving us a little information".

If investigators are asked who sent them, they should say that they are employed by the *Bournville Village Trust Research Department*. They should show the heading of the questionnaire, which contains the name.

If the investigators are asked the purpose of the survey, they should explain that it will provide information upon which a comprehensive housing policy might be based.

Investigators should emphasise that information concerning separate households will be treated as *strictly confidential*. Only average figures for large numbers of households will be published.

ITEMS ON THE QUESTIONNAIRE

There are two forms of questionnaire:—

(1) *The principal form*, containing the essential points in the inquiry which must be filled in for every name on the list.

(2) *The preference form*, containing on one side a number of reasons why a tenant may prefer to live in his present home, and on the other reasons for preferring to move. One of these forms is to be filled in at every fifth house on the lists, starting with No. 5 on each list. It is important to adhere strictly to the sequence 5, 10, 15, 20, 25.

Gardens.—The method of approach is important and should be as follows:—

If there is a garden, indicate its condition by ticking "good" "fair", or "bad". The condition of a garden does not depend on its attractiveness. If the garden is not weedy, is planted, either with flowers or vegetables, and the grass (if any) is well cut, call this "good". If there is every evidence of neglect as indicated by many weeds, long, uncut grass, undug ground, absence of flowers or vegetables, call this "bad". "Fair" is used to describe the gardens somewhere between these two extremes. For example, a garden that is partly cultivated, but has a patch of ground trampled down by children, or very weedy, might be described as "Fair". Remember that gardens in the fall of the year do not appear so tidy as in the spring or summer.

Comments.—Write down any facts relating to the household that you think might be useful. If you doubt the truthfulness of any of the answers, put a note to that effect.

Journey to Work.—Put the distance as the *crow flies.* Check the information given from the map. In taking particulars of time of travelling, confine your inquiries to *morning journey only* and always confine inquiries to *yesterday's work.*

The amount of fares should be worked out while the investigator is at the house, and any discrepancies in the weekly and daily figures given should be put right.

The principal form (front)

BOURNVILLE VILLAGE TRUST—RESEARCH DEPT.

HOUSING SURVEY

District 4 Ward 11 Serial No. 3601

Municipal Estate Date 19·11·37.

Householder's Name A. B. Cee.

Address 13 The Circle.

Interview Begun 7·30 Ended 7·40

Complete House			House-Flat			Block-Flat		
M	P	U	M	P	U	M	P	U
✓			S.C. Floor	N.S.C.		Floor		

Shop Attached No

When did you move in here? 1928

If Tenant: Weekly Rent (Inc. rates & Water rate) 15/2 Amt. from Sub-Tenant —

If Owner: Repayments ..... Annual Rates & Water Rate ..... Ground Rent per Annum .....

Age of Structure	Pre-war	1921-31 ✓	1931-37

No. of Families in House 1

Rooms	L.Rs.	K	S	Bath	Bed R.
5	2	-	1	1	3

Are any parts of dwelling sub-let: Y | N ✓ | Furnished | Unfurnished

GARDENS

Have Garden?					Have no Garden?		Detached Allotment	
Like it? ✓	Do not like it?	Condition			Like one?	Not like one?	Y	N ✓
		Good ✓	Fair	Bad				

PARTICULARS OF PERSONS 60 & OVER

Marital Status	Income Weekly	Nature of Income	Small Dwelling?	Where?	Why?

Note.—The above must also be entered in their proper places on back of form.

COMMENTS

Tenant is satisfied but complains of damps.

Abbreviations: M = Municipal. P = Private. U = Public Utility. S.C. = Self Contained. Y = Yes. N = No.

The principal form (back)

MEMBERS OF FAMILY

	Relationship (Mark informant by X, put "H" after Householder if not husband)	Age	Occupation	Reg. or Cas.	Night-worker	Unemployed	Employer & Workplace	Ward	How long in Job	Employer's Business or Trade	Dist. from Home to Work	Last full work day: Morning journey: Left Home	Last full work day: Morning journey: Clocked in	Last full work day: Morning journey: Form of Tpt.	Last full work day: Cost of Trans. per Day	Last full work day: Home mid-day?	Weekly Fares
WAGE-EARNERS	X Householder	50	Electro-plater	R			Anstey & Wilson Kenyon St.	15	36 yrs	Electro-platers.	Miles 3½	7.20	8.0	Tram	6d	No.	3s. 0d.
	Son	19	Warehouseman	R			Brain & Cooper Bradwell St.	10	2 yrs	Fish-fries Warehouse.	3	7.30	8.0	Tram	4d	No	2s. 0d.
	Son.	16	Clerk	R			Wells & Ludlow Fazeley St.	7	2 yrs	Galvanizers.	2½	8.25	9.0	Tram	7d	No	3s. 6d.
NON WAGE-EARNERS	ADULTS																
	Housewife	47	Household Duties														
	CHILDREN		YESTERDAY'S LEISURE				Day of Week Thurs.			Weather		Fair		Showery ✓		Wet	
			Time of Play				Place			Distance from Home (Miles)				Time taken on journey			
	Daughter	12	Mid-day.				Indoors.										
			Evening.				Indoors.										

Birthplace of Householder (male) Birmingham

When did he come to Birmingham?

Birthplace of Householder's Wife or of Householder if woman Birmingham

When did she come to Birmingham?

INVESTIGATOR J. W. W.

The Preference Form (*Front*)

Serial No. 1650

BOURNVILLE VILLAGE TRUST

RESEARCH DEPARTMENT

N MR. X. Y. Z.,

A 10 The Square.

1.—Below are twelve possible reasons for living in your present house Which of these apply in your case?

(1) You are near your friends. √

(2) You like the house.

(3) It is near place of husband's (or principal wage-earner's) work.

(4) The rent is low. √

(5) You own the house.

(6) You like a garden.

(7) You like living near centre of City.

(8) You prefer to live away from centre of City.

(9) You are a member of local Church, Club, or Societies.

(10) You would hate trouble and cost of moving.

(11) You would probably have to pay higher rent if you left. √

(12) It is the only house you can get.

Any other reason should be added.

The Preference Form (*Back*)

2.—Below are ten possible reasons for moving. If you did think of moving, which of these would apply in your case?

(1) You want to be near friends.

(2) You want a garden.

(3) You would like to be nearer country or parks.

(4) You wish to be nearer husband's (or principal wage-earner's) work.

(5) You would like a nicer house. ✓

(6) Your present rent is too high for you.

(7) You would like a new house.

(8) You wish to live in a flat.

(9) You prefer to be nearer centre of City.

(10) You prefer to be further from centre of City.

Any other reason should be added.

3.—On the whole, do you want to move? Yes.

4.—Where would you like to live? Washwood Heath or Pype Hayes.

5.—Would it be further from husband's or principal wage-earner's place of work? Yes.

6.—Would it cost more in travelling? Yes.

7.—Have you applied for a Corporation house? Yes.

8.—Where? Washwood Heath.

9.—When? 1932.

Investigator G. J. G.

APPENDIX "B"

IT IS NOT POSSIBLE to publish in wartime the detailed regional maps which were prepared. The following significant facts were, however, disclosed by a comparison of the new maps with the latest available editions of the Ordnance Survey.

Out of a total area of 729,600 acres (1,140 square miles) indicated on the survey, the ordnance maps show approximately 48,000 acres developed. Our survey reveals that approximately 76,500 acres, or nearly 10·5 per cent. of the total area, is now developed. This figure is a conservative one since it does not take into account land occupied by roads, railways, canals, sewage works, etc.

Of this development, approximately 57,000 acres, or nearly 75 per cent. of the total development, is massed within an area 18 miles square (containing 324 square miles or 207,360 acres). This square extends from Walsall on the north to just beyond the boundary of the City of Birmingham on the south and from Stourbridge and Wolverhampton on the west to the Birmingham City boundary on the east. It includes the towns of Birmingham, Wolverhampton, Walsall, Bloxwich, West Bromwich, Dudley, Halesowen, Stourbridge, Sutton Coldfield, Solihull, etc., and may be called—for want of a better name—"The Birmingham and Black Country Area".

Some idea of the rate at which development has taken place within this square may be gained from comparing the area developed as shown on the ordnance maps (most of which were revised in 1913) and that found to-day. According to the ordnance maps the area developed is about 34,000 acres, while our survey shows that the present development covers 57,000 acres—an increase of about 68 per cent. in about twenty-five years.

The area of preserved open space in the square is approximately

10,000 acres or about 5 per cent. of the total area. This open space is not evenly distributed; a large proportion of it is situated in such reserves as Sutton Park and a part of the South-West Birmingham Green Belt.

Although about 73 per cent. of the area of this square is at present undeveloped, it is so decimated by uncontrolled building that little can be done to provide a continuous green belt around the City of Birmingham.

To the west of Birmingham an almost solid mass of development is found, due to the increase in area of Wolverhampton and the smaller Black Country towns.

In a southerly direction there is little free land left within the city boundary, and even beyond this line great development has taken place in such places as Solihull, Shirley, and Bromsgrove, which now form dormitory towns for those engaged in Birmingham industries.

To the north-west the vacant land within the city boundary is rapidly being used up, and ribbon development extends through Walsall and Cannock, a distance of about 12 miles, from the northern boundary of the city.

Building has not taken place on the east to so great an extent as in other directions, but ribbon development is spreading in the direction of Coventry, Nuneaton, and Coleshill.

Observations on Towns

Birmingham and Environs

The ordnance map revised in 1913 shows a fairly compact built-up area within a circle with a diameter of about 7 miles. At present the circle of close development is one of about 12 miles diameter.

Wolverhampton and Environs

On the ordnance map revised in 1913 Wolverhampton is shown with fairly compact development within a circle of 2½ miles diameter. This is now increased to one of about 4 miles. The total built-up area in 1913

was approximately 3,680 acres. It is now about 6,310 acres—an increase of over 71 per cent. in twenty-five years.

Coventry and Environs

The maps of Coventry were revised in 1923. They show compact development contained within a circle approximately $2\frac{1}{2}$ miles diameter, the present diameter of the circle of development being about 4 miles. The area built up in 1923 was approximately 3,310 acres, and the present area of development is about 6,080 acres—an increase of over 83 per cent. in fifteen years.

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