

## LONDON: STRUCTURE AND TRANSPORT OF THE CITY AND ITS REGION

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### 1. CONTEXT

Can Berlin learn from London? It is not for me to advise on the best way forward for Berlin, but the London experience may be helpful to those who must take decisions about the future of united Berlin and Brandenburg. London's experience will be of particular interest because it is a mature city, and represents one model of how a large capital city can develop. The problems of smaller cities are invariably simpler to resolve, be they problems of finance, planning, transport or governance. If Berlin aspires to becoming a major world metropolis, then it should watch carefully those cities that already carry that status.

This paper describes the structure of London's development, and highlights some of its strengths and weaknesses. Key points are shown in **bold type**. Some similarities and differences between London and Berlin are shown in Appendix A, while some quantitative comparisons are given in Appendix B.

### 2. LONDON'S GROWTH AND DEVELOPMENT

The major growth of London occurred during the 19th century with the development of railways. By 1920 most of London's huge railway network had been built, and the population of the city itself had grown to more than 7 million. It was at that time the largest city in the world with a transport system that was also unrivalled.

London is no longer the world's most populous city, but it remains one of the most highly developed. It is important to note that London reached its maximum size (about 8 million people) before the motor car appeared in large numbers. Its basic structure in terms of transport, density and distribution of activities has also remained largely the same. Therefore, **London could again, if so required, continue to function without the private car.**

As London spread outwards in the 19th century it absorbed villages that lay in its path. These villages became the focus for London's present day suburban centres. **These centres provide the everyday needs of London's suburban population, a large proportion of whom still travel on foot or by bus.**

The outward physical growth was halted in 1938 by the creation of a "green belt" around the built-up area. Since then the total population has declined from 8 million to less than 7 million, but this has been more than matched by growth in the region beyond the

Green Belt, which now houses a further 11 million people. (See Abb 1 and 2.) In fact, the population of London (in Dr Eversley's words) "has spread continually and slowly like a liquid cake". All the significant settlements within London's huge hinterland are tied into the city centre by the railway network. **The region beyond greater London has experienced the most rapid economic growth in Britain, based on high-tec and research and development industry.**

**The outward movement trend has been mainly for the better-off classes.** This is reflected in car ownership patterns (see Abb 3). Poorer Londoners, especially those dependent on social housing, have been trapped in the inner and older parts of the city. As manufacturing industry has left the capital, or closed down, so accessible jobs have declined, and there is now a serious mis-match between London's jobs and the skills of its indigenous workers. **The only economic sector in Greater London to have seen substantial growth in recent years has been the financial sector located mainly in the City of London and Docklands.**

The large central core provides a wide diversity of activities, which are characterised by their highly specialised function (eg. international finance, insurance, theatre and government). **Being specialised and high value functions, they must draw on a large catchment population.** Thus the Central Area of London attracts each day 1.2 million office and other workers, who travel from throughout a region whose population is in excess of 15 million. About half of these commuters live outside Greater London.

**Many lower-value office jobs requiring less specialised skills have moved to the suburbs, or to other parts of Britain.**

### 3. TRAVEL PATTERNS

There are two distinct travel patterns in London. The first is the daily peak-hours movement of 1.2 million people into and out of London's centre, 27 square kilometres of densely packed facilities and employment. **85% of peak radial movement to the Centre is made by public transport, and most of this by rail.** (See Abb 4 and 5)

The second pattern is created by all the other journeys, that is journeys without a central destination, those at off-peak times, and those for non-work purposes. **In respect of these journeys, which make up 90% of all London's trips, the car is the dominant mode,** with walking the next most important. Rail accounts for only 3% of these journeys (see Abb 6).

The major traffic growth has been in the suburban areas, and especially for non-work journeys (see Abb 7). **The major casualty has been the bus, which has suffered continual decline since the 1950s, and now provides for less than half the journeys it once did. Those who do not own a car have suffered considerable hardship as the quality of bus services has declined, and fares have risen much faster than general prices.** The decline in local jobs and facilities has added to this hardship.

Despite the trend towards greater car dependence, with all the

congestion and environmental problems that this entails, **London is still in relative terms a city with "minimum car dependence"**. In 1981, half of all passenger kilometres were made by non-car modes. **In the South East region beyond Greater London, though, it is a different story.** In "green, white, gold" counties such as Hertfordshire and Surrey, car ownership approaches USA levels, and traffic growth is running at twice the national average.

#### **4. CURRENT STRATEGIC ISSUES.**

The economy of London is out of balance, with "overheating" in the west and underdevelopment in the east. **An attempt is being made to steer development pressures to the east,** especially the Thames River corridor. Transport investment is seen as important, for example new UBahn and light rail lines, new roads, and in the longer term a new high speed rail link to the Channel Tunnel.

**The growth of traffic in London's suburbs and in the region beyond is causing major economic and environmental problems.** Central London traffic is limited by restrictive parking provision, low capacity of the road network, congestion, and the high capacity of the rail system serving central London journeys. There are no such powerful restraints outside the centre, however. The traffic growth is encouraged by rising car ownership, out-of-centre- developments that can be reached only by car, excessive parking provision in new developments, and generally poor quality public transport.

During the 1980s there was a large (unplanned) increase in office space in central London and Docklands. **There is now over-provision of office space, made worse by the current economic recession.**

**There is no firm strategy for the future development of London and its region.** In particular there is no plan for the quantity or distribution of housing, employment or transport links. Planning functions are divided between 33 local boroughs, and a two-tier system of local government in the region with 10 counties and many districts.

**The issue of environmental sustainability is recognised in Government policy, but there is no clear strategy for London.** London's assets need to be recognised, in particular its structure which allows minimum dependence on the private car.

**There is no elected government either for Greater London, or for the region.** Coordinated planning relies on voluntary agreement between many councils, based on the work of advisory bodies (LPAC and SERPLAN). However, this year the government set up a London Sub-Committee of the Cabinet (the top level of central government), and appointed a Minister for Transport in London. There are also new private, public and voluntary initiatives to promote London and coordinate activity in London and the South East. **London's strategic planning is fragmented and ineffective.**

**Rail planning provides a clear example of this mess.** A new rail link to Heathrow airport has stalled because of a dispute between the track owners (British Rail) and the operators (British Airports

Authority). As these are both independent commercial organisations the Government does not intervene. Another example is the planned extension of the UBahn (**Jubilee Line**) into Docklands. This is said to be essential for the success of Docklands development, yet the project is continually delayed because of lack of private sector financial contributions, and withheld Government money. A third example is a projected new full-size **rail link across central London** from east to west (similar to the RER line A in Paris)(see Abb 8). This has received government approval, but no commitment to funding.

There has been little public debate on the merits of these rail projects. One personal doubt is that the **"Crossrail" scheme will lead to over-concentration of pedestrians in the Oxford Street shopping axis**. Police already have to use crowd control measures, and crossrail could bring an extra 10-20,000 people per hour.

**London's rail infrastructure has suffered from under-investment over many years**. Although London depends on its rail network, both the volume and the quality of services has suffered decline for twenty years. Capital investment and revenue subsidies have been insufficient to maintain, let alone improve standards. It can be argued that the structure of London is expensive to run because it relies on one-way peak-hour rail commuting to the centre.

## **5. SOME RELEVANT POINTS FOR BERLIN/BRANDENBURG**

**On the negative side...**

- \* Excessive concentration of employment at the centre can lead to high land prices, and expensive long-distance commuting.
- \* Social divisions widen as wealthy people move out of (and escape the problems of) the inner city.
- \* Less-skilled workers find less work in the inner city if single-use office developments dominate (eg. Docklands).
- \* Over-provision of offices has sterilised the City of London.
- \* New shopping and industrial developments built in locations accessible only by car aggravate traffic and environmental problems, and leaves those without cars at a disadvantage.
- \* Investment in off-centre developments deprives established centres of much needed investment for expansion and upgrading.
- \* Excessive parking provision in London's suburbs and in the wider region is creating massive problems of congestion, environmental degradation, and public transport decline.
- \* Declining support for public transport has led to poor quality services, and encouraged car use.
- \* The absence of any city or regional government makes it difficult to solve these problems.

### **On the positive side...**

- \* Restricted off-street parking policy is successful because on-street parking is also controlled. Modal split of peak travel to the centre of 85/15 percent in favour of public transport.
- \* Mixed activities in Central London and suburban centres allow minimum reliance on the car.
- \* High densities and fairly good public transport have suppressed car ownership in inner London.
- \* Limited road capacity in central and inner London has contained traffic growth. (Motorway plans were found to be counter-productive and were abandoned in 1973.) Road capacity decreases towards the centre, and this has proved beneficial.
- \* Walking is an important mode of travel, and can be maintained if local facilities are encouraged.

**END**

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### **APPENDIX A Some similarities and differences, London and Berlin.**

Some structural differences between London and Berlin:

Unlike Berlin:

- London has a large suburban ring with relatively low densities.
- London's outward spread is contained by a formal "green belt" policy.
- London is located within a region that is both densely populated and of high landscape attractiveness.
- London is a major world financial centre.
- The London region is dominant within Great Britain in terms of population, economy, culture.
- London has no overall elected government.

Some similarities between London and Berlin:

- Berlin will join London as a Capital city.
- Both cities have been developed for the most part without providing for the private car.
- Both cities have major socio-economic disparities between east and west (though greater in Berlin).
- Both cities have a bi-polar centre.
- Both cities have burgeoning traffic problems.
- Both cities need major investment in transport infrastructure.
- Both cities have weak mechanisms for coordinating city and regional development.

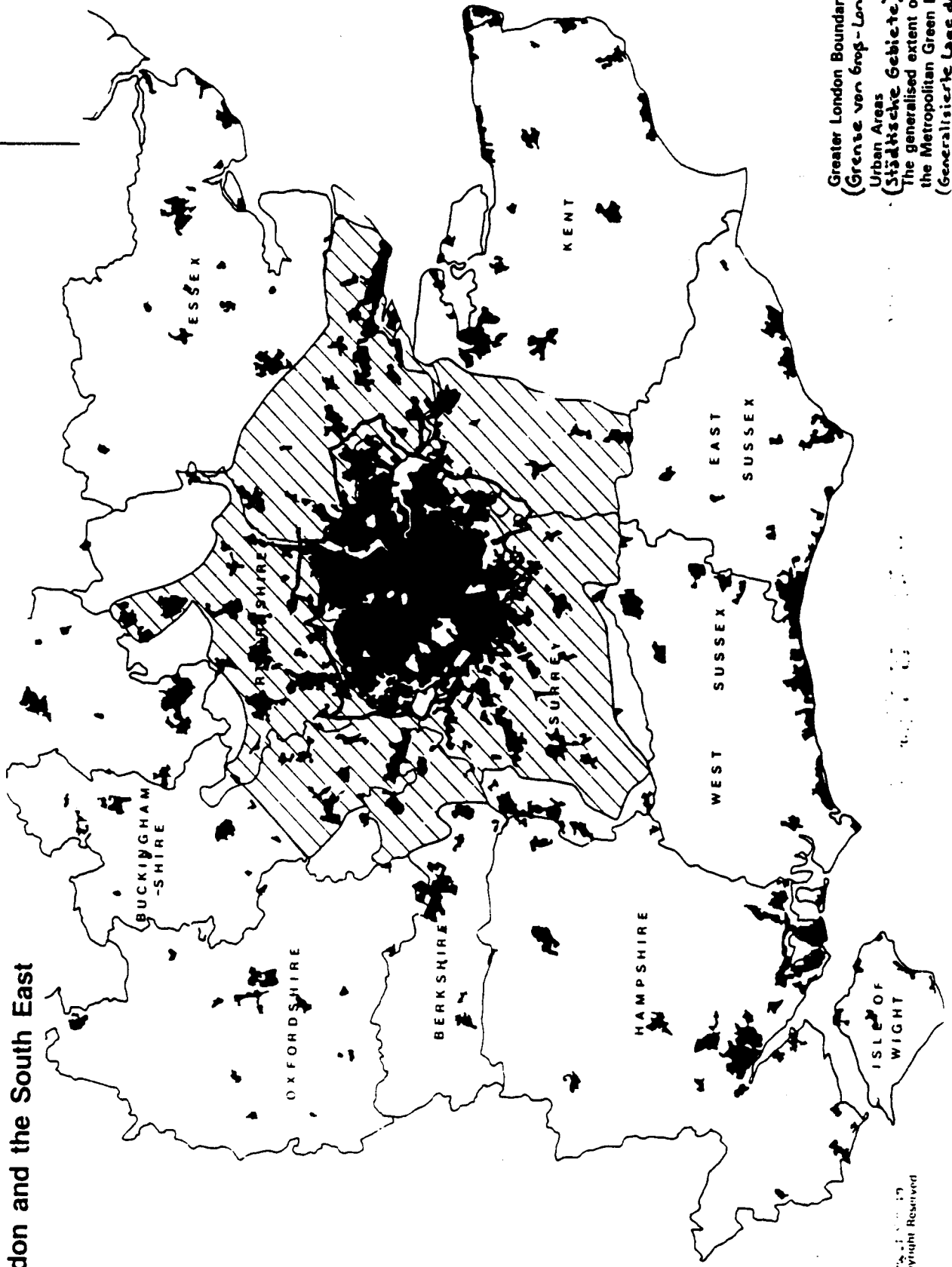
**APPENDIX B**

**INFORMATIONSBLETT**

	LONDON	BERLIN
<b>BEVÖLKERUNG</b>		
Groß-London/Land Berlin	6,71 Mio	3,4 Mio
Außenbezirke Großraum London/ Land Brandenburg Südostengland	5,93 Mio 17,43 Mio	2,6 Mio -
<b>GEBIET</b>		
Zentrum	27 km <sup>2</sup>	?
Groß-London/Land Berlin	1.580 km <sup>2</sup>	883 km <sup>2</sup>
<b>BEVÖLKERUNGSDICHTE (pro km<sup>2</sup>)</b>		
Londoner Innenbezirke (Bev. 2,5 Mio)	7.725	-
Londoner Außenbezirke (Bev. 4,2 Mio)	3.362	-
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DURCHSCHNITT Groß-London/Land Berlin	4.250	3.900
<b>BESCHÄFTIGUNG</b>		
Zentrum	1,2 Mio	?
Groß-London/Berlin	3,47 Mio	1,62 Mio
<b>BAHNNETZ</b>		
Streckenlänge (km)		
U-Bahn	335	140
Süd-Ost-Netz (S-Bahn)	3.120	318 (-73)
Leichte Schienenfahrzeuge/ Straßenbahn	12	175
Stationen (% mit Park and Ride)		
U-Bahn	280 (26%)	?
Süd-Ost-Netz (S-Bahn)	893 (55%)	?
<b>BUSNETZ</b>		
Streckenlänge	2.920	900 (ca.)
<b>AUFTEILUNG NACH VERKEHRSMITTELN</b>		
Groß-London 1981/Berlin West 1986		
Öffentliche Verkehrsmittel	20%	30%
PKW	40%	40%
Fahrrad	4%	6%
zu Fuß	36%	24%
Central London (hin u. zurück, ausgen. zu Fuß) 1989		
Öffentliche Verkehrsmittel	85%	
PKW	14%	
Fahrrad	1%	
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PKWs (GROSS-LONDON)	2 Mio (ca.)	

**Quellen:**

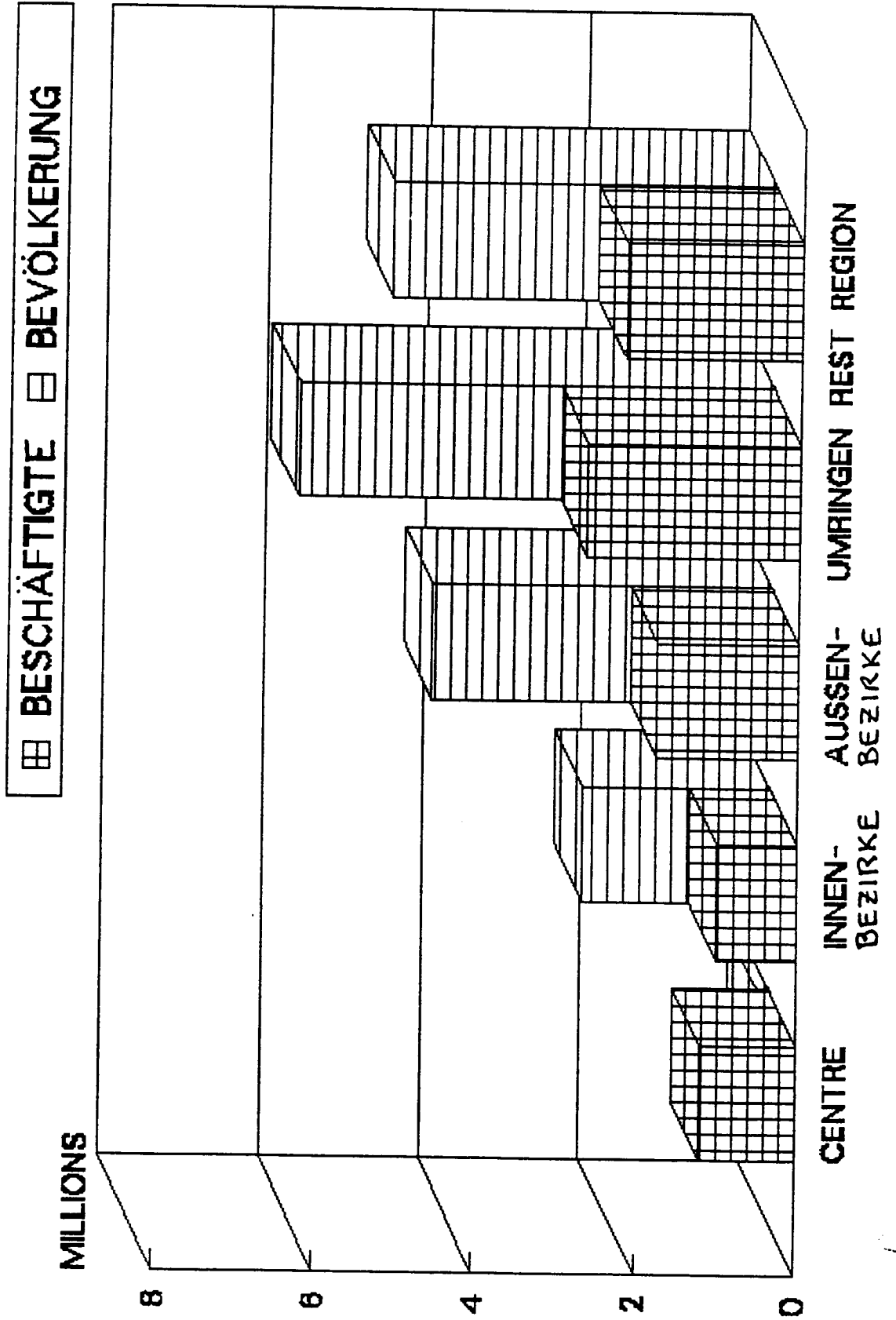
- \* London Research Centre "London & Paris, a comparison of transport systems", L'IAURIF, Paris 1992.
- \* "Lebensraum Straße in Berlin und Paris", Ergebnisse einer Werkstatt vom 23. bis 30. September 1989.
- \* Pharoah, T. "Transport, How Much Can London Take?" in London: A New Metropolitan Geography, Edward Arnold, 1991.
- \* Ryser, J. "Germany in Transition: New Strategies of Urban Development: Berlin-London", Goethe Institut, 1991.



London and the South East

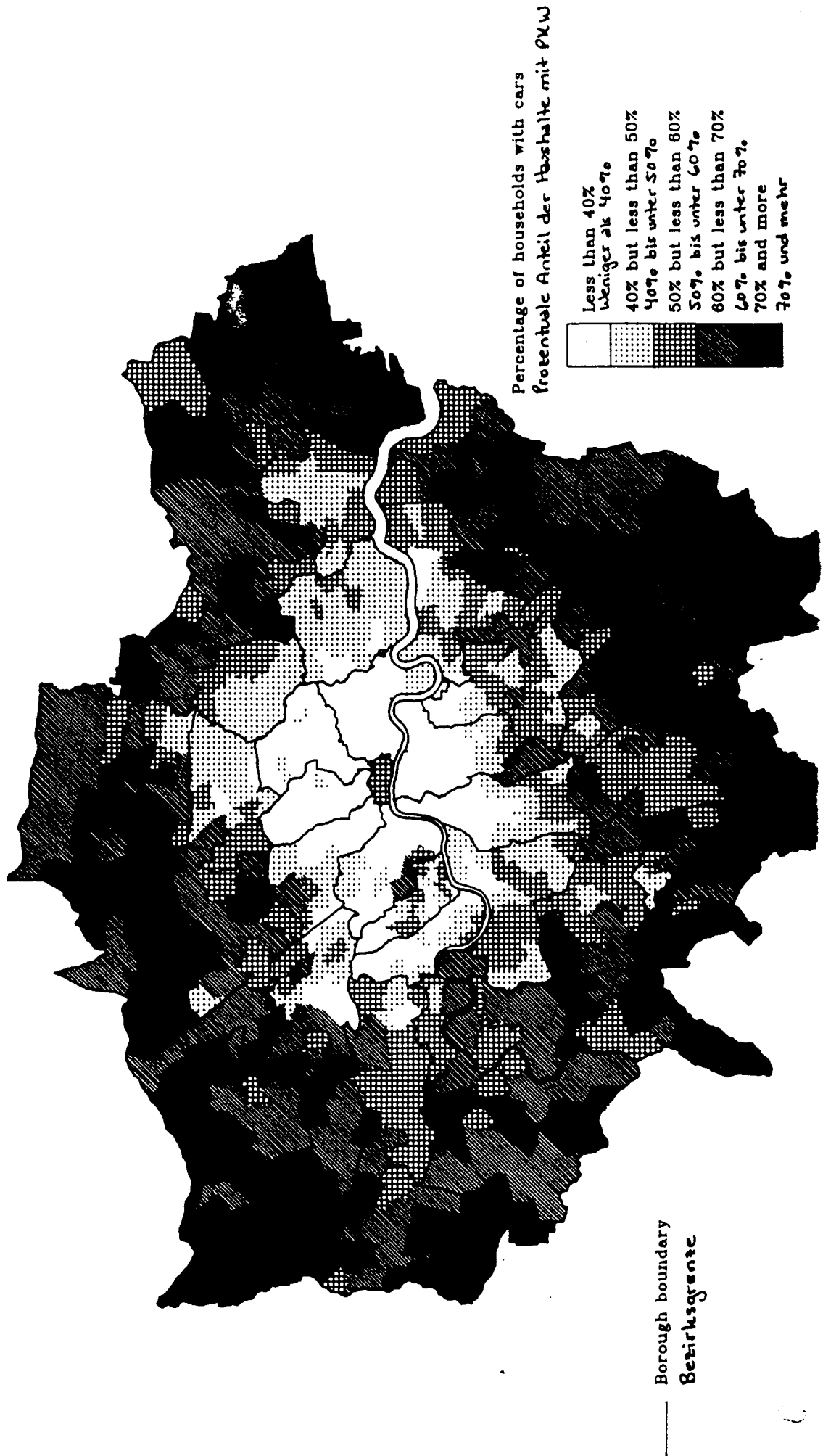
# LONDON, 1991 BESCHÄFTIGUNG UND BEVÖLKERUNG

ABB 2



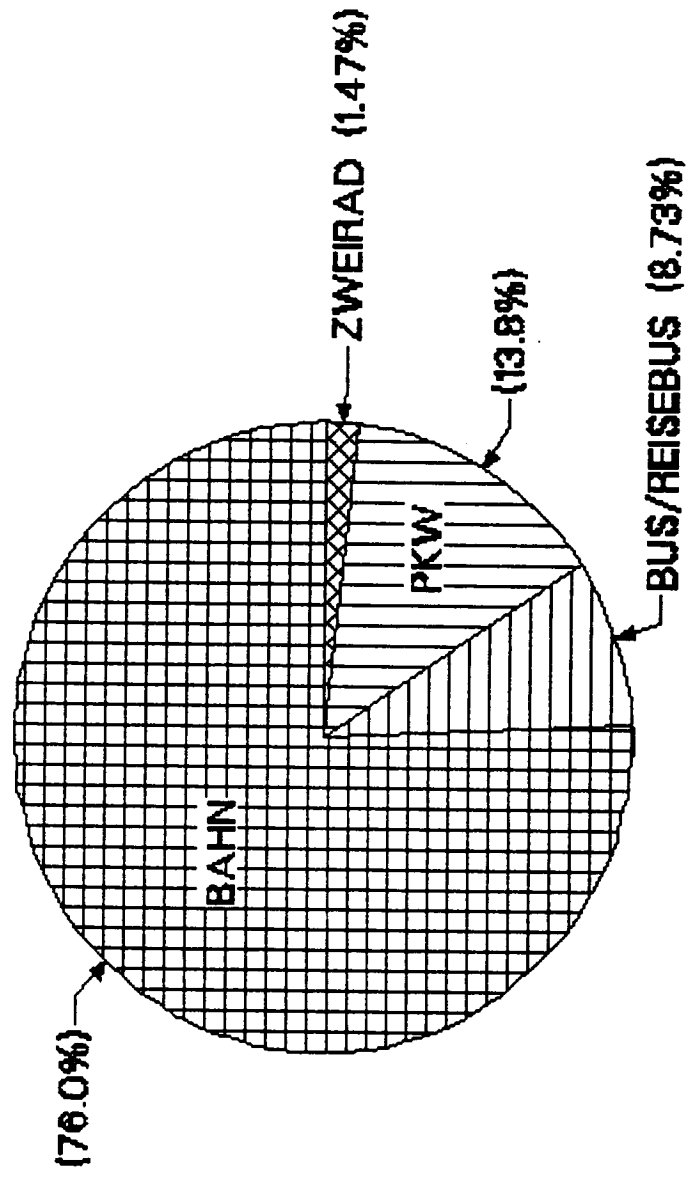


Proportion of households with cars, by ward, 1981  
Anteil der Haushalte mit PKW, nach Bezirk, 1981



# VERKEHRSMITTELNUTZUNG DER PENDLER NACH CENTRAL LONDON

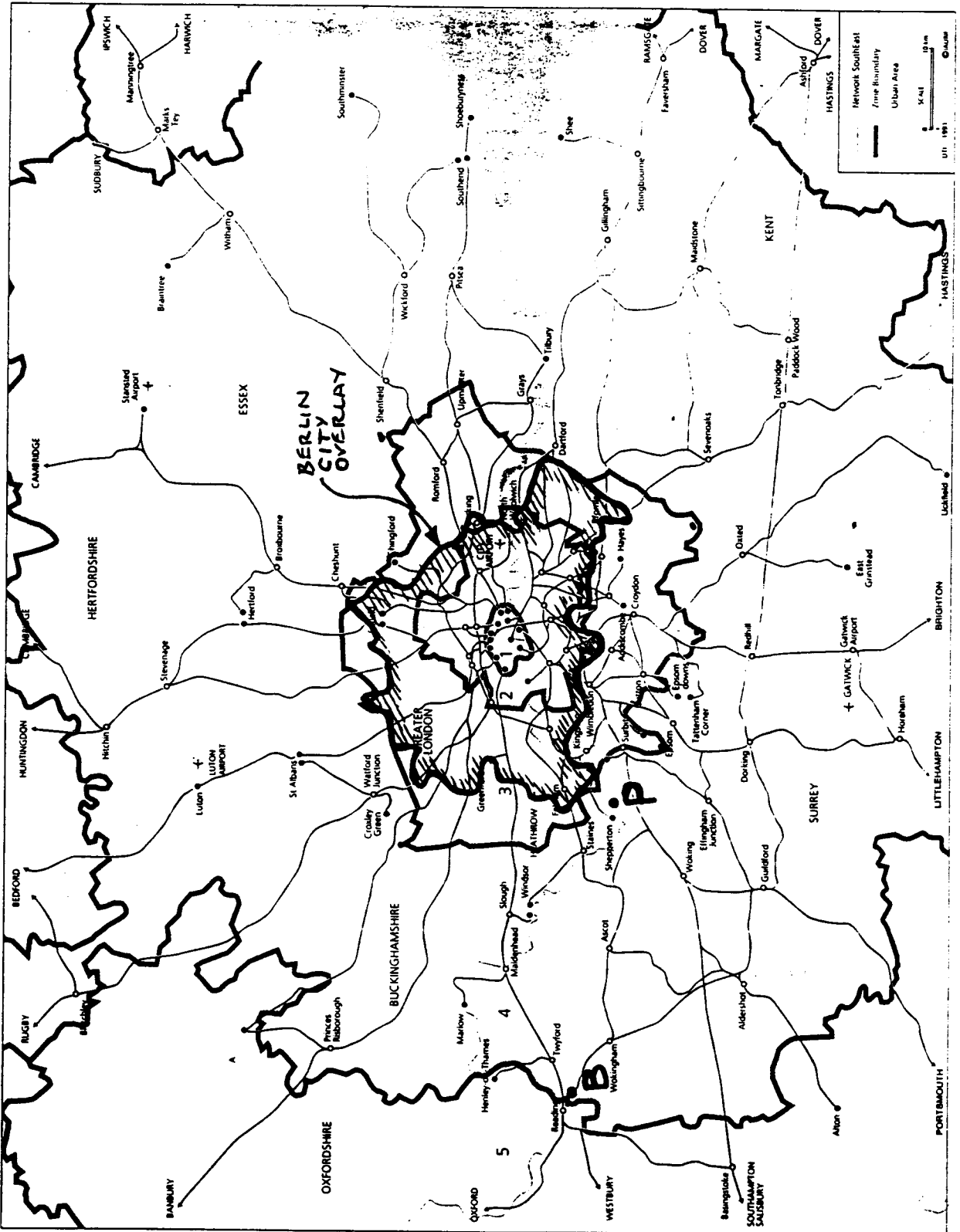
ABB 4



7.00 - 10.00 AM  
Total arrivals 1989 - 1,157,000  
(Gesamtzahl aller ankommenden Fahrten im Jahre 1989)

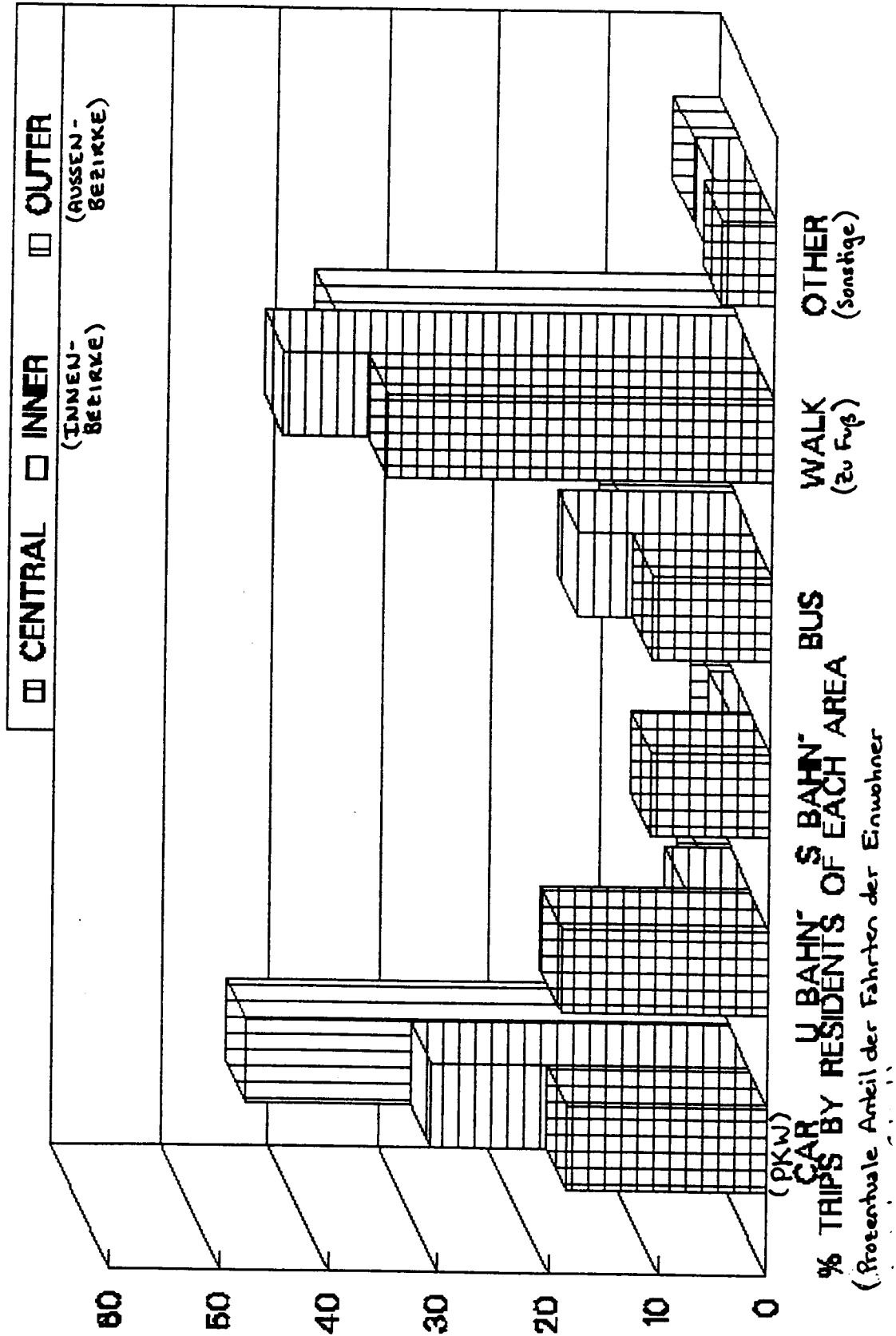
# Das Süd-Ost-Netz der Britischen Bahn in London

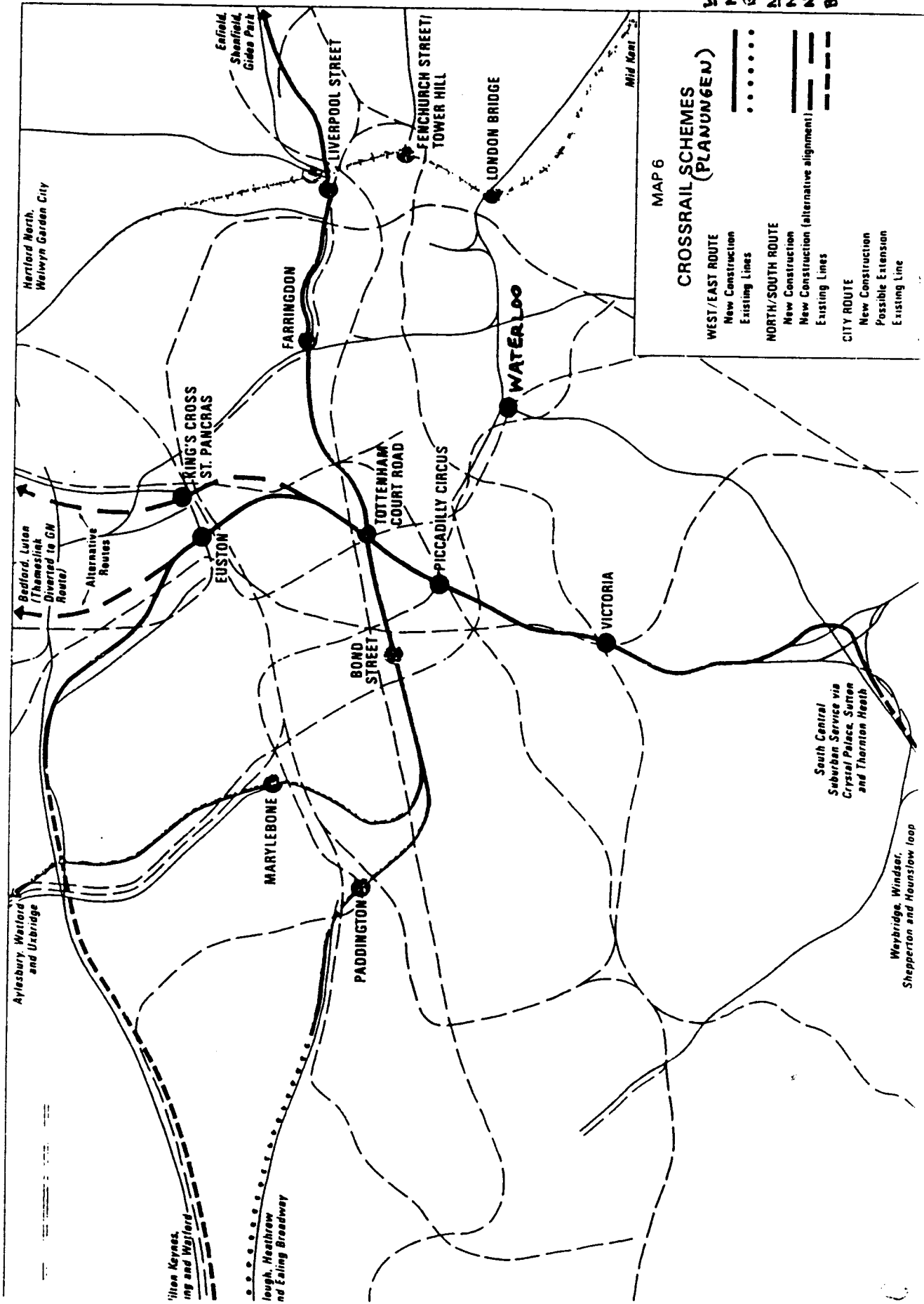
ABB 5



- B: Brandenburg  
 P: Potsdam
1. Central London
  2. Innenbezirke Londons
  3. Außenbezirke Londons
- (1+2+3 = Groß-London)

LONDON 1981  
 ANTEIL DER VERKEHRSMITTEL  
 AN DEN IN DEN EINZELNEN GEBIETEN  
 BEGINNENDEN FAHRTEN





**MAP 6**

**CROSSRAIL SCHEMES (PLANUNGEN)**

<b>WEST/EAST ROUTE</b>	—————
New Construction	.....
Existing Lines	—————
<b>NORTH/SOUTH ROUTE</b>	—————
New Construction	.....
New Construction (alternative alignment)	—————
Existing Lines	—————
<b>CITY ROUTE</b>	—————
New Construction	.....
Possible Extension	—————
Existing Line	—————

WEST/EST  
 Neubau  
 Bestehende Linien  
 NORD/SÜD  
 Neubau  
 Neubau (Alternativroute)  
 Bestehende Linien

Aylesbury Watford and Uxbridge

Milton Keynes, King's Lynn and Watford

Lough, Heathrow and Ealing Broadway

Bedford, Luton (Thameslink Diverted to GN Route)

Alternative Routes

South Central Suburban Service via Crystal Palace, Sutton and Thornton Heath

Weybridge, Windsor, Shepperton and Hounslow loop

Hertford North, Welwyn Garden City

Mid Kent

Enfield, Shenfield, Gidea Park

