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Johannesburg's sphere of influence

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tive capital, Pretoria, only 30 miles to the north, and by the pattern of road and rail links. Several zones differing in intensity of relations outwards from the focus may be identified in the light of the criteria used in this study of Johannesburg's sphere of influence (FIG. 36).

1. THE CORE.

Greater Johannesburg forms the core of the various zones of influence. In it are located the Central Business District and industrial areas of Johannesburg. Its limit is defined in terms of the retail supply area (FIG. 10), the intensity of road traffic flow (FIG. 26), and in terms of the administration of the core, mainly by the local City Council. The core is, therefore, economically, socially and administratively tied together. The core does not conform to Dickinson's "Urban Tract", especially to the east and west because of the proximity of East and West Rand towns, since the built-up areas of these towns are contiguous.

2. CITY SETTLEMENT ZONE.

Surrounding the core is the city settlement zone, which extends from Roodepoort in the west to Benoni in the east, and, therefore, coincides with L.P. Green's inner metropolitan zone (FIG. 21). It has close economic, administrative and social ties with the core. These ties are reflected in the large number of people of this zone coming in daily contact with the core for purposes of work and shopping. Functionally the city settlement area is not completely dependent on the focus since in its confines are located several of South Africa's major urban concentrations, each of which acts as a distinct commercial and industrial focus. These foci are, however, subordinate to Johannesburg. In the south the zone reflects an intensification of agricultural practices which are focused on the requirements of

... /the

the city, such as the production of milk for fresh consumption.

The boundary of the zone is established at 20-25 miles from the focus or about 40-50 minutes travelling time by train from Johannesburg (FIG. 28). The city settlement area is therefore similar to Bogue's "zone of direct participation".

3. INNER TRADE ZONE.

The inner trade zone incorporates (a) Green's outer metropolitan zone, that is from Randfontein to Springs and (b) the rest of the Southern Transvaal. The whole zone is enclosed by a line through Carletonville, Sasolburg, Balfour, Delmas, Pretoria and Krugersdorp. It is identified in terms of its intensity of traffic flow, motor vehicles and rail transport, frequent contact with the hub and by the several administrative bodies exercising jurisdiction (FIG. 20), and by its particular land use pattern (FIG. 16), - dairying, horticulture and the rearing of livestock for slaughtering. In this zone the largest percentage of newspapers is sold (FIGS. 7 and 8) and it is characterised by intricate power and water supply networks (FIG.19). It is further characterised by gold mining development and by large scale industrial development, especially iron and steel and heavy engineering, as well as by the development of an expanding chemical industry, e.g., Sasolburg.

This zone extends to about 35 to 60 miles from the focus while the maximum travelling time is in the vicinity of 100 minutes (FIG. 28), and in extent it is similar to Bogue's "zone of interchange", and Dickinson's "city trade area".

4. INTERMEDIATE TRADE AND SUPPLY ZONE.

The intermediate trade and supply zone, characterised by excellent road and rail links with Johannesburg, includes the

.../Transvaal

Transvaal south of Pretoria from the Transvaal - Cape border to Swaziland and the Northern Orange Free State. Primarily it is an agricultural area. It may be sub-divided into five zones.

(a) The sub-division comprises the Central Western Transvaal and the Central Eastern Transvaal and extends from the outer boundary of the inner trade zone to about 120 to 130 miles from Johannesburg. The western zone incorporates the secondary milk supply zone (FIG. 12) and has strong ties with the focus as is reflected by daily newspaper-sales (FIG. 7) and administrative jurisdiction (FIG. 20), and is also an important livestock supply zone (FIG. 11). The eastern zone is delimited on the same basis but the ties with the focus are slightly weaker. The eastern zone is, however, the major supplier of coal to the Southern Transvaal.

(b) Zone 4b is the Northern Orange Free State which has strong ties with the focus, as is illustrated by newspaper-sales, by its importance as an area supplying animals for slaughter in Johannesburg and as is suggested by the analysis of telephone calls (FIG. 9). The zone includes the O.F.S. Goldfields which have strong economic and financial links with Johannesburg.

(c) The South-Western Transvaal is defined in terms of its importance as a livestock supply zone, a newspaper-sales zone and by its administrative links with the hub.

(d) The Far Eastern Transvaal falls under the administrative jurisdiction of Johannesburg as regards three "Direct Service" state departments and is a relatively important newspaper-sales zone.

(e) This sub-division incorporates the Northern Transvaal. It includes several important but separate livestock supply zones and is an important supplier of agricultural produce of which the Transvaal Lowveld and the North-Eastern Transvaal are major contributors (TABLE 18). The whole zone is an important sales-zone for Johannesburg's daily newspapers. The study of livestock supply regions has ... /revealed

revealed that ...ctions of this zone are centred more on Pretoria than on Johr... Although not analysed in detail, many more criteria wo... reveal this zone's relationships with Pretoria. It is thus a zone which illustrates a considerable overlap of the influence spheres of two adjacent metropolises.

5. OUTER TRADE AND SUPPLY ZONE.

This zone incorporates the remaining areas of South Africa as well as the neighbouring territories of Rhodesia, Mocambique, Swaziland, Basutoland, Bechuanaland, and South West Africa. The relationships which such a large area have with Johannesburg obviously vary greatly. Portions of the zone are included in the Johannesburg wholesale trade sphere; others, e.g., the Northern and Central Cape, are primary livestock supply regions (sheep); the South-Western Cape supplies fruit; raw materials for Johannesburg's industries come from a large number of localities; close ties exist with the Natal Coast where Durban is the Southern Transvaal's major import and export harbour; Non-Whites are attracted from far and wide to be employed on the gold mines.

Because of the national and international coverage of this zone it incorporates the national sphere of influence of all South African metropolises and major towns as well as those of the major centres of the territories bordering onto South Africa.

6. DISTANT TRADE AND SUPPLY ZONE.

The outer limits of Johannesburg's sphere of influence are marked by the distant trade and supply zone. Included in it are the countries of Africa and the World with which Johannesburg has some link. The zone is recognised in terms of its importance as a supplier of unprocessed and processed materials and goods to Johannesburg as a market for Johannesburg's export goods. The links which Johannesburg have with these international areas are also reflected by the air traffic to and from Jan Smuts airport (FIG. 29).

.../The

The final pattern which emerges as regards Johannesburg's sphere of influence is one of concentric zoning, though the zoning be somewhat irregular. The effect of Pretoria's proximity to Johannesburg is evident in that the Transvaal north of Pretoria (4c) does not lend itself to subdivision as was the case in the rest of the intermediate trade and supply area (4a-d).

As Johannesburg's influence diminishes outward from the core, the areal coverage of the zones increase thereby indicating a weakening of the relations and links between Johannesburg and the surrounding zones and the ever-increasing transitional nature of the zonal boundaries.

Expansion is continually taking place, and as urban centres develop their functional structure and population alter and accordingly the inward and outward influences change. The sphere of Johannesburg as determined here is only its sphere as at a particular time in history (1960-65). Even during this period spheres have altered as regards specific criteria and with each alteration of a criterion which may be used to delimit a sphere, the influence sphere of Johannesburg is modified.

Whereas the Witwatersrand is still [illegible]ly separated from the Pretoria and Vereeniging urban comp[illegible] appears that with the expansion of these cores especially along the major transport routes they will merge into one large urban complex or megalopolis with Johannesburg the dominant hub. Johannesburg will then no longer have a separate sphere of influence as exists today.

The value of a study of this nature lies in its determination of the interrelationships between a metropolis and its surrounding urban and rural landscape as at a particular time or period in history and provides the basis for comparative studies at some stage in the future when these relationships will have altered. It is the study of these relationships which casts light on the many aspects of man's organisation of space.

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FIG. 31: HABITATION RATIOS IN THE METROPOLITAN COMMUNITIES OF JOHANNESBURG, PRETORIA, DURBAN AND BLOEMFONTEIN, 1960



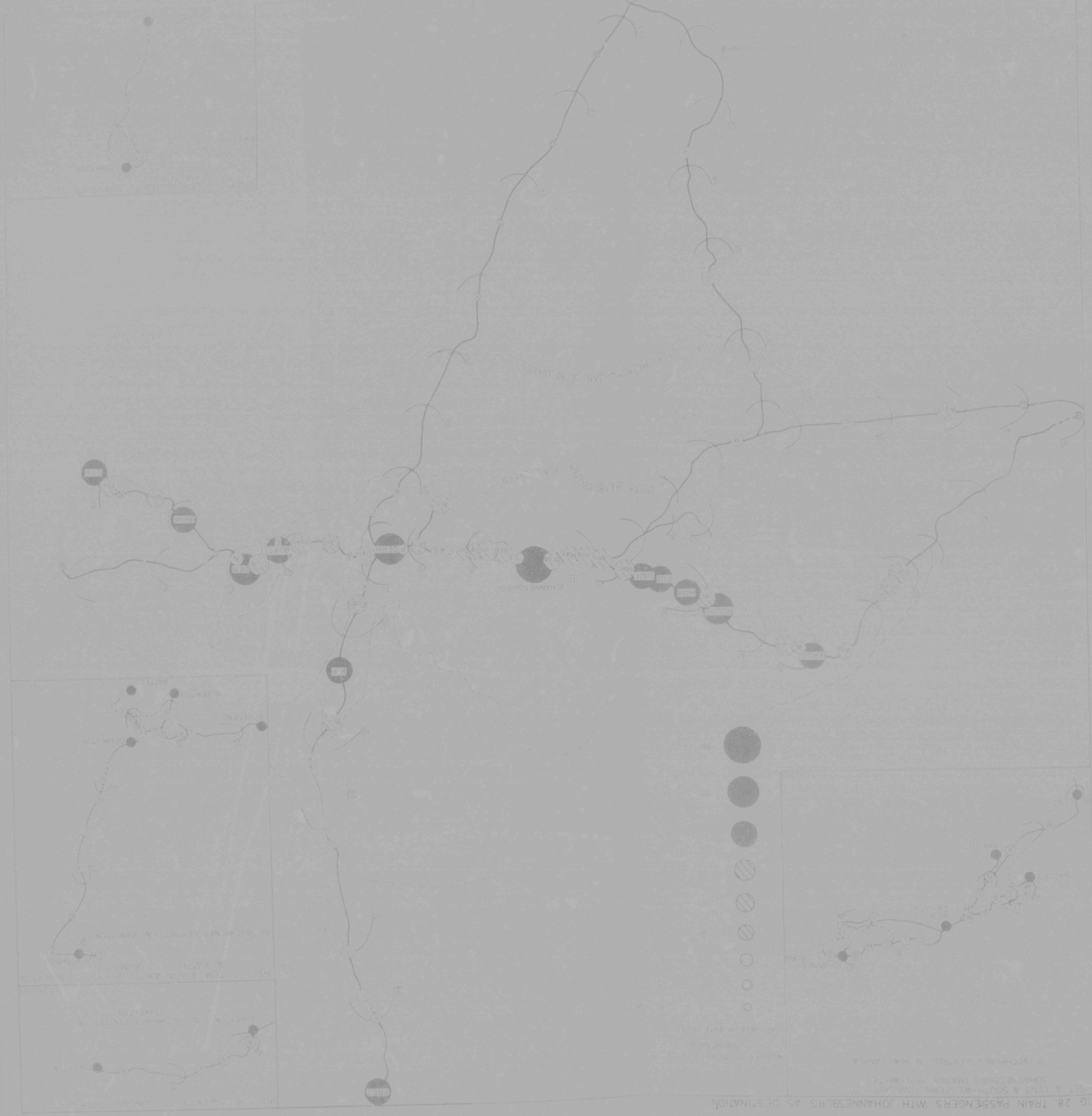


FIG 28. TRAIN PASSENGERS WITH JOHANNESBURG AS DESTINATION

FIG. 24 : JOHANNESBURG - INCOMING MUNICIPAL BUSES 364

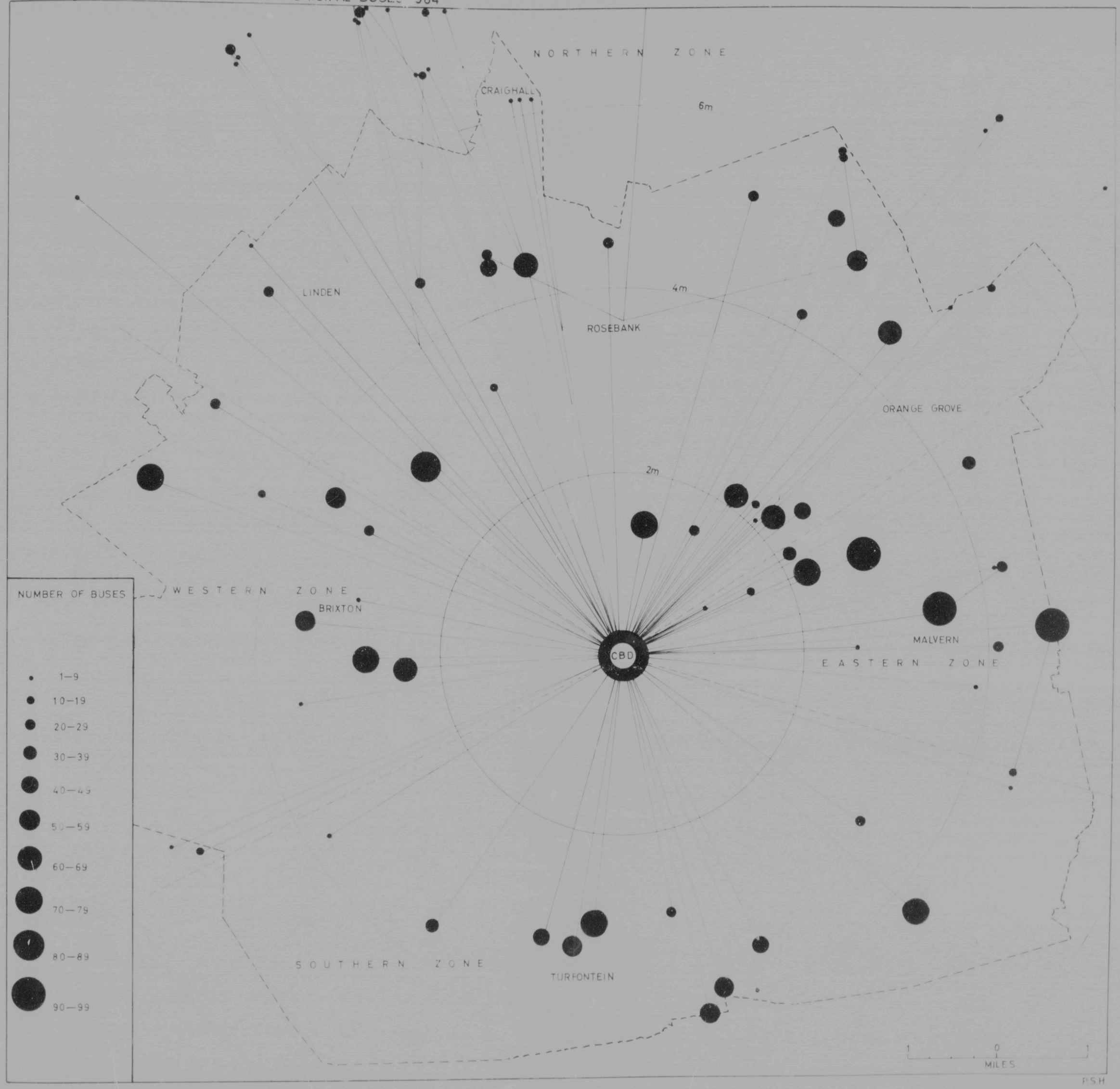
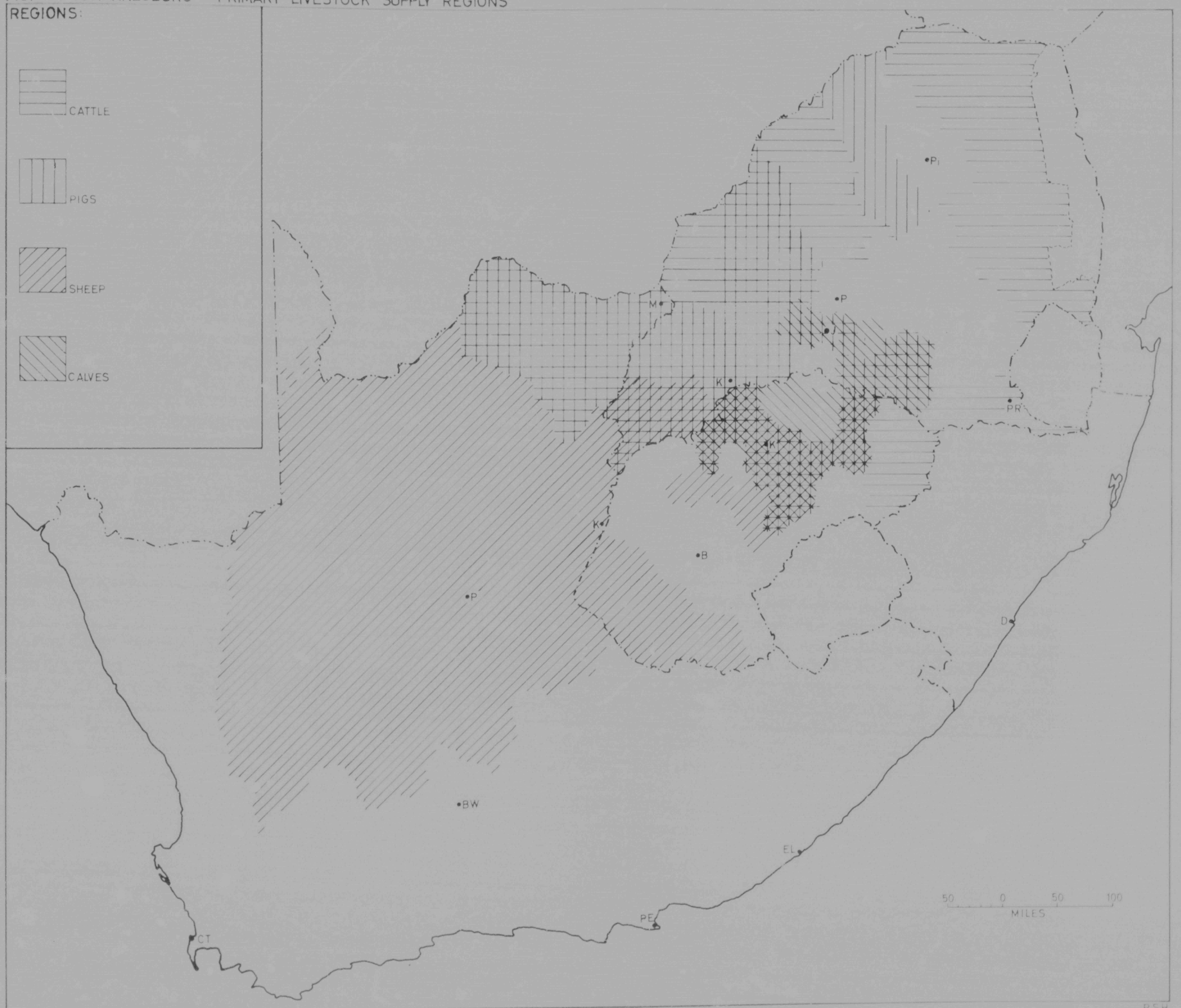


FIG. 11 : JOHANNESBURG - PRIMARY LIVESTOCK SUPPLY REGIONS



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TRACING

ZONES:

I CATTLE &/or CALVES, SHEEP, PIGS

II CATTLE &/or CALVES, PIGS

III CATTLE &/or CALVES

IV SHEEP

V PIGS



P.S.H

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