

Selected Aspects of the Socio-economic Character of Natal Towns

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The present study forms part of a survey conducted in the Natal country towns during 1965 and 1966 and was initiated in order to analyse selected features of their socio-economic composition.¹ The object of the investigation was two-fold; firstly to determine the proportion and spatial distribution of English and Afrikaans speaking people in the towns; secondly, on the basis of occupations, to determine whether any grouping or spatial differentiation of social class categories exists within the small urban areas encountered.

The segregation of language and social class groups has been clearly demonstrated in large urban centres.² However, few attempts have been made to determine whether such segregation exists in small urban settlements and the threshold population level at which one might first expect segregation to appear.³ Most of the theory pertaining to the socio-economic aspects of urban areas has been developed in studies of large cities and it was considered possible that the Natal towns might prove too small to exhibit features such as status areas and segregation of minority groups. However, Paul Gillen in 1951 stated that the study of occupation reflects income, education and taste, and further that the use of occupational categories to distinguish ecological areas "is capable of application to any city, regardless of size, location, type, age, or any other consideration."⁴

The work in 1955 of Duncan and Duncan who investigated residential distribution and occupational stratification in Chicago was based on the hypothesis that spatial distances amongst occupational groups parallel their social distances.⁵ Obviously, residential segregation is greater for those occupational groups with a clearly defined status, than for those whose status is ambiguous, for the latter group is subjected to cross pressure from the determinants of residential selection. For example, the clerical group has an income equivalent to low grade manual workers but an educational level of managerial workers. Davies in his study of Johannesburg and Pretoria in 1966 reached a similar conclusion. He notes a clear relationship between the rank of occupational category and the degree of residential segregation and that the highest degree of such segregation occurs at the extremities of the social scale.⁶ The Natal study investigates this relationship and also the feasibility of adopting methodology normally applied to large urban centres.

In order to restrict the Natal survey to manageable proportions, a sample of towns was selected for analysis. Durban and Pietermaritzburg, the two major centres of Natal, together with their satellite centres were discarded, as the survey was not intended to cover major city regions. The ten towns chosen for analysis are those which evolve as the most important regional centres of the

Natal urban hierarchy.⁷ These are: Ladysmith, Newcastle, Dundee, Vryheid, Stanger, Estcourt, Greytown, Empangeni, Eshowe and Port Shepstone.

The main source of information was the 1965 Parliamentary Voters Roll⁸ which includes the names, addresses and occupations of all registered voters. At the time of analysis other socio-economic and demographic statistics were available by Enumerator's Districts from the Director of Census, but only at considerable cost — well beyond the financial scope of the survey. Further, Enumerator's Districts are too large for useful analysis in small urban centres and their boundaries bear little relation to those of ecological areas within the towns. As such, population statistics by Enumerator's Districts were not considered desirable for the aims of the study.

The language group of each voter was determined on the basis of surname and although the name association with home language is not perfect, it is considered reasonably accurate. Only male voters were recorded, for the majority of women of working age would either be married and of the same language group as their husbands, or living at home and of the same language group as their parents. It should be noted that the Voters Roll includes only South African citizens over the age of eighteen and although not a complete list of all adult workers forms a most useful, easily available source of information.

Occupational groups were also determined from the Voters Roll for those persons recorded in the language analysis. The number of persons in each type of occupation was recorded for each town. It was necessary to confine the survey to the White sector of the population as only the White group is recorded on the Voters Roll. Other racial groups do not possess the freedom of choice of residential area, so that studies of segregation and concentrations of occupational groups in this case would be pointless.

In all, 138 occupations were recorded and of these 56 were chosen for spatial analysis to determine social class areas. In the highest categories where fewer people were recorded, more occupations were taken into account to ensure that the actual numbers plotted would be the same for each occupational category. The occupations recorded are listed below according to socio-economic class categories:

Category 1

<i>Professional and High Administrative</i>	
Architect	Engineer
Attorney	Geologist
Chemist	Magistrate

Director	Minister of religion
Doctor	Surveyor
Dentist	Veterinary surgeon

Category 2

Managerial and Executive

Accountant	Proprietor
Auctioneer	Physiotherapist
Businessman	Personnel Officer
Contractor	Shopkeeper
Hotelier	Teacher
Manager	Undertaker
Optician	

Category 3

Non-manual higher grade

Artist	Draughtsman
Agricultural officer	Secretary
Book binder	Salesman
Bank official	Stock inspector
Chiropodist	Technician

Category 4

Non-manual lower grade

(a) White collar:	Clerk
	Civil servant
	Electrician
(b) Blue collar:	Foreman
	Fitter
	Mechanic

Category 5

Routine non-manual (A) and skilled manual (B)

A. Assistant	B. Artisan
Hairdresser	Bricklayer
Storeman	Miner
	Painter

Category 6

Semi-skilled manual

Conductor	Operator
Ganger	Shunter
Machinist	

Category 7

Unskilled

Railway worker	Porter
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The same methodology was adopted for the analysis of the spatial distribution and segregation of the language and occupational groups. Home language and occupation of each male voter were recorded on large scale base maps (scale 1:5,000) which showed individual lots in the town. With the co-operation of postal authorities, street numbers were inserted on the maps in order to place each voter accurately.⁹ To observe the spatial distribution of the two indices recorded, grids were constructed on each map consisting of twelve sectors each of 30° rotation and a series of quarter mile walking zones¹⁰ extending to the edge of each town. The grid was focused on the Peak Land Value Intersection.¹¹ Thus for each town a series of zone sectors evolved as units of census for analysis.

It was originally intended that the information for zone sectors should be analysed on a statistical basis in order to arrive at indices of segregation, centralisation and sector concentration — an approach commonly used in large urban areas.

However in the Natal country towns such an analysis proved impracticable because the small numbers involved in each zone sector rendered statistical analysis invalid. Frequently a zone sector contained only three houses so that if two of these were occupied by Afrikaans speaking people the unit became "dominantly Afrikaans" resulting in a false impression. Further, in such small towns where only extremes of social distance are expected to show spatial differentiation the sectors were found too small. Even the Grouping of adjacent pairs of sectors to obtain 60° of rotation and enlargement to half mile walking zones did not prevent the possible division of important ecological areas, rendering them statistically undetectable.

The methodology finally adopted involved the delimitation of ecological areas on the bases of language groups and of occupations. A list and description of the ecological areas occurring in each town was then compiled making it possible to determine the most frequent areas and the characteristics that distinguished them.

RESULTS

The proportion of male voters in each language group in each town is shown in Table I. The mean values for the eight towns studied are 59.3 per cent English and 40.7 per cent Afrikaans speaking people. Unusually high proportions of English speaking people occur in Greytown (77.8 per cent) and Port Shepstone (86.8 per cent). The former is the main regional centre for an area pioneered by English settlers and the latter on the coast is in an area which was never attractive to the early Afrikaner agriculturists. The only town to possess a dominantly Afrikaans community is Vryheid (67.6 per cent Afrikaans speaking) although Newcastle and Ladysmith have higher than average proportions of Afrikaans speaking people. Historical factors have determined that the highest incidence of Afrikaans speaking people is in northern Natal, whilst that for English speaking people is near the coast. This distribution has resulted largely from two different points of entry into Natal — the English at the coast and the Afrikaans-speaking Trekkers over the Drakensberg in the north.

The spatial distribution of the two language groups is surprisingly even. In the towns in which neither group dominates the other heavily there is no measurable segregation at all. In studies of large urban areas² it has been established that it is only minority groups that tend to segregate and in most of the Natal towns neither group forms a significant minority. However, in Vryheid and

TABLE I
Proportions of English and Afrikaans speaking people in the sample towns

Town	% English	% Afrikaans	Popu- lation ^{1,2} 1960
Ladysmith	49.5	50.5	22,955
Newcastle	54.3	45.7	17,554
Dundee	57.6	42.4	10,939
Vryheid	32.4	67.6	10,782
Stanger	50.0	50.0	9,616
Estcourt	66.0	34.0	9,027
Greytown	77.8	22.2	7,743
Port Shepstone	86.8	13.2	4,366
Averages	59.3	40.7	

Greytown where one language group is clearly dominant there is a tendency towards segregation of the minority group. In both cases the majority language group is spread evenly throughout the town, while the minority group is concentrated. In Port Shepstone where 87 per cent of the population is English speaking the absolute numbers of Afrikaans speaking people are too small to provide evidence of segregation. Estcourt is the exception to the rule, for although two thirds of its population is English speaking, there is a complete mix of the language groups.

The ecological areas determined on the basis of language are:

1. *A high mix area* in which the proportions of the two language groups do not deviate by more than 10 per cent from the overall value for the town. This area occurred in all of the towns studied covering a minimum of three-quarters of the total residential area.
1. *An Afrikaans enclave* in which the proportion of Afrikaans speaking people is significantly higher than the average for the town. In the Greytown enclave this proportion rises by 30 per cent and in the Ladysmith enclave by 20 per cent.
3. *An English enclave* in which the proportion of English speaking people is significantly higher than the average for the town. In the central area of Vryheid the proportion English rises 30 per cent and in a new residential extension in Dundee the proportion English is 90 per cent.

The distribution of the occupational groups did not evidence any clear cut segregation and the residential areas of the Natal towns appear too small to exhibit any spatial differentiation of social class groups. The distribution pattern of the social class groups is of a high mix and even extremes show only a mild tendency to segregate. In residential areas where housing is of a noticeably

higher quality than average for that town, it is not uniformly so and a wide range of occupational categories can be found.¹³ New residential extensions appear as the most likely areas in which segregation may occur for such areas are the most attractive to live in and possess the most uniform, high quality housing. In a few cases the lower occupational groups predominate on the outer fringes of the towns in areas characterised by poor quality dwellings often occupied by Afrikaans speaking railway workers and road gangs.

The ecological areas determined on the basis of occupational class groups are:

1. *A high mix area* in which there is no segregation of social class groups and often both extremes of the social scale are found adjacent to one another. This area occurs in all of the towns covering a minimum of half of the residential area.
2. *A low quality area* in which more than 60 per cent of the occupations recorded are in the middle or low order occupational classes. This area occurs in six of the eight towns, and is characterised by poor quality housing often in the lower lying and older parts of the towns.
3. *A high quality area* in which more than 60 per cent of the occupations recorded are in middle or high order occupational classes. This area occurs in six of the eight towns, usually in new residential extensions on relatively high ground with dwellings of medium or high quality.

CONCLUSION

A statistical analysis of the spatial distribution of the language and occupational class groups recorded in zone sectors of the towns was attempted. However the small areas of residential land encountered and hence the low absolute numbers in each unit of census, rendered statistical analysis invalid. Although it was not possible to determine indices of segregation, centralisation and sector concentration, certain general trends could be observed and measured from the maps recording language and occupational class groups. Accordingly ecological areas were delimited for these groups within which there was a high degree of similarity of the indices recorded. The ecological areas recorded in each town are shown in Table II.

There is little evidence of segregation in the Natal towns of either language groups or occupa-

TABLE II

The ecological areas of the sample towns

A. LANGUAGE AREAS		L.	N.	D.	V.	S.	E.	G.	P.
1. High mix area		x	x	x	x	x	x	x	x
2. Afrikaans enclave		x						x	
3. English enclave				x	x				
B. OCCUPATIONAL AREAS		L.	N.	D.	V.	S.	E.	G.	P.
1. High mix area		x	x	x	x	x	x	x	x
2. Low quality area		x	x	x	x		x	x	
3. High quality area		x	x	x	x			x	x

L. Ladysmith	S. Stanger
N. Newcastle	E. Estcourt
D. Dundee	G. Greytown
V. Vryheid	P. Port Shepstone

tional class groups. Where definite majority language groups exist there is a tendency for the minority group to cluster while the majority group retains its even spread throughout the town.¹⁴

However, this tendency which leads to an increase in the proportion of the minority group within a small area does little more than balance the proportions of the two language groups so that none of the minority enclaves described is exclusively of one language group. For example, the rise in proportion of Afrikaans speaking people by 30 per cent in the Afrikaans enclave in Greytown gives the two language groups equal representation. Segregation of occupational class groups occurs to a slight degree and the residentially more attractive areas of the towns include a majority of the higher order occupational classes. Such areas normally possess a higher than expected proportion of English speaking people. However owing to the lack of uniformity of quality in residential areas, even the extremes of social distance are never clearly separated and unskilled manual labourers often reside adjacent to professional and administrative workers.

The Natal country towns are in an urban sense immature and physically too small to exhibit the characteristics of socio-economic segregation that one finds in large urban areas. Nevertheless within the small residential areas encountered the elements of segregation of social class groups and clustering of minority language groups can be distinguished. Future growth of residential areas is likely to be associated with the development of more distinct segregation and will render valid statistical analyses of socio-economic indices.

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REFERENCES

1. SMOUT, M. A. H. 1966 "Natal towns—a comparative study in urban geography." Unpublished M.Sc. Thesis, University of Natal, Durban.
2. DUNCAN, O. D. and DAVIS, B. 1953 *The Chicago Urban Analysis Report*. Chicago, University Press.
3. The only known study which investigates socio-economic indices in Natal deals with Durban, the major centre, see: KUPER, L., WATTS, H. and DAVIES, R. 1958 *Durban: A Study in Racial Ecology*. London, J. Cape.
4. GILLEN, P. 1951 *The Distribution of Occupations as a City Yardsick*. New York, Columbia University, King's Crown Press.
5. DUNCAN, O. D. and DUNCAN, B. 1955 Residential Distribution and Occupational Stratification. *Am. J. Socio.*, **60**, 493-503.
6. DAVIES, R. J. 1966 Social Distance and Distribution
S. Afr. geogr. J., **46**, 24-39. of Occupational Categories in Johannesburg and Pretoria.
7. SMOUT, cap. 2.
8. SOUTH AFRICA. 1965 *Parliamentary Voters Roll*. Pretoria, Government Printer.
9. Unfortunately both Empangeni and Eshowe had at this stage to be excluded from the study, as it proved impossible to obtain details of street numbers and none appeared on the Voters Roll.
10. Walking zones, i.e. distances, are measured along streets and not in a straight line from the centre of the grid. Concentric zones do not take into account the rectangular system of transport and communications.
11. SMOUT, cap. 9.
12. SOUTH AFRICA. 1963 *Population Census 6th September, 1960, Vol. 1: The Geographical Distribution of the Population*. Pretoria, Bureau of Census and Statistics, R.P. 62/1963.
13. Housing quality and age were determined by field and documentary investigations as part of the major survey.
14. WATTS, H. L. 1957 "Grahamstown. A socio-ecological study of a small South African town", 2 vols. Unpublished Ph.D. Thesis, Rhodes University, Grahamstown, II.

