THE NATAL INTERIOR

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The Natal Interior region covers an area of approximately 36 770 square kilometres and lies between the Natal Coastal Belt (discussed in an earlier issue of *Contree*) and the Drakensberg mountain boundary with Lesotho and the Orange Free State; it is bounded on the north-east by the Buffalo-Tugela River and on the south-west by the Umzimkulu River.[1] The region is distinctive as being the grazing land portion of the Colony of Natal (1843 — 1910), within which a British imprint was laid during the formative period of White settlement. In this manner it differs from neighbouring regions in the Orange Free State, Transvaal and Natal to the north-east of the Buffalo River.

PHYSICAL BACKGROUND

The land surface of the region rises in a series of steps from the edge of the coastal belt to the Drakensberg Mountains. The lowest plateaux stand at approximately 300 metres while those at the foot of the Drakensberg are approximately 1 500 metres in altitude. The Drakensberg range rises to approximately 2 000 — 2 500 metres along the border with the Orange Free State — although there are several passes — while they reach 3 000 — 3 500 metres on the Lesotho border, which is virtually impassable. The general land surfaces are deeply incised by a series of major and minor rivers, which interrupt the interior plateaux and basins and provide, particularly in the south of the region, areas of broken country with high relative relief.[2]

The climate of the Natal interior is one of contrasts, closely related to the relief patterns. High annual average rainfalls, exceeding 1 500 mm in the Drakensberg, contrast with the semi-arid conditions of the interior valleys where as little as 400 mm may be recorded. In the Midlands, the area adjacent to the Coastal Belt, the phenomenon of the 'Mist Belt' occurs, where a high incidence of mist and fog gives rise to a distinctive region facilitating tree growth; this part, however, would appear to have been largely deforested at the time of European settlement.[3]

In terms of vegetation most of the country was grassed in the early nineteenth century, with areas of bush in the main river valleys and small patches of forest on steep slopes. The influence of earlier African grazing animals across the open lands of Natal was probably decisive in retarding forest growth.

EUROPEAN SETTLEMENT

Being a part of the traditional Zulu abode before European settlement, this region experienced considerable depopulation in the early nineteenth century, especially during and after the wars of extermination or *difaqane*. Thus initial evaluation by Voortrekker parties in the mid 1830's described it as devoid of settlement. That this was not so soon became evident, as the trials and tribulations of both the first White settlers and the Zulu in later years were to prove.[4]

One of the early acts of the Voortrekkers and the later Colonial Government was to establish areas (locations) in the rural parts of Natal for the Zulu population which was surplus to the labour needs of the European population. The reserves were largely demarcated in the more rugged and mountainous parts of the Colony, where the Zulu population had retreated during the period of warfare. These locations, finally surveyed in the mid-nineteenth century, have survived until the 1970's as immutable parts of the rural scene, although the latest proposals for the consolidation of Kwa Zulu provide for some significant changes.[5]

The Natal Interior was regarded as highly attractive open land by the Voortrekkers, since the plateaux and plains were covered with grasslands of a far better quality than those of the Cape Colony. The river valleys with their bush, greater extremes of temperature, and wild animals, were less attractive and largely passed by, and hence left open for Zulu occupation. The propaganda campaign of the later 1840's and 1850's to show the agricultural potential of Natal, although directed mainly towards the coastal belt, did spill over in its more extravagant phases to the interior, when the boosting of the one was transferred to the other.[6] The treeless environment could thus be compared to a nobleman's park.[7] The grass was noted as luxuriant, the height topping a saddle.[8] Also, the lack of drought was noted favourably, when comparisons with Australian conditions were made.[9] The availability of water probably proved to be the main attraction once grazing rather than crop raising was the main intent of settlers.[10]

Except for a few favoured areas, the Natal Interior has until recently largely been regarded as pastoral country, or at best suitable only for mixed farming. It was upon this basis that European settlement took place.

SURVEYING THE LAND

The disposal of land to permanent settlers is one of the major functions of a government in a newly-establish-

  A.J. CHRISTOPHER, The Natal Coastal Belt, *Contree* 2, July 1977, pp.5 — 11.
2. M.M. COLE, *South Africa* (London, 1961), pp.576 — 590.
3. J.P.H. ACOCKS, *Veld types of South Africa* (Pretoria, 1953).
4. E.H. BROOKES and C. DE B. WEBB, *A history of Natal* (Pietermaritzburg, 1965).
5. THORRINGTON-SMITH, ROSENBERG and McCRYSTAL, *Towards a plan for Kwa Zulu* (Ulundi, 1978).
6. A.F. HATTERSLEY, *The British settlement of Natal: A study in imperial migration* (London, 1950).
7. J.S. CHRISTOPHER, *Natal, Cape of Good Hope* (London, 1850), pp.60 — 61.
8. *Ibid.*, p.61.
9. J.E. METHLEY, *The new colony of Port Natal, with information for emigrants* (London, 1850), p.3; ANON., *The emigrants' handbook: being a guide to the various fields of emigration in all parts of the globe* (London, 1852), p.35.
10. R.J. MANN, *The Colony of Natal; an account of the characteristics and capabilities of this British dependency* (London, 1859), p.129.

ed area. In granting or selling lands to individuals or companies, the first step is taken in the transformation of the landscape. The method of disposal depends upon the concepts of the time, and from the late 1830's, when the first body of European settlers arrived, until the First World War, when government influence over the course of events was spent, several approaches to the question were put into practice.

The Voortrekkers, who entered Natal from the Cape Colony, collectively held the idea of 2 500 ha as constituting a 'farm'.[11] In the broad grasslands of the Natal Interior this concept was given free reign in the 1830's and 1840's. As a result some 500 farms were established and recognised by the subsequent British administration.[12] The area involved was some 1,2 million hectares, or an average of 2 400 ha apiece (Table 1). Settlement was discontinuous as the lands best suited to grazing were acquired and the intervening river valleys and mountain chains were shunned (Figure 1). Farms similar to those of the Cape Colony were established and they formed the backbone of the wool industry when it began to develop in the 1860's.[13]

TABLE 1: LAND AREAS GRANTED[14]

Tenure and Period		Area 000 ha
Voortrekkers	1838–1848	1 200,3
Freehold	1848–1860	40,8
Special settlements	1856–1858	599,7
Freehold	1861–1880	166,2
Freehold	1881–1910	852,1
Since	1910*	75,6
TOTAL		2 954,7

*Excluding special settlements and closer settlement schemes.

The next step was the disastrous attempt to establish close settlement based on arable agriculture in the interior, before any attempt had been made to develop a road network, or indeed any form of internal market economy. As an offshoot of the coastal settlement of 1849–1851 several sites in the interior were laid out with small farms for British immigrants. Blocks of land were divided into farms of 8–20 ha.[15] Not surprisingly, the approximately 40 000 ha divided into almost 1 000 farms with commonages and towns proved to be often ephemeral features in the landscape, although some farmers clung tenaciously to their lands and through the ac-

Pietermaritzburg, c. 1850.

PHOTOGRAPH: CAPE ARCHIVES DEPOT, CAPE TOWN

LAND ALIENATION

Before 1851

1851 - 1860

1861 - 1880

1881 - 1910

Mission Reserves and Native Locations
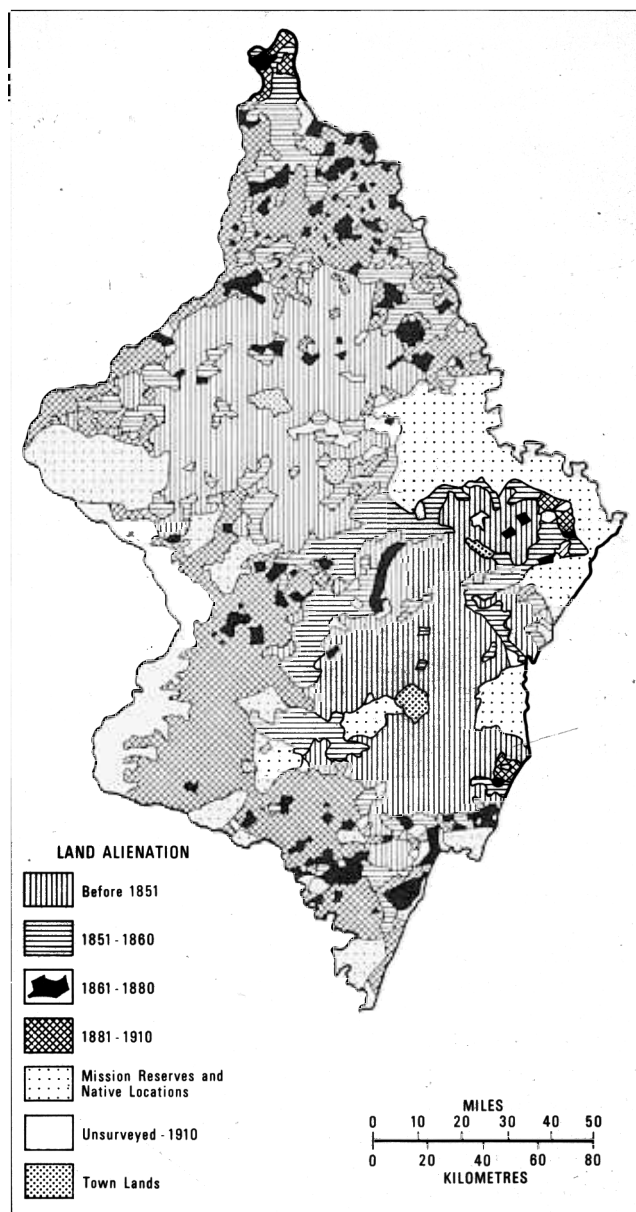
Unsurveyed - 1910

Town Lands

FIG. 1: Progress in land alienation and the distribution of the African locations.

quisition of those of their neighbours were able to achieve a moderate prosperity by the end of the nineteenth century.[16] The contrast between these two initial forms of settlement is most striking when the two layouts are placed side by side.[17]

In 1856 and 1857 the Natal government embarked upon a further scheme to attract immigrants and to provide security of tenure for squatters in the extreme north

11. A.J. CHRISTOPHER, The variability of the southern African standard farm, *South African geographical journal* 58(2), September 1976, pp.107–117.
12. A.J. CHRISTOPHER, The initial European farm pattern in Natal, *Journal for Geography* 2(3), April 1968, pp.167–178.
13. D. CHILD, *Charles Smythe; pioneer, premier and administrator of Natal* (Cape Town, 1973).
14. Compiled by the author from the records of the Surveyor-General's Office and the Deeds Office, Pietermaritzburg.
15. A.J. CHRISTOPHER, The British Settlement of Natal 1848–1851: A geographical appraisal, *Journal for Geography* 3(5), September 1969, pp.485–499.
16. R.E. GORDON, *Dear Louisa; history of a pioneer-family in Natal 1850–1888* (Cape Town, 1970).
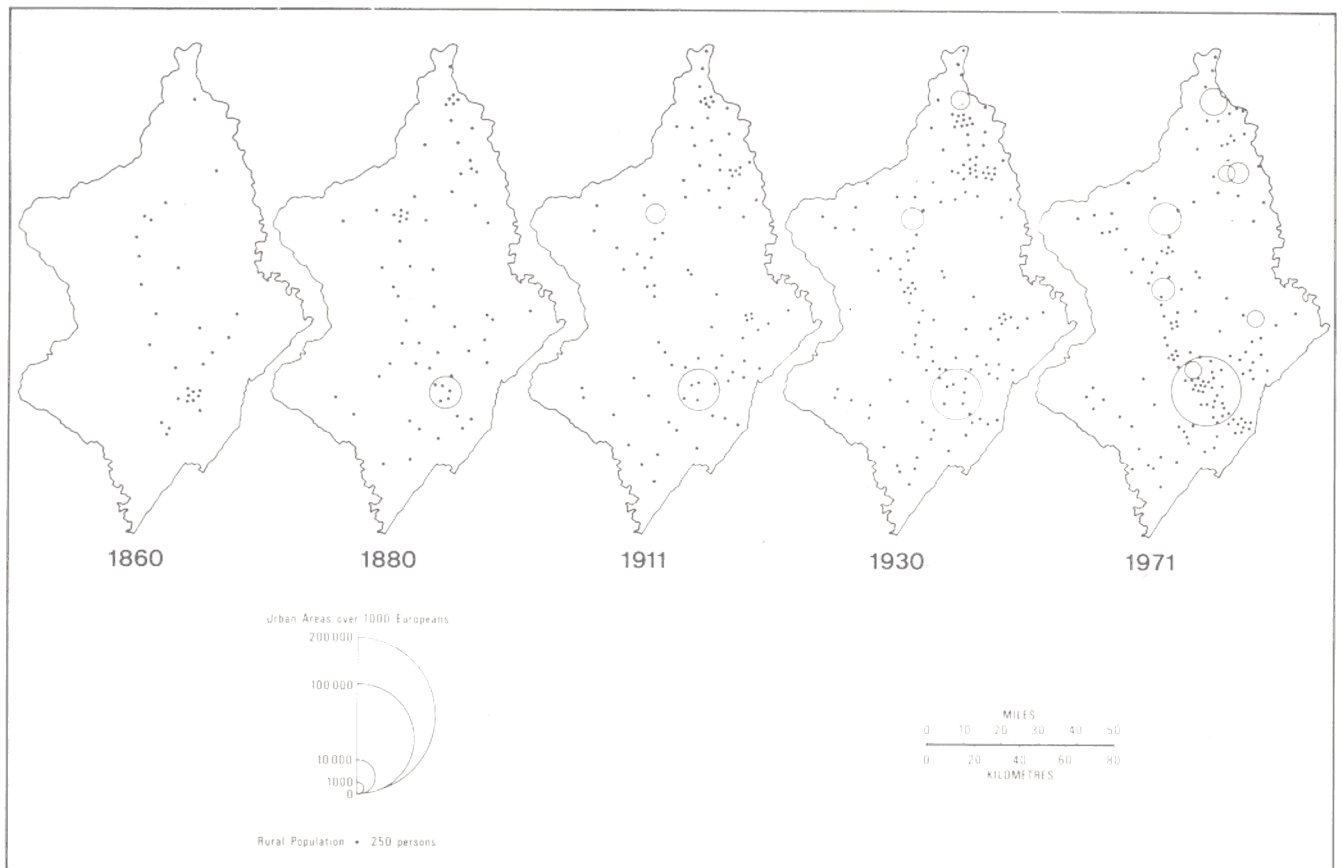17. A.J. CHRISTOPHER, *Southern Africa* (Folkestone, 1976), p.85.

FIG. 2: *Distribution of the European population, 1860—1971.*

of the Colony. Pastoral grants of 1 200 ha were offered in the established regions and 1 600 ha in the extreme northern parts. The result was an immediate land rush. By 1858 some 600 000 ha had been alienated in 543 grants.[18] Unfortunately the lands were easily obtained and easily disposed of, with the result that speculation in these and the Voortrekker farms became rife. Thus by 1870 nearly 500 000 ha were in the possession of speculators and land 'development' companies, and therefore standing idle except for Zulu tenants. These areas were the origins of many of the black spots and irregularly-shaped portions of Kwa Zulu in the present century.

After these periods of explosive settlement, nearly two-thirds of the interior had passed into private hands. Between 1858 and 1880 only 166 000 ha was alienated, mostly in small portions, either as additions to existing farms, or as key points to secure water sources or streams in the drier part of the interior. There was little active extension of settlement until 1881 — 1882 when new land disposal regulations offered land in farms of up to 800 ha on terms of extended credit. There followed a steady sale of the remaining Crown Lands. By the first decade of the present century little land remained to the Crown, beyond the Drakensberg slopes and some of the less desirable lands in the river valleys.

The exhaustion of the Crown Lands gave rise to the final phase of government land policy, the closer settlement movement.[19] This programme involved both government repurchase of land, and its subdivision into small farms, and the encouragement of private enterprises to do the same. More particularly, attempts were made in the period 1880 — 1914 to force the largest land company, the Natal Land and Colonization Company, to make some use of its land for European settlement.[20] Thus some 75 000 ha were laid out as government closer

settlement schemes and a further 20 000 ha by the Natal Land and Colonization Company. The first major irrigation schemes at Weenen and Winterton were a part of this programme. At Winterton the government purchased 7 300 ha from three landowners and divided the resultant estate into over sixty irrigation and dryland farms. At Weenen an irrigation scheme was laid out on the townlands in 1885 providing for some seventeen immigrant lots, and in 1902 a further sixty lots were surveyed. In many instances these lots were acquired by neighbouring farmers who used them to grow feedstuffs for their livestock.

In addition a major attempt was made between 1905 and 1910 to subdivide the larger estates into smaller (approximately 200 ha) units. The largest schemes at Bergville (9 000 ha) and at Inhlamavini (12 700 ha) resulted in a substantial increase in the number of farms. Most schemes consisted of little more than the division of old 2 500 ha farms into six to ten units — a process which was taking place elsewhere as a result of social and economic pressures.[21]

8. A.J. CHRISTOPHER, Colonial land policy in Natal, *Annals of the Association of American geographers* 61(3), September 1971, pp.560—575.
9. A.J. CHRISTOPHER, The closer settlement movement in Natal 1875—1910, *Journal for Geography* 3(6), April 1970, pp.569—578.
10. H. SLATER, Land labour and capital in Natal: The Natal Land and Colonization Companay 1860—1948, *Journal of African history* 16, 1975, pp.257—283.
11. A.J. CHRISTOPHER, Land ownership in the development of Natal 1838—1910, in R.C. EIDT, K.N. SINGH and R.P.B. SINGH, *Man, culture and settlement* (New Delhi, 1978), pp.147—159.

SETTLING THE LAND

The European population of the interior of Natal was at first sparse and scattered (Figure 2). Even in 1860, after twenty years of settlement and several attempts to induce colonists to come to the Colony, there were only 7 169 Europeans living in the interior, or approximately one European per five square kilometres.[22] The population doubled by 1880 and had nearly doubled again by the time of the first official census in 1891 (Table 2).[23] The 1880's were a period of exceptionally rapid growth associated with the opening of extensive new areas for grazing, the opening of the coal mines, the completion of the main railway-lines, and the prosperity associated with the trade to the Witwatersrand goldfields.

TABLE 2: EUROPEAN POPULATION 1860—1970[24]

Year	Total European	Rural European	% Rural
1860	7 169	4 500*	62.8*
1880	15 628	8 000*	51.2*
1891	27 745	13 000*	46.9*
1911	41 745	17 719	42.4
1921	51 583	19 814	38.1
1936	60 678	22 309	36.8
1951	79 437	20 016	25.2
1970	107 666	22 825	21.2

*Approximate

It is difficult to assess the proportion of the population which was urban or rural until the 1911 Census, as only a few towns were separately enumerated in the colonial period. However, it would appear that the numbers of Europeans in the rural areas were comparatively small, as by 1911 under half were rural; it would also appear that, judging from the figures which do exist, the urban population was never less than one third during the entire colonial period. The rural European population in the present century has fluctuated as the counter movements of rural depopulation and suburbanisation have largely balanced one another.
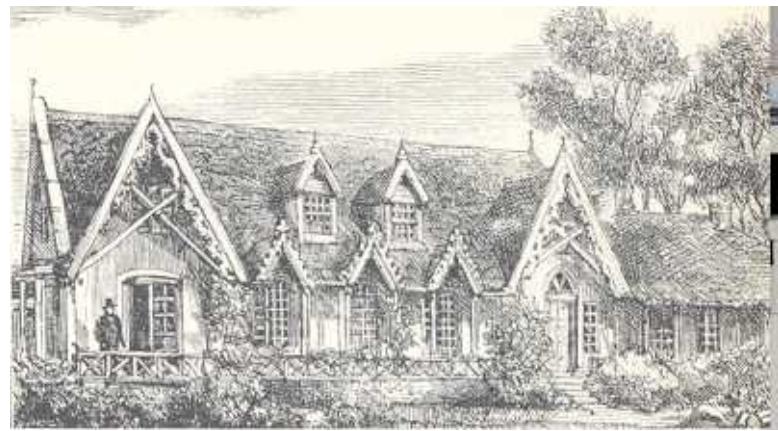
Bishop Colenso's residence, Bishoptowe.

PHOTOGRAPH: AFRICANA MUSEUM, JOHANNESBURG

Rural settlement was initiated by Cape colonists who brought their ideas of stock farming and their cultural "baggage" such as architectural concepts, with them. Many of the early farm-houses were reminiscent of the land they had left behind. However, the general settlement was British, and styles such as Gothic Revival were prevalent in Natal. As a rule building styles followed the general trends in England, but with more limited building materials.[25]

STOCKING THE LAND

The first response of the European settlers, whether from the Cape Colony or from Europe, was to develop

22. NATAL, *Blue Book of the Colony* 1850.
23. NATAL, *Blue Book of the Colony* 1880; NATAL, *Census of Natal* 1891.
24. Figures taken from NATAL, *Blue Book of the Colony* 1860 and 1880, *Census of Natal* 1891, and SOUTH AFRICA, *Census of South Africa* 1911—1970.
25. B. KEARNEY, *Architecture in Natal, 1824—93* (Cape Town, 1973); D. PICTON-SEYMOUR, *Victorian buildings in South Africa* (Cape Town, 1977).
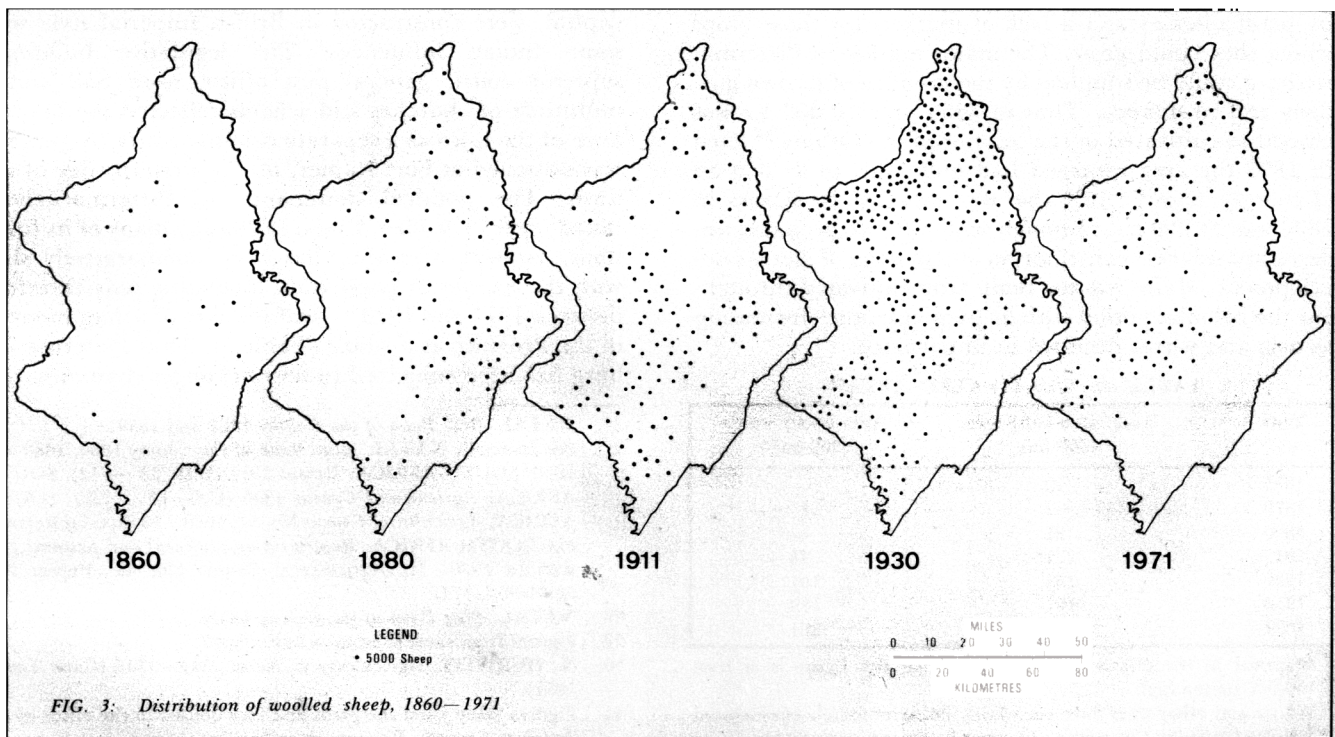
1860   1880   1911   1930   1971

LEGEND
• 5000 Sheep

MILES
0 10 20 30 40 50

0 20 40 60 80
KILOMETRES

FIG. 3: Distribution of woolled sheep, 1860—1971

stock-raising. The introduction of merino sheep and the stocking of the interior was fairly rapid. Between 1860 and 1890 the number of woolled sheep increased nearly tenfold (Table 3). Wool exports through the port of Durban increased from 213 kg in 1860 to a peak of 13 376 kg in 1889.[26] Thereafter the numbers and exports were liable to substantial fluctuations indicating, in places, deteriorating pastures and variable world prices. Although woolled sheep have remained an important part of the economy their predominant place has largely been superseded by cattle in the present century, especially at lower altitudes (Figure 3).

TABLE 3: WOOLLED SHEEP AND CATTLE NUMBERS[27]

Year	Woolled Sheep	Cattle
1860	85 439	161 453
1880	371 269	136 004
1890	776 221	154 946
1911	653 423	300 242
1930	1 558 736	509 465
1950	472 733	591 683
1971	650 740	686 384

Cattle, prior to the introduction of mechanised transport, were present in considerable numbers, as is witnessed by the presence of over 150 000 head in the Natal Interior for most of the second half of the nineteenth century. However, the greater profitability of beef and milk has led to a dramatic increase in numbers in the present century. Unlike the more arid sheep-grazing regions of the Cape Province and Orange Free State, the Natal Interior has been able to intensify its land use and switch to other economic activities. Thus, although the number of woolled sheep has declined, the number of cattle, more especially dairy cattle, in the vicinity of Pietermaritzburg has increased.

CULTIVATING THE LAND

Initially the European settlers engaged in little cultivation, since the Natal Interior was regarded as essentially pastoral in character. Small areas of forage crops, together with a vegetable garden for subsistence, were all that most farmers undertook. The British settlers of 1850 attempted cultivation on a larger scale, but were defeated by plant diseases and a lack of markets for those crops which they could grow. The major market in Pietermaritzburg could be supplied by the produce of its own gardens and townlands. Thus in 1855 only 10 000 ha was classed as cultivated in the interior of the Colony.[28] Even in 1890 the area returned had only risen to 21 000 ha (Table 4). Significantly the area cropped by Blacks in 1890 was 93 000 ha, although such a figure probably underestimates their contribution at this stage of Natal's development. Maize was the main crop cultivated throughout the colonial period with its preponderance increasing as oats and wheat declined in importance.

TABLE 4: CULTIVATED AREA[29]

Year	Total area cultivated (000 ha)	Area under wattle (000 ha)[+]
1855	10	—
1870	7	?
1890	21	?
1911	271*	78
1930	185	107
1950	167	129
1971	292	221

* Misprints in the census returns suggest that this figure is at least 100 000 ha too high.

[+] Wattle and other trees have been fairly indiscriminately enumerated and the figures in this column may not be strictly comparable.

The major change came with the development of the wattle bark industry. Wattle bark can be processed to produce tannin used in leather preparation.[30] The wattle tree had been introduced to the Natal Midlands in 1864 by John van der Plank, and by the 1880's the trees were growing well in the moist mist belt environment, experiments proving the value of the bark. Commercial exports of bark began in 1887 and by 1899 11 000 tons were exported. Demand continued to increase and large-scale planting began. Thus in 1911 some 78 000 ha were covered with wattle trees. The area continued to expand until the 1960's, when the major synthetic and natural competitors began to displace wattle bark. Trees felled for bark were not replaced and sugar cane was introduced. Other trees such as eucalyptus and pine were also introduced and plantings took place within the Natal Midlands. These trees have not suffered the decline which has afflicted the wattle.

THE TOWNS

In the Natal Interior the European population included a high proportion of urban dwellers, and this proportion had increased to almost four-fifths at the last census in 1970. The most important urban centre was, and still is, the colonial (now provincial) capital of Pietermaritzburg. The city was laid out in 1838 as the capital of the Republic of Natalia. The plan was one of the most ambitious pieces of nineteenth century town-planning in South Africa. A total of nearly 500 town plots of 0,7 ha apiece were surveyed, together with a central market square of nearly six hectares. The street pattern was a grid with plots extending from street to street. In addition, nearly 11 000 ha of townlands were laid aside for the use of the town's inhabitants.[31] The result was one of the most spacious towns in South Africa, with comparatively few of the problems of sprawl associated with less generously-planned towns such as Durban, or indeed the other provincial capitals.

The town at first consisted of a series of small houses, many in Cape-Dutch style, but gradually, following the annexation by Great Britain, British house styles came to predominate. Public buildings, as befitting a colonial capital, were constructed in British Imperial style with some Indian influences. The legislative buildings, supreme court, general post office, town hall and a multitude of churches and schools reflected the importance of the town as a separate colonial entity. A garrison was stationed at Fort Napier, on the western edge of the town. The political dominance of Pietermaritzburg lasted until 1910 when Union took away many of its functions. Growth thereafter has been comparatively slow with the European population increasing only threefold between 1911 and 1970 — half the rate of urban increase in the Province as a whole (Table 5). Thus Pietermaritzburg has been subjected to fewer changes than most im-

26. NATAL, *Blue Book of the Colony* 1860 and 1889.
27. See especially NATAL, *Blue Book of the Colony* 1860, 1880 and 1890, SOUTH AFRICA, *Census* 1911 (U.G. 32 — '12), SOUTH AFRICA, *Agricultural Census* 1930 (U.G. 12 — '32), SOUTH AFRICA, *Agricultural Census* No. 24, 1949—50 (Special Report), and SOUTH AFRICA, *Report on agricultural and pastoral production 1970—71*, Agricultural Census No. 44, Report No. 06-01-08 (1974).
28. NATAL, *Blue Book of the Colony* 1855.
29. Figures from same sources as footnote 27.
30. N. HURWITZ, *Agriculture in Natal 1869—1950* (Cape Town, 1957).
31. Figures taken from the plans and files housed in the office of the Surveyor-General, Pietermaritzburg.

portant centres and the colonial stock of buildings has remained a significant element in the landscape. It is noticeable that the European proportion of the population fell steadily, as first the Indian and later the African population became increasingly urbanised. The recent rise in the European proportion of the population is due to the housing of an increasing number of Blacks in the neighbouring parts of Kwa Zulu.

TABLE 5: POPULATION OF PIETERMARITZBURG

Year	Total Population	European Population	% of Population European
1855	2 100*	1 470	70,0
1880	10 144	6 085	60,0
1911	32 038	14 737	46,0
1936	55 951	21 865	39,1
1951	92 082	31 496	34,2
1970	113 747	42 473	37,3

*Estimate

Elsewhere in Natal, towns were established largely as administrative and commercial centres for the surrounding rural areas. Only the relatively self-contained coal-mining communities are an exception to the rule. The Voortrekkers established towns at Weenen and at the sites of present-day Ladysmith and Greytown. Architecturally, these centres first looked like many small Karroo towns, with whitewashed stone-walled houses — the roofs either thatched or flat — and extensive gardens. However, English building styles, particularly Gothic Revival, became popular later in the century when the influence of general colonial styles, and more especially the wrought iron work which accompanied them, became dominant. Other towns, such as Estcourt and Newcastle, were established in the mid-nineteenth century as posts along the line of the main road to the interior. Foundation of towns often went hand in hand with the opening up of the rural areas, and later the railway-line, and there is little evidence of a comprehensive plan of urban development.

The British settlement of 1850 resulted in the establishment of a great many towns, such as York, Byrne, Thornville and Richmond. Only the Richmond has survived more than a few years, owing to the perseverance of a group of settlers sent to Natal by the Duke of Buccleugh.[32] Most of the towns are marked today by little more than a community church and social facilities. Similarly, later settlement schemes resulted in the establishment of now defunct towns such as Lidgetton, Frere, and Fort Nottingham. Winterton, Creighton and Bergville are rare examples of relative success in founding towns to serve settlement schemes in the 1890's and at the turn of the century.

The interior of Natal was thus provided with an urban network far in excess of its needs. Competition for available trade, schools, administrative functions has thus been severe, with many ghost and decaying towns resulting. In contrast, the towns of Newcastle and Ladysmith have exhibited a steady, if sometimes erratic, growth, particularly since they have developed industrial complexes. New dormitory centres for Durban and Pietermaritzburg have resulted in low density urbanisation along the main axis between Ladysmith and Durban. In consequence the centres of several towns along the main transport axis are being redeveloped, and the nineteenth century townscape is being destroyed in much the same way, although on a smaller scale, as in the major metropolitan centres. So it is that only the smaller towns still possess commercial buildings dating from the nineteenth century.

One of the distinctive features of the larger Natal towns is the presence of a large Indian population. Whereas in the Coastal Belt region the Indian population was initially rural, in the interior it was more urban and commercially orientated. Thus from the 1880's onwards dual shopping and business centres developed in the towns. Often they were connected and formed one physical unit. The relative proportions of Indians and Europeans in the towns has tended to remain reasonably stable in the present century, with the main concentration in Pietermaritzburg. The diversity in the centres of the towns has survived the 1943 pegging of Indian holdings and the 1950 Group Areas Act.[33]

An important interruption to the general pattern of towns was the development of the Natal coalfield. In 1880 tests confirmed the suitability of the coal for steam and later for coking. Thus with the completion of the railway to the coalfield in 1889, large-scale development began. In that year seven collieries were in operation, producing 29 000 tons. Production increased rapidly thereafter. By 1904 production from seventeen collieries amounted to 0,9 million tons and by 1914 this had been boosted to 2,6 million tons. Dundee, the original centre for the coal-mining industry, developed as a regional centre, while settlements such as Dannhauser, Glencoe and Natalspruit, together with purely colliery settlements, remained more specialised.[34]

CONCLUSION

The Natal Interior presents a unique region within South Africa in that it was, in the nineteenth century, a pastoral region little influenced by Cape Colonial or Republican developments. The legislative framework was British and the cultural influences British. The British imprint upon the landscape was therefore profound, whether it was in the realm of town planning, farming or architecture. Australia provided a model, not the Cape Colony. Naturally this distinctive element has been much reduced since Union as greater uniformity throughout South Africa has occurred.

The region is also one which, throughout its history, has experienced rural and urban growth. Pockets of decline exist, but they are small compared with those where growth is taking place. Thus the landscape of the past is being more rapidly changed in Natal than in most parts of South Africa, and the tangible features of the distinctive colonial period are being erased. However, for those with a willingness to look the Natal Interior provides a most interesting, and often surprising, landscape.

32. A. HOPE, *"Yesterdays"; the story of Richmond, Natal* (Durban, 1970).
33. T.M. WILLS and R.E. SCHULZE, Segregated business districts in a South African city, in D.M. SMITH, *Separation in South Africa* 2 (London, 1976), pp.67—84; R.E. SCHULZE, The business land use of Central Newcastle: present and future, *South African geographer* 4(4), April 1974, pp.308—319.
34. P. SCOTT, The development of the Northern Natal coalfields, *South African geographical journal* 28, December 1951, pp.53—68.