Smallpox at the Cape of Good Hope in the Eighteenth Century

Robert Ross

Smallpox forms an important part of the mythology of South African history. It is true that the myth has a good deal of historical content, as men and women did die in large numbers from this disease. During the eighteenth century there were three major epidemics at the Cape, in 1713, 1755 and 1767. These will be examined in detail in this paper. However historians have ascribed to these epidemics an importance which, at least it is argued here, they did not possess.

Above all, smallpox is seen to have been one of the major causes of tl break-up of Khoikhoi tribal organisation. As is so often the case with Sc African historiography, it is useful to begin with the description of G.McC Theal. He wrote as follows:

> Whole kraals disappeared, leaving not an individual alive. The very names of the best known tribes were blotted out by the fell disease. They no longer appear in the records as organised communities, with feuds and rivalries and internecine wars, but as the broken-spirited remnant of a race, all whose feelings of nationality and clanship had been crushed by the great calamity. The farmers who had been accustomed to employ many hundred of them in harvest time complained that none were now to be had. Strangers who had visited the colony before 1713 and who saw it afterwards, noticed that the Hottentot population had almost disappeared. From this date until the Bantu were reached by the expansion of the settlement, the only difficulty with the coloured inhabitants was occasioned by Bushmen. Owing to the isolation of these people, they escaped the disaster which overtook the higher races.[1]

Odd as it may seem, when it is considered that Theal has been challenged on almost every other point of interpretation, his stress on the importance of smallpox in the social disintegration of the Khoikhoi seems to have been alm universally accepted. W.M. MacMillan, whose dislike of Theal has been almo unrivalled, is an exception, as he did not mention the epidemics when discussing the origins of the Cape coloured people,[2] but his example has not been followed. J.S. Marais quoted Theal directly on this point.[3] Afrikaa historians have also followed the same basic line, sometimes doing no more than translate Theal into their own language.[4] Nor has the belief disappea in more recent works. In the Oxford History, Monica Wilson writes that "the smallpox epidemics of 1713, 1755 and 1767 so decimated the Khoikhoi tha the very names of some hordes were forgotten".[5] Again, Shula Marks argues at one stage that "though the power of the Khoi to resist white expansion was undermined by the disastrous small-pox epidemic of 1713, attempts to

from African Historical Demography, Centre for African Studies, Edinburgh 1972

cannot have reached that great a proportion of the population.[19]

The impact of the smallpox epidemics on the non-Khoisan population of the Cape

In order to move from these rather general views of the incidence of smallpox as a disease to the specifics of its visitations to South Africa, it would seem valuable to attempt to quantify the destruction it caused on the white and slave population of the Cape. This has a double advantage First, in its own right, it will increase our still fairly meagre knowledge of the demographic history of colonial South Africa, which is no loss. Secondly, it may enable the making of inferences from the effects on the white and slave population to those on the Khoikhoi, although obviously thos inferences will be at best highly speculative. At least, however, they hav the advantage of being better than nothing.

What is more, such an undertaking can produce results of an accuracy rare in African demographic history. These can be gained by studying the tax lists, generally known in the literature as the opgaaf rolls[20] - which the Government of the Cape compiled every year. By comparing the lists immediately before and after an epidemic, it is possible to see the effects of the disease not only over the population as a whole but also, at least in a rather crude way, by geographical area, social status and age. In addition, it is possible to calculate the growth rate of the population during the non-epidemic years, so that, to a certain extent, it is possible to correct these figures by taking into account the projected natural increase which would have occurred save for the epidemic.

Clearly, the use of these lists depends to a large extent on the degree to which they can be trusted. In the available space, it is not possible to justify the reliance placed on these sources, but detailed nominative research[21] has shown that, once a woman or man is included in the lists, he or she was rarely excluded in subsequent ones, except by death. No tax list can be perfect as a demographic source, of course, but the ones in question are as good as we have any right to expect, and may, I would assert, be used without correcting for biases - which anyway are not known, if they exist.

The results of numerical analysis of the tax lists adjacent in time to the epidemics and of the calculation of growth rates over various longer periods are to be found in Tables I and II. As such massive wodges of statistics are not readily digestible, I will now proceed to point out the salient features of these tables, as they refer to the argument of this pap

dislodge the white intruders on their grazing lands continued".[6] In the Cambridge History she returns to the same theme,[7] while in my own history of the Griquas I claim that "the epidemics of smallpox that ravaged the Cape in 1713 and 1755 killed many Khoi, destroying the viability of many Khoi tribes".[8] Most of these works, of course, do not deal directly with the Khoi, but Richard Elphick ends his thesis, which is directly concerned with the break-up of Khoi social organisation, in 1713, thereby implicitly accepting the importance of the epidemic in that process. Although he argues that it was only the last of a whole line of disasters, for him "the smallpox visitation of 1713 was the all but final catastrophe". His description is more detailed than any since Theal, and in consequence more gruesome.[9]

The evidence that the smallpox epidemic of 1713 disrupted Khoikhoi social organisation is fairly meagre, while the importance of later epidemics is ascertained almost entirely by back-projection to 1713. Moreover, it is of a type that historical demographers almost instinctively suspect, as it is at once hearsay and non-numerical. It derives almost entirely from the Daghregister of the Colonial Government in Cape Town. Translations of the full texts are therefore worth giving.[10]

On the 6 May 1713, the diarist wrote:

> Even the poor Hottentots are not free, but disastrously do not know the disease and have never seen it and, in consequence of this medical ignorance are thus very disastrously smitten.

A day later he wrote that:

> the government has had buried nine Hottentot corpses, which were lying stinking in their huts, to avoid further bad air.

On the 19 May he recorded that:

> Today the news was received that some of the surviving Cape Hottentots, who wished to escape the sickness by fleeing over the mountains to another tribe have been mostly killed by the latter - with the exception of a few who escaped - for fear that the pox should break out among them: a rigourous policy.

On the 28 November,

> was heard more to bewail about the smallpox which recently reigned here (although it has not totally ceased; in Drakenstein Colony people are still afflicted). Corn reaping is at hand and the majority of the Hottentots who used to serve the farmers have been carried off, so that some of them [the farmers] are helping with the scything, something here outside normal usage.

Finally, on 13 February 1714, a number of Khoi came in to Cape Town from the

region about the Piketberg, to request that new Captains be appointed in place of the four that had died. They reported that "scarcely one out of ten members of their society had survived".

Clearly, this material does not actually allow anything more to be said than that a lot of people died. We cannot, of course, be precisely sure how many, as any sort of estimate for the Khoikhoi population either before or after 1713 is almost totally lacking.[11] It would therefore seem that the effects of the epidemics can only be investigated by, first, describing the general characteristics of the disease and, secondly, by viewing its impact on other sections of the South African population. Here at least it is possible to put forward a certain amount of statistical evidence, which is clearly advantageous in view of Hollingsworth's dictum that "demography is the statistical study of population and as such embraces all aspects of population movement that are capable of numerical measurement".[12] It is clearly unfortunate that the figures which are available do not refer to that section of the population on which interest has mainly centred. Nevertheless, it may be possible to infer something about what is not knowable from what can be demonstrated. The level of certainty that will be achieved by this procedure will clearly not be very high, but it will, I would argue, be higher than would result from relying on the vague estimates of men who had little opportunity of, or concern for, accuracy in matters numerical.

Epidemiology

Smallpox was[13] an acute virus infection which occurred in two distinct forms, one of which, variola major, was considerably more severe than the other, variola minor. It is fairly obvious that the visitations in South Africa, at least in 1713 and 1755, were of the former variety, so that attention will be limited to that form of the disease. It was a highly contagious disease, with an incubation period of about 16 days. Nowadays, of course, the susceptibility of the population to smallpox has been controlled by the widespread use of vaccination, so that it is to be hoped that the disease has been completely eradicated. In the past, where smallpox was endemic, virtually everyone contracted the disease at some stage in his or her life. However, to quote the major textbook on the disease, "this does not mean...that the chance of contracting smallpox on any one occasion is nearly 100 per cent. It is very much less."[14] For obvious reasons, it is very difficult to get firm figures on the likelihood of contracting the disease during an epidemic. Dixon writes: "I feel that the natural attack

rate in a modern community, with good housing, reasonably early diagnosis and removal to hospital would be about 50 per cent of those 'exposed'."[15] In early South Africa, none of these conditions were fulfilled, so that it might be possible to guess that, say, 75 per cent of those "exposed" would have contracted the disease. For the Khoikhoi and for those whites and slaves born in South Africa, this would have been the percentage of those who came in contact with the disease, since they would not have received the immunity conferred by a previous, non-fatal attack.[16]

It is also clear that not everyone who contracted the disease died of it. Once again, it is difficult to make any firm estimates of what the case mortality of previously unexposed populations would have been. The historian with little medical knowledge can do no more than quote Dixon who writes as follows:

> most of the available evidence suggests that variola major is a single entity, and that variations in mortality in the small outbreaks can be accounted for by chance, age of attack and population experience. In some of the earlier accounts from some countries, the inclusion of chickenpox has altered the whole value of the statistics. In the early outbreaks in Mexico and other countries it was stated that about one-half of the population died, in others it was stated that about one-third of the population died from smallpox. An analysis of the figures for some twenty outbreaks shows that the case mortality of an unvaccinated population is about 30 per cent.[17]

To this it can only be added that it is my impression that there seems to be an inverse correlation between the level of mortality reported and the quality of the data. A possible exception to this rule would be the epidemic in Iceland in 1707, where it is said that 18,000 out of a population of 52,000 died, but even there the only reference I have been able to consult merely states this as a fact, rather than giving a satisfactory "explication de texte". Given the very low density of settlement on the island, it seems somewhat unlikely and there remains the possibility that cases have been confused with fatalities.[18] Moreover, mortality might be much less. Even in Tahiti, in that famous area of "non-immune populations", the smallpox epidemic of 1842 was far from disastrous. McArthur writes that:

> At the centre of infection, the mortality rate may have been as high as 10 per cent, though for the island as a whole it was probably not much more than 2 or $2\frac{1}{2}$ per cent.

It should, however, be noted that here it was controlled, to a certain extent, by a programme of vaccination introduced by the missionaries, although they

To begin with the 1713 epidemic, three main trends can be discerned in what is at first sight a fairly undifferentiated picture, with a general decrease of around 20 per cent, striking children more severely than adults. First, those groups which may be considered likely to have contained a larger proportion of immigrants - above all the white men and the adult slaves - were rather less severely hit than might have been expected. This is obviously related to the fact that more of these groups would have had smallpox in their childhood and survived it, thus developing immunity. Secondly, it is clear that the epidemic hit the country districts less severely than it did the Cape, and thus above all Cape Town.[22] With one exception, the decrease in every subdivision of the population was less in the country than in the town. The exception - white adult men - can be explained by making the very reasonable assumption that the proportion of white adult immigrants was considerably higher in Cape Town than in the countryside. Indeed, in the case of rural slaves, the population increased between 1712 and 1713 by over five per cent. Admittedly, this was considerably lower than the pre-epidemic rate and was presumably caused almost entirely by farmers purchasing either from the town or from slaving ships,[23] but it does show that the epidemic was not uniformly disastrous. Rather, they show that the contagion could not have spread to every farm in that thinly settled region.

Thirdly, it is perhaps worth pointing out that post-epidemic recovery was very swift. Growth rates of the Cape district population were higher in the subsequent five years than at any other time in the century, and were nearly as high for slaves and white males in the country districts. The low rate of growth of non-Cape females between 1713 and 1718 may presumably be attributed to a fair amount of migration back to Cape Town, in general, it may be supposed, to marry widowers.

With regard to the 1755 epidemic, it is clear that the disease was of equal vehemence to that 42 years earlier, but that it was contained to Cape Town, where the free black community was particularly badly hit. The slightly lower decrease among slaves than among whites may well be related to the greater proportion of immigrants among the slaves, but on the other hand there may have been a fair amount of slave buying by Cape Town burghers to compensate. Although it is not possible to be certain, there must be a possibility that shortage caused the price of slaves in Cape Town to rise steeply in the months after the epidemic had passed, prompting farmers to sell a few who were excess to their immediate requirements, and not to replace those who died in the natural course of events, thus producing the

slight decrease in country slave holding between the two years.

An examination of the figures for 1767 shows that the epidemic of that year was again restricted to Cape Town and was even there far milder than that of 12 years earlier. It is possible that it was of the far less vehement variety of smallpox, variola minor. What is certain is that it had no serious consequences for the demographic development of the Cape. What is more, smallpox was never again imported into South Africa until after the end of the eighteenth century when it could be controlled by the use of vaccination - if with difficulty because of the problems inherent in maintaining the cow-pox strain in the fairly small population of the Cape colony and of reaching every group and family at risk.[24]

The effect of smallpox on the Khoikhoi

With regard to the last two epidemics, the inference can clearly be made that they had no effect on the rural Khoikhoi population, which is to say almost all of it, and certainly all that in any sense still lived in a "traditional" manner. Had the disease spread outside the town, it would have affected the whites and slaves, few of whom could have been immune as a result of previous contact. However, as has been shown, it did not. It would thus seem that when historians have claimed that Khoikhoi tribes were further decimated in those years, they were doing so without further justification than the simple fact that smallpox struck Cape Town. As it happens, there is no evidence for any such destruction.

It is not possible to dismiss the effects of the 1713 epidemic so summarily. The disease certainly crossed the Cape flats and ravaged the country districts of the Colony. It is known that Khoikhoi were smitten in fairly large numbers, and it is reasonable to assume that, at the very least, they suffered as badly as the whites and slaves alongside them, perhaps worse. Khoikhoi living conditions would have been ideal for the spread of the disease, once it struck a particular kraal, and their medical knowledge and general state of health would not have prevented a high mortality rate among those who were sick. On the other hand, it may be doubted that in fact every kraal suffered from the disease. As was shown, the dispersed settlement patterns of the farmers contributed to a somewhat lower mortality rate among rural than among urban whites. Presumably, the same sort of thing must have happened with the Khoikhoi, as the various kraals lived far apart and, moreover, understood the value of quarantine. It would thus seem exceedingly unlikely that smallpox killed more than, say, thirty per

cent of the Khoikhoi population of the Cape in 1713.

This, of course, represents a terrifying loss of life, by any standards. It is, however, the sort of visitation from which a healthy population, with reasonable means of subsistence can recover fairly quickly - certainly with a generation or so - provided that it does not suffer such calamaties recurrently. Now, the Khoikhoi seem to have remained free from such diseases for the rest of the century, but, on the other hand, were not able to regain their old strength because their land was increasingly taken out of their control by the advance of the European farmers and stock rearers far into the interior.

However, there is another major problem. In the historiography of the subject the assumption is always made that a disastrous loss of life must have spelt the end of Khoisan social organisation, but there is no explanation as to how this might have occurred. In fact, the precisely contrary arguments are at least as strong. Elphick argues that Khoikhoi social organisation depended on the ratio between humans and cattle remaining favourable.[25] Clearly, if his argument is accepted, and prima facie it seems plausible, then in the long run the epidemic could only have been an advantage for the survivors. It may be, of course, that the whites took advantage of the weakened state of the Khoikhoi and raided their cattle while they were too sick to defend them, but if this is so, I have found no evidence for it.

In conclusion, then, it would seem that the traditional argument as to the importance of smallpox in the process of destruction of Khoikhoi tribal life (whatever that may have been) is, in itself, not strong. The epidemic disasters which struck the Khoikhoi more heavily are likely to have been those affecting cattle, such as the foot-and-mouth visitation of the years after 1713. It is to these, and to the loss of grazing land under the pressure of the superior force of the whites that historians must look to explain the transition from pastoralist tribesmen to farm labourers, in a condition comparable to bondage, a deterioration of their social status which the Khoikhoi suffered in the late seventeenth and eighteenth centuries.

Table I Population change during epidemic years

	1712 (A)	1713 (B)	B as % of A	1755 (C)	1756 (D)	D as % of C	1767 (E)	1768 (F)	F as % of E
Total white population (excl. knegts)	1985	1585	79.8	5486	4983	90.8	6884	7271	101.6
Total slave population (burgher owned)	2012	1788	88.9	6408	5734	89.5	8209	8179	100.4
Total free black pop.	n.k.	n.k.	n.k.	363	232	63.9	333	339	98.3
Total white female pop.	861	671	77.9	2549	2245	88.1	3278	3251	100.8
Cape female pop.	381	270	70.9	1068	727	68.1	1121	1120	100.1
Non-Cape female white pop.	480	401	83.5	1481	1518	102.5	2157	2131	101.2
White men	629	517	82.2	1484	1383	93.2	2001	1989	100.6
White women	361	286	79.2	982	897	91.3	1321	1289	102.5
White children	995	782	78.6	2020	1703	84.3	4062	4003	101.5
Cape, total white	879	654	74.4	2215	1613	72.8	2368	2398	98.7
Cape, white men	273	231	84.6	612	491	78.6	692	695	99.6
Cape, white women	185	141	76.2	431	321	73.8	501	499	100.4
Cape, white children	421	282	67.0	1172	801	68.3	1175	1204	97.6
Non-Cape, total white	1111	891	83.7	3271	3370	103.0	5016	4883	102.7
Non-Cape, wh. men	356	286	80.3	872	892	104.5	1309	1284	101.2
Non-Cape, wh.women	176	145	82.3	551	576	104.6	820	790	103.8
Non-Cape, white children	579	500	86.4	1848	1902	102.9	2287	2799	103.1
Slave, total men	1503	1386	92.2	4341	4025	92.7	5594	5681	101.5
Slave, total women	267	231	86.6	1132	999	88.2	1546	1473	95.3

/cont.

Table I cont.

Slave, total children	242	177	73.1	935	750	80.2	1039	1055	101.5
Cape slave, total	1271	1007	79.2	3663	3098	84.6	4144	4121	99.4
Cape slave, men	931	755	81.1	2502	2259	90.3	2882	2847	98.8
Cape slave, women	186	139	74.7	642	517	80.5	715	718	100.4
Cape slave, children	154	113	73.4	519	322	62.0	547	556	101.6
Non-Cape slave, total	741	784	105.8	2745	2636	96.0	4035	1088	101.3
Non-Cape slave, men	572	625	109.2	1839	1766	96.0	2712	2834	104.5
Non-Cape slave, women	81	92	113.5	490	482	98.3	831	755	90.9
Non-Cape slave, children	88	67	76.1	416	388	93.3	492	499	101.4
Free black, men	n.k.	n.k.	n.k.	96	76	79.2	111	113	101.8
Free black, women	n.k.	n.k.	n.k.	121	96	79.3	133	133	100.0
Free black, children	n.k.	n.k.	n.k.	146	66	45.2	95	87	91.5

Table II Population growth rates per cent per annum

	Total whites	Total white females	Total slaves	Cape whites	Cape white females	Cape slaves	Non-Cape whites	Non-Cape white females	Non-Cape slaves
1701-1778	2.7	2.7	3.3	2.4	2.3	2.9	2.9	3.0	4.6
1718-1788	2.6	2.8	3.9	2.1	2.3	2.3	3.0	3.1	2.9
1701-1711	3.3	3.1	7.1	2.1	0.6	6.6	4.2	5.0	13.3
1713-1718	5.3	5.4	6.4	8.1	9.1	7.1	4.0	2.6	5.3
1713-1723	3.5	4.3	5.0	4.8	6.3	6.9	3.0	2.8	2.1
1723-1743	2.9	3.1	3.1	2.8	3.0	2.8	3.0	3.1	3.7
1743-1753	3.2	3.1	1.2	2.9	2.8	0.8	3.4	2.8	2.3
1757-1767	3.6	3.6	3.2	3.8	4.1	2.4	3.6	3.3	3.8
1768-1778	2.3	2.4	3.1	2.3	2.2	3.3	2.3	2.6	2.9

(Source: Opgaaf rolls for the years mentioned)

Footnotes

1. G. McC. Theal, History and Ethnography of South Africa before 1795 (3 vols., 3rd. edition, London, 1909), II, 433. In this paper, "Khoikhoi" or "Khoi" are used to refer to "Hottentots" and "Khoisan" when "Hottentots" and "Bushmen" are lumped together.

2. W.M. MacMillan, The Cape Colour Question: a historical survey (London, 1927), 12. He also noted that the supposed massive depopulation caused by the Mfecane among the Sotho-Tswana in the early nineteenth century was "a matter of tradition only, and has never yet been closely investigated" (ibid). Fifty years later this is still the case.

3. J.S. Marais, The Cape Coloured People, 1652-1937 (London, 1939), 6.

4. e.g. P.J. van der Merwe, "Die Inboorlingbeleid van die Companjie" in A.J. van der Walt, J.A. Wiid and A.L. Geyer (eds.), Geskiednis van Suid-Afrika (2 vols., Cape Town, 1951), II, 356. See also the statement that the Khoikhoi tribes of the Cape "were largely wiped out by the small-pox epidemics to which they had no resistance" in D. Ziervogel, "The Natives of South Africa" in C.F.J. Muller (ed.), Five hundred years, A history of South Africa (Pretoria and Cape Town, 1969), 434.

5. M. Wilson, "The hunters and herders" in M. Wilson and L.M. Thomson (eds.), The Oxford History of South Africa (2 vols., Oxford, 1968-1971), I, 68. This statement seems to have more echoes of Theal (who she does not cite) than of Schapera (who she does). See I. Schapera, The Khoisan Peoples of South Africa; Bushmen and Hottentots (London, 1930), 45.

6. Shula Marks, "Khoisan resistance to the Dutch in the Seventeenth and Eighteenth Centuries", Journal of African History, XIII, 1 (1972), 70.

7. See Richard Gray and Shula Marks "Southern Africa" in Richard Gray (ed.), The Cambridge History of Africa, Volume IV, c.1600 to c.1790 (Cambridge, 1975), 453. Without giving evidence for it, she also assigns the death in the late 1770s of the Tswana chief Rratlou "perhaps [to] smallpox, which spread from the epidemic raging among the Khoisan in the colony". At this date, there had been no visitation of smallpox in the colony for a decade, and, as will be demonstrated in this paper, none outside Cape Town for over 60 years. (Ibid., 415)

8. Robert Ross, Adam Kok's Griquas: A study in the development of stratification in South Africa (Cambridge, 1976), 12.

9. Richard H. Elphick, The Cape Khoi and the first phase of South African race relations, Ph.D. thesis, Yale, 1972, 293 f.

10. The texts can be found in the Algemene Rijksargief, Den Haag, K.A. 4047 & K.A. 4050.

11. It is true that some sort of estimate of the pre-1652 population may be made from the data contained in the Daghregister and the letter of Jan van Riebeeck. For divergent approximations, see Wilson, "Hunters and Herders", 68 and Elphick, Cape Khoi.

12. T.H. Hollingsworth, Historical Demography

13. In view of the recent reports of the eradication of smallpox by the massive use of vaccination, it is to be hoped that the past tense is appropriate.

14. C.W. Dixon, Smallpox (London, 1962), 319.

15. Ibid., 319-320.

16. It is perhaps worth pointing out that the susceptibility of the Khoikhoi to the disease is unlikely to have been much more than that of other groups. Dixon writes that "racial predisposition probably does not exist as such, but a population that has experienced the disease for some generations, even if unvaccinated, appears to have a lower mortality than one that has never experienced it before. This apparent difference may be due to the fact that in those populations, where the disease has been endemic for three or four generations, the present inhabitants have been bred from the survivors." (Ibid., 317-8) It is also worth stressing that the common assumption (made, for instance, in Schapera, Khoisan peoples, 46, Wilson, "Hunters and herders", 67, and Marks, "Khoisan resistance", 70) that the Khoi were particularly prone to the "white man's diseases" seems false. Contacts between Khoi and Bantu-speakers had been so great for centuries that, had they been as susceptible to introduced viruses as, for instance, the Amerindians or various Pacific peoples, they would have been greatly reduced in numbers by the "black man's diseases" long before 1652. It is possible that they were, but the survivors would have gained immunity over the course of the centuries. The differences between the demographic experience of Khoisan and Bantu-speakers must be sought elsewhere.

17. Dixon, Smallpox, 325.

18. See P.A. Schleisner, "Vital Statistics of Iceland", Journal of the Statistical Society, XIV (1851) and Sigurdur Thorarinsson, "Population Changes in Iceland", Geographical Review, LI (1961).

19. Norma McArthur, Island Populations of the Pacific (Canberra and London, 1968), 250-3, 264.

20. The rolls for the years between 1687 and 1774 are to be found in the Koloniale Archief of the Algemene Rijksarchief in Den Haag, scattered through the Overkomen Brieven en Papieren uit de Kaap. Figures for later years may be found in the letters from the Governor to the Heren XVII, in the same series.

21. I have done this in an attempt to unravel the family structure of the Afrikaner population, a project which is still in progress.

22. It should be noted that a considerable stretch of countryside was contained within the Cape district, but that the other districts (Stellenbosch, Drakenstein and, after 1737, Swellendam) were entirely rural.

23. The sex structure of the slave population was so unbalanced that almost all slave population growth above, say, 20 per thousand per annum must be accounted for by importation.

24. See G. McC. Theal (ed.), Records of the Cape Colony (36 vols., London, 1897-1905), XXIV, 440.

25. Elphick, Cape Khoi.