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The design of a risk assessment model to determine the impact of the herbal medicine trade on the Witwatersrand on resources of indigenous plant species

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CHAPTER 2

‘Muthi’ Traders on the Witwatersrand – an Urban Mosaic

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Muthi traders on the Witwatersrand, South Africa - an urban mosaic

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The Witwatersrand is an extensively urbanised complex in Gauteng, South Africa. The complex is divided into three regions, namely the East Rand, Johannesburg and West Rand. In February 1994, prior to the democratic elections, a study of the trade in traditional herbal medicines in the region was initiated. Before the survey of the plant species could commence the regional distribution of the herb-traders and also their ethnicity and gender was established in order to select traders for the study that were proportionately representative of the herb-traders actually present. Using municipal trade licence records, telephone directories and personal communications the nature of the 'urban mosaic' of herb-traders was established. There were approximately 244 herb-traders in 1994, 70% of whom were located in Johannesburg, 20% in the East Rand and 10% in the West Rand. In addition, 52% of the traders were Black followed by Indian (25%), White (16%) and Coloured (1%). Since the elections the pattern of the mosaic has visibly altered to reflect the current pattern of South Africa's demography more accurately.

Keywords: *herb-traders, muthi, trade, traditional healers, traditional medicine.*

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Introduction

The Witwatersrand is a multicultural and cosmopolitan centre for African trade and traditional practices. The need for cheap labour on the gold mines in the region was a trigger for early African urbanisation and led to the entrenchment of the migrant labour system. The ensuing rural-urban oscillation of people from around the country enhanced the introduction of traditional activities, such as herbalism, in the city to meet the demands of the population for traditional medicines (Dauskardt 1990). Most of the early herbalists and muthi store owners established their practices near the migrant labour force in the mines and mine hostels. Nevertheless, urbanisation does not preclude the use of traditional medicines and the demand for herbs are met by herb-traders and traditional healers who are supplied with plants by a large network of commercial gatherers from both rural and urban areas. A growing population has increased the demand for herbal medicine and has put such pressure on these resources that they are in danger of over-exploitation and extinction (Cunningham 1988a).

The number of plant species used by people is often a reflection of species diversity and the customary botanical knowledge of the resource users (Cunningham 1991). On the Witwatersrand the medley of ethnic groups using traditional medicines from all over southern Africa have contributed to the use and trade in a diverse range of flora. Due to urbanisation and the increased commercialisation of the herb-trade, the activity of harvesting medicinal plants, formerly the specialist domain of traditional healers, has also become the domain of untrained commercial gatherers who supply the urban areas with plants. This has had a disastrous effect on many popular species (Cunningham 1988b) because commercial harvesting is more destructive than customary harvesting practices.

In the past several decades the nature of ethnobotanical investigation has changed from the compilation of species-use lists to a multi-disciplinary approach that encompasses diverse disciplines such as geography, anthropology, botany, nutrition, ecology, conservation, pharmacology and economics (Balick 1996). In 1987 a study of the Chacabo Indians in Bolivia was one of the first to use the term 'quantitative ethnobotany' (Boom 1987). This was a major step towards a more rigorous methodology where a statistical approach was utilised (Prance *et al* 1987; Balick 1996). Rigorous ethnobotanical studies demand accurate

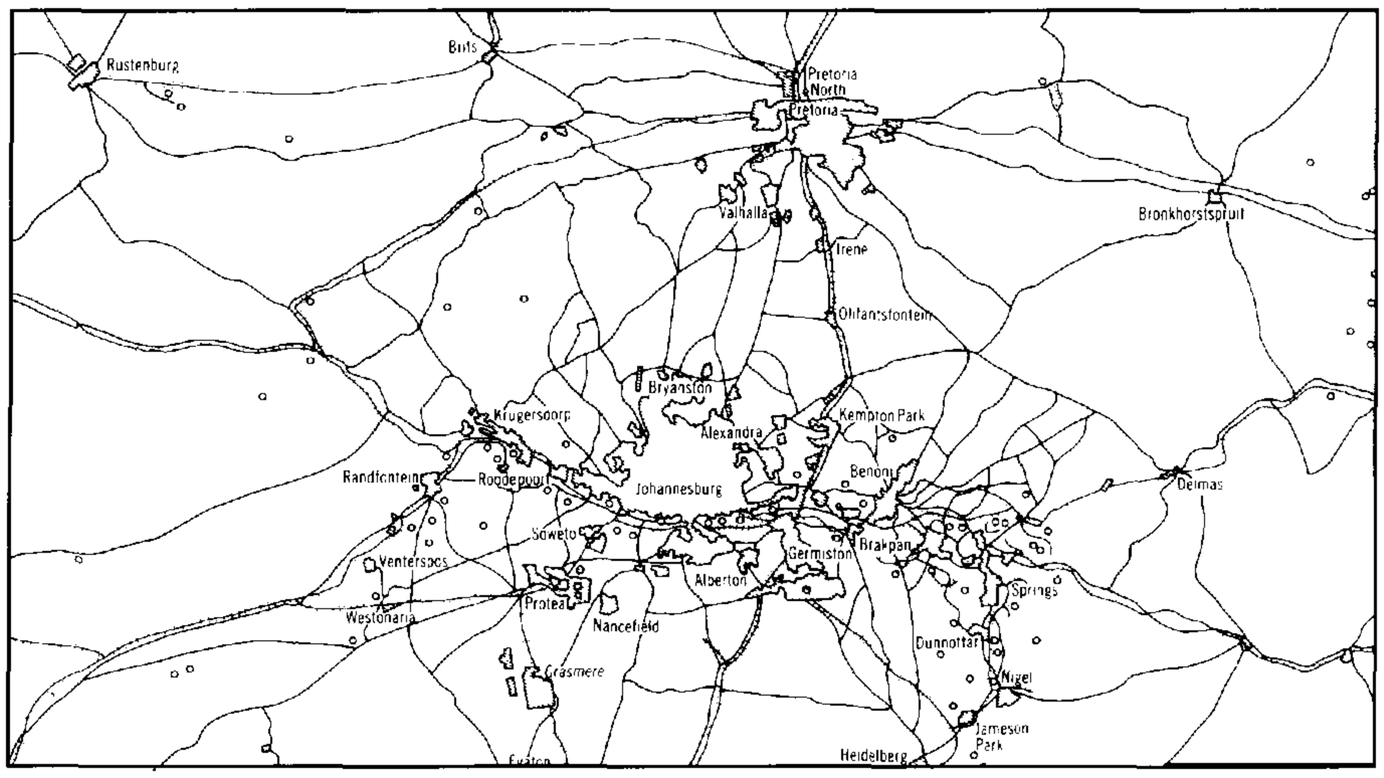


Figure 1 The Witwatersrand study area. The Witwatersrand is a ridge of gold-bearing rock within Gauteng, covering an area of about 100 × 40 km. The distribution of the mines is indicated by the small circles, and the parallel distribution of the urbanized areas is shaded.

Table 1 The total number of herb-traders, their propotional distribution and the number of herb-traders selected to survey the Witwatersrand commercial medicinal plant trade, as established from telephone directories and municipal licence records (June 1994). The figures in bold are the regional totals

Region and municipality	No. of herb-traders listed in the trade licence applications	No. of additional herb-traders found in the telephone directories	% of herb-traders in each region and town
East Rand	**33**	**5**	**20.1**
Alberton	1	0	0.5
Bedfordview	0	0	0
Benoni	8	1	4.7
Boksburg	2	0	1.1
Brakpan	2	0	1.1
Edenvale	0	0	0
Germiston	11	3	7.4
Kempton Park	2	0	1.1
Nigel	4	1	2.6
Springs	3	0	1.6
West Rand	**18**	**0**	**9.5**
Krugersdorp	7	0	3.7
Randfontein	2	0	1.1
Roodepoort	5	0	2.6
Westonaria	4	0	2.1
Jonannesburg	**115**	**18**	**70.4**
Johannesburg	109	16	66.1
Midrand	0	0	0
Randburg	2	1	1.6
Sandton	4	1	2.7
Total	**166**	**23**	**100**

determination of appropriate sample size, for example, to ensure that the information on a specific plant is relatively complete (Balick 1996). A quantified approach also allows one to analyse information and draw conclusions based on statistically sound principles.

In February 1994 a project was initiated to establish the nature and extent of commercial harvesting of medicinal plants for the Witwatersrand medicinal plant trade. One aim of the project was to develop effective methods for quantifying the regional herbal medicine trade accurately - the selection of representative rather than arbitrarily chosen traders is part of this process. This article quantifies and characterises the muthi traders on the Witwatersrand, and outlines the methods used to assess the number of traders present. The importance of using an appropriate sampling strategy was highlighted in a previous study (Williams 1992), which showed that factors such as trader ethnicity and location influenced the source and suppliers of plants harvested for the trade.

Study area

The Witwatersrand is part of a geological super-group consisting of a thick sequence of shales, quartzites, and gold-bearing conglomerates in Gauteng, South Africa (Lowrey & Wright 1987). It is also the name given to an extensively urbanised complex running along an East-West axis of approximately 100 × 40 km from Nigel to Randfontein (Figure 1). To a large extent, urban growth in the area is centred around the city of Johannesburg, which is also at the centre of an emerging North-South industrial axis (Dauskardt 1994).



Figure 2 The study area within the province of Gauteng.

The region represents 30% of South Africa's metropolitan population and, in terms of racial composition, over two-thirds of the current population is Black (Dauskardt 1994). Spatially the Witwatersrand can be divided into three regions, namely the East Rand, Johannesburg and the West Rand. The research was carried out in the 18 municipalities comprising the Witwatersrand (Figure 2). The municipalities within the region are:

i) East Rand: Alberton, Bedfordview, Benoni, Boksburg, Brakpan, Edenvale, Germiston, Kempton Park, Nigel and Springs
ii) Johannesburg: Johannesburg, Midrand, Randburg, Sandton
iii) West Rand: Krugersdorp, Randfontein, Roodepoort and Westonaria.

Procedure

Tracing the herb-traders and traditional healers to establish how many there are and where they are located is a labourious

Table 2 The percentage of herb-traders from the different ethnic groups and genders (June 1994) (n = 166). N.D. = Not determined

	Gender			
Ethnicity	% Male	% Female	% N.D.	Total %
Black	28.3	21.7	2.4	52.4
Indian	24.1	0.6	0	24.7
White	9.7	6.0	0.6	16.3
Coloured	0.6	0	0	0.6
N.D.	0	0	6.0	6.0
Total	62.7	28.3	9.0	100

exercise. This is partly because there was never precise clarity at national, provincial and local government levels on how traders and herbalists were to be licenced (Dauskardt 1994). Most traders operated under one of three types of licence, namely 'General Dealer', 'Dealer in Household, Patent and Proprietary Medicines' and/or 'Hawker' until 31 May 1994, when new legislation was enacted that made it unnecessary for traders to possess any licence. Despite the difficulties, tracing some of the traders through the old licencing system was possible at the municipal licencing offices. Additional sources of information were telephone directories and personal communications. An obstacle that presented itself, however, was tracing the township traders. Trade records for these areas were either scarce or unavailable.

Between February and May 1994 the licencing offices of eighteen municipalities gave permission, in some cases after several weeks of negotiations, to have their records of trade licence applications searched. The purpose was to locate herb-traders with any one of the three types of licence. The information on the licence applications was used to establish: 1) the name, address and phone number (if given) of the store and hence the location; and 2) the first name and surname of the trader from which gender and ethnicity (broadly Black, Indian, Coloured and White) could be determined. The records in most licencing offices are not filed under the type of licence but alphabetically under the name of the business or the date the applioation for the licence was submitted. Therefore, searches for information in large licencing offices, such as Johannesburg, sometimes took several days to several weeks because every application had to be viewed. In order to differentiate the herb-traders from other traders with a General Dealers licence, keywords such as 'muthi', 'herbs' and 'herbalist' were searched for in the names of the businesses. In addition, businesses with 'Kwa ....' (e.g. Kwa Dabulamanzi) in the name were investigated after it became apparent that many muthi stores in Johannesburg began with the term. Where the records were unclear a personal visit or phone call was made to the store where possible.

Telephone directories are a valuable source of information, enabling the location of the names and addresses of herb-traders not listed with licencing offices and confirming many of the entries in the municipal licence records. In addition, a few herbalists practising from home were located. Their occupation is usually abbreviated as 'hblst' following their name. Thoroughly searching the telephone directories of the East Rand, Johannesburg and the West Rand took approximately three weeks. Once the number of herb-traders in every ethnic group in each region had been established, the information was compared using a χ^2 contingency table.

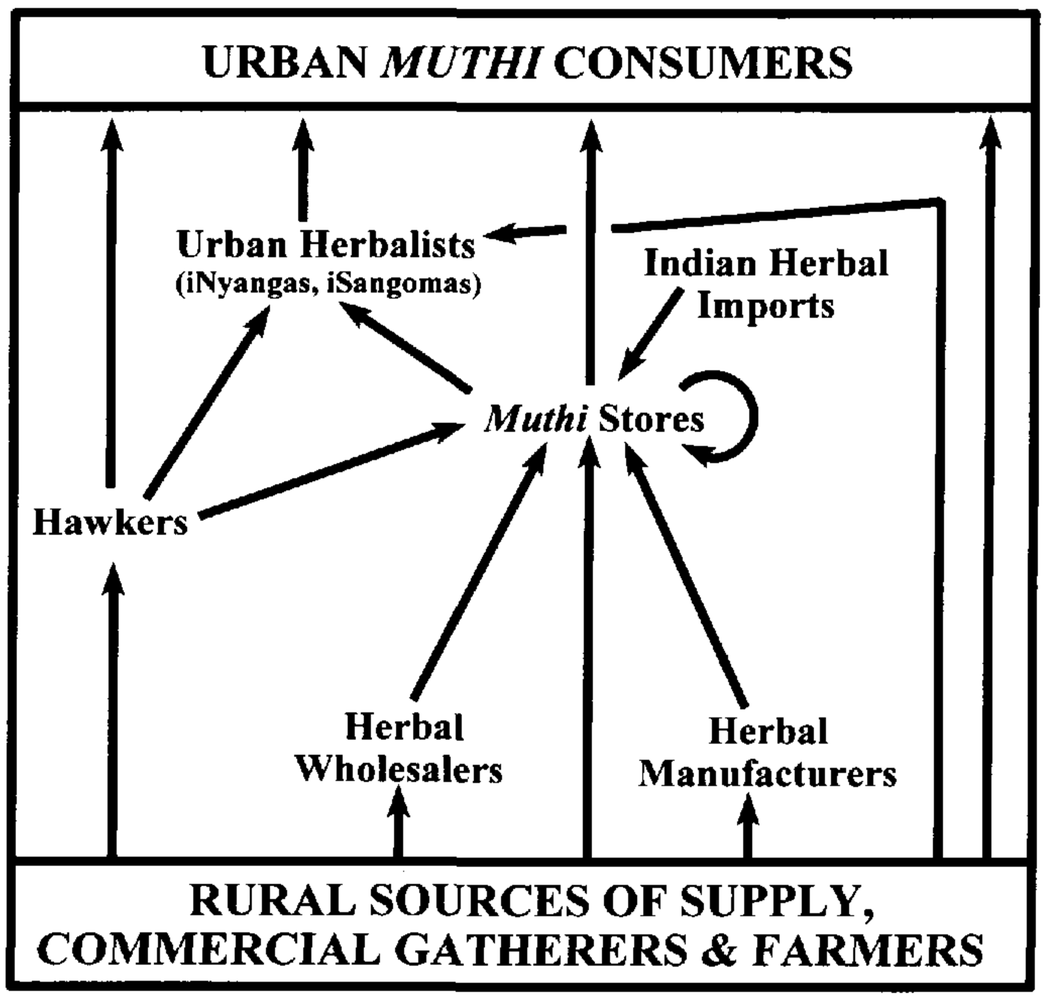


Figure 3 Flow diagram indicating the plant trade network from gatherers to consumers.

Table 3 The percentage of herb-traders from the different ethnic groups in the three regions of the Witwatersrand (June 1994) (n = 166)

	Region		
Ethnicity	East Rand	Johannesburg	West Rand
Black	1.8	48.2	2.4
Indian	7.8	15.1	1.8
White	7.2	3.1	6.0
Coloured	0	0	0.6
Not Determined	3.3	4.0	0

Results and Discussion

Traders in traditional medicine can be differentiated into two sectors, namely formal and informal. The formal sector is represented by herb-traders, including traditional healers, occupying fixed licenced premises (the 'muthi' stores). The informal sector, on the other hand, is represented by transient commercial gatherers, hawkers and traditional healers who hawk health from the pavements and open markets. The network and inter-relationships of herb-traders, gatherers and consumers are best represented by a flow diagram (Figure 3).

Number and distribution of traders

Records from the municipal trade licence offices up to June 1994 located 166 licenced herb-traders on the Witwatersrand (Table 1). Besides confirming the licence records of 49 herb-raders, the telephone directories located a further twenty three unlicenced traders, bringing the total number of herb-traders to 189, and the number of traders with telephones to 72. Estimating the total number of 'expected' herb-traders on the Witwatersrand has thus been possible, using the following equation:

$$\text{Wits herb-traders} = \text{No. herb-traders with telephones} \times \frac{\text{No. herb-traders with telephones}}{\text{No. licenced herb-traders with telephones}}$$

$$= 166 \times \frac{72}{49}$$

$$= 244$$

Seventy percent of the herb-traders are located in Johannesburg, 20% in the East Rand, and 10% in the West Rand. The presence of the traders in the regions and towns of the Witwatersrand are likely to represent the demand and density for traditional medicines by the work force.

Of the 115 licenced herb-traders in the Johannesburg region, 37 are clustered in the Mai Mai Bazaar, with the remainder located in the Johannesburg CBD, Randburg and Sandton. The Mai Mai, situated in the south eastern section of the Johannesburg CBD and established c.1890, could be described as a 'mall of muthi' (Williams 1996). A unique feature of the bazaar is that it was one of the few localities in the Johannesburg CBD where Black traders could own businesses during the Apartheid era. Within the walls of the complex, traditional healers, mainly female Zulu sangomas, trade in traditional medicines alongside healers of other cultural groups such as the Swazi, Sotho, Venda and Shangaan. Each healer is the keeper of plants and knowledge specific to their cultural groups, and they usually attract patients and customers with similar affiliations.

A survey undertaken in 1960 located fifty muthi stores in the 'City and Suburban' region of the Johannesburg CBD (including the Mai Mai Bazaar), four in the 'Western' area (formerly the Western Native Township) near Coronationville, and one in the Eastern Native Township (presently a series of hostels near Denver) (Dauskardt 1994; Dr P.Bonner. pers. com.). The survey also located thirty-four stores between the various suburbs of Soweto. Significantly, in 1994 no herb-traders could be found in any of the townships except Alexandra. The four herb-traders in Alexandra, however, are on the border of the township and the Wynberg CBD, and are the only muthi stores (apart from two in Randburg) in the 'northern suburbs' of Johannesburg.

The disappearance of the herb-traders in the former Eastern and Western Native Townships were the result of the forced relocation of people in the early 1960s. The fate of the herb-traders in Soweto, however, is less certain. One possible explanation is that the large number of traditional healers practising from home, estimated to be at least 12 000 (Dr S. Mohlaba. pers. com.), meets the needs of the residents requiring traditional medicine. In addition, the large work force that commutes to town are likely to buy herbs from the numerous muthi stores near the major travel nodes (such as train stations and taxi ranks). Hawkers and commercial gatherers are the second category of trader rn the city. As transitory traders, they are difficult to count. However at Faraday 'Station', the only open market for commercial gatherers on the Witwatersrand, there are just over 100 gatherers present at any one time. Three-quarters of the gatherers there are female. When stocks of plants are low the gatherers return to the rural areas to harvest more plants before returning to the city one to two weeks later. In 1992 there were no more than ten commercial gatherers trading at the Faraday Market. This market has since grown ten-fold in five years and it follows therefore, that there has been a dramatic increase in the quantity and diversity of species harvested for the regional trade and sold at this market.

Ethnicity and gender of the herb-traders

Records from the municipal licencing offices and personal visits to the herb-leaders established that most of the herb-traders on the Witwatersrand in June 1994 were black (52.4%) and male (62.7%) (Table 2). The difference between the number of people from different ethnic groups and genders trading in traditional medicine is significant ($\chi^2 = 9.766$, d.f = 3, P = 0.021). However, the predominance of herb-traders of different ethnic groups differs between the regions (Table 3).

On the East Rand, there were significantly more Indian and White herb-traders compared with Black traders ($\chi^2 = 6.502$, d.f. = 2, P = 0.039) - a factor likely to be related to the more conservative politics of the area. In the West Rand, there were more White herb-traders than other ethnic groups, also related to the more conservative residential population ($\chi^2 = 5.506$, d.f = 2, P = 0.079). Significantly in Johannesburg, however, the largest proportion of herb-traders were Black ($\chi^2 = 82.265$, d.f. = 3, P = < 0.001). This is partly because of the large number of Black herb-traders in the Mai Mai Bazaar and also because deregulation affected the more liberal Johannesburg region before the more conservative East and West Rand.

The pattern of the ethnic mosaic in 1992, and to some extent 1994, was largely a legacy of the previous Apartheid legislation. Because a licence to trade was required by the city council and herbalists were expected to operate from fixed premises most Black people were barred from operating in 'White' areas or the CBD's (Dauskardt 1992). In the 1930's to 1950's therefore, black herbalist stores were located primarily in the freehold areas of Sophiatown, Newclare and Alexandra and in the municipal townships of Orlando (Dauskardt 1992) (except for the Mai Mai Bazaar). As a result, the herb-trade was monopolised by mainly Indian and White traders (the former owned 70% of all muthi stores in the late 1980's) who developed a knowledge of herbal medicines and/or employed Black staff to work in the stores (Dauskardt 1992). The result was that until Apartheid legislation was terminated and desegregation made a difference, the Witwatersrand muthi trade consisted of Black herbalists operating from townships, while Indian and White-owned businesses functioned primarily as wholesale or retail dispensaries (the 'muthi' stores).

Recent observations while visiting the market, however, indicate that the pattern of the ethnic mosaic has changed since the investigation in 1994. The main changes have been in the decline and closure of the Indian and White-owned businesses, especially in the Johannesburg CBD, and the increase in the number of commercial gatherers and hawkers. Factors that influenced this change include the deregulation of the trade licencing system, and the recent political changes as South Africa moves into a new era to meet the needs of its current metropolitan population.

From 1994 to the present, therefore, the pattern of the ethnic mosaic has been a fading, changing relic of the Apartheid era, but the influences established over the past fifty years are still visible in places. Whilst the spatial pattern of the herb-trader mosaic has been shaped by political forces, past and present, these forces have also determined the pattern of urbanisation of the Witwatersrand.

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