THE USE OF THE ATHRIXIA PHYLICOIDES PLANT IN TSHWANE: AN ANTHROPOLOGICAL STUDY

by

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DECLARATION

Student number: **35157968**

I, Maggie Ngwanamaphoto Siko (neé Lebelo) declare that "**The use of the *Athrixia phylicoides* plant in Tshwane: an anthropological study"** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

……………………………..…….. …………………

Maggie Ngwanamaphoto Siko Date

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ABSTRACT

This study focuses on the use of the *Athrixia phylicoides* plant in Tshwane, Gauteng, South Africa. The plant is used within the domestic domain as a beverage, for medicinal purposes, as well as for the manufacturing of domestic brooms. The aim of the study was to investigate the use and market of *Athrixia phylicoides* in two of the Tshwane markets, namely; Denneboom and Marabastad. Case study design, participant observation and interviews were employed to collect data. A literature review was conducted to construct a theoretical framework. The study reveals that traditional healers, broom makers and customers have a remarkable knowledge about *Athrixia phylicoides,* which has been untapped thus far. In addition, the study indicates that possible extinction of the *Athrixia phylicoides* plant, due to over-harvesting and lack of conservation, will pose a challenge to the market.

Key words: indigenous knowledge, heritage, cultural heritage, traditional healers, broom makers, customers, *Athrixia phylicoides, mohlahlaila.*

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ACRONYMS AND ABBREVIATIONS

ABET	Adult Basic Education and Training
DST	Department of Science and Technology
IK	Indigenous Knowledge
IKS	Indigenous Knowledge System
ICAHM	International Committee on Archaeological Heritage Management
IFLA	International Federation of Library Associations and Institutions
ICH	Intangible Cultural Heritage
ICOM	International Council of Museums
ICOMOS	International Council of Monuments and Sites
NRDS	National Research and Development Strategy
NRS	National Recordal System
OWHC	Organization of World Heritage Cites
UNESCO	United Nations Education, Scientific and Cultural Organisation
WMF	World Monuments Fund
ZAR	Zuid- Afrikaansche Republic

GLOSSARY

Badimo: The Northern Sotho word for ancestral spirits.

Dihlare: A Northern Sotho name for the medicines of a traditional and modern healthcare practitioner.

Diila: The Northern Sotho word for taboos.

Dikgoši: The Northern Sotho word for kings.

Dingaka: A Northern Sotho name for traditional healthcare practitioners known also as diviners/traditional healers.

Dintona: The Northern Sotho word for leaders of a clan.

Go thwasa: The Northern Sotho word for when an initiate undergoes training.

Kgoro: The Northern Sotho word for yard/courtyard/gate.

Lapa: The Northern Sotho word for yard / household / courtyard/ family.

Leswielo: The Northern Sotho word for broom.

Leswielo la mabjang: The Northern Sotho word for a grass broom.

Lethwasana: The Northern Sotho word for an initiate before one becomes a *Sangoma* or a traditional healer.

Letsoku: The Northern Sotho word for crimson.

Meetlo ya setšo: The Northern Sotho word for rituals.

Mohlahlaila: The Northern Sotho word for *Athrixia Phylicoides.*

Marathana: The Northern Sotho word for remnants.

Molora*:* The Northern Sotho word for ash.

Moroko: The Northern Sotho word for traditional beer left overs or husks.

Muthi: The Zulu word for medicine.

Ngwetši: The Northern Sotho word for daughter in law.

Nyoko: The Northern Sotho word for gall bladder.

Sethitho: The Northern Sotho word for sweat.

Thobela: The Northern Sotho word used for greeting.

CHAPTER 1

1.1 BACKGROUND

The relationship between plants and people affects nearly every aspect of human life. As indigenous people use plants in so many different ways, there are few areas in which plants do not play an important role (Balick & Cox, 1999:3). According to the South Africa year book (2000/01:4), the country has a rich diversity of indigenous plants and animals and is ranked the third most biologically diverse country in the world.

Our diversity of plants presents opportunities for excessive plant use for many purposes, such as household use, artefacts, medicine, nutrition, construction and religion. Although this diversity and usage of indigenous plants has generally been a subject of very little scientific interest to botanists, conservationists and environmental scientists (Shackleton, 2004:652), the use of some of our diverse indigenous plants has been the topic of research recently (Van Wyk & Gericke, 2003:20).

Monnis (2003:1) states, that the relationship between indigenous people and their botanical world extends beyond the use of plants for food, medicine, material goods and beverages. Useful wild plants are of importance to rural people since these plants are utilized to satisfy their material needs (Chadare, Hounhouigan, Linnemann, Nout, & Van Boekel, 2010:339). Although the trade in natural resource products contributes to poor people's livelihood, it presents challenges for sustainable rural development (Shackleton, 2005:12).

The late 1980s witnessed a resurgence of interest and research on the sustainable use of indigenous plant species in South Africa. Most of this research concentrated on the medicinal and pharmacological properties of these plants regarding the treatment of human and animal diseases (Rampedi, 2010:1). According to Tshisikhawe (2002:14), very limited research is undertaken on plants that are traditionally used for food produce, including beverages. Indigenous plants, which are used in beverages and grow in the vast, natural vegetation areas surrounding many South African rural

communities, remain largely unexplored (Rampedi, 2010:1). In many developing countries, naturally occurring beverage making plant species have been researched in great detail for their dietary role in the local and traditional food system. However, many have not yet been industrialised, although they are believed to have the same commercial development potential and market-related aspects as three South African indigenous teas – rooibos, honey bush and bush tea (Van Wyk & Gericke, 2003; Olivier & Rampedi, 2008). One of these is the so-called *Athrixia phylicoides* plant, which is very popular in the eastern mountainous areas of Limpopo, KwaZulu-Natal and the Eastern Cape (Van Wyk & Gericke, 2003:35; Olivier & De Jager, 2005:140).

The current study will investigate the use and commercial potential of the *Athrixia phylicoides* plant for residents in and around Tshwane, Gauteng. In the first place the investigation is essential in making important contributions to the rapidly disappearing indigenous knowledge system (IKS) on *Athrixia phylicoides.* The plant is traditionally used within the domestic domain as a beverage, for medicinal purposes and as a household utensil in the form of a broom. The main rationale is that the IKS is almost extinct. In the second place the author has witnessed how the natural vegetation of *Athrixia phylicoides* is progressively endangered, while there is still little anthropological data on the usage of the plant. This prompted the urgent documentation of the species and its usage in order to put its protection in place.

Athrixia is a genus that belongs to the *Asteraceae* family. The Asteraceae family is one of the largest and probably one of the most advanced plant families that occur throughout the world (Swanepoel, 1997:90). According to Swanepoel (1997:91), some Asteraceae species from other parts of the world have long been used in folk medicine. Many species of Southern Africa's Asteraceae are also used extensively in traditional medicine. Asteraceae flowers are mostly small to tiny and are arranged in a closed head in a common receptacle, which is subtended by bracts, with an outer ring of ray flowers and an inner ring of disk flowers (Salie, Eagles & Leng, 1996:30).

In this study of *Athrixia phylicoides,* which falls within the category of indigenous plants, the importance of sustainable utilisation of natural resources is emphasised. A survey on the use of indigenous plants, conducted at the University of Limpopo (formally known as the University of the North) during the period 1996 to 2000,

demonstrated that there are a number of plants used by local communities as ‘teas’. One of these teas is “Bush tea”, which is obtained from the *Athrixia phylicoides* plant. There are two types of *Athrixia: Athrixia elata* and *Athrixia phylicoides*. Both can be used as a tea, a broom, medicine, or an ornament (Van Wyk & Gericke, 2000:34).

Athrixia phylicoides has been used as a health tea and medicinal beverage by South Africans for many decades (Rampedi, 2010:24). The genus *Athrixia* has 14 species distributed across southern Africa, tropical Africa and Madagascar. In South Africa the most common ones are *Athrixia angustissima*, *Athrixia elata, Athrixia gerardii*, *Athrixia heterophylla* and *Athrixia phylicoides* (Mudau, Hintsa, Araya, Soundy, Du Toit & Olivier, 2007:70).

The *Athrixia phylicoides* plant grows in the mountainous regions of Southern Africa, namely the Eastern Cape, Kwazulu-Natal, Limpopo and Mpumalanga (Olivier & De Jager, 2005:142). The plant grows as a small shrub, but it often reaches a height of more than a metre in areas with a high level of rainfall. *Athrixia phylicoides* is an attractive plant with small aromatic silvery leaves and purple flowers in late autumn. It is dark green on the upper surface, while the lower surface is covered by fine woolly hair (Mudau, Soundy, Du Toit & Olivier, 2006:398).

It is harvested during early autumn and midwinter during flowering (Mudau *et al*., 2007:70). According to Rampedi (2010:25), young shoots with heights ranging from 50 cm to 1 m are cut as low as possible from the ground for the purpose of producing herbal tea. With more cutting the plant re-sprouts for future harvesting. Regular harvesting, therefore, tends to provide better quality twigs and leaves, because the new stems are relatively soft (Mudau *et al.,* 2007:71). Unfortunately over-harvesting is currently taking place due to demand by traders who come from as far as Gauteng. These traders hire pickers to collect large quantities of the plant from the Wolkberg in Limpopo (Rampedi & Olivier, 2005:167). As a result, the existence of the plant is under threat of extinction.

Athrixia phylicoides is a multipurpose plant. When harvested, stems can be tied together in bundles to make a traditional broom and the leaves can be boiled to make tea (Olivier & De Jager, 2005:144). The plant is also used for different purposes in

different areas. The Pedi community of Limpopo, for example, use the plant as a form of medicine to cure sore feet. In the Zulu community it is used to cure a sore throat, while the Venda speaking community believe that it has aphrodisiac properties. Both black and white communities have been using this tea plant for medicinal purposes for many decades (Roberts, 1990:51; Van Wyk & Gericke, 2000:34).

Athrixia phylicoides is traditionally known by various names by different ethnic groups, such as *"mohlahlaila*" (Northern Sotho), bushman's tea (English), *"mubostee"* (TshiVenda), *"boesmanstee"* (Afrikaans), *"icholocholo*", "itshelo", *"umtshanelo"* (IsiZulu), *"ringana"* (Xitsonga) and *"mhlongana"* (IsiXhosa) (Van Wyk & Gericke, 2003; Mudau *et al.,* 2007; Rampedi & Olivier, 2008).

According to Rampedi (2010:26), many authors in South Africa have witnessed a surge of scientific interest in the ethnopharmacological and medicinal properties of *Athrixia phylicoides.* It has been reported that conducting an anthropological research on *Athrixia phylicoides* may help to prevent loss of indigenous knowledge of potential dietary sources for needy households. It is hoped that the outcome of this research will assist communities in the sustainable utilisation of *Athrixia phylicoides.* The study investigates the use of *Athrixia phylicoides* in the Tshwane areas of Marabastad and Denneboom, where the people are familiar with *Athrixia phylicoides,* known to them as *mohlahlaila.* The two markets, namely Marabastad and Denneboom, where the plant is traded, were chosen as target locations for the study, because in this area the plant is used as a beverage for medicinal purposes as well as for household brooms.

1.2 RATIONALE OF THE STUDY

The main rationale for the study is that indigenous knowledge of *Athrixia phylicoides* has almost disappeared. Moreover, the plant's natural vegetation is gradually being destroyed. As a result *Athrixia phylicoides* is becoming endangered. Furthermore, there is very little anthropological data on the usage of the plant. These factors motivated the author to investigate its usage and to document the research in an effort to encourage and ensure the protection of this plant. The Marabastad and Denneboom markets were identified as target areas for this study, mainly because they presented

the two biggest markets in the Tshwane area where locals converge and have access to the plant and its products.

1.3 STUDY OBJECTIVES

The objectives of this study are the following:

- to evaluate *Athrixia phylicoides* within its socio-cultural context;
- to establish its availability according to the traders;
- to explore the market potential of *Athrixia phylicoides* as a tea, medicine and as a broom;
- to assess the market dynamics, including price and methods of transportation to the market; and
- to broaden the knowledge base and rationale behind the restriction on/demarcation of the harvesting period of *Athrixia phylicoides* (April to May). (The indigenous people pick the plant during the March to July season.)

1.4 RESEARCH METHODOLOGY

Rubin and Babbie (1989:3) describe research as a method of inquiry or a way of learning and knowing the world. In addition, Polit and Beck (2008) describe research methodology as the procedures and strategy to collect and analyse the data in research. Accordingly, the success of a study depends firstly on the quality of the selected and applied methods utilised for collection of data, and secondly on the research methodology that evaluates and selects the tools available to measure variables of interest and of critical importance for the potential success of the study (LoBiondo-wood & Haber, 1998:175). The research methodology comprises participant observation, interviews, field notes and audio recordings, which will be the focus of the next section.

Stage and Manning (2003:19) assert that when selecting a research method, the objectives of the research should be considered in the widest possible sense. There are different types of research techniques. The choice as to which to use depends on the nature of the research concerned, and takes into account the advantages and disadvantages of each method, whether qualitative or quantitative. The methodology chosen for this study, the qualitative method, aims to achieve greater insight in and understanding of the research findings. Questionnaire methods were also employed to enrich the qualitative method chosen, such as those described below.

1.4.1 Qualitative method

The qualitative research method has its origin in anthropology and sociology (Taylor & Bogdan, 1998:7). The importance of fieldwork as an integrated part of qualitative research was established in anthropology during the 1920s and 1930s by scholars such as Mead, Boas, Benedict, Evans-Pritchard, Radcliffe-Brown and Malinowski. Emphasis was placed on the importance and benefits of fieldwork in the understanding of human nature, and qualitative research was soon adopted by other human science disciplines such as social work, education and communication studies (Denzin & Lincoln, 1994:1). Qualitative research aims to provide information on what people say and how they behave (Taylor & Bogdan, 1998:7).

The qualitative method is described in detail by Mouton and Marais (1990), as well as Denzin and Lincoln (1994). Mouton and Marais (1990:155) classify all research that does not contain statistics as qualitative. Others may be more inclined to describe research as qualitative when specific methodology and approach, such as phenomenology, are used. Qualitative research includes participant observation, unstructured interviews, life history documentation and other forms of qualitative research (Creswell, 1998:15).

Salkind (2012:13) argues that qualitative research examines phenomena within the cultural and social context in which it takes place. It regards reality as subjective. Qualitative research also follows no fixed steps as the steps evolve throughout the research. Furthermore, Salkind (2012:13) indicates that qualitative studies cannot be easily replicated. Additionally, Flick (2007:3) highlights that qualitative research uses

texts as empirical evidence as opposed to numbers and that this research method assumes that realities are socially constructed. Research is thus interested in understanding the perspective of informants.

Creswell (1998:15) defines qualitative research as a multi-focus method, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in the sense of, or interpret phenomena in terms of, the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical material; for example: case studies, personal experiences, life stories, interviews, observations and histories that describe routine and problematic moments and meanings in the lives of individuals.

Qualitative research is a type of scientific research consisting of an investigation that seeks to answer a question, collects evidence and produces findings that were not determined in advance and are applicable beyond the immediate boundaries of the study. According to Taylor and Bogdan (1998:7), there are no strict rules that dictate how research should be conducted; however, qualitative researchers follow certain guidelines when collecting data.

Creswell (1998:16) also describes qualitative research as a process of inquiry to promote understanding through which the researcher builds up a complex, holistic picture, analyses words, reports in detail the views of spokespersons, and conducts the study in a natural setting. Henning, Van Rensburg and Smit (2004:3) believe that the best method for obtaining first-hand information is a qualitative approach which emphasises participant observation and in-depth interviews.

According to Burgess (1985:5), the essence of the qualitative approach lies firstly in its focus on the observed present. The focus of the qualitative approach is on the participants' perceptions and experiences, and the way they make sense of their lives (Creswell, 1994:162). Polit and Hungler (1993:36) describe a research design as an overall plan for obtaining answers to questions under study and handling difficulties encountered during the study.

The qualitative data emanating from this investigation assists in answering the research question and in realising the aim of the study. Researchers (Creswell, 2003:181; Gay & Airasian, 2003:173; Hammersley, 2002:67; and Henning *et al.,* 2004:6) are in agreement that the qualitative method is a research approach that is characterised by a concern for context, natural setting, participant observation, field study, and descriptive data. In this way, the researcher gains a deeper understanding of the research (Silverman, 1993:34). It also enables him/her to interpret phenomena in terms of meanings informants bring (Denzin & Lincoln, 2000:56).

Taylor and Bogdan (1998:10) argue that qualitative researchers regard every perspective and activity within a particular context as appropriate to study. They discard the notion that the views of powerful people are more valuable than those of the powerless; all settings and people are at once similar and unique. Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviours and social contexts of particular populations (Taylor & Bogdan, 1998:7).

Creswell (2003:181) defines qualitative research methods as research that takes place in a natural setting and uses multiple methods that are interactive and humanistic, such as data collection, interviews, documents, sounds and books. According to Taylor and Bogdan (1998:7), qualitative research allows researchers to describe their own role and to draw on their own preferences and experiences. By observing, participating and listening, qualitative research enables the researcher to obtain first-hand information about people's lives. The way qualitative research is designed enables the researcher to establish a close link between research data and what people actually say and do.

The qualitative method was the method chosen for this study in light of the fact that the majority of the informants used in the research were illiterate. This forced the researcher to be flexible in order to be able to conduct the research successfully. Moreover, all aspects covered in the research had to be explained in detail before most of the informants understood the nature of the research. The fact that the researcher was able to describe her role and draw on her experiences from childhood, living in rural areas with access to *Athrixia phylicoides,* was of great value.

In-depth interviews and discussions with randomly selected customers, traditional healers and traders who make and sell brooms in Marabastad and Denneboom, were held between 2009 and 2015. The respondents were interviewed to determine their general attitude towards the usage and marketing of *Athrixia phylicoides*. Each individual participated in a face-to-face interview conducted by the researcher. There was no particular order to the questions asked, but the interviewer had a list of questions that needed to be answered. The questions were asked in an unstructured, informal manner.

1.4.2 Literature study

Bernard (1988:126) posits that a thorough literature search is vital to the success of any research project. According to Polit and Beck (2008:106), a literature search serves the following purposes:

- to assist the researcher in conducting a critical, analytical appraisal of what is already known about the research topic at hand, so that the gaps and weaknesses that exist are identified;
- to identify the research problem and refine the research question; and
- to investigate the conceptual and operational definitions used in the research.

According to De Vos and Fouche (1998:89), literature should assist the researcher in planning the narratives for the actual research. At the end of the process, the narratives should be compared with the research of relevant literature in order to draw relevant conclusions.

A literature review is conducted to determine what is known about a specific research problem (Borg, Gall, & Gall, 1993). The comprehensive literature review in this study was aimed at determining what has been established about the theory. The range of the literature search on the use of *Athrixia phylicoides* as a medicine, tea and broom included a variety of disciplines: ethnobotany, botany, and environmental science. A research problem was defined, based on the literature review, thus determining the direction of the fieldwork.

In addition to the above mentioned authors, literature on various related subjects were consulted, including authors such as Balick and Cox (1996), Bernard (1988 and 1994, Coetzee (1993), Creswell (1998), Creswell (2010), Henning *et al.* (2004), Kochhar (1986), Monnis (2003), Mouton and Marais (1990), Shackleton (2005) and Van Wyk and Gericke (2000).

1.4.3 Ethical considerations

Anthropologists have primary ethical obligations to materials they study and to the people they work with, such as avoiding harm or wrong doing and understanding that the development of knowledge can lead to change in respondents, whether positive or negative. Furthermore, Taylor and Bogdan (1998:7), as well as Denzin and Lincoln (1994), emphasise the importance of informed consent. The researcher, therefore, did everything in her power to ensure that the study did not harm the safety, dignity or privacy of the respondents during research.

At the start of interviews respondents were informed that, according to the ethical anthropological principles, their real names would not be used. Respondents were given pseudonyms to protect their identities and to ensure confidentiality. As a preventative measure, these pseudonyms were used throughout this study. Sensitive issues discussed with the researcher were held in the strictest confidence and only revealed in such ways that the respondents could not be identified. Questions that made respondents uncomfortable were skipped during the interviews. In terms of research ethics, the purpose of the study and the types of questions which were going to be asked had been discussed with each respondent prior to commencing the interviews.

Informed consent gives the anthropologist the opportunity to enter into open discussions with research participants about the research to be conducted. Therefore, informed consent was obtained in advance from traditional healers, herbalists, patients, broom makers and customers. Creswell (2010:4) argues that ethical issues are integral to the research process and therefore need to be carefully considered

before the research process is finalised. In this study the following ethical issues were adhered to:

The researcher introduced herself to each traditional healer, broom maker, herbalist, patient and customer and explained the purpose of the research and the role of the participants in the study. She also thanked the respondents for agreeing to participate in the study and assured them that their names would be kept anonymous and that all data gathered from them would be confidential. To promote confidentiality, information provided by the participants, particularly personal information, was protected and not made available to anyone other than the researcher. The researcher also needed to ensure that as a mother tongue speaker of the Northern Sotho language, there was no language barrier between the respondents and herself.

1.4.4 Fieldwork

According to Peacock (1986:5), fieldwork is regarded as one of the most important aspects of anthropological research. Anthropological fieldwork differs from fieldwork in the other social sciences in that it entails prolonged involvement with members of a society or community and emphasises the need to get a complete view of that particular society or community. Barrett (1996:75-78) identified the basic techniques used by anthropologists during fieldwork, adding that anthropologists depend on the information given to them by informants. In addition, Bernard (1994:154) maintained that fieldwork involves a self-conscious review of ideas and values. The researcher selected the fieldwork techniques which would be most appropriate for collecting the data for this study.

Fieldwork research includes participant observation, structured and unstructured interviewing, the compilation of genealogies, the use of case studies, narrative ethnography, community study, as well as the life history method. Fieldwork must be conducted over a long enough period of time to provide an in-depth understanding of the people and context under study. Patton (1990:214) addresses this aspect of fieldwork by suggesting that the researcher should continue until the research questions are answered and the purpose of the study is completed. Fieldwork is the only way in which in-depth knowledge about people can be obtained.

Fieldwork was the most important method of data collection used in this study. The researcher conducted fieldwork for this study between 2009 and 2015. The fieldwork involved key individuals and a focus group. During the introductory phase, the researcher repeatedly visited Marabastad and Denneboom, establishing a firm relationship with the respondents. She depended on the information given to her by traditional healers, customers, and broom makers, as well as her own knowledge. She cleaned her house with a grass broom and her yard with *an Athrixia phylicoides* broom. She also visited the rural area in Limpopo where she grew up to see if the brooms are still being used. Furthermore she climbed the mountains with the broom makers to collect grass and *Athrixia phylicoides* for brooms. She found this new experience most enriching, however scared she was of encountering snakes.

Most of the general research participants were not selected according to any particular criteria other than the fact that they were broom sellers and traditional healers. It was important for the study that the researcher should establish a good relationship with each respondent and get to know them well. For that reason only a small number of traditional healers and broom makers were consulted. Four case studies were chosen as a research design for this study, with two traditional healers and two broom makers as respondents. According to Creswell (2010:75), a case study describes the procedures for conducting the study, as well as explains under what conditions the data will be obtained, including when and from whom.

When talking to respondents in the field, the researcher always stressed the fact that the study would benefit the community by providing knowledge about brooms and medicine for future generations.

1.4.5 Participant observation

Several qualitative methods are available to the researcher, of which ethnography and case research are the main methods that utilise participant observation for data collection (Iacono, Brown & Holtham*,* 2009:40). Participant observation has its roots in anthropological studies, where researchers would travel to unfamiliar places to study the customs and practices of less known communities. It involves participating in a

situation, while, at the same time, recording what is being observed. It is potentially rewarding, but could also present unique challenges to the researcher to adapt to ways they are not necessarily familiar with. One such situation which occurred during research was when, during lunch time, the respondents would invite the researcher to eat with them. Sometimes it was quite a challenge, as they eat *Mopani* worms and pap and she does not.

Ethnographic research derives from social and cultural anthropology, which requires from the researcher to spend considerable time in the field and study the phenomenon within its social and cultural context. Ethnographers try to immerse themselves in a setting and become part of the group being investigated, in order to understand the meanings that actors put upon events or situations (Iacono *et al.*, 2009:40).

Participant observation is also a way of checking the wide variety of information given to researchers. Various definitions of participant observation exist. Gillham (2000:45) defines observation as watching what people do, listening to what they say, and sometimes asking them to clarify questions. Moreover, observation entails the systematic noting of events, behaviours and artefacts (objects) in the social setting chosen for study (Marshall & Rossman, 1989:79). According to Schensul, Schensul and LeCompte (1999:91), participant observation is the process of learning through exposure to or involvement in the day-to-day or routine activities of participants in the research setting.

Bernard (1994:144) points out that the researcher becomes an instrument that absorbs all sources of information. Moreover, participant observation seems to be one of the best ways of double-checking on information that has been obtained in interviews (Ellen, 1984:235), as data obtained during participant observation mostly comes from unstructured interviewing which is informal, in-depth and open-ended.

Participant observation was used in this study. In order to acquaint herself with the trading environment of the respondents, the researcher visited the two markets where the respondents operated on several occasions before the interviews took place. It also enabled the researcher to gain first-hand information on the use of *Athrixia phylicoides*. The main purpose of the visits to the markets was for the researcher to

orientate herself within the market while familiarising the traders, traditional healers, broom sellers, customers and herself with one another. Taylor and Bogdan (1998:48) indicated that the researcher should fit in with the participants' daily routines and their way of doing things. In order for the researcher to gain the trust of participants, they had to be assured that she had their best interest at heart and that, if it was their wish, certain things would not be revealed to outsiders.

Spending several hours walking around Marabastad and Denneboom on a daily basis, the researcher had informal discussions with the traditional healers, customers, traders and broom sellers, explaining the objectives of the research, which established relationships, trust and co-operation before the survey commenced. As a result of repeated visibility, the traditional healers and broom makers began to recognise her and talk more freely. Bernard (1994:151-152) emphasises the importance of just being there before asking questions. Observation helps to understand why things happen as they do. This technique allows room for discussion, as the need to have some aspects clarified naturally emerges.

Since the researcher used participant observation as her primary research tool, a large percentage of the data she collected was based on personal experiences and observations. Following the observation method, the researcher was able to observe customers, traditional healers, traders and patients. Language was not an issue as the researcher is proficient in Northern Sotho and Setswana, the most common languages spoken at Marabastad and Denneboom. The researcher was born in Limpopo, around the Mokopane area, and her home language is Northern Sotho. In an effort to convey gathered information as accurately as possible, conversations were most commonly conducted in Northern Sotho during sessions of participant observation. For comparative purposes, the researcher also spent time in a number of villages near Mokopane, Limpopo, to observe the routine context of the usage of brooms. She also spent time in Siyabuswa, Mpumalanga, to observe the routine context of the healing process.

According to Bernard (1994:144), it is important for the researcher to know how people use language and symbols. An understanding of the respondents' language provided

the researcher with certain guidelines on how to formulate and direct questions. It also enabled her to understand the respondents without an interpreter.

Being a female, born in a rural area, influenced the kind of activities the researcher chose to take part in for this study. She participated in collecting grass for brooms, visited traditional healers and drank *Athrixia phylicoides* tea. These experiences provided her with the insight she needed to gather the kind of knowledge that was made available to her. It also improved the depth of her observations. Furthermore it influenced the way in which she was going to present the obtained data.

1.4.6 Interviews

The interview method was also chosen for this study, specifically because of its openness and ability to provide respondents with a pathway to answering the guiding questions (see Mouton and Marais, 1990:155-158). The interview also allows space for the subjects to access and describe their experiences within the process of the dialogue. It allows the essential meanings to be revealed.

An emphasis on the role of the researcher as a participant in the dialogue in the interview process does not mean that accuracy is sacrificed. The researcher, by attending to that which is emerging between the researcher and respondents, allows for more than just answers to emerge (see Creswell, 1998:16).

Cohen, Manion and Morrison (2007:15) suggested that interviews are important tools for the research process as they mark an interchange of views between two or more people on a research topic of interest. This enables the respondents to make interpretations about the world in which they live. Interviews are important in situations where we cannot observe behaviour or when we do not know how participants experience their world. Such interviews, however, should not be formal to the point of frightening off the respondent.

Structured interviewing involves the researcher asking each informant a set of pre-established questions. There is little flexibility in the way questions are asked, because all informants receive the same series of questions, all of which are asked in the same

order. In this study interviewing schedules enabled the researcher to acquire data from respondents verbally. This data form an important part of the research. Yet, most of the data was acquired through unstructured interviews.

According to Rubin and Babbie (1989:345), an unstructured interview is an interaction between the interviewer and the participants. Unlike structured interviews in which specific questions are asked, unstructured interviews allow the participants to give an account of their emotions, opinions and perceptions, as well as their behaviour concerning the phenomenon under study, without a list of questions. Additionally, none of the researcher's prior experience or information is utilised (De Vos *et al.,* 2005:293). Unstructured interviewing is much more qualitative in nature, thus providing the researcher with more ways of eliciting information from respondents.

De Vos, Strydom, Fouche and Delport (2005:292) saw the unstructured interview as a "conversation with a purpose". The researcher's intention during the interviews was to understand the experiences, beliefs and meanings of the traditional healers, broom makers and their customers regarding the use of *Athrixia phylicoides.* This is only achievable when the researcher creates an environment whereby the respondent's perspective can unfold as he/she views it, not as the researcher views it.

Although the researcher had some idea of what data to collect, no specific set of questions was asked during the interviews. The intension was to establish an unstructured conversation and to pursue specific themes raised by the respondents. This implies that the researcher respects the respondent's self-determination. Data collected during participant observation mostly came from unstructured interviewing, which is also known as informal, in-depth, and open-ended interviewing.

According to Mack, Woodsong, MacQueen, Guest and Namey (2005:29), in-depth interviews are one of the most common qualitative methods because of their effectiveness in humanising research problems. The researcher noticed that broom maker respondents expressed themselves in a way that they were not usually able to in their daily lives. It was clear that participating in these interviews made them feel very important, because they mentioned that people often walked around asking for information, but nobody ever approached them. The traditional healers were also very

happy that someone wanted to listen to their opinions and life experiences with interest.

Another reason for utilising unstructured interviews as a method of data collection was that most of the people interviewed were illiterate. The researcher had to elaborate more on the questions and explain the importance of the research. In order to overcome language barriers, respondents were allowed to respond in the language they understand. The researcher also ensured that formulation of the questions was appropriate to the discussion.

The researcher introduced herself to respondents, and proceeded by explaining to them that their responses would enable her to understand the use of *Athrixia phylicoides*. The respondents were also told that they were free to decide whether to participate in this study or not. Moreover open-ended questions were mainly asked during the informal interviews to solicit ideas, views, feelings and more intimate issues. Many open-ended questions generated a vast amount of information, but it could be decided at a later stage what was useable and what could be discarded. Selection of research respondents (traders, traditional healers, customers and broom sellers) was random, but not all the customers consented to the interviews.

Interviews took approximately 30 minutes to one hour each and were conducted in the language the traditional healers and broom makers could understand. The fact that the researcher knew the range of idiomatic expressions and was aware of the presence and operation of the language added value to the study. Since she collected all the data on her own, she was able to enrich the questionnaire data with additional qualitative data by pursuing, through conversation, any interesting issues that emerged. It also provided the opportunity to probe and tease out some of the information that was more difficult to obtain, for example, the number of harvesting trips or the number of products sold in a week or month.

In order to obtain data on the use of *Athrixia phylicoides* as medicine, traditional healers (herbalists), who normally use it for medicinal purposes, were targeted as research participants. Ten (10) herbalists in Marabastad and eight (8) in Denneboom agreed to be interviewed. One respondent from the 10 herbalists in Marabastad and

one respondent from the eight in Denneboom were selected as participants of the case study. The information was recorded by taking notes. It was feared that the herbalists might not supply relevant information if the questions were too structured and difficult to understand, as some of them were illiterate. Therefore the questions were informal, providing the researcher with more ways of eliciting information from respondents.

During the course of the study, each respondent was interviewed twice in order to enhance the reliability of the data collected. Repeated visits and observations also helped to gather additional information that was not mentioned during earlier interactions. Illiterate traditional healers, customers and broom makers were both observed and interviewed by the researcher in Setswana and Northern Sotho to compensate for their poorer level of understanding.

Traditional healers and broom makers expected an explanation of the purpose and direction of communication. Explanations about the 'what', 'why' and 'how' of the research was used to help the respondents understand the nature of the information which the interviewer was seeking. The broom makers and the traditional healers were encouraged to communicate in the way they would in a natural setting. The researcher played a neutral role and respected the opinions expressed in the respondents' answers. The interviews provided information that could not have been obtained from observation alone (Best & Kahn, 1993:198).

After the completion of interviews, all respondents were given the opportunity to ask any questions they might have had. They were also thanked for their time, their contribution and for agreeing to take part in this research.

1.4.7 Recording of data

Information was visually documented by means of photographs, videos and maps. The researcher jotted notes on a daily basis during her visits. These notes were brief and served as a memory trigger. Neuman (1997:363-366) identifies the following field notes for storing data:

- Direct observation notes: These notes serve as a description of the research participants, what they have said, events and activities. It is an exact recording of particular words, phrases or actions.
- Inference notes: These notes contain the conclusion the researcher draws from the collected data, new concepts the researcher has developed, and the connection the researcher has made between these concepts. Neuman (1997:365) suggests that a researcher should separate inferred meaning from direct observation because she/he can create new interpretations when re-reading his/her direct observation notes.
- Analytic notes: Methodological ideas are kept in these notes in order to record the researcher's plans and procedural decisions.
- Personal notes: These notes serve as a research diary wherein the researcher records his/her feelings and subjective impressions of events.

A note book was used to keep record of the main events of the whole process, especially during observations and interviews. The notes taken were also used to link the observations to the interviews later. In addition, the notes taken in the note book helped to keep track of the field work. In qualitative research, researchers tend to keep field notes as they participate in the fieldwork in natural field settings (Mouton, 2001:107).

1.4.8 Case studies

The case study method is used to study individual or collective cases in order to reveal certain details of a phenomenon or issue. According to Denzin and Lincoln (1994:237), there are four different types of case studies. Comparative case studies are a set of multiple case studies of multiple research entities for the purpose of cross-unit comparison. Snapshot case studies are detailed, objective studies of one research entity at one point in time. Longitudinal case studies are quantitative or qualitative studies of one research entity at many points in time. Patchwork case studies consist of a set of multiple case studies of the same research entity, using snapshot and longitudinal designs. This multi-design approach is intended to provide researchers with a more holistic view of the dynamics of the research subject.

A case study facilitates our understanding of a certain issue and plays a supportive role in research work. For example, individual case studies of traditional healers would provide the researcher with insight into the traditional healer's domestic circumstances, including the healing process, the beliefs, and perceptions. These would help the researcher to understand why most traditional healers perceive things in a certain manner, especially the harvesting processes.

For the purpose of this study, the case studies were designed to explore the following: the types of individuals and households that participate in the trade of brooms and medicine; how, why and under what circumstances trade takes place; as well as the factors contributing to the trade. Data collection for each case was undertaken during a separate visit to the Marabastad and Denneboom markets.

1.4.9 Questionnaires

An example of the questionnaire which was used as an outline to direct the range of conversations with the research respondents is attached. According to Zikmund and Babin (2010:698), questionnaire design is an essential part of the research process. They emphasise that in formulating a questionnaire, researchers should consider the content, the scope and purpose, as well as the format and wording of the questions. In

this study the main purpose of using a questionnaire was to obtain information regarding the use, price and quantity of *Athrixia phylicoides* used as a tea, for brooms and medicine. The information required included both sales and purchases. The questionnaire was designed for the trader and customer surveys. It was also designed to meet the requirements of the study objectives in terms of the data that would be captured.

1.4.10 Survey

The semi-quantitative customer survey was conducted concurrently with the trader survey. Selection of the traders was convenient, but not all the customers consented to the interviews. The respondents were selected from Denneboom and Marabastad, as these markets were the focus locations of the study. The purpose was to collect data, by means of the questionnaire, using respondents who were in a position to understand the variables under study. Questionnaires were given to 50 participants at Marabastad, of which 40 participants responded, representing a response rate of 80%. Another 50 questionnaires were given to participants at Denneboom, of which 30 participants responded, representing a response rate of 60 %. Information obtained through these questionnaires helped to determine the market potential and knowledge of *Athrixia phylicoides* as a tea, medicine and broom. Examples of questions are attached in Appendix A.

Figure 1.1 illustrates the percentage of respondents in the different age groups using *Athrixia phylicoides* at each of the two markets, Denneboom and Marabastad.

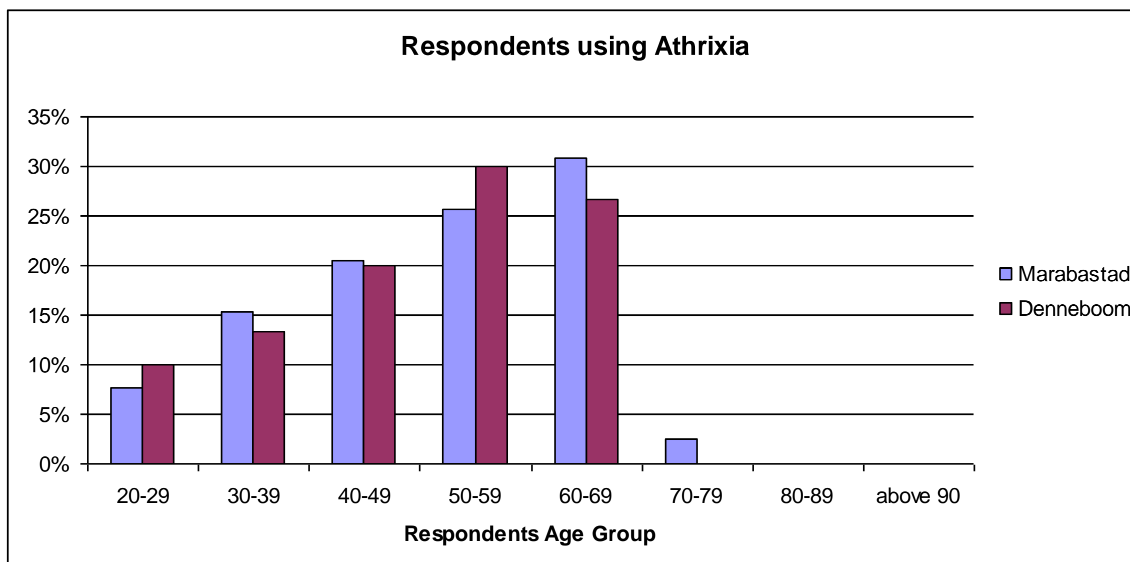

Figure 1.1: Percentage of respondents that use *Athrixia phylicoides* at two different markets.

1.5 THE GEOGRAPHICAL AREA OF RESEARCH

Marabastad Market: Under the government of the ZAR Boer Republic, which proclaimed Pretoria its capital in 1860, the movement and settlement of Blacks were controlled with the establishment of "locations" as Black residential areas and the imposition of 'head taxes' and 'hut taxes' on labourers. The first Black 'location' of Pretoria, Schoolplaats, was established north-west of the city in 1867. Informal expansion of this 'location' soon grew to surround the kraal of a local Ndebele chief, Maraba, and a new 'location' called Marabastad was declared in 1888 (Molenaar, 2007:47).

History explains the significance of Marabastad, not only in Pretoria, but in South Africa, as an area to be restored. Van der Waal (1998:3) stated that the history of Marabastad is a troubled one, including repeated evictions, forced removals and a recollection of rejection and neglect. This was further aggravated by hundreds of hawkers, as well as homeless people, who moved into the area. It comprises a variety of ethnic groups including Indians, Coloureds and Blacks.

Marabastad is a business area near the city centre of Tshwane, South Africa. The original Maraba Village, situated just to the south of the present Marabastad, was founded and ruled by the Northern Sotho sub-chief called Maraba. The name

Marabastad is probably derived from the Afrikaans word meaning Maraba city. Marabastad was a culturally diverse community, with the Hindu Mariamman Temple arguably being its most prominent landmark.

Marabastad, which is walking distance form the Tshwane City Centre, is probably the busiest suburb of Tshwane. It is a place that is shaped by its people. Unlike other urban open spaces in the city, the suburb is greatly determined by the thousands of commuters that pass through it every day and the multiple traders who open shops or stalls to cater for these commuters. The stalls and shops are mostly run by innovative entrepreneurs. Marabastad is overflowing with individual aspirations and energy. It is a place with a rich heritage and cultural history, represented by a vibrant community of diverse racial, religious, language and cultural groups who have lived in harmony for many years. It is a place of struggle and dignity.

Marabastad has transformed into a commercial business district where over 40 000 black commuters come and go between the many transportation terminals every day. The shops are mainly owned by the Indian traders from Laudium as well as black traders from Soshanguve and Mabopane. It is a fast moving place with as much pedestrian as vehicular activity. One almost gets the feeling that people are only moving through the commercial business district in large numbers of informal travellers.

A satellite view of Marabastad (see Figure 1.2) depicts it as a dense area, predominately a market or industrial area and not residential in nature. The study began with a number of on-foot explorations of Marabastad. The researcher often stood at the corner of Mogul Street and Jerusalem Street where the overwhelming noise, taxis attracting customers with music, buses, loud music, talking, shouting, walking, girls selling cassettes with speakers blaring out the merchandise and the mosque announcing its presence at 12 o'clock every Friday creates a sense of some unique and vibrant African city suburb.

Here the researcher experienced nostalgia. The temple calls the town's Muslims for prayer, competing with hooting taxis and thumping radios on pavements. The scintillating odours of African food and beverages are overwhelming. Broom sellers

are walking around the buses, taxis and different stalls chanting: *'Fielo'* (meaning 'broom/brooms') to woo customers. There are fascinating shops like the *'muthi'* shops of the *'sangomas'.* The Dove Zionists (Zion Christian Church, Saint Engenas) gather at Bloed Street to worship every Sunday near this relic of Marabastad oriental heritage.

This is a place where small-time thieves, oriental merchants, priests, booze peddlers and addicts compete for pavement space. As the researcher was walking, a beautiful lady approached her saying, "I can offer you a deal, anything you want my friend. I can make a cheaper plan for you …" She had her hand behind her and a folded plastic bag in her arm. The researcher was shocked when looking at this beautiful creature, knowing how these sorts of stories end, so she declined the offer and kept walking, passing the curtain shops, blanket stalls, electronics stores and more. The researcher realised that, walking through Marabastad, one experienced energy that is unique to this part of the city.

Figure 1.2, on the next page, provides a satellite view of Marabastad.

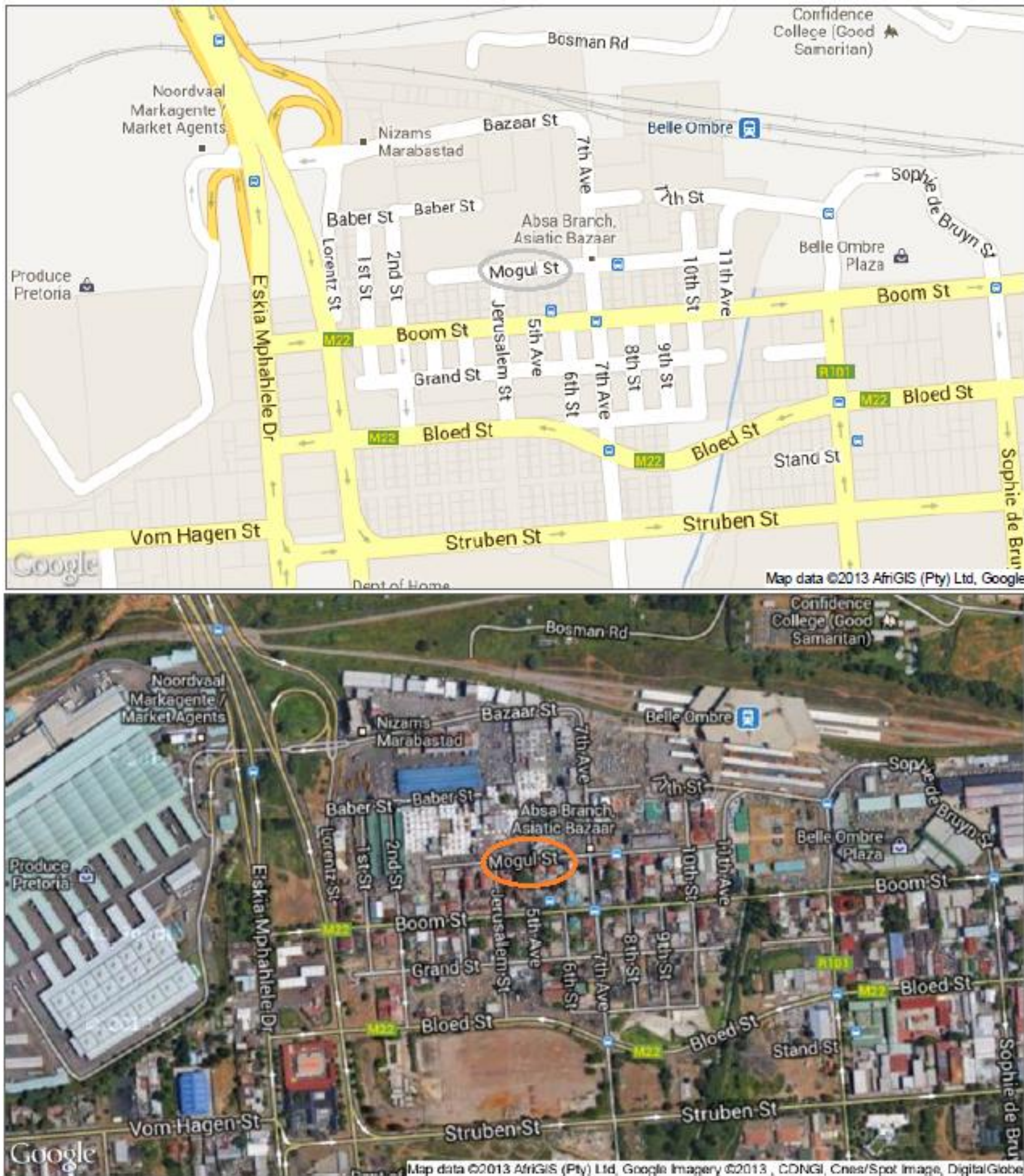

Figure 1.2: **Street map and satellite view of Marabastad with Mogul Street circled as the starting point of data collection (Source Google Maps).**

Denneboom Station in Tshwane: Mamelodi was established in 1953 and started with a mere 16 houses built for black people who were removed from other areas because of the Group Areas Act. The first residents worked at bottle-making and brick factories. The name "Mamelodi" means mother of whistles. The name is derived from the name given to President Paul Kruger (the first president of the Transvaal) by black people because of his unusual ability to whistle and imitate birds.

Mamelodi is situated about 20 kilometres east of the centre of the City of Tshwane (Pretoria). It is bordered by the Magaliesburg ridge to the north, Pretoria's northern suburbs such as Silverton (industrial area) and "the Willows" (residential area) to the south, another township called Eersterus to the west and another large Magaliesburg ridge running north-south to the east. It is a fairly flat area on the northern and eastern ridges that form the boundary around the township.

The Denneboom area derived its name from the train station in the area. Denneboom Station is the first and largest railway station in Mamelodi. Denneboom is slightly similar to Marabastad. It has a train station, taxi rank and bus terminus. During visits to Denneboom (Mamelodi), it was never as busy as Marabastad, where people are full of energy. Nevertheless, walking through Denneboom, the researcher experienced a vibrancy and energy that is unique to this part of the suburb. There are more things in Marabastad than in Denneboom. Like Marabastad, Denneboom also has a retail complex as well as an informal trading site.

The area is surrounded by what is considered by the locals as mini Munitoria offices (Munitoria are the central offices of the city of Tshwane), hostels, an amphitheatre and a shopping complex (see Figure 1.3). This makes the area ideal for convergence of a large pool of people. It is assumed that some customers to the market are commuters that arrive via one of the existing forms of transport (train, bus, or taxi).

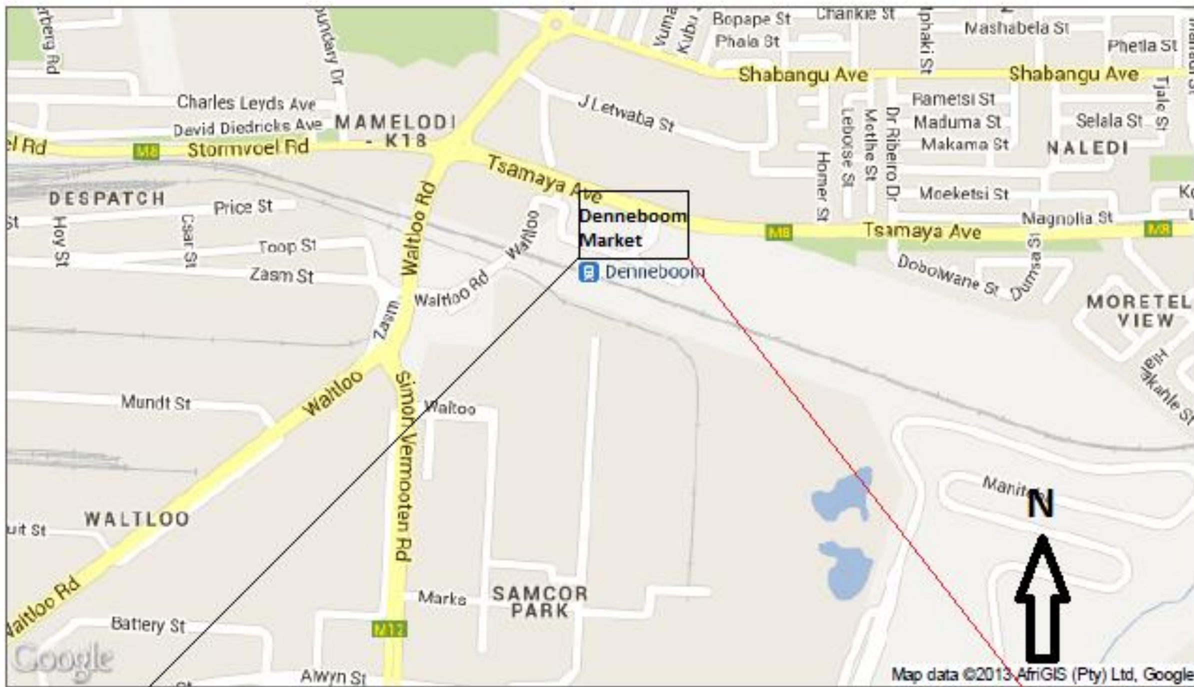

Figure 1.3: Map of Denneboom **(Source: National Department of Treasury)**

1.6 DATA COLLECTION

The respondents were selected from Denneboom and Marabastad, areas where there is a proliferation of informal traders of *Athrixia phylicoides*, as well as traditional healers operating in this area who also use *Athrixia phylicoides* as medicine to treat their patients. The aim was to collect data by means of a questionnaire, using respondents who were in a position to understand the variables under study. To reiterate, 50 questionnaires were given to participants at Marabastad; of which 40 participants responded, representing a response rate of 80%. Similarly, 50 questionnaires were given to participants at Denneboom; of which 30 participants responded, representing a response rate of 60%. The data collected by means of questionnaire helped to determine the market potential and knowledge of *Athrixia phylicoides* as a tea, medicine and broom.

Primary data is data that is observed and collected directly from first-hand experience (Cant, 2010:10). According to Leedy and Ormond (2005: 89), "Primary data are often the most valid, the most illuminating, the most truth manifesting truths". The data used in this study were primary data collected from the traders, customers, traditional healers, and broom sellers at Marabastad and Denneboom. The primary data, which was collected through a questionnaire, showed reflections and perceptions of the participants during the period of data collection.

Primary data is collected through observation, written questionnaires or through oral interviews. In this study data were captured by means of semi-structured questionnaires which were used during interviews. Thereafter the data were edited, then analysed, using content analysis. Participants could respond to questions with assurance that their responses would be anonymous. Participants may be more truthful when giving their opinions than they would be in a personal interview. The respondents who were willing to participate in the study were approached and requested to complete the questionnaires. The respondents completed the questionnaire at their convenience and in the absence of the research assistant.

The data were presented in descriptive, percentage and table form. Field observations are presented in the form of photographs and descriptions. A camera was used to take photographic images which are representative of what happens on the ground at the study site. The photographs are used to illustrate situations as seen and observed during field work.

Figure 1.4 illustrates the uses of *Anthrixia phylicoides* as indicated by the respondents: Twenty percent (20%) of the respondents used the plant for tea in Marabastad and in Denneboom 10% used the plant for tea. Forty percent (40%) of the respondents used it for medicine in Marabastad and in Denneboom 10% used the plant for medicine. Sixty percent (60%) of the respondents used it as a broom in Marabastad and in Denneboom 40% used the plant as a broom.

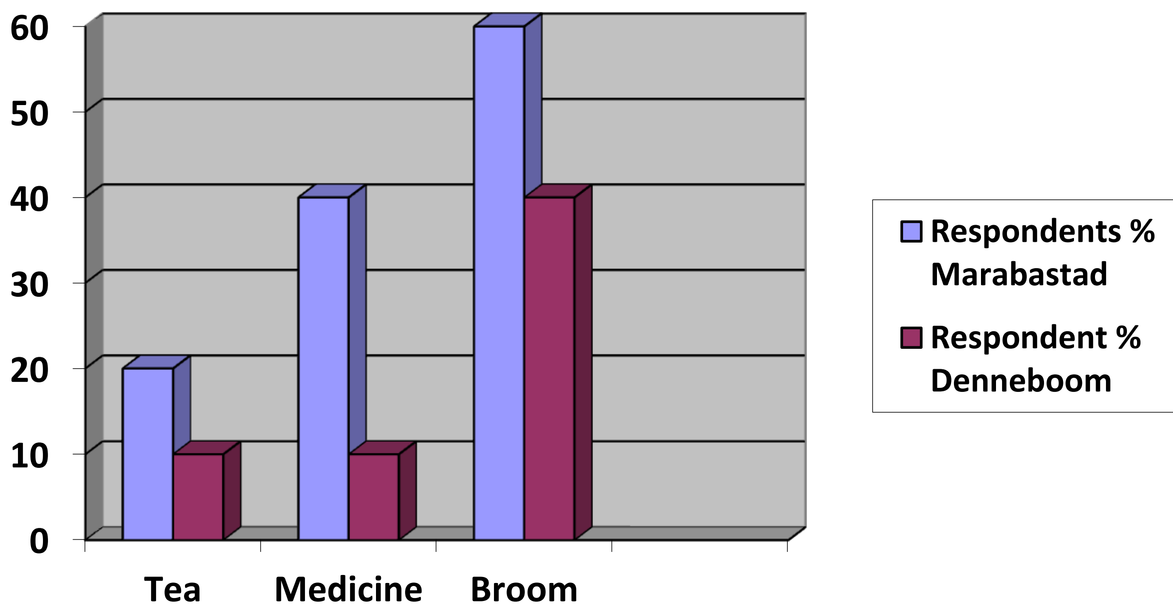

Figure 1.4: Three different uses of *Athrixia phylicoides* as indicated by the respondents.

1.7 LIMITATIONS

According to Burns (2000:13-14), qualitative data makes it difficult to apply conventional standards of reliability and validity. The time required for data collection, analysis and interpretation is lengthy. The viewpoints of both the researcher and research participants must be identified and made clear because of bias issues.

The study had some limitations. The most obvious ones were those pertaining to complete disclosure in the sensitive area of traditional medicine. Some traditional healers censored information given to researchers on medicinal practices in an apparent effort to guard intellectual property rights or the stealing of healing secrets. It was evident that questions that relate to cash income were regarded as private, sensitive and might produce unreliable responses. It was also difficult to obtain the total cash household income from traditional healers and broom makers as all participants declared they did not keep any records of income and expenditures.

1.8 OUTLINE OF THE STUDY

The study consists of five chapters: an introduction and overview, a literature review, empirical case studies, analysis and discussions of the case study results, findings and a conclusion.

Chapter 1

The chapter provides the research background on *Athrixia phylicoides.* It also presents the factors that influenced the study. The importance of the study, as well as the research design and various methodologies used are discussed. A brief history of the Marabastad and Denneboom markets is also presented, constituting the location of the study areas.

Chapter 2

The review of literature on *Athrixia phylicoides* within the contexts of indigenous knowledge, African material culture and cultural heritage is discussed in this chapter.

Chapter 3

In this section the focus is on *Athrixia phylicoides* as an artefact or utensil in the domestic domain. The main focus will be on its usage, assemblage and natural resource environment. Three case studies are discussed to explain the trade in traditional brooms and to provide information on specific methods related to each particular case.

Chapter 4

Perceptions regarding the use of *Athrixia phylicoides* as a medicine and as a tea are highlighted in this section, as different cultures use *Athrixia phylicoides* for different purposes. Two case studies are discussed.

Chapter 5

The threats and challenges to the socio-cultural context of *Athrixia phylicoides* are discussed in this chapter. The conclusions emanating from the study are also presented. The conclusions drawn are used to provide possible solutions to sustain *Athrixia phylicoides.*

1.9 CONCLUSION

This chapter started by providing the background to the study. Then the problem statement is presented and the aim of the study is explained. A discussion of the literature review followed to strengthen the basis of the study, after which the research methodology and research techniques were explained. Furthermore, participant observations, interviews and case studies were discussed. A review of the literature on *Athrixia phylicoides* within the contexts of indigenous knowledge, African material culture and cultural heritage will be discussed in the next chapter.

CHAPTER 2

ATHRIXIA PHYLICOIDES AS INDIGENOUS KNOWLEDGE AND HERITAGE

2.1 INTRODUCTION

A study depicting the use of a plant such as the *Athrixia phylicoides* needs to be framed within a context which makes sense of its value, use, product development and its relationship to other aspects of the socio-cultural inventory. The people who were interviewed for this study could, for instance, not tell whether the plant's intrinsic medicinal value overrides its domestic usage as a broom; therefore they could not reveal whether its primary use was as a medicine or a broom. Thus, from an anthropological perspective, the use of the plant *Athrixia phylicoides* is informed by a number of radical perspectives.

The discourse of local or indigenous knowledge (IK) has increased in terms of its advent in South Africa since 1994. "The undervaluing of things 'African' has been reversed and elevated to the level of science" (Krige, 2007).

The study of material culture, African material culture, or material anthropology, is as old as the science of anthropology itself. However, its focus, theory, orientation and relation with the human body has been realigned and investigated in recent years (Arnoldi, Geary & Hardin, 1996). The use of African objects have been employed to define Africa and Africans, since the early 20th century.

Anthropologist Mary Douglas (1962), who spent her life studying the relationship between people and their goods, showed that people need goods to provide subsistence as well as to draw the lines of social relationships. A study on the consumption of goods in Central Africa has left us with a wonderful heritage of knowledge on how to understand goods, the scarcity of goods, human relations and goods for subsistence. Brooms as household products are such goods.

Artefacts ("things") display life histories. Tilley (1999) refers to Appadurai (1986) arguing that, "Things create people as much as people make them." Kopytoff (1986) s/dce about the life histories and biographies of things that artefacts. The life history of a pot or a broom reveals its human interaction - its place in human history. There is also prestige value attached to certain things and objects. Some objects become commodities to have, such as collectors' items, for instance an oriental carpet, as Spooner (1986) has explained. However, commodity value changes over years, decades and centuries.

Tilley (1999) reminded us that the body is the central referred point of what we create and what we build – a shed, a house, a mat which is weaved. The body becomes its 'own' object to subject of practices to knowledges. Built artefacts (rooms) as well as household artefacts (for example a pot and a broom) become metaphors which explain human nature and human relations. Artefacts manifest in metaphors, idiomatic expressions, intangible spoken or song symbols. They also feature in oral tradition in a series of storytelling, ritual dance, *et cetera*. The researcher found these integrated fields useful in her interpretation of the world of the *Athrixia phylicoides* plant, within its medicinal context, as well as its artefactual usage.

This chapter focuses on *Athrixia phylicoides* and its usage within the socio-cultural context. Indigenous plants do not only provide subsistence, but also provide in the socio-cultural needs of people in many remote areas. The *Athrixia phylicoides* plant is utilised in the main areas or domains of the socio-cultural domain. Firstly it is used as a cure or medicine, and secondly as a domestic utensil. This study will investigate both usages. Medicine falls within the field of treatment of ailments and may also have a relation with religious practices. As a utensil, it operates within the domestic domain. In this study the knowledge of broom makers and traditional healers in Marabastad and Denneboom was examined to determine indigenous knowledge of *Athrixia phylicoides*.

2.2 THE RANGE OF INDIGENOUS KNOWLEDGE

Indigenous knowledge varies among societies around the world, but there are consistent patterns in the way knowledge is acquired. Semali and Kincheloe (1999:3) indicated that there is a belief that indigenous knowledge reflects "the dynamic way in which the residents of an area have come to understand themselves in a relationship to their environment and how they organise that folk knowledge of cultural beliefs and history to enhance their lives." It has also been observed that indigenous knowledge cannot be separated from human culture or the natural world (George, 1999:84; Borchgrevink, 2002:224).

Indigenous knowledge is considered by Ocholla and Onyancha (2005:247) as a "dynamic archive of the sum total of knowledge, skills and attitudes belonging to a community over generations and expressed in the form of action, object and sign languages for sharing". However, in most communities in the world, indigenous knowledge has been neglected, vindicated, stigmatised, illegalised and suppressed (Ocholla & Onyancha, 2005:248).

Grenier (1998:1) described indigenous knowledge as the unique traditional, local knowledge that exists within and that is developed around the specific conditions of people that are particularly indigenous to a specific geographic area. Indigenous knowledge is seen as entrenched in skills of that particular group of indigenous people in a specific geographical area, which they have acquired over time to enable them to get the most out of their natural environment. Indigenous knowledge is embodied in various forms through which it is represented and expressed.

Rajesekaran and Whiteford (1992:237) described indigenous knowledge as a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments and an intimate understanding of the environment in a given culture. As such, indigenous knowledge is seen as the sum total of the knowledge and skills that specific people in a particular geographical area possess.

Mundy and Compton (1995:112) stated that indigenous knowledge is considered to be any knowledge that is held by a particular population, based on their interpretation of their specific environment. This is considered to be specific for particular social and cultural contexts, after being developed through the societal understanding of their local environment. Mugabe (1998:74), Mearns, Du Toit and Mukuka (2006:25) defined indigenous knowledge as, "Knowledge that is held and used by a people who identify themselves as indigenous to a particular place based on their different cultures".

Kok (2005:7) described indigenous knowledge as the kind that in South Africa is expressed through material culture of beliefs, medicine, knowledge, technology, education, communication, agriculture, food technology, arts and crafts, while Battiste & Henderson (2000:41) described indigenous knowledge as a system with its own complete epistemology, philosophy, scientific and logical validity, which can only be understood by means of pedagogy, traditionally employed by the people themselves.

Indigenous knowledge is generally generated and derived from the daily needs and requirements of the local conditions that are prevalent in the surrounding environment. According to Dasgupta (2011:59), indigenous knowledge is the local knowledge that is unique to a culture or society; for example, local knowledge, folk knowledge, people's knowledge, traditional wisdom or traditional science. This knowledge is traditionally transferred from generation to generation through word of mouth, cultural rituals and other activities that sustain societies.

Local knowledge is embedded within the community and is available for usage by the local people at times when it is needed. Warren (1999) posited that communities were able to make decisions and solve problems through observations and measures of their surroundings with respect to education, agriculture, health care, food preparation and natural resource management, amongst others, which form part of the daily existence of the society.

There has been an increasing interest in the role that indigenous knowledge can play, not only in the development of local communities, but also at national level. In Africa, this interest is reflected in a myriad of activities by researchers that record indigenous knowledge for its integration into the different development programmes, especially in

education, agriculture, health care and housing. As such, indigenous knowledge is regarded as an invaluable local resource for the development of communities.

Throughout literature, a variety of terms have been used to describe this form of unique knowledge. These terms include: local knowledge, traditional knowledge, indigenous traditional knowledge, indigenous technical knowledge, traditional environmental knowledge, rural knowledge, and traditional ecological knowledge. These terms have similar meanings. However, Langill (1999:4) indicated that "indigenous knowledge" refers to knowledge possessed by the original inhabitants of an area, while the term "local knowledge" refers to the knowledge of any people, not necessarily indigenous, who have lived in an area for a long period of time.

Indigenous knowledge relates to a particular group of people and it is often associated with the original inhabitants of a particular geographic location who have a distinct culture and belief system (Mwaura, 2008:22). Such original inhabitants are often referred to as the indigenous people.

Indigenous knowledge is stored in people's memories and activities, and it is expressed in the form of stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local language and taxonomy, agricultural practices, equipment, materials, plant species and animals. For example, the healing and spiritual qualities of plants have been known for many years by many cultures all over the world (Grenier, 1998:2).

In brief, indigenous knowledge is understood as knowledge that emerges from a complex mix of context, practice and belief. On this basis, we can assume that indigenous knowledge is community knowledge and thus it is almost impossible to research indigenous knowledge without undertaking field research in a given community. Therefore, to investigate indigenous knowledge, one has to visit a particular community, as indigenous knowledge is rooted in the community and is unique to a given culture, location and society.

One of the indigenous knowledge systems which will be discussed in this study involves medicinal plants. A great deal of folk knowledge and scientific information on

medicinal plants in South Africa is available, but it has been extremely difficult to access the information, as it is scattered throughout scientific literature.

The use of medicinal plants is a thriving industry in South Africa. According to Shackleton, Shackleton and Cousins (2000:10), millions of rural South Africans depend upon biological resources for day-to-day survival. The Medical Research Council (1997:1) estimated that up to 80% of African people in South Africa use traditional medicines. It was also indicated that 70% of the South African population is dependent on traditional medicine derived from indigenous plants and animals (SANBI, 2005:3).

Traditional medicine and traditional agriculture represent significant economic activity in South Africa. The knowledge systems of local communities play an important role in managing natural resources. Indigenous knowledge still plays a pivotal role in sustainable livelihoods of a significant proportion of the South African population (DST, 2004:14).

In recent years, the government has started to realise the need to recognise and formalise traditional healing. The implementation of the 2002 National Research and Development Strategy led to the development of the indigenous knowledge systems policy for South Africa. This policy is aimed at providing practical measures for the development of services provided by indigenous knowledge holders and practitioners, with a particular focus on traditional medicine, but also including areas such as agriculture, indigenous languages and folklore (Department of Science and Technology, 2004:13).

In 2005, the Department of Science and Technology established the national indigenous knowledge systems office to nurture national indigenous knowledge systems priorities, open up academic opportunities, and protect intellectual property rights (Parliamentary Monitory Group, 2010). A Bachelor of IKS, offered by the University of North West, was developed as a result of this intervention. It is evident that the large demand for medicinal plants in South Africa is met by indiscriminate harvesting of spontaneous flora, including those in the forests (Cunningham, 1990:10). Research activities regarding the ecological requirements of traditional plant resources

have been carried out to address their conservation and sustainable use. However, the contributions of the traditional knowledge holders were not integrated and reflected in such research.

Indigenous knowledge is a key part of the lives of rural Africans, many of whom live in poverty. Their livelihoods depend almost entirely on specific skills and knowledge essential to their survival. Indigenous knowledge was found to be a tool, either actual or potential, in the fight against poverty in South Africa, Kenya, Tanzania and Swaziland (United Nations Environment Programme). It was also found that, in some cases, the disregard for indigenous knowledge has led to the deterioration of the environment.

Before defining what sustainable livelihoods are, it is imperative that the concept of livelihood is fully explained. Poor people are frequently found to be unprepared for life in a dynamic world where parameters are always changing and where they need to constantly adapt to these changes. As a result, poor people find themselves struggling to meet their daily basic needs. Studies of livelihoods reveal the different challenges that are faced by poor families daily. Singh and Gilman (1999:540) report that, "Livelihood systems consist of a complex and diverse set of economic, social and physical strategies which are realised through the activities, assets and entitlements by which individuals make a living."

This raises a crucial question: How do individuals in these circumstances construct their livelihoods or make a living?

The importance of natural resources for rural livelihoods has recently received more attention in South Africa (Campbell & Luckert, 2002; Shackleton, Shackleton, Netshiluvhi, Geach, Balance, & Fairbanks*,* 2002; Shackleton, 2005). The products acquired from natural resources, either used for household consumption or sale, are collected from forests, grasslands, and agriculturally converted landscapes. These products are important components of everyday livelihood needs for rural people, providing them with food, energy, crafts, medicines, tools and raw materials for building (Shackleton, 2005:1).

Scherr, White and Kaimowitz (2003:38) reported that several studies throughout the world indicated that rural communities depend on a diversity of natural products extracted from the wild for their livelihood and income needs. Wild harvested plant products are generally classified as having either a subsistence consumption value or a commercial value (Goebel, Campbell, Mukamuri & Veeman, 2000:386), but may also have cultural and spiritual functions (Cocks, Dold & Sizane, 2004:158).

Shackleton (2005:3) agreed that natural resource products may be harvested for subsistence purposes as direct inputs into the household and adds that they can also be used as commodities that can be offered for sale in the market, in raw or processed form. The processing and sale of natural resource products is progressively being taken up by rural communities as a means to cope with economic hardships (Marshall & Newton, 2003:275).

Shackleton (2005:10) indicated that there is a need to look into how natural resources trade contributes to the prevailing socio-economic and political environment. It is important to understand the role of natural resources within the overall rural household. In this study, attention was paid to understanding some of the less tangible benefits from trading in natural resource products that may contribute to other forms of livelihood capital. Poverty should be viewed more broadly than just in terms of income. Poor people generally have few assets and minimum formal training and, as such, they resort to exploitation of natural resources to sustain themselves.

Indigenous knowledge is innate, as it is the knowledge that is acquired through specific experiences of a people. Granted that it could be influenced by external factors, the specific adaptation in a particular region would make it indigenous to that region, which would result in what is considered to be cultural evolution. The 2002 NRDS prioritised the protection of indigenous knowledge as one of the tools that could be used to improve the quality of life for South Africans. The NRDS, therefore, recognised that protection of the utilisation of IKS in a controlled environment could have significant benefits to the South African economy.

One of the aims of this study was to determine how knowledge could be treated as an integral part of culture that has, very broadly, a material as well as a non-material side.

Moreover, the research focus of this study is on *Athrixia phylicoides.* The use of this plant for the manufacturing of domestic utensils such as brooms places it within the domain of African material culture. The next section will shed more light on the concept of African material culture.

2.3 AFRICAN MATERIAL CULTURE

For more than two millions years material culture has distinctively been part of the human way of life. The role of material culture has drawn much attention in human society. This was derived from recent symbolic and social analysis and Boivin (2008:13) reflected that material culture emphasised the representational and ideological aspects of the material world. A number of studies, such as those by Arnoldi *et al.* (1996) and Stanley (1994) have indicated that African material culture is included in the disciplines of anthropology and archaeology as well as art history, fine arts and museum studies.

However, African material culture studies should not be compartmentalised and cannot only be defined by disciplinary boundaries, but rather by elements such as nationalities and language. Stanley (1994:372) also emphasised this and argued that material culture is not just a component of artefacts and built environment, but of all aspects of culture, not only the obvious ones. Bascom (1962:581) indicated that, due to the increase in African studies, knowledge of African material culture, technology and ecological adaptation has advanced.

The brief history of the changing interests in African material culture studies suggests that the shift from viewing African objects as artefacts to viewing them as art, which began in the early 20th century, has had important consequences for the direction which the field of African material culture studies has taken, as well as for the ways in which African objects have been used in the search for definitions of Africa (Arnoldi *et al.*, 1996:8).

Arnoldi *et al.* (1996:8) indicated that, over a period of two decades, investigation on material culture that took place outside Africa had shifted the primary focus to the

relationship between objects and the societies that produce or use them. Scholars of material culture also began to look at the constructive potential of the objects. They started to look at the situated ways in which individuals use objects in the construction of identity, social formations, and culture. This shift provided more encompassing perspectives on the relationship between objects and cultures. Furthermore, Davison (1991:1) elucidated that the anthropological study of material culture, both present and past, involves making inferences regarding the varied contextual meanings of artefacts.

African art plays an important role in African material culture. The structural studies of African art continue, exploring the importance of early work in Africa that emphasised local definitions, agency, power and other topics. However, what has remained imperative for art collectors is still concealed. Collectors want to know whether their acquisition represents an authentic example of a particular type of work. Therefore questions of regionalism and authenticity have remained primary. Collectors are also interested in knowing whether the object has anthropological perspectives and whether the art is historical.

This resulted in formal approaches moving closer together (Arnoldi *et al*., 1996:8). Several studies have investigated technical skills that are locally based and embedded in specific social and historical contexts as a form of indigenous knowledge. Studies also investigated how material culture came to stand for various African cultures in museums and exhibitions. Moreover, the relationship between academic anthropology and its public image, as it was constructed in museums and in large scale national exhibitions, was investigated. UNESCO (2005:73) reported that museums and exhibitions were major sites for the production of knowledge about Africa during the late nineteenth century.

According to Alexander (1974:9), museums are valuable teaching aids. Hudman & Hawkins (1989:62) argued that museums have been, and still are, important in helping humans understand history by preserving objects of the past, art and other everyday cultural artefacts. Most museums focus on the human history of a specific country. However, people‘s uniqueness or identity is best exhibited as a social, cultural and heritage experience (Foley, Lennon & Maxwell*,* 1997:136).

Some of South Africa's ethnic groups are considered to have a wide range of material cultural products, including architecture, cooking utensils, clothes, textiles, farming equipment, hunting tools, baskets, mats, head rests, shields, artworks, carvings, and sculpture.

Moahi (2007:3) indicated indigenous knowledge as an important resource for communities. It is tied to the socio-economic, spiritual and cultural aspects of the lives of communities. The most important tools and materials of the early black people's culture were the grass, mud and stones they used to build their usually circular houses, spears (used for hunting and fighting), wood (used for spoons and stools) and other types of food, and animal skin used for clothing and bedding. Bark, roots and leaves were mostly used to derive very effective medicine. The livelihood of the people depended on these natural materials and their availability. They used these materials to raise their children and they taught them the techniques involved. Therefore, the emphasis on inheritance and conservation is just as important as the focus on property, things and buildings. To elaborate on this, the focus in the next section will be on cultural heritage.

2.4 CULTURAL HERITAGE

The Oxford English Dictionary describes 'heritage' as property that is or may be inherited, an inheritance, valued things such as historic buildings that have been passed down from previous generations, relating to things of historic or cultural value that are worthy of preservation. Heritage, in others words, is something that can be passed on from one generation to the next; something that can be conserved or inherited and something that has historic or cultural value.

The South African White Paper on Arts and Culture (1996c1, s12) defined heritage as: "The sum total of wildlife and scenic parks, sites of scientific and historical importance". In contrast, Harrison (2010:13) defined heritage as a set of values or principles which relate to the past. He argued that people make choices about what to conserve from the past and what to discard, which memories to keep and which to

forget, which memorials to maintain, and which to allow to be destroyed, which buildings to save and which ones to demolish.

Moreover, Howard (2003:6) explained heritage as anything that someone wishes to conserve or to collect and to pass on to future generations. In addition, Littler (2008:87) indicated that heritage takes a variety of forms. He proposed that heritage is more about the value that is derived in the present than the representations that the past created in individuals. These things of value that are passed on from one generation to another are believed to be the source of the survival of certain cultural traditions, memories, values and artefacts of the past while others die out (Howard, 2003:6). For the purposes of this study, heritage is defined as the use of the past cultural, political and economic resources for the benefit of the present.

Thus, heritage is generally taken to include everything that people want to save, including material culture and nature. In 2002, UNESCO, (n.d.) produced a list of things that might be considered to be official heritage. This included the following: cultural heritage sites, historic cities, cultural landscapes, natural sacred sites, underwater cultural heritage, museums, movable cultural heritage, documentary and digital heritage, oral traditions, festive events, rituals and beliefs, the performing arts, traditional medicine, culinary traditions and traditional sports, and games.

Van Wyk (2014:181) asserted that indigenous knowledge is derived from the Afrocentric paradigm which explores African identity from the indigenous view of people centred, located, oriented and grounded togetherness. Asante (2004:19) maintained that Afrocentrism is a perspective that focuses on the importance of Africans, often equated with Blacks as a single group, in cultural identity, philosophy and history. Culture is that complex whole which includes knowledge, belief, art morals, law, custom, and any other capabilities and habits acquired by man as a member of society. Cultural heritage gives each particular place its recognisable features and is the storehouse of human experience.

Cultural heritage preservation and presentation are the cornerstones of any cultural policy. Cultural heritage preservation also includes the non-physical cultural heritage, such as the signs and symbols passed on by oral transmission, artistic and literacy

forms of expression, languages, ways of life, myths, beliefs and rituals, value systems and traditional knowledge and know-how.

Seitel (2001:101) argued that, considering the importance of cultural heritage, South African law did not sufficiently recognise the rights of the indigenous people to maintain their culture. In the past, the focus of cultural heritage laws was on tangible material such as objects, sites and areas. Intangible materials such as stories, dreaming tracks and songs were not protected by laws. The focus was mainly on historical and scientific value rather than the cultural and spiritual values that were considered to be important by indigenous people. Past heritage was considered more important to protect than living heritage.

2.5 GOVERNMENT AND HERITAGE

It is believed that one way of understanding heritage is to appreciate the initiatives of governments towards managing and promoting certain aspects of tangible and intangible practices associated with culture. Governments play a huge role towards the maintenance, funding, promotion and preservation of heritage. Harrison (2010:14) indicated that governments are able to play a major role in maintenance and promotion through heritage preservation policies and legislation.

According to Harrison (2010:21), the major international organisations involved in the management of heritage in the western world have developed a number of cultural heritage policy documents. These organisations include the Council of Europe, the International Council of Museums (ICOM), the International Council on Monuments and Sites (ICOMOS), the International Federation of Library Associations and Institutions (IFLA), the Organisation of World Heritage Cities (OWHC), the United Nations Education, Scientific and Cultural Organisation (UNESCO) and the World Monuments Fund (WMF). In addition, UNESCO (2007) stated that understanding World Heritage can help us become more aware of our own roots, and of our cultural and social identity. Furthermore, Barthel-Bouchier (2013:11) reported that in the early twentieth century anthropologists developed an alternative definition.

In the post-apartheid era, South Africa introduced several policies and laws to protect heritage. Before 1994, the Natural and Historical Monuments Act (Act 6 of 1923) served to protect and conserve the cultural heritage of South African resources. This Act was preceded by the establishment of management authorities that were tasked with enforcing and guarding against transgressions. The 1996 White Paper on Arts, Culture and Heritage provided the base for the National Heritage Resources Act (Act 25 of 1999) passed by parliament.

The Act was introduced to provide an integrated interactive system for the management of what is considered to be heritage resources. Key to this was the introduction of a system that would be used for the identification, classification, assessment and management of heritage resources. Furthermore the South African Heritage Resources Agency was established to protect and conserve cultural heritage in South Africa. The World Heritage Convention Act 49 was also passed. However, this legislation was directed towards the protection of designated sites that were of value for world heritage. The World Heritage Convention has been accepted by all United Nations Conventions. According to Barthel-Bouchier (2013:117), the initial number of 12 sites listed on the World Heritage List in 1978 has grown to 962 sites as of autumn 2012.

2.6 INTANGIBLE CULTURAL HERITAGE

Intangible cultural heritage recognises the importance of living heritage, cultural diversity and its maintenance for the future. According to ICOM NEWS (2004:3), intangible heritage is a precious legacy that includes languages, oral literature, performing arts and craftsmanship. Furthermore it represents skills and knowledge which cannot be depicted by concrete objects. In ICOM NEWS (2004:3), Kurin defined intangible heritage as “The social practices, aesthetic traditions and forms of knowledge carried within cultural communities”. It was also indicated that intangible heritage is not static, but living and embedded within communities as noted in their social relationships. It is considered to be some form of knowledge that is part and parcel of a community’s survival and exists in homes, religion, and beliefs, as well as in people’s daily chores.

According to the 2003 Convention for the Safeguarding of Intangible Cultural Heritage, UNESCO identified the following domains of intangible cultural heritage: Oral traditions and expressions, including language, as a vehicle for the intangible cultural heritage; performing arts, such as traditional music, dance and theatre; social practices; rituals and festive events; knowledge and practices concerning nature and the universe; as well as traditional craftsmanship (UNESCO, 2008b).

The above-mentioned definitions seem to be in sync with the current view of the author that intangible heritage assists in linking people in their day-to-day interactions with their natural environment. According to one of the broom makers interviewed for this study, some of the intangible heritage was intended to provide guidance for the way people lived.

UNESCO divided the list of intangible cultural heritage (ICH) into three categories, namely the representative list, the safeguarding list and the best practice list. The representative list comprises cultural practices and expressions that help demonstrate the diversity of this heritage and raise awareness about its importance. The safeguarding list is composed of cultural elements that are threatened and in need of urgent measures to keep them alive. The best practice list is composed of examples from communities and governments on how to protect and recognise intangible cultural heritage.

The two latest UNESCO conventions on culture clearly indicated the link between intangible heritage and sustainable development. The convention for the safeguarding of Intangible Cultural Heritage, adopted in 2003, specifically stated that intangible cultural heritage contributes to sustainable development. It is said to be accomplished through safeguarding intangible cultural heritage, ensuring respect for it by communities, groups and individuals concerned. It raises public awareness and appreciation of its importance at local, national and international levels, and provides for international co-operation and assistance (UNESCO, 2009:6). Furthermore the convention's protection and promotion of the Diversity of Cultural Expressions, adopted in 2005, insisted that cultural diversity is essential for sustainable development, and that traditional knowledge contributes to it.

Intangible cultural heritage is transmitted from generation to generation and originates from communities and groups in their responses to experiences derived from their environment, as well as their interaction with nature and history. It consists of non-physical aspects of a particular culture maintained by a community over a period of time. The way in which a community behaves and sets rules for operating in a particular culture provides people with a sense of identity and continuity and promotes respect for cultural diversity and human creativity (UNESCO, 2003: 3).

UNESCO Intangible Cultural Heritage Section (2008:9) declared that intangible heritage must always be living heritage, as defined by the convention. In other words, it must continue to be actively produced, maintained, recreated and safeguarded by communities. In addition, Van Vuuren (2008:15) stated that intangible heritage is non-measurable and abstract.

An understanding of the intangible cultural heritage of different communities helps with intercultural dialogue, and encourages mutual respect for other ways of life. However, intangible cultural heritage does not only represent inherited traditions from the past, but also includes contemporary rural and urban practices which diverse cultural groups take part in. People may share expressions of intangible cultural heritage that are similar to those practiced by others (UNESCO, 2003:3).

Culture is thus defined as the total way of life of a people, encompassing their patterns of thought and behaviour, values, beliefs and social institutions.

2.7 CONCLUSION

Indigenous knowledge is referred to by several names such as folk knowledge, traditional knowledge, local knowledge, indigenous traditional knowledge, indigenous technical knowledge, traditional environmental knowledge, rural knowledge, and traditional ecological knowledge. These terms have similar meanings.

The way a plant such as the *Athrixia phylicoides* is used, needs to be framed within a context which makes sense of its value, use, product development and its relationship to other aspects of the socio-cultural inventory. The current study focused on obtaining

perceptions on the use of *Athrixia phylicoides* as a medicinal plant by indigenous communities, healers and ordinary people and to work out how knowledge could be treated as an integral part of culture that has very broadly a tangible and intangible part. Heritage is taken to include everything that people want to save, including material culture.

The use of *Athrixia phylicoides,* which is the main focus of this study, also falls within the domain of African material culture, because brooms are part of domestic utensils. Not only had the livelihood of the people in the past depended on these cultural materials; the plant is still being used by modern-day traditional healers and broom makers.

In this chapter the concepts of indigenous knowledge, African material culture and cultural heritage was explored. The next chapter will focus on *Athrixia phylicoides* as an artefact or utensil in the domestic domain. The main focus will be on its usage, assemblage and its natural resource environment.

CHAPTER 3

THE USE OF *ATHRIXIA PHYLICOIDES (MOHLAHLAILA)* BROOMS IN THE HOMESTEAD

3.1 INTRODUCTION

This chapter focuses on the use of *Athrixia phylicoides* as a broom in the homestead. The Northern Sotho term for *Athrixia* is *mohlahlaila*. *Mohlahlaila* is one of many plant species from which brooms can be made. Fifteen broom makers were interviewed in Marabastad and ten were interviewed in Denneboom for the purpose of this study. The broom makers were all unemployed women and were mostly between 40 and 60 years of age. All of these women came from rural areas. Ten of the participants in this study were sole providers for their families and only had primary level education. Despite being sole providers, five of these ten women were married and their responsibilities also included their extended families. All broom makers had learned their skills from their mothers, friends and grandmothers. However, it is clear that younger women, these days, have little interest or skill for this craft.

This chapter explores the typical life of broom makers and broom users, as well as the role of *Athrixia phylicoides* in the socio-cultural heritage. Furthermore, the tangible components of the brooms, harvesting practices, collecting of *Athrixia phylicoides,* as well as assemblage of the brooms will be explored. Subsequently the focus will be on the threats and challenges to the plant's socio-cultural context and ultimately market co-ordination and market organisation will be discussed.

3.2 A DAY IN THE LIFE OF A BROOM MAKER

In the village of Lesodi, Mokopane (Limpopo), the roosters wake one up at four o'clock in the morning. At six o'clock women are already cleaning, sweeping their yards with their brooms. When asked, the ladies explained that they start early in the morning as the temperature is still cool and not as hot as during the day.

Figure 3.1: Water running down the river

Figure 3.2: Gravel road to Lesodi village

Most of these ladies said they had been taught that they should clean their yards every day before they cleaned the inside of the house. According to them it was very important to keep the area around the house clean. One of the ladies introduced herself as Mokgaetši Lebidi (Fig.3.3). I interviewed her to find out more about the life of someone in the broom business. She was born in 1939, was married and had three children. She still lived with her last born child. Mrs Lebidi mentioned that she started selling brooms a very long time ago; she could remember the exact time. She was still

very active selling brooms. She was an experienced and successful broom maker and had been in the business for 45 years.

Figure 3.3: Mrs Lebidi sweeping with a broom

The idea of making brooms for sale first came from Mrs Lebidi's friend, who invited her to go and harvest raw material at Mr du Plessis' farm. She described her daily routine as follows: Every morning she wakes up, washes her face, brushes her teeth and leaves for the nearby area to harvest grass. She walks three to four kilometres.

Figure 3.4: Donkey cart used by Mrs Lebidi

She mentioned that before she bought a donkey cart (Fig 3.4), collecting grass and returning home had been a painful exercise that took very long. She would have to cut enough broom grass, Monday to Friday, and then hire her father-in-law's donkey cart to collect it. Around 1970-1980, she used to walk 10 kilometres every day to Mr du Plessis' farm near a tin mine to harvest grass. This happened during the winter when harvesting took place.

The farmer allowed them to harvest during those years. The only process that was taking place was cutting grass and collecting the bark of trees for broom handles. Bundles were counted every day before they went home. If 10 bundles were made, they shared half with Mr du Plessis. Mrs Lebidi explained that the arrangement with the farmer was that they could harvest and in return pay with brooms. Generally, they harvested for two months at a time. After the two months, Mr du Plessis would arrange that his tractor delivered the harvest to the different areas where the pickers came from, free of charge. However, Mr Du Plessis decided to move to another farm, far away, and it became difficult for her to collect from the farm. Around 1985, she bought a donkey cart and four donkeys for R1000, which solved her transport problems.

Figure 3.5: Mrs Lebidi's storeroom for storing bundles of brooms

Figure 3.6: Arrangement of bundles in the shack storeroom

Figure 3.7: Broom grass bundles

When arriving home with the harvest, Mrs Lebidi would usually unpack the bunches of grass on the floor where there was enough sunlight for the grass to dry out and be treated. Thereafter, the bunches would be taken to the huts where they were packed on top of a wooden stand to lift the grass up from the floor (Fig. 3.5, Fig. 3.6, Fig. 3.7).

Figure 3.8: Two grass brooms and three bundles of broom grass

The packed bundles were usually unpacked when Mrs Lebidi was ready to arrange the grass into brooms (Fig.3.8). According to her, one bundle made 8 to 10 brooms, depending on the size of the broom maker's fist. After treating the grass and sewing the brooms for selling, she walked around her own area first, and then around the nearby areas, selling her brooms. In the past, around 1980, brooms had been sold for as little as 2 cents each. However, at the time of the study,a broom of the same size was sold for R15. She sells the bundles for R40 each, but the stock price was decreased to R35 each when 10 bundles were bought.

Mrs Lebidi stated that the broom business, which is an important source of income, is a way of life, and she could not imagine doing anything else. She added that she has been successful ever since she entered into the business. The different pension markets made her huge sums of money. She used the money from broom sales to pay school fees and school uniforms, to pay for burial societies, and to buy groceries. The money she made was enough to support her. She had been able to build a three bedroom house with cement bricks and had also been able to pay the fees for her child at the Teaching College of Mokopane.

Mrs Lebidi explained that, prior to entering the broom trade, she had been unemployed, and had relied on her husband for an income. Not only was her life improved by entering the broom trade, but she was also fortunate enough to receive an education. In 1983 she joined an Adult Basic Education and Training (ABET) school. She harvested or went to sell in the mornings and attended ABET classes from two o'clock on Mondays, Tuesdays and Wednesdays. She found these classes very interesting and helpful, as she had been illiterate prior to attending them. The ABET classes enabled her to write her name and surname and to write in her book if people wanted credit to pay at the end of the month.

While the focus in this section was on the life of someone in the broom business, the next section is an exploration of a typical day in the life of traditional broom users.

3.3 A DAY IN THE LIFE OF A TRADITIONAL BROOM USER

In an effort to find out more about the lives of traditional broom users, the author visited Leyden village, Mokopane in Limpopo. Upon knocking on a gate at 6 o'clock in the morning, the author was welcomed with a big smile and offered a chair. The conversation started as follows Thobela". "Le kae?" "Re gona". "Ba kae, ko gae?" "Ba gona." This can be loosely translated as "Greetings, How are you? I am fine. How is everyone at home? They are all fine". The author observed the old lady who was still doing everything by herself: cleaning the hut, washing her own clothes, cooking and fetching water.

Figure 3.9: Traditional hut

The 85-year-old grandmother stayed alone in the house. She had been married, but her husband had passed away. She had five children, two girls and three boys, all married, and living at their own places. Fortunately for her, the house next door belonged to one of her sons.

Figure 3.10: Old lady making sure the fire burns

Figure 3.11 shows the old lady's brooms inside her hut. When asked where she bought her brooms, she mentioned that she sometimes joined people who went to collect the raw material. She said that when she was not happy with her broom, she just replaced the old broom with a new one. She would arrange the broom according to the size of her fist with an elastic rubber made from car tube. Sometimes the tied brooms were given to visitors as a gift to show that they were at their mother's or grandmother's place. Brooms were kept in a safe place where termites cannot reach them.

Figure 3.11: Old lady's brooms inside the hut

Figure 3.12: Lapa

She started sweeping the yard around the *lapa*. When asked why, she responded by saying that she swept her yard every day, because sweeping was a very essential part of housekeeping. When she got married her mother had given her a broom as a wedding gift. Her message had been simple, *“Mosadi ga a hlabelwe ke letšatši ka ntlong,”* meaning as a woman you are supposed to wake up early and clean. The old lady further commented that every home had different brooms for the different tasks: one to clean the inside of the house and one to clean the yard and the area outside the yard towards the street. The hard broom such as the *mohlahlaila* is used for cleaning the yard and the soft one mostly for the inside of the house and to remove the spider webs on the walls. Most of the ladies prefer to use the hard broom when they sweep under the trees.

The old lady said that she preferred to use a *mohlahlaila* broom when she swept outside, because it was strong. She explained that sweeping the yard removed the dampness. It was also expected that when you clean the yard you uproot the weeds that you come across. She continued by mentioning that her yard was always clean and when she was ill, her only worry was the cleanliness of the yard. She mostly cleaned in the morning, as it was too hot outside during the day. After cleaning, she washed her face with warm water.

Brooms function in the daily routine of the black rural homestead. Among others, it is used by women and daughters in their daily routine for cleaning the yard and the house. According to the old lady, the first thing the lady of the house picks up in the morning is the broom. It requires physical endurance to sweep an entire house or courtyard with the short broom without a stick. In the early hours of the morning, mothers and daughters wake up to start cleaning the yard. She again reminded me: *“Mosadi ga a hlabelwe ke letšatši ka ntlong”* (explained earlier). One of the other women, who also took part in the conversation, added that the reason the cleaning was done in the morning was to track and trace the snake. Most of the time, they would start by cleaning the front of the yard towards the entrance, because if they were unable to complete the cleaning, the front would at least be clean.

Sometimes cleaning the yard would take long, because, while busy sweeping, neighbours would greet and start telling stories. They would usually start by saying,

“*Le di kwele tša masa?”* meaning, “Did you hear the rumours of the early morning?” Others would pass by in the street and start greeting by saying, “*Thobela”*. Cleaning can be done throughout the day, including the afternoon. However, according to the broom maker, you are not allowed to sweep at night, because night is associated with witchcraft.

In most rural areas where they still planted mealies, the ladies would collect the mealies from the fields. Then the group of ladies from the *kgoro homestead* would assist one another to grind the mealies. However, they would still use the broom to clean afterwards. Some would work on their own and still clean the *lapa* after it was used. During the day the chickens would start to play around the *lapa,* and so, before the women start with the cooking, they would clean the *lapa* again. While sweeping, the women would sing different songs, such as wedding songs and religious songs.

Some songs were recorded:

Mainama wee wa inama mologa (You who are bent down, stand upright).
Mmagwe ke moloi wa bošego wee wa go loya batho (Her mother practices witchcraft during the night bewitching people).
Mmagwe ke moloi (Her mother is a witch).
Ke moloi wa dithuri wee wa go loya batho (She is a type of a witch who domesticates people and animals, who bewitches people).

The following are wedding songs:

Monna ga a latiwe kua bjaleng (A man cannot be disturbed and be brought home from the shebeen).
Monna ga a latiwe kua bjaleng makoti (A man cannot be disturbed and be brought home from the shebeen, daughter-in-law.
Lebitla la mosadi ke bogadi (A woman’s grave is the family into which she is married).
Borokgo ba monna ke motsetse makoti (The trousers of a man should be ironed excellently daughter-in-law.
Monna ga nyakiwe tšhelele makoti (You cannot demand a salary from a man, daughter-in-law.

Swiela swiela ngwanyana o se jele matlakaleng. (Sweep, sweep little girl so that you may not eat in an unclean place).
Mmatswale ke tšhobolo ya mosadi swiela ngwanyana o se jele matlakaleng. (Your mother-in-law is a rude woman, sweep little girl so that you may not eat in an unclean place).
Nkase nyalwe Bopedi; ke tšhaba tšhilo le lwala Selina wee. Selina wee. (I cannot be married in the North; I am scared of the rock (used for grinding) and stone, you Selina.

All of these songs seem to belittle women and glorify men; hence, they are patriarchal and chauvinist in nature. This shows how domestic activity within the African culture abounds with patriarchy. People have become used to singing these songs at weddings and social gatherings without scrutinising and analysing what they mean.

Yet, religious songs can also be sung while sweeping:

\Modimo ga a le gona ga go na mathata (Where God is present, there are no problems).

While singing, a baby is often tied on the back with a blanket. Sometimes the baby will cry because of being tired or wanting to play on the floor. According to the broom maker, boys and men were not allowed to sweep.

In both rural and urban areas, most homes still use brooms to clean. However, the broom maker interviewed explained that the purpose of the broom was not only to clean, but also to decorate and sprinkle traditional medicine. The broom occupies a special place in the lives of the African people and, as such, is considered a sacred utility.

3.4 THE TANGIBLE AND INTANGIBLE CHARACTERISTICS OF THE *ATHRIXIA PHYLICOIDES* BROOM

According to some classifications, such as our own heritage legislation adopted by UNESCO, human material culture is divided into tangible and intangible components. As with all artefacts in the heritage domain, brooms have both tangible and intangible

characteristics. This section is directed towards the tangible and intangible cultural heritage of brooms within the domestic domain.

For centuries, brooms have been used for cleaning houses, ovens, fireplaces, yards, streets, as ritual tools, and for some special functions. The main function of the broom is to sweep to ensure cleanliness of homes and surroundings. However, brooms are gender specific in African culture, as men do not use brooms

Broom makers have indicated that brooms were very important household utensils. To them it was almost impossible to imagine a house without a broom. It was a daily necessity. According to customers and broom makers who were interviewed, a broom also has a symbolic function in the cultures of the people of Marabastad and Denneboom. In the past brooms were given as presents and were not used to generate income or for individual benefit. Moreover, brooms are used in many traditions as instruments to perform cleansing or purifying rituals. Brooms are part of the cultural heritage.

Tangible and intangible heritage allows one to interpret, understand and connect individuals with their environment. Dasgupta (2011:58) indicated that norms, values, beliefs and customs existed within a society and constituted the intangible part of a culture, all of which have a tendency to remain the same.

This study will focus on the characteristics of the household broom, both the ‘intangible,’ as rooted in orality, and the ‘tangible’, as cultural material. According to Van Vuuren (2008:15), an understanding of orality and oral tradition acts as the main vehicle for the intangible part. The broom has a lengthy and complex history of folklore, legend and mystery behind it. Brooms are associated with all kinds of legend and folklore, including the popular notion that witches fly around on brooms at night. In folklore, a broom is associated with many well-known fictional child characters, such as *Liewe Heksie* (Afrikaans for ‘Beloved Little Witch’). J. K. Rowling produced a series of novels and movies built around a character, Harry Potter, whose major skill as a wizard is flying the broom. Such fictitious portrayals have encouraged the folklore idea that brooms can be used to fly.

Folklore and stories, such as those claiming that witches fly around on brooms at night and use brooms to their own benefit, helped to instil fear of violating the rules. In most rural areas the broom has become a source of folklore. Broom makers stated that people knew that they needed to understand their environment well to be able to foretell and cope with the occurrence of natural hazards. Elders undertook the responsibilities of guiding the people on what actions to take to prevent harm. The folklore tales of the broom shows the broom's importance in people's daily customs and its position in their lives.

According to the broom makers, the intangible domain of the broom was an invaluable means of communicating within the living environments of the communities. Different African societies use figurative language to pass on knowledge, as well as cultural and social values, in the form of proverbs, metaphors, myths, legends and beliefs.

All of these are embedded in language and ensure the survival of communities and their cultural heritage. Northern Sotho, for instance, contains many proverbs and metaphors which refer to brooms. Climo and Cattell (2002:8) reported that memory plays an influential role in anthropological research. The role played by proverbs is therefore crucial in keeping cultures alive. Proverbs can teach one how to be tactful in dealing with others, based on the historic experiences of one's predecessors.

According to the broom makers interviewed, the Northern Sotho culture and the proverbs they use, formed an integral part of indigenous knowledge codes of conduct, addressing all aspects of the community, including their economic, social and psychological environment.

The following are some of the proverbs associated with brooms:

"Go fsielela ditšhoši mollong." (Rakoma, 1986:27). To sweep the ants into the fire.
"Go fenya manaba ka go ba bolaya goba go ba nyamiša ka bontši bja bona". To defeat enemies by killing them and to discourage them in their numbers.
Lefsielo le wetše makekeng." (Rakoma, 1986:147) The broom landed among the termites.

“Lenaba le wetše tlaišegong gobane bao e lego kgale ba le tsoma gomme ba le hloka, lehono ba le swere gore ba le hlokofatše”. The enemy has fallen in trouble because all those that have been hunting him have found him today to hurt him.

There are also taboos attached to the use of brooms. According to the participants, when anything is forbidden to be eaten, made use of, or not allowed to be done, they say that is a taboo, which is called *diila* in their language.

What may be a taboo in one culture may not be so in another culture. One of the broom makers stated that old people have always had some ways, structured or unstructured, of creating and maintaining social order in their communities. They made use of taboos, which were laws, rules or regulations, designed to guide and ensure stability and understanding among people in the community. The broom maker believed that without those guides there would be misunderstanding and disrespect among various communities. One of the old broom makers mentioned that the important words that stood out in the taboo were, *“O se ke wa”* (meaning “do not”).

3.4.1 Taboos attached to brooms

The tradition of taboos (*diila)* has been common in many African societies for many years. Mawere and Kadenge (2010:29) stated that, while taboos varied from one society to another, the purposes of observing them were generally the same. Communities saved them as indigenous value, knowledge systems and beliefs that helped in preserving the natural environment, peace, order, stability and the integrity of African societal structures.

Bozongwana (1983) considered taboos as part of the Zimbabwe Ndebele religion. He grouped the taboos according to the different people they affected. He stated that there are taboos that affect only children, women, and men. There were also those that were general in nature. Gelfand (1979:138) grouped taboos into six categories according to themes, namely those that talk about living in the correct way, successful pregnancy, and avoidance of danger, good behaviour, healthy living, and those conveying religious teachings.

Gelfand (1979:56) commented that some of the consequences of taboos were believed by everyone, which successfully enforced avoidance, while others were empty threats, employed to discipline the children. However, in many African societies, taboos are being phased out, and will disappear soon, but with serious social consequences. According to the broom makers, they had been guided by taboos in the past, but things have changed.

Meade (1930:17) supported this and stated that the motive sentiment of taboos was the same, in that the things they referred to should not be done at all. Although in some traditional beliefs, indigenous knowledge systems and practices still prevail, many of these highly valued indigenous knowledge systems have failed to stand the test of time. One of the indigenous knowledge systems that have suffered these unfortunate changes is taboos. According to the Northern Sotho broom maker, their culture tended to prioritise the modern way of doing things at the expense of their indigenous values and beliefs.

There were several specific taboos that were mentioned by broom makers and customers that are connected with the use of brooms. A few examples follow:

"O se ke wa tlogela leswielo ka ntle bošego."

(Do not leave the broom outside at night.) Brooms were associated with witchcraft. One of the broom makers who were interviewed believed that if the broom was left outside, the witches could take it and use it for their own purposes and return it with bad luck to the family. For instance, if they wanted the user of the broom not to bear children, they could use the broom to cast a spell on her; her hands could start to be painful; or the family could start to fight among themselves. Therefore, they tried to limit the danger, as you cannot see clearly at night.

"O se ke wa swielela ditlakala ka ntle bošego."

(Do not sweep out dirty things to the outside at night.) This belief was also associated with witchcraft, as mentioned by the broom maker who believed that since witches operate at night, they might see you sweep at night and collect your dirt and use it against you.

“O se ke wa adimana ka leswielo.”

(Do not lend a broom to anyone else.) According to the broom maker, you were not allowed to lend your broom to anybody, because lending of the brooms was believed to enable witches to have access to the family and the house. According to some of the broom makers in Denneboom and Marabastad, there were cultural beliefs among their societies, like calling traditional healers to protect the house with medicines. It was believed that if someone had access to your broom, they could prevent your medicine to protect you.

“O se ke wa emiša leswielo ge o le bea.”

*(*The broom must be laid down.) The broom maker mentioned that you were not supposed to put the broom vertical to the floor, because it would break and cause you bad luck.

“O se ke wa bea leswielo mo dihlogong ge o robetše.”

(Do not put the broom next to your pillow while sleeping.) The broom maker explained that if you put the broom next to your head when asleep, you would have nightmares.

“O se ke wa swiela ntlo ge go na le setopo ka gae.”

*(*Do not sweep if there is a corpse in the house.) Broom makers explained that you should never sweep a house while there is a corpse inside, because if you did, you allowed the witches to take the spirit of the dead person.

“O se ke wa betha monna ka leswielo.”

*(*Do not use a broom to beat a man.) To beat a man with a broom was regarded as bad luck, since that man would not be able to find a wife.

“O se ke wa betha ngwana wa mošemane ka leswielo.”

*(*Do not use a broom to beat a boy.) It was believed that a boy who was beaten with a broom will end up being stupid.

3.4.2 Beliefs associated with brooms

Broom makers at Denneboom and Marabastad, revealed the following beliefs:

> *"Ge ngwana a bipetšwe motho yo mogolo o tšea leswielo a mo swiela mo dimpeng."*

*(*When a small child is bloated, the elders take a broom and brush the child on the tummy and the child will be relieved.) As a result, the baby will stop crying and start to play or sleep peacefully.

> *"Ge ngwana wa mosetsana a etšwa ditlolamelora ba tšea leswielo ba di swiela gore di boele."*

(When a young girl is blossoming and beginning to grow breasts, a broom is used to brush the chest of the young girl to delay the growing of the breasts.) According to the broom maker, if you keep on brushing, that will delay the puberty stage.

> *"Leswielo le šomišwa ke baloi go fofa bošego."*

*(*A broom is used by witches to fly during the night.) It is believed that witches use a traditional broom to carry out evil deeds in faraway places. It was interesting to find out that the old western idea of brooms being used by witches is similar to the belief in Africa. One of the broom makers mentioned that most of the people have brooms in their homes, in both rural and urban areas, whether they are witches or not. The broom maker mentioned that witches go about their activities at night, when they cannot be seen by anyone, and enter the homes of people to bewitch them.

> "*Ge go na le monyanya, leswielo le a thathantšhwa la hlakantšhwa le moroko wa bjala ba gaša ka gae gore batho ba thakgale go be le khutšo ntle le diphapano. Tše ka moka di dirwa gore batho ba se ke ba ba le dikgogakgogano le mašata ka letšatši la mokete."*

(During wedding ceremonies, they break the broom into small pieces and mix them with sorghum beer remnants (*moroko)* and sprinkle the mixture around the whole yard.) It was the belief that the mixture would make people happy and people would

work in harmony. The broom maker mentioned that the broom and the traditional healer would be used to combine the good spirits.

The beliefs mentioned above are part of the intangible heritage context of brooms such as *Athrixia phylicoides* or *mohlahlaila.* These beliefs show us the usage and symbolic meaning beyond the everyday, mundane value of the broom as a domestic utensil.

3.4.3 Usage of brooms in the homestead

Brooms are seen as household symbols by many people. Traditional grass brooms keep certain cultural practices alive in urban areas and provide rural people with a means to earn an income. The three main cultural uses of grass brooms are as follows: They are used as a traditional wedding gift, as a protective house guard against lightning, and as an implement for the application of traditional protective medicine. It is used in many traditions as a method of cleansing or purifying a yard.

Customers who bought a broom for cultural purposes indicated that the presence of the small broom served to protect the inhabitants from lightning, most often attributed to witchcraft. A broom purchased for this purpose is not used for cleaning, but is hung above the door as a talisman. The grass broom is also used to apply protective medicines in and around the homestead. The ritual in which an infusion of various plant materials is splashed or sprayed on the floor, walls and roof is called strengthening or protecting the house against witchcraft (*"go thekga motse"*)*.* The ritual cleansing and purification ensure the good health and prosperity of the inhabitants.

According to two broom makers, all the members of the family are expected to be at home during and after the process of *"go thekga motse".* Nobody is allowed to go outside for that night*. "Go thekga motse"* normally happens at night, because the medicines are supposed to fight off witches. According to the herbalist, *mohlahlaila* and *mpepa* (*Helichrysum petiolatum*) are mixed and burnt during the process of *"go thekga motse".* He added that the yard is not supposed to be cleaned the following day. The brooms that are used at home as objects of belief have special places in the home. According to the broom makers, they sell *Mpepa* and brooms to be used in the

ritual of burning sacred medicine plants by herbalists. One broom maker mentioned that during the process of "*go thekga motse*", others break the broom into small pieces, mix the pieces with other medicines, and sprinkle the mixture around the whole yard in order to protect the household members against witchcraft.

Mohlahlaila brooms and grass brooms are traditionally presented to the bridal couple as a gift. Broom makers at Denneboom and Marabastad mentioned that brooms are often given as a wedding gift, symbolising that the bride now has her own house to clean. The bride's family traditionally give the broom to the bride to continue cleaning at her new family's home. They also explained that as a bride (*"ngwetši"* or *"makoti")* you are expected to wake up early in the morning to clean the yard. Sweeping with the broom could be viewed as signifying the beginning of homemaking for a new wife.

In most black South African cultures, the bride's family selects some family members among themselves to accompany the bride and hand her over to the in-laws during the wedding. The following morning, after the wedding, the family members accompanying the bride would normally sweep the yard as a symbol of pride to indicate the bride's chores in her new family. These sentiments were also indicated in a study by Mönnig (1967:136).

One of the broom makers mentioned that she preferred the *mohlahlaila* broom over the hard grass brooms for outdoor purposes, since they are strong and sweep better outside. She also uses it to sweep the fallen dry leaves under the trees in her yard, which is done daily. In African society, the daily chores start with women waking up early in the morning to sweep the yard. The broom makers mentioned that they received a broom as a gift at their own weddings and were upholding the custom. The broom is symbolic of traditional Northern Sotho culture and represents respect to the bride's home, because the women are expected to know cleanliness.

Broom makers were of the opinion that, in the past, all the communities practiced nature conservation by using transferred knowledge, know-how, as well as rules, prohibitions and taboos. The communities conserved plants by harvesting them in a manner that allowed them to regenerate. There were taboos and restrictions on the gathering of plants, which was limited to some degree to the harvesting of plant

resources. The example of grass brooms shows that the use of wild harvested plant products is not restricted to rural utilisation only, but that it is an important element in the performance and conservation of cultural practices and traditions for both rural and urban people.

Many traditional cultural practices are still significant, even in highly urbanised, contemporary settings. According to the National Agricultural Directory (2011:22), the rural-urban continuum in South Africa indicated that the level of interdependence between rural areas and large cities is higher than anywhere else in the world. Cocks, *et al.,* (2004:160) suggested that there are variables such as family origin, economic status, level of education and age that influence the complex extent to which urban people still adhere to cultural practices.

It is clear that discarding indigenous knowledge can have a negative effect. Indigenous knowledge has made it possible for the Northern Sotho people to live in harmony with their environment for generations. The Northern Sotho people's knowledge was based on and was deeply embedded in their experience and historical reality. Some of the broom makers believed that there might be different versions of every taboo, because as people told them over and over again, things might have gradually changed. They might have left something out, added a new bit, or changed things to make them easier to understand. In most cases, the moral of the story stays the same and the stories give us important messages about the past.

3.5 TANGIBLE COMPONENTS OF BROOMS

Brooms in the domestic domain are viewed differently in modern time. In the past, as mentioned before, brooms were given as gifts and were not used for selling.

Museums have collected brooms in the course of the old paradigm vis-à-vis the new paradigm. Brooms from different cultural areas in South Africa have been identified since 1935 and displayed at the Pioneer Museum in Pretoria. In most cases, the material used for brooms are called plant material and is not classified. The preservation processes is quite interesting. For the sake of preservation, the researcher was only allowed to handle the brooms with gloves as the brooms were old

and fragile. Different brooms from different cultural areas were displayed on the museum shelves, with their specific names presented in the various indigenous languages. Among the numerous brooms that had been displayed in the museum, the researcher focused on only 46 different kinds of brooms to narrow the scope of the research.

The Northern Sotho brooms displayed in Figure 3.13 were collected from different areas in Limpopo, including Letaba, Ga-Sekororo, Tzaneen, Duiwelskloof, Sekhukhuneland and Ga-Marišana. The different brooms demonstrate the cultural diversity within the group of Northern Sotho speaking people. Figure 3.13 clearly shows that the brooms had been arranged differently, which confirms that different socio-cultural environments had influenced the choice of the type of broom.

Figure 3.13: Brooms from the Northern Sotho people displayed at the Pioneer Museum collected from the Tzaneen (A), Ga-Sekororo (B) and Bolobedu (C) districts.

Some brooms in the museum were collected from Mtunzini District in Zululand (Fig. 3.14). The brooms collected from the same district had a similar arrangement for similar types of brooms. Wider and shorter brooms are weaved differently. The other type of broom that is longer and beaded demonstrates the different patterns that were adopted by the broom makers.

Figure 3.14 Three differently prepared Zulu brooms that were collected from the Mtunzini District. The brooms are displayed at the Pioneer Museum.

Some brooms were collected from Tambokhulu in a Swazi speaking area in Mpumalanga. Four different types of brooms were collected. The different brooms were arranged differently. The softer brooms are longer and they have been weaved differently, depending on the volume of the broom. Shorter brooms are harder and the type of material used is also different, as indicated in Figure 3.15 below.

Figure 3.15: Three differently prepared Swazi brooms that were collected from the Tambokhulu. The brooms are displayed at the Pioneer Museum.

Brooms were also collected from Botswana (Fig. 3.16). The brooms exhibited in the museum were arranged simply, with no weaving, just tied together by Motsikiri grass. This type of broom is similar to the ones that are currently available at the Marabastad market.

Figure 3.16: The two brooms were collected from Botswana. The brooms are displayed at the Pioneer Museum.

Some brooms originate from Kwa-Ndebele (Fig 3.17, Fig. 3.18), Elandsfontein, Bronkhorstspruit and Wolwekraal. The Ndebele brooms are woven with beads at their stems. They demonstrate that the broom maker took pride in the assemblage of the broom. The colourfully arranged broom stems have strings that enable them to be hung on the wall. The artistic nature of the broom is expressed in each one. This artful way of assembling the broom clearly suggests that it serves an important purpose other than just to sweep the floor. According to Van Vuuren (2008:21), the Ndebele

people of South Africa have captivated the world with their specific style of mural art and bead work.

Figure 3.17: Three differently decorated Ndebele brooms that were collected from Kwa-Ndebele. The brooms exhibit different styles of beading works. They are displayed at the Pioneer Museum.

The *mohlahlaila* broom arranged by the Ndebele broom makers is not decorated at the stem (Fig.3.18). However, the stem is arranged in a unique way, tied in two distinct areas. In addition, the hardness of the material used makes it possible for the broom maker to arrange it in a way that appears to have a slightly longer stem that can provide a firm grip.

Figure 3.18: The Ndebele *Athrixia phylicoides* brooms that were collected from Kwa-Ndebele. The broom is displayed at the Pioneer Museum.

Some brooms were collected from the Abathembu region in the Eastern Cape. The three different brooms illustrated in Figure 3.19 have been woven differently, which

reflects a form of indigenous art from the Mgandulu District. The different sizes of the brooms could also indicate different purposes.

Figure 3.19: Three differently prepared Xhosa brooms collected from the Thembu clan. The brooms are displayed at the Pioneer Museum.

The older brooms displayed at the museum were collected in 1935 from the Pondos in Pondoland, Zululand, as well as from the Tsongas (from the Tonga and Ronga groups) (Fig. 3.20). What these brooms have in common is that they were not made from grass.

A

B

C

Figure 3.20: **Three similar brooms acquired from the Pondos (C) and Tsongas (from Ronga (A) and Tonga (B) groups). The brooms are displayed at the Pioneer Museum.**

Brooms are traditionally called various names by different ethnic groups, such as *"leswielo"* (Northern Sotho), *"Mtsayelo"* (Xhosa), *"Umtshayelo"* (Swazi), *"Ishanelo"* (Zulu), "*Umthanyelo"* (Ndebele).

It was interesting to notice that before 1970, there were no prices on the brooms. This supported the information presented by broom makers that in the past brooms were not for sale, but given as gifts. Prices range between 10c and R4.00 per broom from 1970 to 2000. In 1971, the Pioneer Museum bought a broom from Swazi women for 15c. In 1978, a broom was bought from Ndebele women in Cullinan around Tshwane for R1.00. In 1982, 34 cm and 110 cm brooms were bought from Sekhukhuneland for R1.00 and R3.00 respectively. Looking at the price differences, one can conclude by saying the market was not yet recognised in those years. In 2009, a broom was bought for R4.00 in Kwa-Ndebele.

Looking at the aesthetic aspects of brooms, one can say they have become pieces of art. Beads, wool, and tree bark were used to tie brooms together. Unfortunately the skill applied for the broom making craft is disappearing as now people simply use car wheel tubes to tie the brooms. According to most of the old broom makers, the brooms have lost their pivotal role in daily lives. The realities of life are the loss of the specific tasks women used to perform in the past.

3.6 *ATHRIXIA PHYLICOIDES* AS A BROOM

Numerous studies have indicated that handcrafted brooms are mainly used in rural areas in South Africa (Cocks & Dold, 2004a:34; Shackleton, 2005:34). According to Van Vuuren (1983:213), Ndebele brooms *("imithanyelo"),* including the *Athrixia phylicoides* type, are used in the cooking enclosure and stored in the thatched roof. *Mohlahlaila* is one of many plants a broom can be made from. There are two types of traditional brooms, namely soft brooms and hard brooms. As mentioned before, soft brooms are used for sweeping indoors, while *Mohlahlaila* brooms are used for outdoor cleaning, because of their hardness.

Brooms are among the most widely traded natural resource products used by rural households, with most households purchasing these items rather than making their own. Almost all traditional broom users interviewed at the Marabastad and Denneboom markets use traditional brooms purchased from the broom makers. *Mohlahlaila* is well known by the people in Marabastad and Denneboom. Notably, the use of *mohlahlaila* brooms has spread to the urban area with the migration of people from the rural areas. The use of the plant as a broom seems common, since 40% of the participants in Marabastad and Denneboom use *mohlahlaila* brooms.

The participants who use the brooms themselves generally indicated that more than half of people in their community use them. On the other hand, the respondents who do not use the brooms tended to indicate that only a few people use the brooms. Eighty (80) people were interviewed while they were buying brooms in Marabastad and Denneboom. Of these, 80% of the grass broom buyers were women, 20% of whom purchased brooms for cultural purposes. Furthermore, 80% indicated they used

the *mohlahlaila* broom for cleaning purposes, as it was considered to be more effective than commercially available brooms. Some participants have indicated that it makes too much dust and they are suitable for outside use only.

The broom makers added that in the past they were able to trace the thief if the yard was well swept with a *mohlahlaila* broom and also be able to track the snake or any animal that visited the homestead at night or during the day while they were in the fields.

In the next section the harvesting practices of broom makers will be explored.

3.7 HARVESTING PRACTICES

Most broom makers at Marabastad and Denneboom harvested their own raw material, while a few hired other people to harvest for them. The preferred method, however, was to harvest the raw material themselves, as it was considered to be cheaper. In most cases, harvesting takes place in bushes and mountainous areas. Therefore it is generally safer to be accompanied. Furthermore, harvesting is generally undertaken in groups, as in most cases the harvesting area is far from where they live and they have to travel over big distances. Some broom makers mentioned that they take along their children, cousins, friends or other broom makers to the harvesting areas. Due to global migrations, there are many new faces in the villages nowadays, compared to the past where they knew most of the people and everybody worked together.

Two broom makers at Marabastad mentioned that they sometimes accompanied each other to collect raw material at the Magaliesberg Mountain range in Tshwane West, next to Tshwane West Hospital. Other broom makers added that when they were accompanied by family members, the benefit increased, because they were able to collect more. Two broom makers mentioned that they did not need to be accompanied by many people, as they used donkey carts to collect. They went to the bushes or mountains for harvesting two days prior to collection and on the third day they would have enough to be taken home on donkey carts.

A few broom makers mentioned that before collecting at their villages, they had to obtain permission from chiefs, while others mentioned that they did not need to ask for permission, as it depended on the areas and the rules of that particular community. Others mentioned that their family members worked on farms, and they could visit and harvest from those farms.

According to the broom makers in Marabastad and Denneboom, they took care not to damage the plant during harvesting. However, one broom maker mentioned that most of the people followed the more destructive harvesting method, indicating that branches were broken or cut off when collecting material to make brooms.

Unfortunately, the whole plant is sometimes uprooted because it is less time consuming and the lower leafless parts of the branches make ideal handles for the broom. Figure 3.21 shows the underground parts of the plant attached to *mohlahlaila.* Some broom makers consider obtaining plant material in this manner to have negative repercussions for the continued availability and survival of the plant.

Figure 3.21: Uprooted *mohlahlaila* plant that is not cut at the stems

In terms of the availability of *Mohlahlaila* in the harvesting areas, the broom makers at Denneboom and Marabastad felt that it was adequate, because the plants sprouted again after cutting and produced a full harvestable broom by the next season. Others believed there was going to be a shortage because of the high rate of harvesting. There were, for instance, too many collectors from outside areas that did not stay in

their areas. Burning the areas before harvesting also created serious problems. Some of the broom makers mentioned that some plants were becoming scarce. They suggested that the reason was people who were not familiar with proper harvesting techniques. Others thought that some plants became scarce because of drought.

Figure 3.22: ***Mohlahlaila* straws being arranged to form a broom.**

The rate at which the plant was being collected from the wild indicated that there was considerable demand for *mohlahlaila* brooms in both urban and rural areas. Broom makers indicated that plants tended to be dispersed rather than clumped and often harvesters needed to walk quite long distances between plants during harvesting. The broom maker, who harvested at the Magaliesberg Mountain range in Pretoria West, explained that they harvested the plant while it was young. Broom makers mentioned that there were very few areas where *mohlahlaila* brooms grew in cultivated areas where there were restrictions. In most areas, harvesting was generally accessible to all members of the rural and urban communities as there were no restrictions.

According to the broom makers interviewed at Marabastad and Denneboom, there was pressure on the availability of the grass brooms and *mohlahlaila* brooms for harvesting, as people were also burning areas without good reason and cutting *mohlahlaila* before their actual "ripening" stage.

3.8 COLLECTING OF THE *MOHLAHLAILA* PLANT

One of the broom makers interviewed indicated that collectors in the Pretoria area usually collected the plant at the Mogale Mountain (indigenous name for the Magaliesberg Mountain). This area is dry and, like the harvesters from the rural areas, they harvest the plant while it is still young (Fig. 3.23). The broom maker indicated that because of the dry conditions and the frequency of collection in this area, the plant was not given the opportunity to grow large before harvesting.

Figure 3.23: The broom maker harvesting the young plant of *Athrixia elata* in order to prepare a *mohlahlaila* broom for sale at the Mogale Mountain range.

Figure 3.24: ***Athrixia elata,*** **Magaliesberg Mountain Pretoria West**

Athrixia elata (Fig. 3.24) is a closely related species to *Athrixia phylicoides,* with narrow, linear leaves. *Athrixia elata* has medicinal uses similar to *Athrixia phylicoides* and is also used as a tea and broom (Van Wyk & Gericke, 2000:56).

The plant is green immediately after harvesting (Fig.3.25). Broom makers arrange them at the storage areas, ensuring that they are exposed to the sun to enable the plant to dry. This is when the plant turns brown in colour (Fig. 3.26).

Figure 3.25: The freshly harvested green *mohlahlaila* plant extract

Figure 3.26: Plant arranged in the sun to dry where they eventually turn brown in colour. These plant extracts are usually stored away to protect them from rain at night as well as during bad weather.

3.9 ASSEMBLAGE OF *MOHLAHLAILA* BROOMS

The assemblages of traditional brooms are important, for the proper interpretation of the different activities in each part. Collecting the harvested material and taking it home sometimes presented a challenge. Some broom makers from the city used the following method: Once they had collected the leaves and twigs from the mountainous areas during autumn and early winter, large bundles were wrapped and tied in a sack and then taken home where the material was placed in a dry place (Fig 3.27). Wrapping the raw material in the sack made it easier for transportation to the cities, either by the taxi, bus or train. One of the broom makers mentioned that to transport the brooms and raw material from Tzaneen, Limpopo, to Marabastad, Tshwane, she used her cousin's truck every month. The transport fee was between R200.00 and R250.00.

Broom makers collecting in the mountains near their villages would collect a few times per month, as opposed to those who mentioned that they used donkey carts for transport. They collected twice per month. Those who collected near their homes would have enough to take along to Denneboom and Marabastad. Broom makers who could not afford the transport fees, shared their harvest with the truck owner who provided the transport, agreeing that the first load is for the truck owner and the second load is for the broom maker. Others mentioned that they made various other arrangements to pay for transport.

Figure 3.27: A bunch of *mohlahlaila* straws wrapped up before being arranged and tied into a broom. This picture was taken at Marabastad, Tshwane.

Harvested grass was assembled in the following way: The long branches were cut from the bushes and the leaves removed. The ends of bundles of branches were bound together to make a comfortable handle, the size of a fist, with a rubber band, cut and prepared from a tyre, as shown in Figure 3.28. Others bound the brooms with a wire or cloth. The finished product was also tied with a rope around it to enable easy packaging of the broom. This was considered to be necessary, particularly for *mohlahlaila* brooms, as opposed to grass brooms that could easily be packed without being tied again (Fig. 3.29). The broom stems were sometimes also covered with plastic to increase the comfort hold.

The Marabastad and Denneboom broom makers were observed selling these brooms at prices ranging from R15.00 to R25.00. During peak trading season Giyani broom makers have been indicated to sometimes build their stocks to between 400 to 1000 brooms (Shackleton & Campbell, 2007). Rampedi & Olivier (2005) warned that this could lead to over-exploitation. In some areas in Limpopo, such as Wolkberg, the locals complained about unsustainable harvesting practices by “foreign pickers” who uproot the plants rather than carefully cutting the shoots.

Figure 3.28: ***Mohlahlaila*** **brooms being arranged to be tied with rubber bands prepared out of a tyre tube. The green arrows show the black rubber bands and the green circle identifies where the broom will be bound.**

Figure 3.29: ***Mohlahlaila*** **brooms on the left, displayed along with grass broom*.* The** ***mohlahlaila*** **brooms are further tied with a blue rope for ease of packaging for the customers. The stems are also covered with plastic for comfort.**

The example of the *mohlahlaila* brooms shows that the use of wild harvested plant products is not restricted to rural utilitarian use, but is an important element in the performance and conservation of cultural practices and traditions for both rural and urban people. Many traditional cultural practices are still significant, even in highly urbanised, contemporary settings.

The demand for grass brooms in urban areas provides an opportunity for people living in disadvantaged areas, such as the former homelands, to generate an income. A large proportion of the population of Marabastad is unemployed and relies on welfare payments or on selling their products. The five broom makers who were interviewed in Marabastad as well as the four who were interviewed in Denneboom indicated that the trade value of grass brooms to producers in these areas is significant (Fig. 3.30, weaving of brooms).

In addition to walking around the market place, broom makers also sell their brooms at the pension pay out markets, door-to-door, as well as at vending stalls. Broom makers at both Marabastad and Denneboom mentioned that they sold brooms at their own pension market, because it was easy. They did not sell at nearby surrounding pension areas. One of the broom makers mentioned that her cousin and other broom sellers

toured around and sold brooms at different pension market villages. They hired transport (donkey carts) to take them to those villages. According to the broom makers, donkey carts were cheaper than a one-ton-truck. One lady mentioned that she paid her cousin R100.00 per week for transport, no matter how many trips she made per week.

Another broom maker who sold at Denneboom said that she made enough brooms to take along as well as to leave at home for the children to continue selling door-to-door on weekends and after school. They tended to make more money from door-to-door sales than they would if they waited at home for customers to approach them. Sometimes she would also share the brooms among the family members around the nearby villages to assist her in selling. She realised that the more effort she put into the selling of brooms, the better the income.

Shackleton & Campbell (2007:256) suggested that the trade in brooms was expanding because of the greater demand on cash earnings as households became part of the market economy. Broom makers explained with pride that the opportunity of selling brooms provided them with a stable income every month. They could rely on it for their daily needs.

3.10 OTHER GRASS BROOMS *(LESWIELO LA MABJANG)*

Van Oudtshoorn (2012:10) said that grass represents different things to different people. In addition, Van Oudtshoorn (2012:14) indicated that a large number of utility articles, such as brooms, have been made from grass for many centuries and they are still popular today. Different types of grass are used by different cultural groups for making grass brooms, e.g. *Aristida junciformis subsp*, *Triraphis andropogonoides lefielo* (needle grass), *Eragrostis gummiflua kgitapoho* (gum grass), *Aristida scabrivalvis* seloka ("besemgras"), *Xerophyta villosa thutse* ("bobbejaanstert") and *Pogonarthria squarrosa lefieloane* (cross grass).

Most of the broom makers sell *mohlahlaila* as well as grass brooms. Bundles are prepared in the same way as *mohlahlaila.* Grass brooms are sometimes weaved at the stems, whereas *mohlahlaila* is commonly tied at the stem with either wire or a rubber

band. They are normally sold at the same price. The grass broom mainly provides a softer alternative to *mohlahlaila*. According to broom makers, grass brooms should be cut while the leaves are still fresh and green. By July the plants are generally too dry and begin to yellow. Grass brooms are harvested from about February/March until June. Broom makers mentioned that they normally collected enough so that when the dry season came they had stock.

Another difference between *mohlahlaila* and grass brooms is that *mohlahlaila* is uprooted while grass brooms are cut out. One broom maker mentioned that she used the sickle to cut the grass tufts, rather than uprooting. One of the broom makers also explained that the uprooting of the whole plant is considered faster and easier and the knob-like roots make a handy handle for the broom.

Figure 3.30: A broom maker is weaving stems of grass brooms

One of the broom makers who offered information was Mrs Nala, a widowed Ndebele trader with four children (three boys and one girl) from Kameeldrift, Mpumalanga. She has never been to school. She is probably between the ages of 60 and 70, though she does not know her age. ("I forgot my ID at home," she said). She had learned the trade way back when she used to harvest brooms with her mother for cleaning purposes. After she had come back from harvesting, her mother would show her how to treat the grass and sew the brooms. Mrs Nala mentioned that her aunt introduced her to the Marabastad market. She collected raw material at home and travelled by bus every day, Monday to Friday, to the Marabastad market. The reason she travelled only on weekdays was that she attended to family matters over weekends.

In addition to her broom making income, she receives the monthly government pension. When she started selling brooms, she found that she was able to sell everything for the day during her first week. That motivated her to be serious about the business. She decided to carry on, and since then she has not looked back. Mrs Nala usually wakes up early in the morning, around 4 o'clock in summer, to go to the mountains for harvesting with friends. As it is darker in winter they leave a bit later, at around 6:00-6:30.

Mrs Nala rents a small store room at the junction of Boom and Bloed Streets where she keeps her brooms when she goes home from the market every day. She pays R30 per month for this room. She earns her living making brooms and, as mentioned before, still harvests in the area where she lives. Mrs Nala uses the money she makes to buy school uniforms and food and pays her burial societies. In the past she used to pay school fees for her grandchildren as well. She said that her three boys were unemployed, but when they received money they refused to support her. That is the reason why she has to earn an income through the selling of brooms. She also needs money to buy food at the market, as she leaves home early in the morning and it is not always possible for her to pack food for the day.

According to the broom maker, the sales are better towards month-end. Ndebele people might place an order for 10 brooms at a time for their weddings, but unfortunately it happens sometimes that they never collect their brooms, which would be a big disappointment. Mrs Nala normally sells an average of 2 to 4 brooms per day and around month-end an average of 6 per day. She earns less than R150.00 per week, although that fluctuates, especially from December to January, the worst months for business in the market: "During December people will tell you about holidays and during January about school fees and school uniform." Mrs Nala still walks around the Marabastad area – even though she has a stall – shouting *"fielo"*.

Another broom maker, Mrs Mashano, is a widowed Northern Sotho trader with five children from Groblersdal, Limpopo. She received formal education only up to Standard 1 and she is between the ages of 50 and 59 years. She had been a domestic worker before, but after the death of her mother she started selling brooms. Mrs

Mashano harvests *mohlahlaila* brooms by herself from the mountains near her home. She identifies the plant by its habitats. She reported as follows: "When I grew up my grandmother used it as a broom, tea and medicine and sometimes I would go with her to the mountains to pick it. If I remember well during the April month, *mohlahlaila* is green and it turns brown during May". She mentioned that the best period to harvest was winter, because then the plant was dry. According to her, they were not allowed to cut *mohlahlaila* and other plants during spring, because it was one of the taboos *(diila)* in their village.

Mrs Mashano explained that the long branches are cut from the bushes and the leaves are removed. The ends of the bundles of branches are bound together with cloth to make a comfortable handle. The uprooting of the whole plant is considered faster, easier and the knob-like roots make a handy handle for the broom. She uses her fist to measure the size of the broom. The way Mrs Mashano makes the broom is similar to the way Mrs Nala does it.

Mrs Mashano continued, saying the following: "I am also selling *leswielo la mabjang*" grass brooms, *Festuca Costata*". She also mentioned that grass brooms were different from *mohlahlaila* brooms because they should be cut while the leaves are still fresh and green. The plants were too dry by July and they start to yellow. It is harvested from February/March until June. According to Mrs Mashano, she collects enough so that during the dry period she has "something at home". Mrs Mashano uses her hut to store the material to avoid worries during rainy seasons. The bundles are prepared the same way as *mohlahlaila.* However, she does not uproot the plant as she uses a sickle to cut the grass tufts. Her broom prices are also the same as those of Mrs Nala. "The process for making grass brooms does not take long and sometimes I make brooms without any assistance. Sometimes, my children assist with the hammering and soaking of the grass while I make the brooms. In this way, I will make enough in a month to go and sell. To participate in the broom selling, I learnt mainly from friends, family and neighbours; for most people around where I stay there is no school for broom making."

According to the broom sellers, they sometimes sell by going door-to-door in the villages, at pension markets, at "Denneboom where I set up an informal roadside stall

near taxi ranks and bus stations where commuters are targeted as potential customers". According to Mrs Mashano, it is expensive for her when she is selling in Denneboom, because she has to rent a place in Mamelodi D3 every month for two weeks towards month end. "Monthly payment for one small room that I share with other ladies is R60.00. Sometimes I walk to Denneboom and sometimes I take a taxi compared to at home where I just walk." When she sells door-to-door in Mamelodi, she walks around D4, D1 and D6.

Mrs Mashano mentioned that, for two weeks at a time, she set up an informal roadside stall near the taxi ranks in Denneboom, next to the lady who sells vegetables and fruit. There was clearly a good relationship between the two. The broom maker would leave her stock with the lady for hours while she walked around Denneboom shouting "*fielo*". The vegetable lady would then assist with selling the brooms and give the broom maker her money on her return. She sold 3 to 4 brooms a day; 5 to 8 a day during month end. In a week's time she was able to sell 15 to 20, at R25.00 each, therefore, she would be able to make more or less R600.00 a week. This means that after two weeks she would be able to take home R1200.00.

For the other two weeks, she would be at home where she also sold at the pension market, because the customers normally received the grant during the second week of the month during pension pay-out cycles. Most of the customers were old women that she knew very well and "I just give them the brooms and collect the money the following month". Mrs Mashano said she knew that every month she would be able to collect and sell something from the pension market. "Sometimes, I will go home with R200 to R300 a day, depending on the stories of the day. Others still give excuses of indicating that they will pay the following month." Mrs Mashano was clearly not happy with that because in most cases she would not be able to budget well for the next month.

Mrs Mashano reported that she did not incur any transport costs to the pension market as she used her donkey cart. "The prices at home are different from the prices at Denneboom, because at home competition is high as most of the people know what to do and where to collect." *Mohlahlaila* sales were better compared to grass broom sales, because it was not easy to access *mohlahlaila,* which was harvested farther out.

Mrs Mashano announced that she managed to survive on selling brooms, as she was able to pay for her grandchildren's school fees, have pocket money, pay for school trips, buy food at home, as well as electricity for lights. (She does not need electricity for cooking, as she uses firewood for that.) She added proudly, "Brooms are my husband, because they support us."

3.11 THREATS AND CHALLENGES TO ITS SOCIO-CULTURAL CONTEXT

3.11.1 Environmental threats

In terms of the availability of *mohlahlaila* in the harvesting areas, some of the broom makers at Denneboom and Marabastad felt that it was adequate, because the plants sprouted again after cutting and produced full harvestable brooms by the next season. Others believed there was going to be a shortage because of the high volume of harvesting. The reasons for the shortage mentioned was too many collectors from outside areas who do not stay in their areas. People burning the grass areas before harvesting time also frustrated the broom makers as it made harvesting impossible for them.

3.11.2 Customers to the market

Customers consisted mainly of women of all ages visiting both the Marabastad and Denneboom markets, some of whom were employed while others were unemployed. Sales mostly increased at the end of the day when people returned from work. Occasionally, broom sellers were able to sell 15 to 20 brooms at one go, especially to families hosting wedding ceremonies. Broom makers mentioned that they enjoyed these types of customers, because they paid more money or sometimes they did lay-byes. Sometimes, however, you would find a bad customer who placed an order and then failed to collect. Broom makers expressed their frustration by saying, "Those types of customers destroy the selling sprit because now I request lay-bye before processing any order." Broom makers also mentioned that sometimes buyers walk around the market comparing prices before they buy.

3.11.3 Why customers bought brooms at Denneboom and Marabastad

Some customers mentioned that Marabastad was closer to home. Most of the customers stated that they passed the market every day on their way home. The brooms were always available in both markets. Denneboom and Marabastad were familiar to the informants and some did not know other markets from which to buy brooms. There were no places in Gauteng, like mountainous areas, known to the informants where they could collect raw material for brooms themselves. Other customers mentioned that sometimes it took a long time before door-to-door broom sellers passed where they stay.

3.11.4 Why broom makers sell in Marabastad and Denneboom

Some broom makers reported that they earned a living from selling brooms and felt a sense of duty towards their customers. Others mentioned that if they were not at work they felt depressed, because they feared losing their customers. The majority of the broom makers said that Marabastad and Denneboom were the first places where they had sold brooms and they were familiar with the market there. Another response was that both markets were busy and had many customers. Their customers also knew them well. One of them told the author that she had been unemployed for many years and one day she just decided to find a job and came to Marabastad. Others mentioned that the Denneboom market was close to where they stayed and they did not have to pay for transport.

Most of the broom makers smiled when they mentioned that the customers passed through because the market was close to the taxi rank and train station. The broom maker from Kwa-Ndebele mentioned that at home there were no customers, because brooms were more easily accessible and people could harvest brooms themselves. These statements define one of the important functions of the Marabastad and Denneboom market in Tshwane: The broom makers earned a living through selling brooms, and this helped them to support their families.

3.11.5 Prices and cost of brooms

Since the fieldwork for this study had started, the prices of the brooms have changed every year. Broom makers reported some factors that contributed to the price, such as transport costs that increased every year, sometimes twice per year. They were, however, sometimes unable to increase their prices, as customers refused to pay more and they ended up reverting to earlier prices. Often there would be other sellers that came with cheaper brooms from Delmas. The Delmas sellers supplied people around Marabastad who sell fruits, cassettes, vegetables, peanuts, steel wool, *et cetera,* and their prices ranged between R8.00 and R15.00 per broom. That is R10.00 less than the brooms sold by the sellers that were interviewed. The Delmas brooms are also offered in bundles of 20 at R100.00 per bundle (Fig. 3.31).

The broom makers asserted that they would not lower their prices from R25 because of the competition, as they put more effort into making their brooms: platting, cutting, collecting, harvesting, and transport. It depended on the customers whether they would buy from them or not. The broom makers were of the opinion that the most important thing was that they still had customers. Most of the broom makers who also sold at home indicated that the prices were different at home; brooms sold locally were priced lower than at the market. The reason was that the majority of people in the rural areas were poor, unemployed pensioners and could not afford to pay high prices. The broom maker felt that if they pushed the price too high, people would simply not buy from them.

According to the broom makers, transport was the most costly. The broom makers who came from Mpumalanga mentioned that the bus was cheaper than the taxi. They spent R180.00 on a bus ticket per week. The reason for buying the bus ticket was that sometimes they did not make enough sales to pay for taxi fares. The other minor costs included food and drinks during the day. They purchased a buddy (500ml) drink for R4.00 and a loaf of bread for R9.50. Sometimes they asked their children to dish up pap (porridge) and *morogo* (vegetables), but this was dangerous, because open food could rot and become a health risk.

Most of the broom makers at Mamelodi and Denneboom mentioned that they were lucky, because they did not pay transport fees. Most of the time they walked to the market and once or twice a week they would use a taxi and paid only R10.00 for transport. They mentioned that they preferred selling door-to-door as no transport costs were involved, it was within easy walking distance from home, and there were more chances of interested customers.

3.11.6 Broom sellers from Delmas to Marabastad

When the author came across a group of women from Delmas, she decided to talk to them. The Delmas (Gauteng) non-*mohlahlaila* broom sellers were mostly Northern Sotho speaking women. They resided permanently in Delmas and harvested the broom grass themselves. They visited the Marabastad market once a week, that is, on Fridays. The Delmas broom sellers mentioned that, compared to the permanent Marabastad broom sellers, their monthly expenditure was higher. They did not have daily transport costs to the market and they stayed free on the farm. Once a week they rented and paid for a *bakkie* to transport them to Marabastad. They gathered the plants for the brooms they sold at the market themselves and reached the market by private vehicle.

The Delmas broom sellers harvested the broom grass close to where they lived and they usually spent from Monday to Thursday gathering the plants. Factors that made a significant difference between the monthly expenditure of the two groups of broom sellers were that some of them travelled by bus or taxi on a daily basis, others visited rural areas to collect, while the Delmas broom sellers travelled to the market once a week and did not have daily transport costs. The Delmas broom makers, when asked why their brooms were so cheap, mentioned that there was no need to be expensive, because they did not want to return home with their brooms.

3.11.7 Broom makers' and sellers' perceptions on brooms

Broom makers were generally pleased with the returns they received. They made enough money to buy food, pay school fees, pay crèche fees, buy school uniforms and still have between R150.00 and R200.00 left each month. However, the older broom

makers at the market reported that their sales and income had declined, due to the increase in the number of sellers around Marabastad and Denneboom. Those that had operated since 1990 mentioned that previously they had usually sold all their stock daily, but now they returned home with stock in the evening.

Figure 3.31: Delmas brooms arranged in bundles that are sold at the unit price of R5.00 per broom.

3.11.8 Contribution to the household

Brooms are among the most widely traded natural resource products used by rural households. Half of the broom makers indicated that previously they used the income from brooms to cover school expenses. But now, because there were feeding schemes at the school, they did not need to worry about their children's lunch and breakfast. One seller mentioned that she had paid her building material for her four-roomed house from the money she made by selling brooms. Others mentioned that they bought food, paid rent and transport, and bought their grandchildren's clothes for them.

One old broom maker mentioned that she supported her four grandchildren as their parents had died of HIV. The government grant was not enough to support the children. The broom makers who sold at both their homes and the market mentioned that they made less money at their homes than when they sold at the market. They taught their children that the money they accumulated at home was to be used for bread, electricity and the small things that they needed at home.

It was clear that the cash income earned from brooms made a big difference in the lives of the broom makers; they appreciated what they had, little as it was.

3.11.9 Frequency of purchase of brooms

Most of the customers indicated that they bought brooms once every two months. Broom makers could see patterns of customer spending at the market, based on busy and slow periods within the market. The busiest days of the week were Fridays, because that is when some workers were paid and did their shopping. The slowest days were those during the working week. The general perception among the broom makers was that the end of the month was the busiest, as was the case after payday. The slowest times were just after paydays when the money was spent on fixed monthly expenses and again towards the middle of the month.

The busiest time of the year usually lasted until the first two weeks in December before people went away on holiday and returned to the rural areas.

3.11.10 Reasons for entering the broom trade

Different reasons were given for entering the broom trade. Most of the broom makers in Denneboom and Marabastad mentioned these: no jobs, no money, loss of husbands' income, and unemployment for many years. A few of them mentioned that their previous occupations were not paying. Most of them had only been in the trade for less than six years. This is a clear explanation for increased activity in broom selling that caused over harvesting. Only four broom makers had been involved in selling brooms for 30 years. Few had been in the market for 15 years. Others were still learning the trade. Having listened to these broom sellers, the author came to the

conclusion that broom selling was a stable source of income for most of the sellers in Marabastad and Denneboom.

3.11.11 Constraints in the trade

There is high competition because of the growing number of people selling brooms in Denneboom and Marabastad. Several broom makers mentioned that they relied on old customers that kept on coming back to the market. The Marabastad and Denneboom broom makers mentioned that they looked after and trusted one another because sometimes they let their customers buy from their neighbour if they realised their neighbour was not doing well on that day. The only time they quarrelled was when they saw the Delmas truck carrying the other broom makers arriving on Fridays, but there was nothing that they could do about it.

Most of the broom makers believed that there was no competition among them, as it was up to the customers who they chose to buy from. A few of the broom makers agreed on their prices. Others mentioned that there had never been competition among sellers, until the Delmas broom makers came and sold their brooms for R10.00, as opposed to their price of R25.00. Clearly people would prefer the cheaper brooms.

3.11.12 Grass broom scarcity

When asked what they would do if grass brooms were no longer found in the wild, most of the broom makers said that they would struggle and would buy the grass brooms from other traders to resell and make a profit. Others said that they would definitely go to some places where they knew they would find grass brooms, because they could not imagine their lives without selling brooms. Few said that there was nothing they could do and they would simply stay at home and think about selling something else.

Most broom makers were worried about the way people over-harvest *mohlahlaila,* saying that those people did not wait for the plant to grow first, but just uprooted it. They added that people who harvested these plants were not familiar with the

harvesting processes and that would cause the scarcity of the plant. Others said that sometimes people burnt grass and trees and it affected the plants.

To others, over-harvesting was not a problem, because they believed that plants were always available. Broom makers were asked what they should do to ensure there was broom grass for the future. Most of the broom makers said that they would try to gather more grass brooms to last a long time, as they did not rot easily. When asked if they would buy grass if farmers produced it, most broom makers said that their profit would be affected if they had to pay for the raw material.

3.12 MARKET CO-ORDINATION AND MARKET ORGANISATION

There was no formal co-ordination between sellers within any of the two markets. Broom makers established their stalls adjacent to one another. They agreed among themselves on a common price for the brooms, which was, however, difficult sometimes, as some did not co-operate. In most instances they asked one of the broom makers nearby to intervene. The sellers felt that everyone was welcome to start selling brooms, and they remarked that, as a matter of fact, they saw the faces of new broom sellers on a daily basis.

3.13 CONCLUSION

In order to investigate the use of *Athrixia phyliciodes,* the life of typical broom makers and broom users was explored. The role of the plant as part of the socio-cultural heritage was discussed, including taboos attached to and beliefs associated with brooms. Furthermore the tangible components of brooms were discussed, as well as harvesting practices, collecting of the plant and assemblage of the brooms. The threats and challenges to the plant's socio-cultural context were also investigated. The chapter concluded with a focus on market co-ordination and organisation.

An exploration of the daily routine of broom makers provided a clear understanding of the importance of the broom and its meaning to the broom users. According to the broom makers, broom users and customers, a broom does not only function as a household utensil, but also has a symbolic function in their cultures. Brooms have

become part of their folklore and legends. There are also proverbs, taboos and beliefs associated with brooms. Brooms function as traditional wedding gifts, as well as protective house guards against lightning, thus forming part of the cultural heritage. As brooms form part of the socio-cultural heritage, they have been collected over time and preserved in a museum, presenting the old paradigm vis-à-vis the new paradigm.

Broom makers interviewed at Marabastad and Denneboom markets indicated that they had acquired the indigenous knowledge they displayed from their parents, friends and grandparents. They had been interested in what their parents and friends did. When they were asked whether their own children were interested in the same cultural activities, they said no. The fact that the new generation was not interested in learning how to make traditional brooms might affect broom making in the near future. Broom makers suggested that children should be taught how to make brooms. They also felt that children should be taught the importance of the preservation of traditional culture.

When broom makers were asked whether they benefitted from the market, the answer was yes. One of the reasons was that they met different people. They learned how to behave towards customers, they earned a basic salary that supported their families, and they increased their own understanding of their culture.

In the past *mohlahlaila* was harvested and used by local communities only, but recently sellers in Gauteng have started to hire pickers to collect large quantities of the plant. Local communities harvested the plant material with some care, but foreign pickers often uprooted and destroyed it. The uprooting did not allow plants sufficient time to recover. This practice was clearly not sustainable as it led to an increasing scarcity of the plant in nearby surroundings. Broom makers now had to walk far to reach *mohlahlaila* plants.

According to the broom makers that were interviewed at the Tshwane (Marabastad) and Denneboom Station (Mamelodi) markets, they collected and harvested brooms in various mountainous areas. Broom makers had different opinions on the possible scarcity of the plant in future, as well as on possible solutions.

Whereas this chapter focused on the importance of *Athrixia phylicoides* for traditional broom makers and users, as well as the role traditional brooms play in the cultural heritage, the next chapter will explore the use of the plant as a medicine, while its use as a beverage will also be discussed.

CHAPTER 4

THE USE OF *ATHRIXIA PHYLICOIDES* AS MEDICINE AND AS A BEVERAGE

4.1 INTRODUCTION

This section mainly focuses on the use of *Athrixia phylicoides* as a medicine, while its use as a beverage will also be discussed.

Traditional healers and patients were interviewed in an effort to understand the medicinal use of this plant. Ten traditional healers were interviewed at the Marabastad market and eight at Denneboom. The group of traditional healers who acted as respondents consisted of men and women between the ages of 30 and 68 years. All of them were unemployed. There were no significant differences between male and female healers regarding age and employment. The customers interviewed were mostly in the 40 to 50 years age group. The traditional healers were from surrounding areas like Ga-Rankuwa, Atteridgeville, Hammanskraal, Mabopane and Mamelodi.

Some traditional healers believed that, to start with traditional healing, one had to be called by ancestors. They further stated that medicines were also revealed by ancestors, either in a dream or a vision. Most traditional healers said that, before noticing the sign of being called by ancestors, it was not easy, because they became very sick. Some said that they even lost their jobs. Two of the male traditional healers at Marabastad said that they used herbs and some other medical treatment, like mixtures of animal origin, to treat diseases. Furthermore, they said that most of them tended to specialise in selected health areas.

4.2 TRADITIONAL MEDICINE AND MEDICINAL PLANTS

Medicinal plants play an important role in the daily lives of many people. These plants are also considered an important element of the South African cultural heritage (Van Wyk, *et al.,* 2009:7). There are over 30 000 species of medicinal plants within Southern Africa. Van Wyk *et al.* (2009:7) commented that, with South Africa's remarkable biodiversity and cultural diversity, it was not surprising to find that

approximately 30 000 species of plants are used as medicines. Furthermore he indicated that, of these, about 350 species are the most frequently used and traded medicinal plants. The World Health Organisation (WHO, 2000:1) defined traditional medicine as

> *The sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses.*

In some instances, traditional healers and religious leaders have duped patients into believing that they are able to cure all ailments and diseases. The concept of ill-health, which some scholars refer to as sickness, indicates a state of disease. However, in anthropological studies of healthcare systems, these concepts are used to indicate slightly different conditions (Herselman, 2007:62). Medical anthropology was first defined as a field in 1963 and is generally referred to as the study of human health and disease, health care systems, and bio-cultural adaptations. The field is considered to be highly interdisciplinary, as it links anthropology to sociology, economics, and geography. There is also a strong link to medicine, nursing, public health, and other health profession fields.

All this implies that medical anthropologists study healthcare systems in their socio-cultural contexts. It suggests that medical anthropologists cover the entire systems of socio-cultural factors such as education, political systems, religion, kinship and economy, that would affect health and healing, each in a specific way (Barfield, 2001:316; Herselman, 2007:62). It is accepted that an individual generally experiences ill-health in a unique socio-cultural setting that includes certain ideas about that condition. In addition to individual experiences, the meaning of ill-health is to a large extent determined by the socio-cultural circumstances in which it occurs. That is why the condition for ill-health to be classified as an illness would vary in different societies with differing sociocultural settings (Herselman, 2007:62).

Medical anthropologist, Sobo (2011:15), defined health as a broad construct consisting of physical, psychological and social well-being, which includes role functioning. In addition, Barfield (2001:256) indicated that, according to the charter, health is not

simply the absence of disease, but a state of physical, social and psychological well-being. Others have indicated that illness cannot really be understood without knowledge of the particular socio-cultural setting in which it is embedded and what its conditions of health entail (Herselman, 2000:2).

The practices of traditional medicine vary greatly from one country to another. These practices are influenced by factors such as history, culture, philosophy and personal attitudes (WHO, 2000:2). In many cases, this has led to conflicts in homes, due to differing opinions and influences. On many occasions where lives could have been saved by prompt modern medical assistance, people choose to stick to traditional healing methods.

Information received from elders in rural areas indicated that experience in, as well as knowledge of, practicing traditional medicine was passed on from generation to generation. There was reliance on practical experience and observation verbally handed down from one generation to the next. This kind of transfer of knowledge is in danger, because transmission between older and younger generations is not always assured. It is therefore essential to document the medicinal components of the flora of any country for conservation and sustainable use.

In Africa, the pre-colonial era was dominated by traditional leadership (*dikgoš*i [Chiefs] and *dintun*a [elders]) that enforced good management through sanctions, customary laws, taboo systems *(diila),* and effective control systems for community compliance. However, the colonial approach forcefully removed communities out of resource management and created reserves and parks. “This had profound negative effects on the development of South Africa’s economy and society, resulting in the distortion of social, cultural and economic development of the vast majority of its people” (Department of Science and Technology (DST), 2004:13). The national indigenous knowledge systems recording system (NRS), developed by the Department of Science and Technology (DST), can assist in alleviating this problem.

The NRS was developed as a result of the IKS policy that was adopted by the South African cabinet in 2004. South African culture, unlike many cultures whose histories have been documented, has been reliant on the spoken word that has been passed on

from generation to generation for many years. Currently, indigenous knowledge is lost due to urbanisation and the sophistication of communities. In turn, this has led to misappropriation and misuse of the indigenous knowledge (DST Press release, 2013). The launch of the NRS in 2013 would ensure that some indigenous knowledge would be accessible, while some would be treated as restricted and confidential for the protection of intellectual property.

In 1997 a study was initiated by Botha *et al.* (2003:2) to determine the extent of South African trade in medicinal plants in the low-veld (the low lying plains to the east of KwaZulu-Natal and Mpumalanga), and to investigate the socio-economic factors influencing trade as resource management. According to Botha *et al.* (2003:3), trade was not as extensive in the Low-veld region of Mpumalanga and KwaZulu-Natal as in major urban markets such as Durban or the Witwatersrand, both in terms of the quantity and range of species sold, and the numbers of people relying on the trade for an income.

Botha *et al.* (2003:12) also indicated that at markets in Mpumalanga, 176 species were identified (71% of the vernacular names encountered in the market place), representing 69 plant families. According to Botha *et al.* (2003:12), 70 different species were also identified in Limpopo (84% of the vernacular names encountered in the market place), representing 40 families. Imports, mainly from Mozambique, were significant in Mpumalanga (33% of the plants on offer). Their study showed considerable local variation and complexities in the harvesting and marketing of medicinal plants, with both a national and an international dimension.

Traditional medicine and traditional agriculture represent significant economic activity in South Africa. The knowledge systems of local communities, therefore, play an important role in managing natural resources. However, South Africa faces several challenges regarding the conservation of its natural resources. An activity that is increasingly coming under the spotlight is the use and trade in traditional medicine. Approximately a million South Africans per annum consult healers and use the prescribed herbal preparations. Moreover, a rapidly growing population, a high rate of unemployment, and a low level of formal education (especially in rural areas) have

contributed to the exploitation of economically valuable plants (Cunningham, 1997:118).

The changes in the medicinal plant market in South Africa are prompted by rapid overharvesting of wild stocks of medicinal plants, with some of the particularly high demand species such as *Athrixia phylicoides* having become almost extinct outside of formally protected areas. The UNCTAD COMTRADE database contains worldwide import and export statistics of pharmaceutical plants since 1962. In 1996, approximately 26 500 tonnes of medicinal plants were exported from Africa to Europe (Mander *et al.,* 1996:2). In South Africa, the market for medicinal plants lies mainly with the indigenous culture where traditional medicines remain an important health service.

According to the SADC, there are an estimated 28 million users of medicinal plant products and 255 000 traditional healers in South Africa. According to Gericke (1996) and Van Wyk *et al.* (2000) there are an estimated 200 000 indigenous traditional healers in South Africa who consult about 60% of the country's population. The high demand for traditional medicine subsequently leads to an increased trade in medicinal plants.

The huge volume of plants being harvested annually and sold at the street markets of KwaZulu-Natal, Gauteng and Mpumalanga, as well as the growing number of consumers of Southern Africa's floral resources, raises the question whether harvesting for the medicinal plant trade is sustainable. The achievement of sustainability needs to be addressed urgently. Researchers in the field of indigenous plant use are able to make recommendations about possible solutions, for example identifying levels of threat to key species and possible cultivation alternatives.

According to Kempe (2010:43), there are several reasons for the endangerment of medicinal plant species, among which, urbanisation. "Africa is believed to have the highest urbanisation rate in the world; population growth, which in turn increases demand for herbal remedies; over-harvesting for international trade and lack of effective conservation programmes".

However, it is a far broader task to determine the solutions pertaining to what motivates people to become involved in the medicinal plant trade as consumers, traditional healers, shop traders, street traders or commercial gatherers.

4.3 *ATHRIXIA PHYLICOIDES* AS MEDICINE

As mentioned in Chapter 2, *Athrixia phylicoides* has found usage in the socio-cultural domain. As a medicine it falls in the category of treatment of ailments and may also have a relation with religious practices. Traditional healers prescribe *Athrixia phylicoides* for different purposes. In this study the socio-cultural attributes of the participants were noted because, according to the literature, plant use varies among different ethnic groups (Harris & Mohammed, 2003: 25).

The different medical uses of *Athrixia phylicoides* has been indicated by other authors as seen in Table 4.1.

Table 4.1 Different uses of *Athrixia phylicoides* as a medicine by various ethnic groups

Ailments	**Cultural group**	**Part of plant used**	**Literature source**
Sore throats	Sotho and Xhosa	Leaves chewed	Roberts, 1990 Hutchings *et.al.,* 1996
Aphrodisiac	VhaVenda	Root infusions	Hutchings *et al.*,1996
Cough remedy	Zulu	Root decoctions	Watt and Breyer-Brandwijk,1962;Roberts, 1990; Hutching *et al.*, 1996
Bad acne, infected wounds and cuts	All communities	Leaves	Plowes and Drummond, 1976; Roberts, 1990
Blood purifier for sores and boils	Zulu	Plant infusion no part specified	Hutching *et al.,* 1996
Sore feet	Sotho	Decoction of leaves for bathing sore feet	Watt and Breyer-Brandwijk, 1962; Hutchings *et al.,* 1996

Athrixia phylicoides has been used through many generations to produce herbal tea and a medicinal decoction for the treatment of a wide range of ailments such as

headaches, heart disease, vomiting, and skin disorders (Mudau *et al,* 2007:71). In the rural areas of Limpopo, Mpumalanga and Kwazulu-Natal, communities use a decoction of the tea to deal with illnesses such as high blood pressure and diabetes (Olivier & Rampedi, 2008:48). The plant is used for different healing purposes in different cultural areas, for instance, the Northern Sotho speakers from Limpopo use the plant for sore feet, the Zulu use it for sore throats and the Venda believe it to have aphrodisiac properties (Van Wyk & Gericke, 2000:35). Rampedi (2010:26) also mentioned that the root decoctions have been reported to have stimulating and aphrodisiac properties.

Other studies established that traditional healers and their patients used *Athrixia phylicoides* to treat respiratory infections like sore throats, colds, coughs and loss of voice (Watt & Breyer-Brandwijk, 1962; Roberts, 1990; Hutching *et al*, 1996). It has also been indicated that *Athrixia phylicoides* is believed to have blood cleansing and purification functions, given its mild laxative and diuretic properties (Hutchings *et al.,* 1996). It can also be topically applied as a leaf poultice to deal with skin irritations as well as swollen and tired feet and legs.

The South African Natural Biodiversity Institute (2005) indicated that about 70% of the South African population depended on traditional medicines, derived from indigenous plants and animals. It was indicated that both black and white communities have used the medicinal tea plant, *Athrixia phylicoides,* for many decades (Roberts, 1990:51; Van Wyk & Gericke, 2000:34).

Apart from utilisation in rural areas, traditional healers in urban areas such as Marabastad and Denneboom (Gauteng Province) still prescribe *Athrixia phylicoides* based medicines to their patients. This urban usage was observed through the increasing presence of traditional healers trading in Marabastad and Denneboom. The majority of traditional healers presented themselves as knowing *Athrixia phylicoides* very well, while they also had indigenous knowledge about the uses of other medicinal plants.

The majority of herbalists indicated that they either mixed *Athrixia phylicoides* with other plants or used the plant on its own. The traditional healers said that the dry or

fresh *Athrixia phylicoides* plant could be soaked, boiled, crushed and burnt as a medicine. When traditional healers were asked in the survey to give their personal views regarding *Athrixia phylicoides* as a medicine, they indicated that *Athrixia phylicoides* was good as a medicine, because it had been used for years, even though some people associated the use of traditional medicine with witchcraft. Van Wyk & Wink (2004:8) supported the notion that the use of medicinal plants was often associated with witchcraft and superstition. Other traditional healers mentioned that they utilised a variety of techniques, methods and approaches to prevent, diagnose and treat illness.

The traditional healers and herbalists as well as some of the customers at Marabastad and Denneboom prescribed *Athrixia phylicoides* for treatment of respiratory infections like sore throats, *"dišo tša megolo";* colds and cough, *"sehuba le mpshikela";* pulsation of the child's antennal fontanel, *"ngwana o monyane ge a theba theba phogwana";* stomach cramps, *"go longwa ke mala";* headache, *"go rengwa ke hlogo"* and loss of voice *"ge lentšu le fedile".*

4.4 HARVESTING PRACTICES

Athrixia phylicoides is harvested during early autumn and midwinter during flowering (Mudau *et al.,* 2007:73). Mudau *et al.* (2007:72) reported that regular harvesting tends to provide better quality twigs and leaves, because the stems are relatively softer. The plant is harvested in different ways, depending on the reason for harvesting. According to the traditional healers, different harvesting methods are used. They indicated that some harvesters are good at the harvesting process and some are bad at it. Some uproot the whole plant, or cut the whole plant, while others only cut the leaves and branches.

Most traditional healers mentioned that there were also taboos and restrictions on the gathering of traditional medicine which, to some degree, limited the harvesting of plant resources. Some traditional healers said that taboos prevented women and young people from cutting down certain trees. For example, one traditional healer mentioned that menstruating women were prohibited from collecting medicinal plants, as it was believed that if they did, they would reduce the healing power of the plants. Adherence

to these taboos ensured the conservation of many trees. Other traditional healers mentioned that some areas were also protected by taboos that forbade people to enter them and some trees were declared sacred and cutting them constituted a breach of the taboo.

One of the traditional healers, Mr Kgofa from Marabastad, mentioned that he collected *Athrixia phylicoides* in a small village called Mamaila, Tzaneen, in Limpopo, during autumn. He was born and bred there. He said that before he left the house to collect the plant medicine, he performed certain rituals in order to invite the ancestors to guide him. He mentioned that sometimes he would be advised by the ancestors through dreams where to collect the plants, which particular plants to collect, and for which particular patient to collect them. Mr Kgofa had acquired his medicinal knowledge through training and experience. He said that the plants were harvested close to where he lived and they went out to the bush on foot to collect *Athrixia phylicoides* branches.

Mr Kgofa explained that different parts of the plants were used to treat different illnesses. He mentioned that, in the past, only the part of the plant and the quantity needed was harvested, and uprooting of the tree was discouraged. Wringing the bark was also discouraged, as this could kill the tree. He further said that in some instances they would place cow dung where the bark had been peeled off as this accelerated regrowth. Most of the traditional healers stated that children were not allowed to harvest medicinal plants. Only adults could do so. They explained that they dug up secondary roots, not the main root as this could cause the death of a tree.

According to the traditional healer and herbalist, *Athrixia phylicoides* was mixed with other medicines called *makgonatšohle* for the treatment of joint problems (rheumatic), diabetes and blood pressure. The leaves were dried, boiled, and then given to the patient as medicine. It had to be used within one week after preparation, as the medicine could become poisonous if it was kept for too long after being mixed with water. The traditional healer mentioned that *Athrixia phylicoides* leaves were boiled and mixed with other plant material, like African potato, for cleansing blood (*"go hlatswa madi*"). The majority of traditional healers at Marabastad and Denneboom also said that the crushed leaves were mixed with other plant material for high blood

pressure (*"madi a magolo"),* diabetes ("*bolwetši ba sukiri")* and urine problems (*"mathata a mohlapologo").*

Furthermore, one traditional healer at Marabastad mentioned that the *Athrixia phylicoides* medicine is given to a patient who is having problems with sweating (*"sethitho"* or *"dikudumela").* The majority of traditional healers at Marabastad and Denneboom explained that they crush the dry leaves of *Athrixia phylicoides* into a powder form, which is given to a sick person to improve appetite. Patients are normally advised to take *Athrixia phylicoides* medicine after meals to avoid dizziness (*"go dikologa").*

Respondents indicated that they also planted the medicinal plants near the homestead for protection from lightning. Mr Kgofa added that *Athrixia phylicoides* and *Mpepa* can be burnt at night to chase away witches.

He was convinced that in villages, traditional healers harvested plant materials from the local environment in ways that ensured sustainable supply. When traditional healers were asked who were responsible for depleting medicinal plants, their response was that the damage to the environment was done by traders. During interviews with the traditional healers and herbalists it was clear that traders and community members collected medicinal plants for income generation, which posed a huge threat to the natural habitat of these plants. Herbalists believed that the traders were ignorant regarding the proper time for collection, as well as the correct season for harvesting.

Mrs Bodiba is a Tsonga trader. She is married with nine children (six boys and three girls) and lives in Malamulele, Limpopo. She has never been to school, because her parents did not have enough money for school fees. Her father also believed that women were not supposed to be educated. Mrs Bodiba is a member of the Zion Christian Church (ZCC). She goes to church almost every Sunday and she is one of the most devout members of the church. Her experience with traditional medicine started when she went to a traditional healer after her husband's funeral. The traditional healer said that her husband had not died a natural death, but that he had

been witched. Mrs Bodiba said, “That it is when I started to know about mixing traditional medicine.”

According to Mrs Bodiba, she had been called upon by ancestors at an early age to be a traditional healer. She started her training at the age of 20. She regarded traditional medicine as the best employment. She mentioned that true traditional healing used plants, minerals and animal parts, but not human parts. Furthermore, she stated that she preferred plant medicine to animal medicine, because animal medicine was not sustainable. Animals died in the process of healers obtaining the medicine, while plants survive for longer.

Mrs Bodiba was probably between the ages of 60 and 70 and traveled from Monday to Saturday to Marabastad, where she had a small stall, by taxi. In addition to selling medicine, she had been receiving a monthly government pension since 2004. She collected her medicine around different areas at home in Malamulele and used her bakkie (small type of truck) to transport it to Marabastad. Mrs Bodiba mentioned that one had to be careful when using different parts of the plant – leaves, bark, seeds, and roots.

Mrs Bodiba’s concern was that people associated traditional healing with witchcraft, which was wrong. When asked about the truth regarding the sensational stories of human killings to obtain body parts for medicine, Mrs Bodiba said that while it happened on occasion, it was the wrong way to use traditional medicine. She asserted that killing was done by individuals who had twisted beliefs. During the interview with Mrs Bodiba, Mr Bofa confirmed the killing of people by relating his own experience.

Mr Bofa was one of the few traditional healers around Siyabuswa in Mpumalanga. He also worked at Denneboom as well as in his village. He had been born in 1970, was married and had four children. According to Mr Bofa, traditional healing could not be undermined, because it existed within different communities. He had been called to traditional healing in 1982 because of his health. One night the ancestors visited him and told him what they wanted from him. He mentioned that he had inherited his healing art from his great-grandfather as well as from his paternal forebears.

One night he had a vision of the traditional healer who was supposed to assist him in terms of healing. The name of the area and the settings of the house where he had to go were given to him. The following day he explained to his family about the vision and they arranged transport to take him there. He followed his dream and visited Ga-Ngove, near Giyani, Limpopo. He stayed there for two months while he learnt his trade. After completing his training, he started to treat patients. His reputation as a healer soon started to grow because of his effective treatment.

Mr Bofa mentioned that during their training they were taught to depend on the patient's signs and symptoms in order to come up with the appropriate treatment. He also explained that every morning he would wake up at around 5 o'clock and start to speak to the ancestors, especially when there was something wrong or if there was a problem. Then the ancestors would assist him to solve the problem. He helped everybody, no matter at what time of day the person approached him. When asked if he used traditional medicine himself, he said that he was not allowed to heal himself; he had to visit another healer. In the author's language they say, *"Ngaka ga e ikalafe" (*the traditional healer cannot heal himself). Whenever the author detected resistance during an interview, she immediately moved to the next question.

During the study Mr Bofa was visited at his home in Siyabuswa, some distance from where he traded at the Denneboom market. In some of the healing processes, he advised people to visit his village, for example when someone had to be initiated to become a traditional healer, that is, *"go thwasa".*

At the entrance to Mr Bofa's yard there was a bucket with a mixture of water and traditional medicines for people to wash their hands before entering the yard. Mr Bofa explained that some of the communities still put a basin with water at the entrance of their yards, as, on entering a yard, as well as after a burial, people must wash their hands as a purification ritual. The bucket was always there, because patients come from different places with different situations (Figure 4.1).

Figure 4.1: The bucket for cleansing patients' hands before they enter the yard

There was a *lapa* at Mr Bofa's place where he consulted patients. A tree provided shade for the patients in the waiting area (Fig. 4.2). Under the tree there were chairs and mats, which were meant for those who were unable to sit on a chair. The queue was controlled by one of the healer's initiates. According to the traditional healer, he saw 5 to 10 patients per day during the week, while on weekends he saw 25 to 30 people a day. The more patients he had, the more trainees he would probably have. He said that most of his family did not visit him for consultations, because they did not want him to know their affairs.

Figure 4.2: ***Lapa* to the entrance on *ntomba***

The patients waited in the waiting area for one of the students *(lethwasana*) to come and call them. For the sake of order, patients were not allowed to go to the traditional healer before they were called. While waiting to be called, patients would be served refreshments. Normally, the healer's wife served tea, which was prepared on the fire as shown in Figure 4.3 below.

Figure 4.3: Fire place

The traditional healer had a place where he performed traditional rituals to speak with the ancestors. He used snuff, water and traditional beer during the ritual. He also used a calabash for pouring beer and water. The main purpose of the ritual was to invite different ancestors from different cultures to assist with the healing process.

Figure 4.4: The ritual place of the traditional healer

The initiate assisted the healer with managing the queue, directing the patients and also to run errands for the healer. The initiate was not allowed to put on shoes when performing his duties and had to wear his costume at all times. While he assisted, he was also learning the routine as conducted by the healer.

People had to take off their shoes before entering the consultation hut and the *lethwasana* (initiate) would ask whether the patient was menstruating or not (*le bona kgwedi goba bjang*). Only a patient who indicated that she was not menstruating would be allowed to enter the consultation room. Otherwise, the patient would be given ash (*molora*) to sprinkle on the medicine, as they believed a menstruating woman, who was regarded dirty, could cause the medicine to be ineffective.

The traditional healer would say, "How can I assist you? I am here to check" (*"ke tlile go hlola").* When the traditional healer said "to check", the patient had to pay R50.00. The patient had to put the money on top of the *mokgopa (leather)*, and not give it to

the healer. The healer would then give the patient a bag of *ditaola* (bones) to blow air inside it. After that, the traditional healer would shake and throw the bones on the floor. Thereafter, the healer would explain what the bones were telling. If the patient agreed, he or she would say "yes" *(siyavuma).* The patient would ask what he or she had to do and the healer would give instructions like, go and buy a white chicken for cleansing. You have to take a specific medicine." If it had been a calling from the ancestors, he would explain and give guidance on how to use them. According to the traditional healer, there was no fixed price for a consultation. The patient would arrange the payments. Sometimes they asked to pay every month, or pay in halves, or they paid the whole amount. It depended on what they could afford.

Figure 4.5: The entrance to the traditional healer‘s hut

Figure 4.6: Display of different blankets on the roof of traditional healer's hut

Figure 4.7: Display of different medicines in bottles

Figure 4.8: Display of medicine in the second hut

The traditional healer mentioned that he collected medicine from different areas around Limpopo – Venda, Bushbuckridge and Giyani. He was trained in Giyani and it was easy to visit other healers that he trained with, for accommodation. The reason for visiting different areas when collecting medicine was that some plants were scarce in specific areas. Some of the traditional medicines were not available in local bushes and he had to travel long distances to obtain them. He sometimes asked for permission from local authorities to collect medicines like *molaka.* It meant that he would have to pay a certain amount to the authority for permission to collect plants at specific set times.

The traditional healer explained that he used different methods to collect medicine. He uprooted in a specific manner to allow the plant to regrow. He cut the plant, the bark and the leaves. He also dug for specific roots in the bush. When he came back, he hung them to dry for a certain period. Normally, he used corrugated iron to dry medicines. He then ground them, put them into containers and started using them. Some of the traditional medicines needed to be mixed with others to obtain a certain mixture, while others could work on their own.

Figure 4.9: Bags of ground traditional medicine

Figure 4.10: Traditional medicines spread out to dry

According to Mr Bofa, different huts were used for different purposes, for example, he used one hut to sleep when he came home from performing his duties outside his home, so that he could not mix with the rest of the family, including his beloved wife. He slept in that house until he was cleansed.

According to the traditional healer, his duties also included funerals, because sometimes, when people believed that the death was not natural, they called the healer to check. If it was believed that the person had been bewitched, the healer would use traditional medicine. Mr Bofa said that the ritual process started the day the corpse arrived at the family home, or sometimes while it was still at the mortuary; in which case the family would take him there. The medicine would be used on the coffin, the person and the grave, to guard against witchcraft.

Drumming was an important part of summoning ancestors. During the training period of *lethwasana,* they would share the same element in the form of song and dance to a drum beat. The ancestors could come to speak to the healer anytime during the day and explain what they wanted the healer to do. During the talking, the *lethwasana* were supposed to play drums to heal the traditional healer. They performed several rituals by burning plants, dancing, chanting and playing drums. Drums formed a crucial element of the traditional ritual music and had been shown to play a significant role in the healing ceremonies of many African people (Friedson, 1996: xi).

The process called "*go thwasa*"

During this process, the traditional healer would quote the amount of money to be paid for the traditional healer initiation ceremony; ranging between R10 000.00 and R12 000.00. The payment covered accommodation and fees to the healer. The initiates were also responsible for buying food. During the day of the ceremony, the graduates were supposed to bring several things to host a party, to which everybody was invited, at the healer's house. These items were: 2 goats, 10 chickens, 5 cases of 12 bottles 750ml beer, 5 cases of 12 bottles 1.25 l cold drink and 4 × 20 litre buckets of cookies.

During the week of the traditional healer initiation ceremony, called *go ja nyoko*, the *ngaka* entered into a trance state, in which they communed with the spiritual world and their ancestors. According to Mr Bofa, the process lasted for a week, from Monday until Friday. During this week the initiates were not allowed to eat hard food. They could only take soft porridge. On Thursday, the traditional healers visited the bush and performed certain rituals. When they came back they were wearing the bark of the *mogonono* tree on their foreheads.

On Friday everybody in the traditional healer's yard was supposed to stay in the *lapa* for the whole night, singing and dancing. On Saturday the families of the initiates were supposed to bring two goats. The initiates would cover themselves, together with their goats, with a blanket. They would make a whole on the one side of the goat and suck blood from it. After sucking, the initiate would start to vomit and thereafter they would go to the hut called *ntomba*. On Sunday they would go to the river. While they were gone the men would begin to slaughter the goat and take out the *"nyoko" (gall).*

The people who stayed behind would hide the gall bladder or bile ("*nyoko"* or "gala") and while hiding that gall bladder, they would walk, following each other, covering their foot prints, so that the initiates would not to be able to trace them. As soon as the initiates were back, people would start to sing the song "*wa ekhalele nyoko*", which in Northern Sotho is "*o llela nyoko goba gala*". The initiate would begin to look for *nyoko* until he found it. As soon as the initiate spotted the correct area and started to dig, the family would stand behind him, because he was not allowed to fall down. If he fell down, the family was supposed to pay, because it was a violation of the rituals (*meetlo ya setšo).*

The initiate would pass out and the family would carry him to the house. While he was in the house, they would hide *letšhoba* and when he woke up, he would look for *letšhoba*. When he found it, he went back to the hut. Coming back from the hut, they would crawl like children, following one another. Thereafter, the traditional healer would start to cut *(gaya)* the initiates and put medicine on them and start to cut chickens and sprinkle them with blood. When they ran away, the traditional healer would splash them with water until they ran back to the hut. They would come back carrying pots, chairs and blankets. They were then told to go and use the traditional medicines properly. They would have to smear themselves with crimson (*letsoku*), the red one.

4.5 COLLECTING OF THE *ATHRIXIA PHYLICOIDES* MEDICINE

Athrixia phylicoides was collected by traditional healers during autumn when the plants were visible and identifiable and once identified were collected in large quantities. This would give the remaining plants an opportunity to recuperate during the growing season, which would not have been the case if collection was done in summer. However, according to the traditional healers and herbalists, they were worried, because they were no longer the only harvesters of the plants. This posed a very serious threat to collection and usage.

It was evident that people from Marabastad and Denneboom still depended on plants for traditional medicine. The information obtained revealed that *Athrixia phylicoides* was used in combination with other medicinal plants. One of the traditional healers listed the most important types of plant that they mix with *Athrixia phylicoides* for medicine, including the "African potato" (*Hypoxis hemerocallidea)* and Mpepa (*Helichrysum petiolatum*).

Van Wyk *et al.* (2009:178) described the African potato as having slightly hairy leaves that are arranged one above the other to form three distinct groups, spreading outwards from the centre of the plant. He explained that the tuberous rootstock (corm), which is dark brown or black on the outside and yellow within when freshly cut, is used for medicinal purposes. Traditional healers and herbalists mentioned different uses of the African potato: Infusions of the corm were used as emetics to treat dizziness, bladder disorders and insanity. Decoctions were given to weak children as a tonic and the juice was reported to be applied to burns. The stems and leaves were also mixed with other ingredients to treat prostate problems. In recent years, the plant has become an important commercial source of extracts used in prostate preparations and in various tonics and so called immune-boosting preparations (Van Wyk *et al.,* 2009:178).

Helichrysum petiolatum species is a bushy or straggling aromatic perennial herb with greyish white, densely leafy stems (Van Wyk *et al.,* 2009:168). Bundles of the leafy, woolly twigs are sold at *muthi* markets and burned as ritual incense.

One herbalist from Mpumalanga, who rented a room at Ga-Rankuwa, mentioned that he spent two to three weeks in Marabastad and one or two weeks at home, depending on the patients. The herbalist also collected his traditional plants at home in Mpumalanga, including *Athrixia phylicoides.* He mentioned that there was a difference between the prices of treatment at Marabastad and those at his village, because he had to hire a vehicle to transport his medicine to Marabastad, which he did not have to do where he lived. The herbalist said that at home he just walked to the nearby bushes, collected plants and prepared medicine.

The herbalist was of the opinion that people in rural areas did not have as much money as people who live in urban areas. He further stated that there was no market back home, because most of the people had knowledge of traditional medicine for small illnesses like flu, sore throat, cough, *et cetera,* and they could collect medicine themselves. Traditional healers and herbalists, both at Marabastad and Denneboom, claimed that most adults in the villages knew different traditional medicines, and that knowledge varied from person to person. One of the traditional healers indicated that women tended to know a larger variety of medicinal plants than men.

The herbalists agreed that conservation practices were vital to indigenous communities. They realised that these practices ensured the sustainability of natural resources in order to guarantee their availability for generations to come. The loss of biodiversity from habitat destruction and unsustainable harvesting practices often meant that an entire range of medicines would no longer be available to both rural and urban areas, thus increasing pressure on diminishing wild stocks of plants. This could be the result of conservation taboos being ignored and ultimately lost. The loss of habitat also meant the loss of associated indigenous knowledge.

Van Wyk *et al.* (2009:14) reported that, in the past, traditional healers had stored and collected their medicinal plants in accordance with traditions and taboos. According to the herbalists, there were taboos around strong medicines which women were not allowed to touch. For instance, a menstruating woman was not allowed to touch traditional medicine during that period, because she was regarded as dirty. The herbalists further mentioned that pregnant women were not allowed to touch medicine.

Over-harvesting was taking place due to demand by traders who came from as far as Gauteng. According to Botha *et al.* (2003:3), trade was not as extensive in the Lowveld regions of Mpumalanga and Kwazulu-Natal as in the major urban market areas such as Durban or the Witwatersrand, both in terms of the quantity and number or range of species sold, and the number of people relying on the trade for an income.

Mander (1998:2) stated that as many as 4000 tonnes of plant material were harvested from the wild in KwaZulu-Natal. In addition, about 700 medicinal plants were traded per year in the province. As a result of these actions, many plant species became endangered, and their genetic and species diversity threatened.

4.6 ENVIRONMENTAL THREATS

When asked what they would do if plants such as *Athrixia phylicoides* were no longer found in the bush, most respondents, especially the traditional healers and herbalists, believed that this would never happen. Fourteen traditional healers interviewed at Marabastad and Denneboom mentioned that environmental threats were not possible, but if the plant was unavailable, they would do nothing. The patients responded that they would just use modern medicines instead. This is understandable, considering that their individual roles in the depletion of natural resources are negligible. It also suggests that people utilise traditional medicine as a second choice. However, 10 herbalists at Marabastad and Denneboom mentioned that plant unavailability would result in the end of their jobs, and traditional healers would find it difficult to sell and administer the medicine to their patients.

Three mentioned that they would try to harvest plants from other countries like Swaziland, Malawi and Zimbabwe. Others mentioned that they would substitute the plants with others that are similar, while some mentioned that they would try and grow them, stop other traditional healers from harvesting too many plants, and stop using the plants themselves. Those that mentioned that they would stop using the plants stated that they would specialise in healing with water instead of plants. One traditional healer at Denneboom stated that there was no need for preservation, nature would take its course and the ancestors would provide.

Some of the traditional healers raised the concern that there was a general loss of indigenous medicinal knowledge in the communities. One mentioned that when people moved to the city from rural areas, they became “sharp and no longer interested in traditional knowledge”. Adult traditional healers mentioned that they overheard children saying that medicinal plants were part of the old ways and they were not using them anymore because they were old fashioned.

4.7 PERCEPTIONS OF AVAILABILITY OF THE *ATHRIXIA PHYLICOIDES*

Traditional healers and herbalists believed that the current plant scarcities were uprooting the whole plant, contributed to the scarcity. The need for people to earn a living by this activity, through gathering and trading in the market, was also regarded a contributing factor. Nevertheless, they did not really accept that plant scarcities were possible. They were more concerned about transport limiting their ability to collect *Athrixia phylicoides* plants from far away sites and farming practices such as burning and ploughing during specific periods which restricted access and availability. Herbalists at Marabastad and Denneboom also complained about restricted access to land, for example Afrikaner farmers fencing the land off.

When asked what measures they would take to ensure future plant availability, participants from Marabastad and Denneboom provided different answers. Some said they would do nothing and pray to the ancestors, while others believed that the scarcity of *Athrixia phylicoides* plant was impossible, as they practiced less destructive harvesting techniques. Very few herbalists with Grade 12 education mentioned that they would cultivate the plant.

4.8 ACCEPTABILITY OF CULTIVATED *ATHRIXIA PHYLICOIDES* PLANTS

Twenty per cent (20%) of the traditional healers in Marabastad and Denneboom would buy cultivated plants, on condition that the cost was not higher than when harvesting the *Athrixia phylicoides* plants themselves or buying from the gatherers. According to other traditional healers and herbalists, the effectiveness of a cultivated versus a wild collected plant was a minor issue, because healing people was more important. Forty

per cent (40%) of traditional healers and herbalists responded that they would not buy cultivated material because they believed that cultivated plants were ineffective, unnatural and expensive. They also believed that cultivated plants were not protected by ancestors as they were planted by human beings.

It was interesting to notice the similarities between the perceptions of traditional healers and those of herbalists regarding the cultivated *Athrixia phylicoides* plant. They mentioned that only if the plants were cheaper, or if the plant became scarce, or if they ran out of wild collected stock and needed plants to sell and assist in healing processes, would they consider using cultivated plants. Others mentioned that there was no difference between wild collected plants and cultivated ones. All they wanted was to make sure there were *Athrixia phylicoides* plants for future use.

In an effort to establish the acceptability of cultivated plants, it had to be determined whether the traditional healers would be able to recognise the difference between a wild collected plant and a cultivated one. Only 35% said that they would recognise the differences, 17% said that there was no difference, 13% said that they were not sure how to distinguish between the two, while 10% said that they do not prefer the cultivated plant, because of the lack of the recognisably differently healing powers.

One of the herbalists at one of the *muthi* shops at Marabastad believed that the acceptability of cultivated plants was an important aspect of the success of cultivation. He also felt that a major step should be taken to provide alternative sources for collecting wild plants for the market, as well as to limit the harvesting pressures.

4.9 THE *ATHRIXIA PHYLICOIDES* PURCHASED

Athrixia phylicoides were purchased for different reasons and to cure different illness as stated in Table 4.1. One customer mentioned that she purchased *Athrixia phylicoides* for sick children. She boiled the leaves to help heal the pulsation of the interior fontanel *“go thebatheba phogwana”.* A traditional healer mentioned that *Athrixia phylicoides* leaves were boiled and mixed with other plant material like African potato for the cleansing of blood *“go hlatswa madi”.* According to the traditional healer, he crushed the dry leaves into a powder form and the medicine was given to a sick

person to improve appetite. Similar to the administration of western medicine, he advised patients to take *Athrixia phylicoides* after meals to avoid dizziness *"go* dikologa".

Another traditional healer mentioned that the crushed leaves were mixed with other plant material like *"makgonatšohle"* for high blood pressure (*"madi a magolo"),* diabetes (*"bolwetši ba sukiri"),* stomach pains *"go longwa ke mala"* and urine problems (*"mathata a mohlapologo").* The *Athrixia* medicine was also given to a patient who was experiencing problems with sweating *"sethitho"* or *"dikudumela".* The traditional healer further mentioned that *Athrixia* and *mpepa* could be burnt at night to chase away witches.

According to the traditional healers, they were concerned about the low number of patients seeking treatment at the Marabastad and Denneboom markets. Sixty traditional healers indicated that they visited the market 3 to 4 times a month when they noticed that they would run out of medicine. They also mentioned that it was sometimes difficult to visit the market due to administrative reasons. They had to monitor their own patients at least once a week (Fig. 4.11). Patients and customers tended to visit the market less often, usually only when they needed treatment.

Most purchases were made at the end of the week or month, because that was when most of the people were paid and could afford to buy traditional medicines. It was not possible to adequately ascertain the main reasons for the purchases. Twenty patients indicated that they visited the market once or twice a month for self-medication when they had a cough or sore throat. In addition, 20 general customers tended to visit the market less often, 3 to 6 times per year and usually when they needed self-treatment and self-medication. For example, if they felt weak or not energetic, they usually visited for *Athrixia phylicoides* to boost their energy.

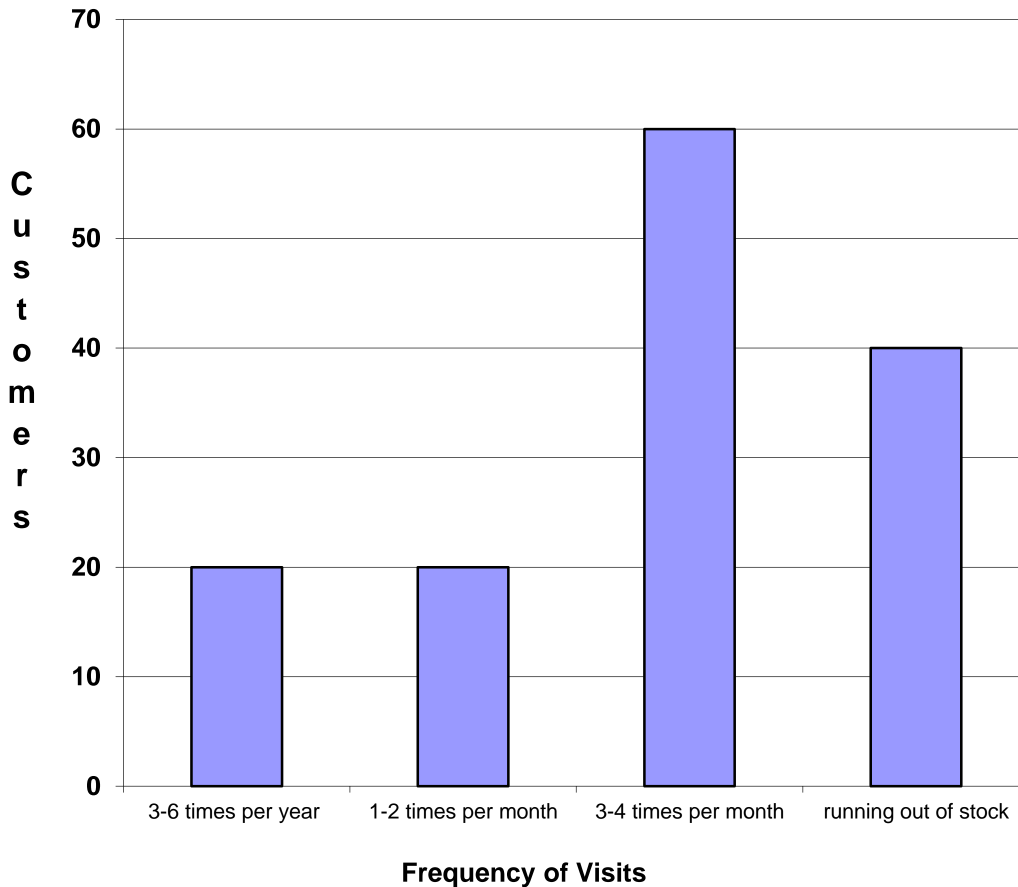

Figure 4.11 Frequency of the surveyed customers' visits to the market

4.10 THE CURRENT CUSTOMER BASE

Figure 4.12 captures the number of customers buying plants for their own use and the number of traditional healers buying plants for their practices. (Sometimes it is difficult for them to go to rural areas to collect medicine.)

The broader spectrum of reasons why non-traditional healers and patients buy plants from Marabastad and Denneboom could not be conclusively assessed. However, it seemed as if the reasons for non-traditional healers and patients buying at the market were treatment-oriented. According to patients, plants were bought at the market because they were cheaper than consulting a traditional healer elsewhere and the plants were fresher. Most traditional healers indicated that they bought plants at Marabastad and Denneboom because they were cheaper than when purchased from *muthi* shops.

To a certain extent, the market acted as a ‘one-stop-shop’, similar to a clinic that houses both the doctors and the pharmacy. The main reasons why traditional healers bought at the Marabastad and Denneboom markets were supply-oriented: to replenish their stock. The alternative options were to either harvest *Athrixia phylicoides* themselves or buy the plants from other *muthi* shops.

The traditional healers mentioned that the market had a wide variety of medicinal plants. One of the traditional healers at Denneboom believed that the market sold medicine that worked. He further stated that the plants were always available and fresh. Most of the traditional healers mentioned that Marabastad and Denneboom were close to their homes, while other traditional healers mentioned that Marabastad and Denneboom were familiar to them and they did not know other markets.

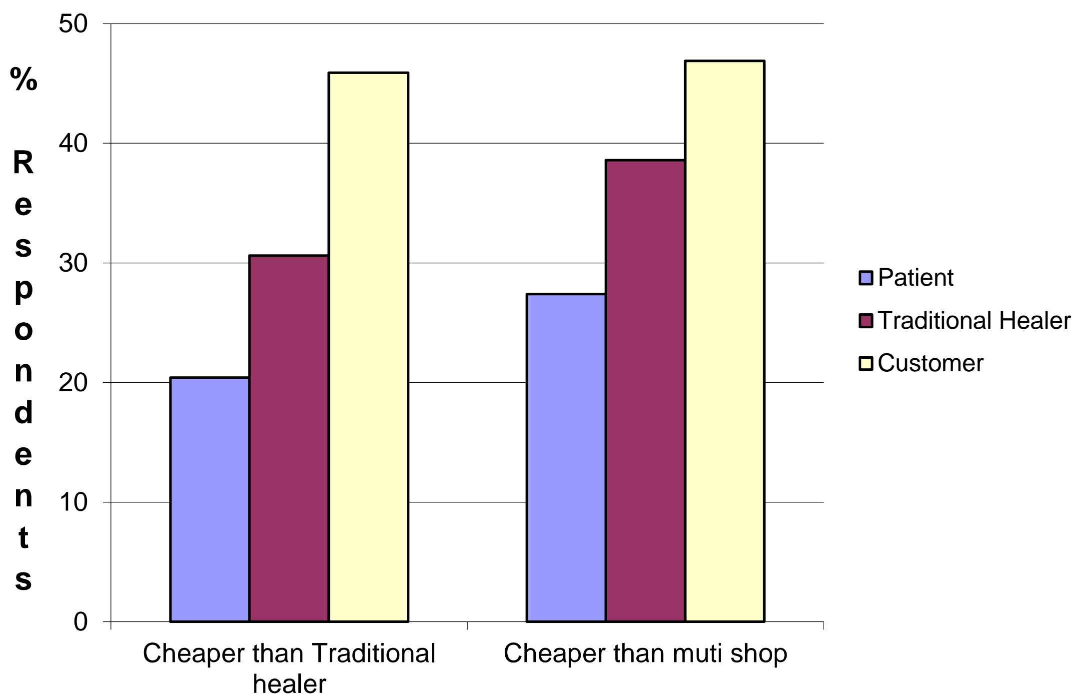

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Figure 4.12: Customers, patients and traditional healers bought plants at Denneboom and Marabastad

A small number of the customers that bought traditional medicine did not reveal that they were using traditional medicines. One reason mentioned for their resistance was that traditional medicines were associated with witchcraft.

Most of the traditional healers mentioned that large numbers of people consulted them. The traditional healers commented that many HIV and AIDS patients visited them, as they were easily accessible to their communities at all times. According to the traditional healers, most of the HIV and AIDS patients mentioned that they wanted their illnesses to be kept a secret, even to their families. They visited the market because no-one there knew them, or knew where they came from. Other traditional healers mentioned that their beliefs, values and norms were culturally accepted by their communities.

Traditional healers in both Marabastad and Denneboom mentioned that their medicines were affordable, unlike western medicines that were considered to be expensive. They believed that their treatments were easy and simple to administer; for example, just one bottle of mixed herbs was to be taken three times a day for the treatment of a particular illness. Most of them stated that they were available to their clients and in most cases their patients did not have to make appointments. Others mentioned that they stayed within the communities they served and they could even visit their patients in their homes.

4.11 CONCERNS ABOUT AFFORDABILITY

Given the income levels of the primary users of traditional medicines and the free treatment offered by some clinics, the affordability of the medicines at the market was important to the users. The traditional healers were generally considered to have a calling from the ancestors in their profession and provided an important primary health care service to their patients.

Most traditional healers and herbalists said that if the medicines became more expensive, they would continue to use and buy them, because this activity was their livelihood. However, some of the traditional healers indicated that they would try and cultivate the plants themselves, rather than buy them, if they became too expensive. Nevertheless, patients were inclined to use the medicines less if they became too expensive, preferring instead to seek treatment at hospitals and clinics that offered a free service.

Some of the patients mentioned that traditional medicine was the only form of health care available in their village. Others mentioned that modern medicine was expensive and traditional medicine was the only form of health care available, due to lack of access and affordability. Most of the interviewed patients from Marabastad and Denneboom pointed out that traditional medicine was the health care of choice to them. Others mentioned that the use of traditional medicine was widespread, especially in those areas where people lived far away from clinics and hospitals. However, they said their decision regarding traditional *versus* modern treatment would depend on the treatment required.

Thus, there would always be a market for traditional medicines, no matter the cost. The trade involved many people with varying reasons for their participation, ranging from acceptability of traditional practices to alternative primary health care options.

Figure 4.13 provides an example of how *Athrixia phylicoides* is packaged after being weighed. Table 4.2 indicates the cost and packaging sizes of the medicine sold at the markets.

The herbalists used a scale to measure the quantity of the *Athrixia phylicoides***.** According to the herbalists 50g of *Athrixia phylicoides* sold at t R10.00 per package.

Figure 4.13: Package of *Athrixia phylicoides* 50 grams

Small packet	Less than R5
Medium Packet	R6 -R10
Large Packet	More than R10

Table 4.2: Costs and packaging sizes of the medicine

4.12 CONCERNS ABOUT QUALITY

Athrixia phylicoides plants are stored in *muthi* (*dihlare*) shops and sold to the public. According to the herbalists, the dry *Athrixia phylicoides* may be stored in paper bags, newspaper, or in a basket (as shown in Figure 4.14), or may be reduced to powder.

Figure 4.14: The depiction of traditional healers' storage of *Athrixia phylicoides* in a basket.

Herbalists were requested to indicate when they had purchased or collected their *Athrixia phylicoides* plants. One herbalist in the *muthi* shop indicated that his stock had been collected more than a year ago. His last plant that was left was displayed on the

brown box (Figure 4.15). When asked about the effectiveness of the medicine after a year, he argued that the traditional medicine did not lose effectiveness as long as it was kept in a cool place. Few of the customers were not happy with the way traditional medicines were packaged in recycled material such as plastic bags, paper and bottles. According to the customers, both at Marabastad and Denneboom, the packaging systems resulted in end products that were often unhygienic and had a limited shelf life. Their concern was that traditional healers still sold that medicine, no matter how long they have kept it in the store.

Figure 4.15: The depiction of traditional healers' display of *Athrixia phylicoides* in a box

4.13 INCOME GENERATED

Most of the traditional healers at Denneboom and Marabastad mentioned that unemployment was their biggest concern. They were responsible for the people at

home who were not employed; they were the sole providers of their household incomes. Despite their marital status, all the married women interviewed were the sole breadwinners for their extended families. According to the traditional healers, income shortages were common among them; their households were falling into poverty. Gathering and trading in traditional medicine was therefore an important means for their economic survival.

The returns were sometimes so low that traditional healers were unlikely to accumulate enough capital to move beyond their current situation. Most of the traditional healers stated that their earnings were sometimes less than R200.00 per week. However, during some months, some traditional healers reported earnings of more than R1 000.00. When traditional healers were asked about their monthly expenditure as it related to travel, accommodation and food, most of them explained that the monthly expenditure was not consistent. In most cases they waited for month-end before drafting their budgets.

Transport was indicated as the biggest part of their expenditure. They had expenses such as daily travel costs, renting a place, and monthly collection trips to the rural areas. Room rentals in Mamelodi were between R60.00 and R100.00 for two weeks, compared to a monthly rent of between R300.00 and R400.00. Expenditure of the traditional healers who sell in Denneboom was different from those who sell in Marabastad. Most of the healers in Denneboom mentioned that they did not pay for accommodation, as they stayed free of charge in shacks in Mamelodi, which was walking distance from the market.

4.14 WHY TRADITIONAL HEALERS SELL IN THE MARABASTAD AND DENNEBOOM MARKETS

Traditional healers viewed themselves as important service providers: Their job was to supply patients with medicinal plants that would heal and prevent diseases. When asked why they chose to sell the medicinal plants at Marabastad and Denneboom, they indicated that Marabastad and Denneboom were the first places where they started selling medicinal plants; they were familiar with these markets only. These two

markets also became the area of choice because they were the first point of entry for many people migrating from rural to urban areas.

These two places also served as the transport hub and junctions for people travelling in and out the City of Tshwane. (They are in the vicinity of taxi ranks, bus stations and train stations.) Traditional healers in Marabastad indicated that the market was busy, because it had many customers that were well known to them and to other patients. The healers at Denneboom provided similar reasons for choosing that market.

4.15 COMPETITION IN MARABASTAD AND DENNEBOOM MARKETS

According to some of the traditional healers, there was healthy competition among them. They were a peaceful, trusting community that looked out for one another's belongings. They mentioned that if the owner of the next door stall was not available, they would assist by selling for their neighbour, rather than telling the customer to come to them instead, or telling the customer that the owner was not available and that they should return later. It was interesting to hear most traditional healers mention that there was no competition among them, nor was there any need for it.

Traditional healers provided the following reasons for why there was no competition among them as traders: They helped one another and there was peace, harmony and co-operation between them. When necessary, they looked after one another's stalls, which showed a good working spirit. They were also very proud to mention that they kept complimentary plants, so that if one trader did not have what the customer was looking for, they were sent to the neighbouring trader.

Most traditional healers argued that it was up to the customer to choose who they bought from, and it all depended on your luck in making money. Others mentioned that there was no point in competing or fighting, because there was nothing you could do about customers buying from anyone else.

A few healers said that there was agreement between them about traditional medicine prices, while some healers did not agree with that. Some traditional healers said that there was competition in the market and made the following comments: They were

loyal to their customers; they needed to make money and provided the customers with good service; and there was competition among them to sell plants to their regular customers. Others said that there was competition, but it did not bother them, as long as they made money. One healer was very angry and mentioned that there was competition but, "I would not say anything about it". Two others mentioned that the competition was fair.

One traditional healer said that there had been an incident where one lady was selling very well and had many customers but, "the poor lady now is dead because of her selling". According to this traditional healer, she was bewitched by one of the people she was working with and whom she trusted. They killed her with *muthi* out of jealousy. He further stated that, even though the other traditional healers did not believe there was much competition among them, the reality was that customers were not as loyal as the traders thought and would buy from the cheapest traditional healers.

4.16 SUMMARY

Customers to the two markets were generally satisfied with the service they received, but felt that there was a need for improved trading conditions for the traditional healers in the form of shelters. The potential health degradation in the condition of the plants being sold on the street was hardly mentioned. Some customers felt that proper consulting rooms ought to be built for more privacy.

4.17 *ATHRIXIA PHYLICOIDES* AS A BEVERAGE

Tea is one of the beverages that plays an important role in the life of human beings. It is commonly made from the young leaves and leaf buds of *Camellia Sinensis.* The general assumption is that tea originated somewhere in China and India and later spread to other countries (Compton's encyclopaedia, 1996:44). A number of African countries such as Kenya, Tanzania, South Africa, Uganda, Malawi, Mozambique and Zaire also produce tea (Kochhar, 1986:22). Today, herbal tea cultivation is big business in many parts of the world and the complex industry now produces a variety of teas (Peter, 1995: newsletter).

Indigenous teas in South Africa comprise a range of non-alcoholic beverages produced from plants, many of them well known to rural communities who live in and around their ecological habitats. These plant products have been consumed as herbal teas by many generations (Rampedi, 2010:10). Indigenous teas have an ethno-botanical history behind their utilisation and some have received scientific attention for their phytochemical, medicinal and therapeutic properties.

Van Wyk & Gericke (2000:10) listed 30 different indigenous plants from which traditional beverages are made. Fifteen of these are used traditionally to brew alcoholic beverages, three are used to produce syrup and eleven are consumed as non-alcoholic beverages (Van Wyk & Gericke, 2000:10). Three of these plants, namely, *Myrothamnus flabellifolius*, *Athrixia phylicoides* and *Athrixia elata* are not only used medicinally, but also enjoyed as a herbal tea.

Van Wyk and Wink (2004: 9) stated that the use of herbal teas and herbal mixtures is particularly popular in Germany, Austria, France, Italy, Great Britain and Switzerland. Herbal teas have a history of helping people to stay healthy. There are various herbal teas used for medicinal purposes. Herbal teas are made from leaves, berries and roots of different plant materials. According to Rampedi & Olivier (2005:167), South Africa is home to other indigenous plant-based herbal teas with wellness properties similar to rooibos, such as bush tea (*Athrixia phylicoides)* and daisy tea (*Athrixia elata)* from Limpopo, Kwazulu-Natal and the Eastern Cape. They maintained that indigenous teas are not only popular in rural areas, but are consumed by large sectors of the urbanised black population.

Respondents in Marabastad and Denneboom mentioned that herbal teas play a big role in everyday living because of their health benefits. Furthermore, Rampedi (2010:24) reported that *Athrixia phylicoides* is regarded as a healthy tea by the peoples of South Africa. As reflected in section 1.6.1 of Chapter 1, 20% of the participants in Denneboom and Marabastad used the *Athrixia phylicoides* tea. Respondents mentioned that *Athrixia phylicoides* tea was made by boiling dry leaves. For the purpose of producing tea, the twigs and leaves are cut as low to the ground as possible, without damaging the stems. The leaves and twigs are then boiled in a pot,

kettle or a tin of water. The decoction is strained with a red sack (which is normally used for the packaging of oranges), and served cold or hot, depending on the preference of the boiler. According to the respondents, the *Athrixia phylicoides* mixture can be administered in different ways. The extracts may either be added to bath water, or can be taken orally as a tea.

A broom seller who was drinking the tea mentioned that she loved the fresh tea and she boiled the tea whenever she wanted it. However, she did not like to keep the tea for another day, or even for later during the day. Other respondents mentioned that there was no restriction on when to drink the tea; you could drink the tea as often as you wished. Others, including broom sellers, added milk or sugar to taste. It seemed that most of the male informants preferred the tea without sugar and milk. The reason was that they had been taught to drink the tea like that to provide energy. Nevertheless, most of the respondents at Marabastad and Denneboom did not add anything to the tea, but used the tea as it was. Mabogo (1990:62) confirmed that in preparing the tea, all of the respondents from his study indicated that they boiled the leaves, including the twigs, which was not normally the way other teas were brewed.

One customer said, “I also use other herbal teas besides *Athrixia phylicoides.* Sometimes, I use Chinese teas like Oolong tea, Jasmine green tea, Earl Grey tea, *et cetera.*” The customer mentioned that the taste of herbal teas differed: some were full of flavour and others were strong and medicinal. Some of the customers mentioned that by taking these teas over a long period, the body built resistance to some illnesses.

Mudau *et al.* (2007:72) indicated that the harvesting period of *Athrixia phylicoides* as a tea was usually from April to July. Respondents believed that the cutting was done carefully, not to damage the plant, and to allow the plant to sprout again to provide better quality twigs and leaves. Furthermore, respondents who lived in rural areas noted that the cutting method was part of the existing knowledge gathered from their parents and grandparents. They were taught that after a long, tiring day, they had to drink *Athrixia phylicoides* tea, as it would help them to relax and would give them energy. Judging from the information provided, it appeared that this traditional tea had

been very popular once, but its usage has since declined considerably, due to the adoption of modern lifestyles.

The respondents mentioned that in the case of harvesting *Athrixia phylicoides* for tea, they cut the leaves and twigs by a method they believed did not endanger the plant. Most of the taxi drivers interviewed at Marabastad and Denneboom indicated that they liked the idea of having broom makers around, as these ladies helped them with easy access to *Athrixia phylicoides* as a tea. They did not need to walk to the mountains to collect the plants for tea themselves; they just approached the ladies before they started to prepare their brooms and got hold of the tea.

4.18 CONCLUSION

According to Van Wyk and Gericke (2000:102), *Athrixia phylicoides* was very popular as a tea and as a medicine. Traditional healers interviewed confirmed that *Athrixia phylicoides* could be used as both a tea and a medicine. Some of the customers and traditional healers indicated that they used the tea on a daily basis, while others used it only if they were tired. Most traditional healers explained that they prescribed *Athrixia phylicoides* for different purposes.

Traditional healers interviewed at Marabastad and Denneboom had acquired the indigenous knowledge they display at the market from their ancestors. Most of the older ones said that they were concerned about the harvesting practices and added that they would die without handing down their harvesting knowledge to the next generation.

Most of the customers at Denneboom and Marabastad mentioned that herbal teas seemed to have played a bigger role in the past. Observations in this study confirmed what was observed in other studies reviewed, which found that *Athrixia phylicoides* was popularly used as a tea because of the belief that it had special properties and was generally used as medicine. Most traditional healers explained that they treated the whole range of illnesses of patients at Marabastad and Denneboom using the tea.

Some traditional healers mentioned that they walked long distances in search of medicinal plants, but that would not stop them from selling. It was clear that the acceptance and popularity of traditional health care at Marabastad and Denneboom were due to a variety of cultural factors that influenced people's lives.

In conclusion, most traditional healers were concerned about the possible extinction of *Athrixia phylicoides* and realised the importance of preservation methods. They were concerned about the method of uprooting the whole plant, which some of them regarded as a bad harvesting practice.

Having explored the role of *Athrixia phylicoides* as part of cultural heritage, as well as its contribution to the livelihood of many people in South Africa, conclusions from the evidence captured in the investigation will be drawn in the following chapter. Furthermore recommendations will be make in order to address the research questions.

CHAPTER 5

CONCLUSION

This chapter draws conclusions from the evidence captured in the investigation and provides recommendations that could address the research questions.

It is necessary to revisit the aims and objectives of this study. In the introductory chapter it was indicated that the main aim of this study was to review the notion that the indigenous knowledge systems around *Athrixia phylicoides* were almost extinct. Chapters 2, 3 and 4 focused on the observations that the plant has found usage in the main areas or domains of the social-cultural domain as medicine, tea and as a utensil within the domestic domain. From the study it is thus clear that *Athrixia phylicoides* is in high demand. Therefore, harvesting sustainability is imperative.

The general observation made in this study is that the plant's natural vegetation is gradually being destroyed. In order to understand the usage of *Athrixia phylicoides* brooms and grass brooms, both intangible and tangible heritage were investigated and discussed. This was necessary to fully understand the need for its usage and its protection. In Chapter 2 the emphasis was on the tangible and intangible dimension of memory around *Athrixia phylicoides*. From interviews with broom makers and traditional healers it became evident that stories and beliefs regarding brooms appear in folklore. Most folklore tales are indigenous in nature, while others have unknown origins, as they are also internationally observed. Additionally, brooms are sometimes put behind the doors of houses for protection and medicinal brooms are believed to keep away the witches.

It became clear that, with time, broom makers had used different materials to tie traditional brooms. New techniques of assembling brooms have been introduced through contact with others. This phenomenon was also observed in changes or differences in brooms collected over many years by the Pioneer Museum in Pretoria. It is alarming that younger generations do not know how things were done in the past, as it means a loss of cultural heritage. However, it is not yet too late to collect material

culture to record and to distinguish recent innovations from what was done a long time ago.

Different ways of collecting traditional brooms were also noticed during the study. The broom makers, traditional healers and customers claimed to use culturally relevant mechanisms to prevent excessive resource usage. They used their own local capacities to make rational socio-economic decisions, which should be encouraged. In earlier times, excessive resource use had been minimal, because the traditional healers and broom makers had collected and stored medicinal plants and brooms in accordance with traditions and *diila* – intangible heritage – which had prevented over-exploitation and over harvesting.

The local protocols ("*melao ya naga")* in natural resource management entailed good practices; for example, naming plants (female and male), *diila* discouraging children from collecting plants from the wild, collecting certain medicinal plants in winter or summer, condemning burning of the veld and discouraging the harvesting of unripe wild fruit and grass. To achieve the above, intangible heritage was used as mentioned in Chapter 3. However, changing times and urbanisation eroded these laws with severe consequences to the environment. People started to question why they were restricted because of *diila*.

The way a community behaved and set rules for operating in the past provided them with a sense of identity and continuity and promoted respect for cultural diversity. Taboos and beliefs allowed the communities to conserve plants in a manner that allowed them to regenerate. The taboos and beliefs served as a means of preventing over-harvesting of plant material, as they included restrictions on the gathering of plants. These restrictions limited the harvesting of and protected plant products to some degree.

The influence of change in the rural areas now makes it difficult for people to understand their environment and take responsibility. During the study it was evident that, in some areas, anybody was allowed to visit and collect grass as they wished. However, that was not the case in those areas that were still under control and rules. Traditional healers and broom makers felt strongly about the urgent conservation of

their local environment through a set of strict traditional laws, including taboos and heavy penalties under the guidance of the chiefs.

Taboos have enabled the various communities to live in harmony with their environments for generations. In the communities that were governed by rules and prohibitions, taboos were mainly enforced by community elders. The communities had powerful structures to ensure compliance with the rules and obligations. Most importantly, every member of the community grew up knowing the rules. However, the power of the elders like chiefs, responsible for enforcement of traditional rules, has been eroded in many cases.

In Chapter 4 the focus was on the depletion of the *Athrixia phylicoides* plant. When traditional healers were asked who were responsible for the depletion of the plant, they indicated that the broom makers, due to their ignorance of appropriate harvesting times and methods, were responsible. They explained that in their areas the broom makers uprooted the plants for selling brooms. They believed that this was contrary to what the plant was there for. As traditional healers, they kept the plant for a few months and only cut the pieces as needed for the medicine prescription.

The broom makers, on the other hand, did not directly point fingers at traditional healers, although they did not find the traditional healers blameless. The traditional healers and broom makers agreed that people who uprooted the plant were endangering it. This implicated the traditional healers, as they were mainly interested in the roots. However, by their own admission, the broom makers that operated in Marabastad indicated that they harvested locally at the Magaliesberg Mountain in Pretoria West, where they harvested the plant while it was still young. The reason for this was the high demand for brooms, as well as the fact that they harvested on a first come first served basis. To the broom makers' defence, they indicated that this did not damage the plant, as it would sprout again (Chapter 3).

It was, however, evident that, in many respects, current methods of harvesting for traditional brooms and traditional medicine was an environmentally destructive activity and should be stopped immediately. The fact that the harvesters provide bread to their families does not justify their destructive methods. Yet, harvesting of the plant is an

income generating opportunity for thousands of mainly rural communities from areas such as Kwazulu-Natal, Mpumalanga, Limpopo and certain areas in Gauteng. This was confirmed by Mander (1998), who estimated that of the 3000+ gatherers selling material in Durban, about 670 traded their produce in the street markets. At Marabastad and Denneboom, the majority of the broom makers and traditional healers sold plants and brooms that they had gathered and harvested themselves. A minority bought from the gatherers and harvesters.

The traditional healers from Marabastad and Denneboom commented that the traditional medicine industry faced a serious challenge. They argued that traditional healers needed to be regulated to stop them from making unfounded claims and being harmful to the communities they served. They believed that it would be hard to regulate the medicinal part, but that the registration of qualified healers was possible.

The Department of Science and Technology (DST) is rolling out the National Research and Development Strategy (NRDS) in communities to ensure that the indigenous knowledge holders are protected. In February 2015, cabinet approved the publication of a bill that would ensure the protection of intellectual property derived from indigenous knowledge practitioners through a consultative process. The current effort by government through the DST and its Council for Scientific and Industrial Research (CSIR) to protect indigenous knowledge should be commended.

However, most of the traditional healers interviewed for this study were afraid that regulation would only include other traditional healers who understood the field better. They expressed their unhappiness about regularly being called witches. They wished people would start calling them by their correct names and respected what they did. The study showed, therefore, that government should update the act and regulate the sector. It would be easier to curb ritual killings or the banishment of people who are accused of being witches. Traditional healers believed that communities were not able to identify witches, but that traditional healers could. They also believed that if a true traditional healer was involved in trying to solve a problem in the community, there would be no killing or banishment of innocent people who were accused of being witches.

It was interesting to observe that most of the broom makers and traditional healers who gathered traditional medicine and grass brooms were women. Rampedi (2010) confirmed that it was usually females who sold hand brooms. Many of the broom makers and traditional healers coped with life after loss of a family member or divorce by relying more heavily on local natural resources for an income. Shackleton (2005) made similar observations, indicating that 10% of women selling hand brooms in Bushbuckridge entered the trade after they had been left with grandchildren to care for, following the death of the children's parents.

Most women who participated in the research were predominantly below the age of 70 years and had not passed Grade 7. They were either heads of households or guardians. They sold traditional grass brooms and collected the *Athrixia phylicoides* plants themselves. They were well aware of the fact that over-harvesting and poor harvesting methods had resulted in a decrease of *Athrixia phylicoides*.

Women clearly play a significant role in managing the diversity of the ecosystem. Local women are responsible for the development and maintenance of biodiversity within reach of all rural societies, as, because of social differentiation according to gender, women, in most societies, are responsible for sustaining the livelihood of the family. Female broom makers and traditional healers also agreed that women are considered to be the real experts on biodiversity. Female broom makers and traditional healers felt that their contribution in terms of labour and skills for using and managing natural resources to satisfy the needs of the household were still overlooked and misunderstood. Female broom makers mentioned that in the past women had taken care of traditional brooms in most societies and therefore the broom, a tool for daily use, was regarded as feminine. Shackleton (2005) confirmed that resource harvesting was a strongly gendered activity. Acknowledging the indigenous knowledge of women would therefore be an important step towards new paradigms for the development of and research on sustainable resource usage.

Generating income from local natural resources proves to be an attractive livelihood. Older people usually sell natural products, partly because age is a barrier to finding employment. The fact that women selling natural products often have fewer years of education than the population average, indicate that the level of education may also

have an influence. As in the case of old age, a low level of education is likely to be a barrier to securing employment.

Unfortunately the modernisation of culture and the growing emphasis on market based transactions were contributing to the gradual erosion of local knowledge systems. On the other hand, female broom makers and traditional healers stated that modernisation assisted them, in that their general knowledge about traditional brooms and medicinal plants grew as they performed duties that were previously performed by men only. Still, in the process of modernisation of culture and the destruction of biodiversity, both the relevance of women's knowledge and their status as broom makers were being eroded.

Traditional healers and broom makers mentioned that indigenous knowledge systems enabled them to live in harmony with their environments for knowledge, skills, practices and beliefs, and enabled them to achieve stable livelihoods in their environments. In the past, broom makers had selected ripe grass brooms for storage, which required a sharp eye and much patience. These skills, practices and beliefs were, however, not honoured anymore. Indigenous knowledge was disappearing and young people were increasingly unwilling to acquire, use and blend indigenous knowledge with contemporary knowledge.

In an effort to determine whether plant availability was perceived to be related to over-utilisation and whether broom makers were prepared to do something to ensure continuous supply, they were asked what they would do to ensure future plant availabilities. The aim was also to find out what they perceived their alternatives to be, should traditional brooms become unavailable.

Most of the broom makers from Denneboom and Marabastad responded that they would do nothing, because they believed that *Athrixia phylicoides* plants and grass brooms scarcities were not possible. The remainder of the broom makers believed that they could accommodate plant shortages and would continue trading, because they had no alternatives. A small number of broom makers indicated that they would seek alternative employment by selling fruit. However, most broom makers did not consider alternative employment outside of selling brooms.

Another alarming factor was that the formal businesses within the area of Marabastad and Denneboom were greatly affected by deteriorating conditions. The presence of large numbers of informal traders had a negative impact on conditions in the Marabastad and Denneboom areas. These bad conditions have largely shaped the negative socio-economic environment with its inadequate and inappropriate health, education, religious and cultural facilities. However, if appropriate measures were implemented to support and control informal traders, they would be able to better the environment, rather than contribute to the deterioration of the socio-economic conditions.

Most of the broom makers and traditional healers had never been to high school and are therefore illiterate. It was, however, interesting to notice that, although only a small number of broom makers and traditional healers had primary education, it did not restrict their ability to earn an income. Traditional healers regarded traditional healing as an occupation, because they were able to generate income from consultations with patients and the prescription of medicine. Broom makers also regarded selling brooms as a good occupation, because it enabled them to generate income for their families. It was therefore clear that the over-exploitation of plants and grass brooms was caused by poverty, as these plants were relied upon by illiterate people for providing an income to support their families.

Most of the broom makers and traditional healers collected *Athrixia phylicoides* for their own use and as a trade product. Few of them collected the plant for their own medicinal purposes. Most of the broom makers mentioned that they collected mainly as a means of income generation. Very few of them mentioned that they also collected for neighbours and family members as gifts. Most of the customers mentioned that they purchased *Athrixia phylicoides* from other villagers; they did not collect themselves. Some mentioned that they bought the plants because they could not find *Athrixia phylicoides* around their areas. Interviews showed, interestingly, that most of the people were aware that the present collection practices of *Athrixia phylicoides* were unsustainable.

The study showed, however, that here is an urgent need to create awareness and find methods to communicate information regarding current *Athrixia phylicoides* plant scarcities and methods to broom makers, traditional healers, rural communities, as well as urban communities, as most do not believe that plant scarcity is a reality. Sustainable development efforts could benefit by a community that understands the scarcity of plants, and who treasures traditional knowledge.

While broom makers indicated that their major cost driver was the gathering of the plants and its transportation, none of them entertained the idea of growing the plant in their backyards. This was probably due to the belief that it is a taboo to grow wild plants in your own backyard. Traditional people believed that wild plants would not grow in an artificial environment. Moreover, traditional healers had flatly discarded the idea of using cultivated plants as they associated their healing properties with the gods. Some of them believed growing it in one's backyard interfered with nature.

In conclusion, research conducted at Marabastad and Denneboom, showed that the markets are of great importance to broom makers, traditional healers and customers. The markets at Denneboom and Marabastad acted as a source of supply for broom uses, broom makers, broom sellers, traditional healers, and patients from Tshwane. Customers at the two markets were generally commuters passing through. Trade in brooms and medicine at Marabastad and Denneboom was a subsistence level income-generating opportunity for thousands of mainly rural people from Limpopo, Mpumalanga and certain areas of Gauteng. Most broom makers and traditional healers earned less than R200 to R300 weekly, which had to cover living expenses, transport and food at home. The market helped them to survive financially.

Furthermore, it became apparent that selling traditional brooms and traditional medicine was not the occupation of choice for many broom makers and traditional healers. Certain factors, such as lack of education, failure of the rural economy in many areas, especially among already disadvantaged women, as well as competition for jobs which reduced the opportunities for employment, compelled most of the women from rural areas to resort to broom selling.

Poverty and unemployment were starkly present in the everyday realities and activities of the research areas of the present study. There was a high dependency on social grants and pensions that were still not adequate. As mentioned before, most of the broom makers and traditional healers of Marabastad and Denneboom were breadwinners in single income households. The traditional healers and broom makers wished that most communities would understand that their survival depended on how best they could nurture and utilise the natural resources in a sustainable manner.

The study has revealed the potential role that indigenous knowledge can play in identifying *Athrixia phylicoide,* a plant which has a valuable function in the lives and culture of a large number of people. Broom makers relied on *Athrixia phylicoides* brooms for their financial survival, traditional healers relied on *Athrixi phylicoides* for medicines, and others relied on *Athrixia phylicoides* tea to relax and stay calm. It is evident that the basis of this knowledge is disappearing at Marabastad and Denneboom, as most of the informants who knew the *Athrixia phylicoides* plant were over the age of 30.

This study found that there is an urgent need for further research that focuses on community awareness of the importance of *Athrixia phylicoides*. Furthermore it is clear that most of the broom makers and broom sellers were part of vulnerable groups. Thus it is imperative for government to understand the factors influencing the demand for over-harvesting and arrange steps towards setting priorities and goals for sustainability and management processes.

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APPENDICES

This research project examines the different uses and the economic markets of the indigenous plant, *Athrixia phylicoides* (Bos tee plant) in various industrial centres in and around Pretoria. Pre-survey with the market, traditional healers and trader was designed. Several site visits were conducted to familiarize the traders with the scope of the research.

SECTION A: PARTICULARS OF RESPONDENTS

Name of respondent: ___________________________

Indicate by means of an X

Gender:

Male	Female
1	2

Language group:

Setswana	Sesotho	Northern Sotho	Xitsonga	Tshivenda	Xhosa	Zulu	Ndebele	Swazi
1	2	3	4	5	6	7	8	9

Age:

20-29	30-39	40-49	50-59	60-69	70-79	80-89	Above 90
1	2	3	4	5	6	7	8

Highest educational level attained Less than std.10/Grade 12	1
Std. 10/Matric/Grade 12	2
Certificate (1 year)	3
Diploma (3 years)	4
B. degree	5
Other (please specify)	6

Present occupation of respondent

Not working	1
Pensioner	2
Semi-skilled	3
Professional	4
Administrative	5
Own business	
Any other (specify)	8

Indicate approximate level of annual income

No income	1
Less than R 10 000	2
R 10 000-20 000	3
R 21 000-30 000	4
R 31 000-40 000	5
R 41 000-50 000	6
R 51 000-60 000	7
R 61 000-70 000	8
R 71 000-80 000	9
R 81 000-90 000	10
R91 000-100 000	11
Over R 100 000	12

Do you know the plant *Athrixia phylicoides* (Bush tea plant)?

Yes	No
1	2

If yes do you use it?

Yes	No
1	2

If yes, for what?

Broom	1
Tea	2
Medicine	3
Other (if others specify)	4

If you use it as a

Broom trader complete section	B
Tea trader complete section	C
Medicine complete section	D

SECTION B: AS A BROOM

Section B1 should be completed by traders

Section B2 should be completed by customers who purchase *Athrixia* brooms.

B1. Traders

Where do you obtain it?

Buy from pickers	1
Harvesting it myself	2
Given by friends and family	3
Other (specify)	4

How do you identify this plant?

By colour of flowers	1
By shape of leaves	2
By habitats / locality	3
By smelling	4
Other means (please specify)	5

Do you know which geographical time the plant is harvested?

Summer	1
Autumn	2
Winter	3
Spring	4

Why specifically during that season?

____

How is the important part collected?

Uprooting the whole plant	1
Cutting specific parts	2
Do not know	3

Is anyone allowed to collect the plant?

Yes	No
1	2

If no, please explain briefly in the space provided.

____

Do you make brooms or do you buy pre-made brooms?

Yes	No
1	2

If yes, how many branches used to make each broom?

____

Do all have the same size?

Yes	No
1	2

Where do you sell it?

Street	1
Shops	2
Vendor	3
Other place (please specify)	4

How much does it cost the trader to buy it from a wholesaler?

Less than R50	1
R60 – R70	2
R 80 – R90	3
More than R100	4

For how much is it sold by traders?

Less than R5	1
R6 – R8	2
R 9 - R10	3
More than R11	4

How is it packed for selling?

Small bundles	1
Medium bundles	2
Large bundles	3

How many brooms are sold per day?

1 – 2	1
2 – 3	2
3 – 4	3
4 – 5	4
More than 5	5

Do you sell the brooms throughout the year?

Yes	No
1	2

How many brooms do you sell in each month?

Bag	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Small bag												
Medium bag												
Large bag												

Do all have the same size?

Yes	No
1	2

How do you pay your workers?

Weekly	1
Fortnight	2
Monthly	3

B2. Customers

Where do you buy it?

Vendor	1
Traders	2
Shops	3
Hawkers	4

Do you prefer to use it?

Where do you use it

House	1
Yard	2
Both	3

How is it different from other brooms?

Last long	1
Easy to use	2

How long does it last?

Few weeks	1
Month	2
Year	3
Years	4

How often do you replace it?

Once a year	1
Twice a year	2

SECTION C: AS A TEA

C1 Traders

Which part of the plant is used for brewing tea?

Roots	1
Stem	2
Twigs	3
Leaves	4
Whole plant	5

How much do you obtain a month?

Small bag	1
Medium bag	2
Large bag	3

Where do you obtain it?

Wholesalers	1
Self	2
Pickers	3

When is it harvested?

Summer	1
Winter	2
Autumn	3
Spring	4
Throughout the year	5

Where does the plant material come from?

How is the important part collected?

Cutting	1
Uprooting	2

If you collect when

Night	1
Day	2
Early morning	3
Middle of the day	4
Does not matter	5

Can anyone collect it?

Yes	1
No	2

If no, explain

How much is it sold for?

Less than R5	1
R6 – R8	2
R 9 - R10	3
More than R11	4

To whom is it sold?

Anybody	1
Specific people	2

If specific people who

When is it sold?

Summer	1
Autumn	2
Winter	3
Spring	4
Throughout the year	5

How is it packed for selling?

Small packet	1
Medium packet	2
Large packet	3

C2. Customers

How is it prepared for drinking?

Boil	1
Cook	2

What does it make you feel?

Relax	1
Hyperactive	2

Why do you drink it?

Energetic	1
Sleep	2

How often can it be taken?

More often	1
Seldom	2
Less frequently	3
Never	4

How long can the product last?

Few days	1
Week	2
Month	3

How much do you buy at a time? Your answers are a response to “How often …” rather than “How much …”

Once a month	1
Twice a month	2
Never	3

How is it packed for selling?

Small bag	1
Medium bag	2
Large bag	3

How much is the bag sold for?

Small bag	R6	1
Medium bag	R6 – R10	2
Big bag	more than R10	3

SECTION D: AS A MEDICINE

D1. Healers

Where do you obtain it?

Harvest self	1
Traditional healers	2
Shops	3
Traders	4

When is it harvested as a medicine?

Dry season	1
Rainy season	2

Do you collect the plant yourself?

Yes	1
No	2

If yes, when do you collect?

Night	
Day	
Early morning	
Middle of the day	
Does not matter	

How do you collect the medicinal part?

Uprooting	1
Cut only the part used	2
Other specify	3

Is anyone allowed to collect this plant?

Yes	1
No	2

If no, please explain briefly in the space provided

____

____

Which part of the plant is medicinal?

Roots	1
Stem	2
Twigs	3
Whole plant	4

What is done with the rest?

Keep it	1
Throw away	2
Replant	3

How is the medicine prepared?

Boiled	1
Crushed	2
Soaked	3
Burnt	4

How much is sold to patient at a time?

____

____

What is the dose?

____

____

How much is used for each dosage?

____

____

How many times a day?

1 per day	1
2 per day	2
3 and more per day	3

When to be taken

Morning only	1
During the day	2
At night	3

What is it used for?

____

____

Are you prescribing it more or less often?

More	1
Less	2
The same	3

How is it given?

Dry form	1
Powdered	2
Tea	3

Is it mixed with other plant material for which ailment?

Yes	1
No	2

If so, please give names of other plants

Is it stored?

Yes	1
No	2

If so, explain how it is stored

How is it prepared for storage?

If so, explain how it is stored?

As dry leaves	As a prepared medicine

For how long can it be stored?

One week	1
Few weeks	2
Month	3
Year	4

What is used to keep medicine from deteriorating?

How is it administered to patients?

D2. Patients

What do you use it for?

How long have you been using it?

How often can it be taken?

Once a day	1
Twice a day	2
At anytime	3

Where do you buy it?

Traders	1
Traditional healers	2
Pickers	3
Herbalists	4

How much is purchased at a time? Again the responses seem to be for a different question

Week	1
Month	2

How much does it cost?

How effective is it?

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