An investigation into the use of traditional woven grass bangle techniques to design and develop contemporary jewellery

Songezo Baleni

Durban University of Technology

Durban
South Africa

April 2018
DECLARATION

An investigation into the use of traditional woven grass bangle techniques to design and develop contemporary jewellery.

Songezo Baleni

Dissertation submitted in partial fulfilment of the requirements of Durban University of Technology for the Master’s of Technology Degree of Fine Art.

I declare that this dissertation is my own work and has not been submitted previously for any degree or examination through any other institution.

Songezo Baleni

Approved for final submission:

M de Beer

PhD Visual Arts (Stellenbosch University)

Date: 5/6/2018

Dr. P. Kethro

PhD Education (Rhodes)

Date: 5/6/2018
DEDICATION

Thandiswa Baleni, Mfundo Baleni, Nobulali Baleni, Nelisiwe Baleni, Nokwandisa Baleni, Ndisisipho Baleni, Mfowethu Baleni, Banele Baleni (1994-2017), and son Wasikhanyisela (Masters) Baleni.
ACKNOWLEDGEMENTS

The Durban University of Technology and TDG for financial support.

Rauri and Creina Alcock, Phansi Museum, Killie Campbell Museum, Natal Museum Pietermaritzburg for their interest in this research project.

Rauri Alcock for the video and images of interaction with crafters.

The crafters of Msinga, Weenen (Mdukatsani rural project).
ABSTRACT

This research project focuses on the documentation of traditional knowledge in order to contribute to preservation of traditional South African craft skills. The aim of the project is to research and record weaving skills used for making traditional grass bangles, the objective being to contribute to archiving skills that are under threat of becoming obsolete.

The project includes videos of specific weaving techniques, and a video that demonstrates my application of weaving to produce jewellery, which can be accessed via Quick Response Codes (QR) supplied in the document. I concentrate on a selection of weaving techniques that are suitable for application in making jewellery. As a qualified goldsmith and jewellery designer, my aim is to use indigenous craft skills in my practice to contribute to a South African design identity.

The significance of this study, which focuses on grass bangle weaving techniques practiced by weavers of the Mdukatshani rural project in Msinga KwaZulu-Natal, lies in its contribution to existing archives that are incomplete.
## Contents

DECLARATION ................................................................................................................................. ii  
ACKNOWLEDGEMENTS ............................................................................................................... iv  
ABSTRACT ..................................................................................................................................... v  
LIST OF FIGURES ....................................................................................................................... viii

Introduction ....................................................................................................................................... xiv

Chapter 1 .......................................................................................................................................... 1  
  1.1 FOCUS OF THE STUDY ........................................................................................................... 1  
  1.2 RESEARCH QUESTIONS ......................................................................................................... 1  
  1.3 RESEARCH DESIGN AND METHODS ............................................................................... 2  
      1.3.1 Practice-based research ................................................................................................. 6

Chapter 2 .......................................................................................................................................... 8  
  2.1 OVERVIEW OF AFRICAN JEWELLERY CRAFTS ............................................................. 8  
  2.2 WEAVING TECHNIQUES AND MATERIALS ..................................................................... 9  
  2.3 INTERACTION WITH MDUKATSHANI CRAFTERS ......................................................... 15

Chapter 3 .......................................................................................................................................... 28  
  3.1 GRASS WEAVING STITCHES ............................................................................................. 29  
      3.1.1 *Umthamo wempisi* ..................................................................................................... 29  
      3.1.2 Demonstration of *umthamo wempisi* weaving technique ........................................... 30  
  3.2 TRADITIONAL WEAVING TECHNIQUES ........................................................................... 35  
      3.2.1 *Indundu* ...................................................................................................................... 35  
      3.2.2 Demonstration of *indundu* weaving technique ............................................................. 35  
      3.2.3 *Amahlandla enyoka* .................................................................................................... 43  
      3.2.4 Demonstration of *amahlandla enyoka* weaving technique ........................................ 43  
      3.2.5 *Nemcimbi* .................................................................................................................. 57  
      3.2.6 Demonstration of *nemcimbi* weaving technique .......................................................... 57  
      3.2.7 *Insonto/insontana* ....................................................................................................... 65  
      3.2.8 Demonstration of *insonto* weaving technique .............................................................. 65  
      3.2.9 *Ubhizedane/insontana* ................................................................................................. 74
3.2.10 Demonstration of ubhedeze/insontana weaving technique ........74
3.2.11 Icansi .......................................................................................84
3.2.12 Demonstration of icansi weaving technique .........................84

Chapter 4 ..............................................................................................97

4.1 CONCLUSION ................................................................................97
REFERENCES ......................................................................................100
APPENDICES .....................................................................................104

Appendix A: Questions for study participants ........................................104
Appendix B: Participant consent form ....................................................106
Appendix C: Ethics clearance ...............................................................111
LIST OF FIGURES

Figure 1: Wire basket by Elliot Mkhize ................................................................. 13
Figure 2: Woven beer pot (Source: Julia Meintjies (n. d.)) ......................... 14
Figure 3: Dead cattle affected by drought ............................................................ 16
Figure 4: Veteran crafters soaking grass in preparation for weaving. From left, Phumlele Mbatha (78), Ntombizi Mdolo (65), Jaji Dladla (83) and Divane Dladla (66) ................................................................. 18
Figure 5: Crafters with Chris de Beer and Songezo Baleni ......................... 18
Figure 6: Example of a knot at the start of a weave ........................................ 22
Figure 7: Various traditional woven grass bangle stitches practiced in Msinga .......................................................................................................................... 23
Figure 8: Ntombizi Ndlolo demonstrating how to hold grass strands while weaving ........................................................................................................ 24
Figure 9: Gog’ Phumelele Mbatha weaving grass ........................................ 24
Figure 10: Songezo Baleni demonstrating the inhandla stitch to crafters using copper wire ........................................................................................................ 26
Figure 11: Songezo Baleni demonstrating wire making ................................ 26
Figure 12: Silver and copper wires are woven around a Savannah beer bottle into bangle .......................................................................................................... 27
Figure 13: Grass soaked in water prior to weaving ......................................... 27
Figure 14 Grass bangle using the umthamo wempisi/ibhijo weaving stitch – Natal Museum .................................................................................................................... 29
Figure 15: The start .................................................................................................... 31
Figure 16 Next step .................................................................................................. 31
Figure 17: Turn-over ................................................................................................ 32
Figure 18: Black strand cycle complete ................................................................. 32
Figure 19: Next step ................................................................................................ 33
Figure 20: Full cycle completed ............................................................................ 34
Figure 21: The spiral “twist and turn” forming ....................................................... 34
Figure 22: Grass bangle using the indundu (ubhijo) weaving technique – Natal Museum .................................................................................................................. 35
Figure 23: The start ................................................................................................ 36
Figure 24: The beginning .......................................................... 36
Figure 25: North, south, east, west ............................................. 37
Figure 26: The start – green strand moves .................................... 37
Figure 27: Yellow strand moves .................................................. 38
Figure 28: Red strand moves ...................................................... 38
Figure 29: Blue strand moves ...................................................... 39
Figure 30: Complete cycle ........................................................... 39
Figure 31: Green strand moves (completed cycle) ......................... 40
Figure 32: Yellow strand moves (completed cycle) ....................... 40
Figure 33: Red strand moves (cycle completed) ............................ 41
Figure 34: Blue strand moves (cycle completed) ............................ 41
Figure 35: Indundu starting to form .............................................. 42
Figure 36: The indundu “square plait” forming ............................... 42
Figure 37: Grass bangle using the amahlandla enyoka (ubhiyo) weaving technique – Mdukatshani rural project ..................... 43
Figure 38: The start .................................................................. 44
Figure 39: Step two .................................................................. 44
Figure 40: Step three .................................................................. 45
Figure 41: Red strand moves down .............................................. 45
Figure 42: Green strand moves to the left ..................................... 46
Figure 43: Red strand moves ...................................................... 46
Figure 44: Red strand moves ...................................................... 47
Figure 45: Green strand moves .................................................... 47
Figure 46: Red strand moves ...................................................... 47
Figure 47: Blue strand moves ...................................................... 48
Figure 48: Red strand moves ...................................................... 48
Figure 49: Blue strand moves ...................................................... 49
Figure 50: Blue strand moves ...................................................... 49
Figure 51: Red strand moves ...................................................... 50
Figure 52: Blue strand moves ...................................................... 50
Figure 53: Yellow strand moves .................................................. 51
Figure 54: Blue strand moves ...................................................... 51
Figure 55: Yellow strand moves ................................................................. 51
Figure 56: Yellow strand moves ................................................................. 52
Figure 57: Blue strand moves .................................................................... 52
Figure 58: Yellow strand moves ................................................................. 53
Figure 59: Green strand moves ................................................................. 53
Figure 60: Yellow strand moves ................................................................. 54
Figure 61: Green strand moves ................................................................. 54
Figure 62: Green strand moves ................................................................. 55
Figure 63: Yellow strand moves ................................................................. 55
Figure 64: Green strand moves ................................................................. 56
Figure 65: *Amahlandla enyoka* stitch ...................................................... 56
Figure 66: Grass bangle using the *nemcimbi (isizembe)* weaving technique – Mdukatshani rural project .................................................. 57
Figure 67: The start ..................................................................................... 58
Figure 68: Step two ..................................................................................... 59
Figure 69: Step three .................................................................................. 59
Figure 70: Red strand moves ...................................................................... 60
Figure 71: Red strand moves ...................................................................... 60
Figure 72: Red strand moves ...................................................................... 61
Figure 73: Red strand moves ...................................................................... 61
Figure 74: Red strand moves ...................................................................... 61
Figure 75: Red strand moves ...................................................................... 62
Figure 76: Red strand moves ...................................................................... 62
Figure 77: Red strand moves ...................................................................... 63
Figure 78: Red strand (complete cycle) ....................................................... 63
Figure 79: *Nemcimbi* stitch ..................................................................... 64
Figure 80: Grass bangle using the *insonto (insontane)* weaving technique – Mdukatshani rural project .................................................. 65
Figure 81: The start ..................................................................................... 66
Figure 82: Step two ..................................................................................... 66
Figure 83: Step three .................................................................................. 67
Figure 84: Divide strands (perpendicular) .................................................. 67
Figure 85: Blue strand moves over red strands .................................................. 68
Figure 86: Red strand moves over blue and yellow strands ................................. 68
Figure 87: Yellow strand moves over red and green strands ............................... 69
Figure 88: Green strand moves over yellow and blue strands ............................. 69
Figure 89: Blue strand moves over green and red strands ................................. 69
Figure 90: Red strand moves over blue and yellow strands ............................... 70
Figure 91: Green strand moves over red and green strands ............................... 70
Figure 92: Green strand moves over yellow and blue strands ............................ 71
Figure 93: Blue strand moves over green and red strands ................................. 71
Figure 94: Red strand moves over blue and yellow strands ............................... 72
Figure 95: *Insonto* starting to form ................................................................. 72
Figure 96: *Insonto* stitch .................................................................................. 73
Figure 97: Grass bangle using the *ubhedezane (insontana)* weaving technique – Mdakatshani rural project ........................................................... 74
Figure 98: The start ............................................................................................... 75
Figure 99: Step two .............................................................................................. 76
Figure 100: Step three ......................................................................................... 76
Figure 101: Divided strands (perpendicular) ....................................................... 76
Figure 102: Green strand moves over green strand ........................................... 77
Figure 103: Green strand moves up vertically .................................................... 77
Figure 104: Green strand moves horizontally over red strands ......................... 77
Figure 105: Red strand moves up vertically ....................................................... 78
Figure 106: Red strand moves over red and blue strands ................................... 78
Figure 107: Red strand moves up vertically ....................................................... 79
Figure 108: Red strand moves over blue strands .............................................. 79
Figure 109: Blue strand moves up vertically ...................................................... 80
Figure 110: Blue strand moves over blue strand .............................................. 80
Figure 111: Blue strand moves up vertically ...................................................... 81
Figure 112: Blue strand moves over yellow strand ........................................... 81
Figure 113: Yellow strand moves up vertically .................................................. 82
Figure 114: Blue strand moves over yellow strand ........................................... 82
Figure 115: *Ubhedezane* starting to form ....................................................... 82
Figure 116: *Ubhelezane* stitch ................................................................. 83
Figure 117: Grass bangle using the *icansi* weaving technique – Mdukatshani rural project ............................................................... 84
Figure 118: Step one .................................................................................. 85
Figure 119: Step two .................................................................................. 85
Figure 120: Step three .............................................................................. 86
Figure 121: Divide strands (side view) ...................................................... 86
Figure 122: Divide strands (top view) ......................................................... 87
Figure 123: Green strand moves down between red and black strands .... 87
Figure 124: Red strand moves over green strand forward towards the black strand ............................................................................. 87
Figure 125: Black strand moves over green strand towards weaver ........ 87
Figure 126: Green strand moves up to the left ......................................... 88
Figure 127: Pink strand moves down between red and black strands ....... 88
Figure 128: Black strand moves over pink strand, forward towards red strand .................................................................................... 89
Figure 129: Red strand moves over pink strand towards weaver .......... 90
Figure 130: Pink strand moves up to the left ............................................. 90
Figure 131: Yellow strand moves down between red and black strands ... 91
Figure 132: Red strand moves over yellow strand towards black strand .. 91
Figure 133: Black strand moves over yellow strand towards weaver ........ 92
Figure 134: Blue strand moves down between red and black strands ...... 92
Figure 135: Blue strand moves down in-between red and black strands .. 92
Figure 136: Black strand moves over blue strand, forward towards red strand .................................................................................. 93
Figure 137: Red strand moves over blue strand towards weaver .......... 93
Figure 138: Blue strand moves up to the left next to yellow strand ....... 94
Figure 139: Side view ............................................................................... 95
Figure 140: Strands turned to the right-hand side .................................. 95
Figure 141: *Icansi* stitch ..................................................................... 96
Figure 142: Thembelihle necklace using the *amahlandla enyoka* stitch . 98
Structure of the dissertation

Chapter 1: This chapter includes the problem statement, research questions, aims, objectives, and an overview of the research methods used in this study.

Chapter 2: In this chapter, I provide an overview of the craft’s focus, in order to provide a context for this study, which includes a discussion of my interaction with the focus group.

Chapter 3: This chapter consists of a step-by-step explanation of selected weaving methods, and includes images of the seven stitches documented in this study. Included are QR codes that provide access to videos of each weaving technique.

Chapter 4: This chapter offers a conclusion to the study and includes Appendices.

Included in this document is a DVD, which contains stop-frame animations of the weaving techniques discussed in Chapter 3, and examples of my jewellery that demonstrate the application of a selection of weaving techniques to produce contemporary jewellery.
Introduction

As a designer of contemporary jewellery, I have become increasingly aware of the importance of specialised craft skills for making jewellery. With the advancement of technology, traditional specialised craft skills, which require a significant amount of expertise to execute, stand the chance of becoming obsolete.

Master crafters no longer pass down their skills to younger generations, who, immersed in a technological environment, have become disinterested in learning traditional knowledge and skills. During my B-Tech studies, I started using my knowledge of traditional grass bangle weaving to make jewellery. I have since made various intricate pieces of jewellery in precious metals, such as silver, 18-carat gold, as well as platinum, which sold at a leading jewellery outlet, Veronica Anderson Jewellery in Rosebank, Johannesburg.

The experience has renewed my interest in learning additional weaving techniques, and highlighted the importance of documenting traditional techniques for future generations. I align my practice with Lingel’s (2006: 14) view of jewellery as being a form of individual expression, and wish to use my practice to demonstrate and preserve my identity and cultural heritage as an African.

I currently know six traditional weaving stitches, *ubhijo, insoto, insotane, umqolo wemamba, indundu and isihlandla*, which I learned from my grandmother, Mrs Bhaliwe Zincume. As a child, I made grass bangles and hats, while herding cattle with my peers, with grass known as *umsingizane*.

The preservation of cultural heritage is similarly important to African craftspeople. However, the importance of crafts goes further, as Sandra Klopper (2000: 17) observes, with the renaissance of “Africanness” in South Africa not only being about rediscovery, but also about the reiteration of what it means to be African.
For a crafter to become an even more proficient practitioner in their field, it is important to have the opportunity to develop through meeting other professionals and traditional bearers of knowledge (Klopper 2000: 11). “In 1996 Mbeki proclaimed his vision for South Africa and Africa by asserting the importance to him of his African heritage and identity” (Klopper 2000: 11).

There is a difference between “knowledge of” (which is something one has read about) and “knowledge in” (which is traditional living knowledge such as weaving), with the latter being a method of attaining knowledge which offers a more significant experience (UNESCO 2012).

The aim of this study is to investigate selected traditional weaving techniques, more specifically techniques that are suitable for manufacturing contemporary jewellery, in order to document and examine the process as part of the preservation of traditional knowledge. I employ the knowledge gained from this investigation to produce contemporary jewellery.

The conservation of traditional craft knowledge enables it to live on in contemporary interpretations. The study therefore investigates and documents the design, techniques and materials used by traditional South African weavers from the Msinga area in KwaZulu-Natal. Documenting these techniques allows them to be preserved for future generations. The findings of the study are archived in contribution to the preservation of traditional knowledge.

The central aim and significance of this study is the preservation of traditional knowledge through interaction with crafters. Although the study is ethnographically situated, the knowledge is obtained and preserved through practice, by documenting techniques through my own practice as a jewellery designer. This will become clear in Chapter 3, where I provide images and a written explanation of each the weaving techniques, that include video clips, which record the techniques included in this document.
Knowledge of traditional skills, such as weaving, is usually conveyed orally. Oral traditions refer to information which is transmitted by word of mouth from one generation to another. These traditions make it possible for a society to pass knowledge across generations without writing. Traditional knowledge also teaches children and adults about important aspects of their culture, and helps people make sense of the world.

There is a rich tradition throughout Africa of oral storytelling. Parents, grandparents, and relatives take part in the process of passing down the knowledge of culture and heritage. An African proverb, *inyathi ibuzwa kwabaphambili* (“when tracking an animal one would also rely on information from others to locate the animal”), conveys the message that, for wisdom and knowledge to be gathered, one should rely on the elders.

According to UNESCO guidelines (2005), the safeguarding of traditional culture and intangible folklore is necessary, as it forms part of the universal heritage of humanity and our living culture. The UNESCO guidelines (2005) for conserving and disseminating traditional skills recommend the use of photographs, video and graphics in documenting the research process. Eisner (2008: 5) quotes Polanyi who proposes, “we know more than we can tell”. Eisner states that “knowledge comes in different forms”, that there are multiple ways of knowing, and that language often falls short in offering an adequate description of knowledge and experience (Eisner 2008: 5).

According to Benter, Mukundi, Watako and Adimo (2016: 1), most often, due to poverty and inappropriate conservation policies, community conservation efforts aimed at protecting and conserving cultural heritage are not widely documented. Colonialism, imperialism and even globalisation are events in history which have shaped culture significantly.

Jannie van Heerden (2006: 5) proposes that African cultural values have been undervalued due to “the dominance of Eurocentric values in the arts”, which “has
been a major stumbling block in the recognition and promotion of indigenous crafts”. He proposes that the conquering colonial forces of the nineteenth century “discouraged traditional values and their expression in, for example, the wearing of beadwork” (van Heerden 2006: 5).

According to van Heerden (2015), knowledge of traditional weaving is both complex and comprehensive, and these scarce skills are in danger of vanishing, with great loss to communities. Van Heerden stated (during a talk at the Phansi Museum in March 2015) that the current youth is not interested in traditional crafts, and that it is our responsibility as a society to hand this knowledge over to the next generation.

According to van Heerden (2015), this knowledge is often referred to as “action born knowledge”, and he uses this term to describe how crafters, in the action of weaving, rely on previous knowledge, while developing new knowledge at the same time. The term also positively describes how living crafts are best carried forward.

For example, the younger generations in Africa have little knowledge regarding their own culture, due to the strong influence of Western culture, which undermines their cultural heritage (Benter et al. 2016: 1). Angela Fisher (1987: 9), in her investigation of traditional African adornment and customs, states that “the young though willing to talk were often uninterested in their own cultural heritage or simply ignorant of it”. Therefore, the documentation of these traditions is a key factor in combatting the problem of the loss of traditional cultural knowledge.

Ethnography and ethnomethodology, a vital part of this entire research process, provide methods to achieve this conservation goal. The Phansi museum (Durban), Killie Campbell Museum (Durban), and the Natal Museum (Pietermaritzburg), have all indicated, via email correspondence, an interest in obtaining copies of my study for their archives. Although samples of various
traditional woven artefacts, such as grass bangles, are kept at the abovementioned museums, they do not have any comprehensive documentation of weaving techniques stored in their archives.
Chapter 1

1.1 FOCUS OF THE STUDY
This study focuses on the production techniques, and also the designs, materials, skills, patterns and forms used for making traditional grass bangles in KwaZulu-Natal. The study includes an ethnomethodological overview of my interaction with traditional crafters.

Lehman (2012: 9-10) states that “recent theoretical approaches to artefacts in the adjacent fields of anthropology, sociology, archaeology, and material culture studies all agree in one respect: if we want to understand what artefacts mean – in the broadest sense of the word – we have to investigate the complex, dynamic networks in which they are created, used, modified, collected and destroyed”.

The study’s significance lies in the documentation of indigenous knowledge, due to there being insufficient documentation on the subject of traditional South African grass bangle weaving techniques. Indigenous knowledge has traditionally been passed down from elders to the younger generation in communities where these talents and skills were first established.

However, the bearers of this knowledge are vulnerable, as the current youth no longer shows interest in traditional knowledge. Contributions such as this study with, in this case traditional grass bangle weaving techniques, are therefore necessary in order to preserve traditional cultural knowledge.

The Killie-Campbell Museum in Durban, the Natal Museum in Pietermaritzburg, and the Phansi Museum in Durban, have communicated an interest in securing copies of this research document for their archives.

1.2 RESEARCH QUESTIONS
This study seeks to answer the following key questions:
1. How are traditional grass bangles woven (the stitches)?
2. How can these techniques be archived for dissemination?
3. Which stitches are most suitable for producing contemporary jewellery?

1.3 RESEARCH DESIGN AND METHODS
In this study, I apply a qualitative, practice-based methodology, concentrating on an ethnomethodological ethnographic approach. In this regard, Mason (2002: 1) states that “through qualitative research we can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, [and] the understandings, experiences and imaginings of our research participants”. According to Linda Candy (2006: 1), practice-based research “is an original investigation undertaken in order to gain new knowledge partly by means of practice and the outcomes of that practice”.

Research of this kind “takes the nature of the practice as its central focus”, and it often “gives rise to new concepts and methods in the generation of original knowledge” (Candy 2006: 2). This study focuses on documenting traditional knowledge through participative observation. The collection and analysis of data obtained for this type of study can be achieved through interviews, as a process for collecting verbal information (Candy 2006: 16). Candy (2006: 16) additionally states that interviews could be either structured or unstructured, and either written down or recorded.

Although my original intention was to conduct structured interviews, this changed during my interaction with the crafters. My interaction, which is filmed and recorded digitally, with the objective of generating primary data for the study, was unstructured, as I responded to the situation as it developed.

Candy (2006: 16) states that unstructured interviews provide an opportunity for a more open-ended approach, which allows themes to emerge and develop. I discuss the nature of my interaction with the crafters in more detail in Chapter 2.
I initially prepared a list of questions with the idea of conducting structured interviews; this, however, changed significantly (as will become clear in my discussion of interaction with the crafters in Chapter 2 when I started actually interacting with them).

According to Mason (2002: 62), a qualitative semi-structured interviewing technique “has its own character, and although it has some quite large variations in style and tradition, such interviews have the following core features in common”. The features of such interviews, as suggested by Mason (2002: 62), include:

- The interactional exchange of dialogue. Qualitative interviews may involve one-to-one interactions, larger group interviews or focus groups, and may take place face-to-face, or over the telephone, or the Internet, for example.
- A relatively informal style; for example, with the appearance in face-to-face interviewing of a conversation or discussion, rather than a formal question-and-answer format.
- The researcher is unlikely to have a complete and sequenced script of questions, and most qualitative research interviews are designed to have a fluid and flexible structure, which allows both the researcher and interviewees to develop unexpected themes.
- Most qualitative research operates from the perspective that knowledge is situated and contextual, and the purpose of the interview is therefore to ensure that relevant contexts are brought into focus, so that situated knowledge can be produced. For some, this extends to the assumption that data and knowledge are constructed through dialogic (and other) interaction during the interview. Most would agree that knowledge is at the very least reconstructed, rather than being made up of facts which simply exist (Mason 2002: 62).

Since my research consists of an investigation of the traditional knowledge of a specific cultural group, it includes an ethnomethodological ethnographic aspect.
Mark Rouncefield (2011: 44) explains the difference between ethnomethodology and ethnography as follows: “ethnography is an observational approach that examines work as it is practised in a naturalistic setting and ethnomethodology is an approach to analysis that gives precedence to the actors’ ways of structuring work rather than attempting to analyse this using some theoretical framework”.

Rouncefield (2011: 47) proposes that in an ethnomethodological ethnographic approach the “situatedness” of the work “involves tacit skills and local knowledge that may be rendered invisible by formal models of processes and procedures, often going unrecognised by the workers themselves”. Rouncefield’s view is in line with the approach which I adopted for collecting information from crafters, which “recognizes the inherent messiness of the world and inadequacy of any theory to deal with this” (Rouncefield 2011: 46).

Potter (1996: 53) proposes, “ethnomethodology seeks to identify the rules people apply in making sense of their world”. Bogdan and Taylor (1975) argue that the focus of ethnomethodology is on “the ways people apply abstract rules and common-sense understandings in situations in order to make actions appear routine, explicable, and unambiguous”.

In her investigation of the indigenous Maori of New Zealand, Linda Tuhiwa Smith (2005: 85) states that there are still “native and indigenous families and communities who possess the ancient memories of another way of knowing that informs many of their contemporary practices. When the foundations of those memories are disturbed, space sometimes is created for alternative imaginings to be voiced, to be sung, and to be heard (again)”.

Smith (2005: 92) points out that knowledge, because of the Enlightenment, Industrialisation, Modernity and the Age of Information, has become a “key commodity in the twenty-first century”. Candy (2005: 930) states, moreover, that “researchers are knowledge workers who produce new knowledge. In this
environment, new and unique knowledge products become highly prized objects of capitalist desire”.

It is therefore imperative to conduct research in an ethical and respectful manner, without exploiting the carriers of traditional knowledge. In order to gain consent for this study I composed a consent form, which was approved by the ethics committee at DUT (Appendix C).

Creina and Rauri Alcock, who head the Mdukatshani Rural Project in KwaZulu-Natal where the research was conducted, are both fluent in isiZulu, and since some crafters do not speak English, Creina and Rauri explained the intentions and contents of the consent form to them. This was necessary, since some crafters had not received official schooling, and for everyone involved to agree that the research was not being conducted for financial gain to the researcher, or any other participants. All agreed to sign the form, due to the long-standing working relationship and trust which existed between the Alcocks and the crafters.

As I will demonstrate in Chapter 2, my interaction with the crafters included an exchange of information relating to knowledge and skills. According to Candy (2005: 97), as far as indigenous communities and marginalised people are concerned, the giving and receiving of knowledge, and “research ethics is at a very basic level about establishing, maintaining, and nurturing reciprocal and respectful relationships”.

Cram (in Candy 2005: 98) provides the following seven guidelines for researchers of indigenous communities: Firstly, have respect for people and allow them to define their own space and meet on their own terms; secondly, meet people face to-face; thirdly, look and listen before speaking; fourthly, display generosity in sharing (which allows knowledge to flow backwards and forwards); fifthly, be politically astute (especially in the case of cultural outsiders); sixthly, avoid being
impatient, sarcastic or patronising; and finally, refrain from flaunting your own knowledge.

I made use of photographs and videos to archive and demonstrate my research findings. Eisner (2008: 9) proposes that different media used for practice-based research each requires “its own set of skills and techniques”. Eisner (2008: 9) furthermore states, “if we indeed know more than we can tell, then we should try telling what we know with anything that will carry the message forward”. Janice Rahn (2008: 299) also promotes video as a tool for conducting cultural research, and for the transference of visually based skills.

1.3.1. Practice-based research
This study uses artefacts to document and produce data for dissemination. Niedderer (2009: 65) takes the stance “that artefacts do not contain knowledge within themselves, but provide data from which to build knowledge”. As Niedderer (2009: 65) proposes, it is useful to produce artefacts as part of the research process, “because it allows the expert practitioner to draw on their tacit knowledge in the process of research regarding process-related methods and creative analysis or synthesis, as well as evaluation and judgment, due to their expertise and connoisseurship”.

This study is an ethnographic study of a particular form of crafts knowledge through participant observation by the researcher. In this regard, the artefact production (practice) provides a means to “analyse and understand complex concepts” (Niedderer 2009: 65). According to Niedderer (2009: 65) “production of artefacts may be used in the process of knowledge generation in a number of forms”, such as testing and improving methods and technology; testing new materials; or may form part of a creative exploration. In this case, the production of artefacts, as part of practice-based research, provides a method “to analyse and understand complex concepts”, whilst contributing to the preservation of knowledge.
Rust, Mottram and Till (2007: 11) view practice “as the natural arena for inquiry and the methods of practice as methods of inquiry”. This study uses an ethnographic approach to obtain knowledge, and includes a practice-based methodology. The value of research practice, “emerging from Art, Design and Architecture (ADA) and other creative disciplines” is that, with time, “those practices become more widely understood and established” (Rust, Mottram and Till 2007: 11).

As previously indicated, the findings of this study will be made available at various archival facilities. Niedderer (2004: 23) refers to Biggs, who states that “objects alone cannot embody knowledge because they need to be interpreted in order to communicate the knowledge and insight that is required of research”. Weaving is a complex mathematical process which requires meticulous documentation, and practice forms part of the process of interpreting and preserving this knowledge.

The research process for this study therefore relies on a practiced-based methodology using participative observation, and includes the production of artefacts. Participation in the production of artefacts enabled me to interact with the crafters as a fellow practitioner, and to gain a deeper understanding of the intricate process of creating woven artefacts. Through practice, I gained a deeper understanding of the process, which allowed me to produce detailed documentation of indigenous knowledge and skills forming part of the preservation of knowledge. The detailed documentation of weaving techniques enabled me to apply this knowledge in my practice as a jewellery designer.
Chapter 2

In this Chapter, I provide a brief overview of the materials used to create artefacts using traditional grass weaving techniques. I concentrate on artefacts made by the Nguni people of KwaZulu-Natal, starting with basketry, and various other objects, and conclude with a discussion of woven grass bangles. My intention is to highlight the lack of documentation that exists on traditional weaving techniques for making grass bangles. In addition, I discuss the methods and processes used for collecting primary data at Msinga in KwaZulu-Natal.

2.1 OVERVIEW OF AFRICAN JEWELLERY CRAFTS

Humans have adorned themselves with jewellery for as far back as history can recall. The techniques and designs used for making jewellery vary, depending on the different cultures of the world. According to Oppi Untracht (1982: xv) the wearing of jewellery involves “elemental and eternal needs”, since jewellery is “portable intimate art that can worn and constantly enjoyed”. Untracht (1982: xv) states that “the basic appeal of jewellery lies in the satisfaction of primitive needs”, and serves as a method to “fantasize about ourselves, our lives, and our world”.

According to Bruce Metcalf (1989: 1), jewellery “can be regarded as a body of objects emanating from almost any known society since the beginning of culture”. Jewellery serves many functions to the wearer, such as the indication of status, social identity and belonging, portable wealth and spiritual protection, or mediation (Metcalf 1989: 2).

African tribes, such as the Dinka of Eastern Africa, use beadwork to communicate eligibility for marriage and the prosperity of the wearer, cowrie shells to promote fertility, and ivory bracelets to indicate wealth and status (Fisher 1987: 53). Jewellery of the Dogon people of Mali reflects their spiritual beliefs and myths, and the jewellery of the Wodaabi of central Nigeria has amuletic significance (Fisher 1987: 53).
Glass beads are an integral part of the traditional jewellery of the Nguni people of South Africa, and Indian-manufactured beads were originally acquired through barter with Arab traders. Sandra Klopper (2000: 21) states that people “who lacked access to the benefits of trade continued to make ornaments from locally available seeds and grasses”.

Klopper (2000: 21) proposes that the use of natural fibres has played an important role in jewellery made by Zulu-speaking women, and that “to this day, therefore, grass is used in the production of costumes worn in various Southern African communities by young post-pubescent girls during rites of passage. Covering ropes and waistbands of grass with beadwork (amabijo) became popular only after beads became more inexpensive throughout the present-day KwaZulu-Natal region” (Klopper 2000: 23).

2.2 WEAVING TECHNIQUES AND MATERIALS

Natural fibres, such as grass, have traditionally been used for constructing Zulu beehive huts, baskets (izililu), brooms (imishanelo), mats (icansi, izicephu), beer strainers (amavovo) and trays (izithebe). J. W. Grossert (1985: 15) argues as follows: “grass has a special significance in the minds of the Zulus and this is to be expected of people who are predominantly herdsmen and who lived the greater part of their lives out of doors on the rolling savannas of south-east Africa, where a good annual rainfall produced an abundance of excellent grazing”.

According to Jannie van Heerden (2006: 5), gender plays a significant role in artefacts manufactured by the Zulu people, with women concentrating on beadwork and pottery, and men concentrating on metal and woodwork, while grass weaving was practiced by both genders (men produced baskets, while women made mats and strainers). Van Heerden (2006: 5) states that, “economic and cultural disruption brought about by colonialism changed these roles. As men moved to the cities to seek employment, women took to basketry”.
According to Grossert (1985: 15), young Zulu boys herded cows and goats from as early as four to five years old, to become fully-fledged herders once they had their ears pierced in a ceremony, which marked their entrance into puberty (ukuqhumbuza). While herding animals, the boys were taught (as a form of informal schooling) the “names and characters of the grasses and rushes of the district, the herbs, shrubs and trees, the birds and insects and the wild animals to be found” (Grossert 1985: 15).

The boys, who were more skilled at plaiting grass than girls (who made bangles and necklaces), often made braids by plaiting flowering and pliable stalks of grass, “particularly a variety called umsingizane” (Grossert 1985: 15). This is possibly because boys spent more time in the open veld, whereas girls were busy with household chores. Grossert (1985: 16) documents eleven grass stitches:

1. *Inhlandla* (grass bangles, grain storing baskets)
2. *Ithambo lenyoka* (grass bangles)
3. *Insonto* (grass bangles, ropes)
4. *Insontane* (grass bangles)
5. *Isixebelane* (grass bangles)
6. *Umthamo wempisi* (grass bangles)
7. *Indundu* (grass bangles, ox whips)
8. *Isixwexwe* (grass bangles, straw hats and bags)
9. *Isixwembe* (grass bangles, straw hats)
10. *Uphondo iwenqama* (grass bangles)
11. *Umhlandla wenyoka* (grass bangles)

According to Grossert (1985: 17), once the skill to weave braids had been mastered, it was an easy and natural transition to making small bowls (*unyazi*) and shallow saucer-like dishes (*imbenge*). *Umsingizane* (African lovegrass, *eragrostis curvula*), as the most plentiful raw material available, was primarily used for making baskets, although grasses such as *inqonqodwane, inqatha* and *ukhasi* were also used. The bark of many kinds of rushes, such as *incema* and
*ingcobosi*, commonly found in gardens and on the banks of streams near homesteads, also served as materials for making baskets (Grossert 1985: 17).

Other materials included *ingceba* and *ilala* palm leaves, and wild dwarf banana bark strips, depending on availability (Grossert 1985: 17). Baskets played a significant role in the social life of the Zulu people, serving as containers for food, and more specifically, beer (*utshwala*). According to van Heerden, Getz and Smuts (2006), traditional baskets are closely linked to rituals acknowledging the ancestors (*amadlozi*) in everyday life.

All these artefacts, produced through weaving with natural fibres, have been used in the traditional Zulu home. Mats, for sleeping and sitting on (*icansi* and *isicephu*) were made from *incema*, which is a long grass. The mats were constructed by tying grass strands, which were sometimes dyed, together using twisted fibre (Grossert 1985: 27). Mats were often decorated with patterns, using the long black hairs from the tails of oxen (Grossert 1985: 28). Mats used for serving and grinding food (*isithebe*) were woven using a technique similar to fine wickerwork (Grossert 1985: 30).

Dried *ilala* palm leaves, which are soaked before using, were woven to create beer strainers (*ivovo* or *ihluzo*), using a technique called *isixwexwe* (Grossert 1985: 23). The same techniques and material were used to make baskets (*isikhwama*). Spoon bags (*impontshi* or *isampombo*) were woven using narrow strips of *incema* (a type of grass found on riverbanks), or *ilala* (Grossert 1985).

Large bowls (*iqoma* and *isiqabetho*) and grain baskets (*isilulu*) were made using *umsingizane* as a core, around which strips from the wild banana, *ilala*, or strings made from twisting sisal fibre, were wrapped (Grossert 1985: 19, 21). Smaller bowls (*imbenge* and *unyazi*) were made using coils of grass which were stitched together to form a coil (Grossert 1985: 17). Short brooms, which can be held in one hand, (*umshanelo*) were made using many different types of grass tied in a bunch using *ilala* leaves, grass, or hair from an ox’s tail (Grossert 1985: 27). Belts
or girdles (*isibhamba* or *ixhama*), worn by married women, were made from grass using the same technique for making doormats, by coiling a band of grass stitched together with a thin plait of *umtshiki* grass (Grossert 1985: 33).

Examples of woven artefacts are currently conserved at venues such as the Phansi Museum in Durban, Vukan Museum in Eshowe, the Local History Museum in Durban, the Killie Campbell Museum, also in Durban, and the KwaZulu-Natal Museum in Pietermaritzburg, as well as at various facilities across the rest of South Africa.

There is, however, no archiving found of the traditional weaving techniques used to create these artefacts. Archiving of these techniques is important in order for them to be made available to future generations, and for further development, such as in weaving with telephone wire and precious metals. A recent development in weaving uses plastic-coated brass and copper telephone wire to create flat bowls and smaller objects, such as bangles and earrings.

According to van Heerden (2009: 59), this development is in response to the migration of the male workforce to larger cities. “Night watchmen exploited the craft techniques that they had learned in primary school by weaving offcuts of coloured wire used in security systems and this soon became a favourite pastime to while away the boredom of long nightshifts” (van Heerden 2009: 59). Van Heerden spent sixteen years in the field with basket weavers, served as a senior subject advisor for Zulu arts and crafts education under the previous KwaZulu-Natal administration, and as Deputy Chief Education Specialist in charge of visual arts and design.

Zulu crafts was a compulsory subject in schools where isiZulu was the language of instruction (van Heerden 2009). Crafters created small flat dishes, and decorated small bottles and clubs using telephone wire, with the earliest examples dating back to the beginning of the fifties (van Heerden 2009: 60). Elliot Mkhize is a craftsman who excels in telephone wire weaving, a technique he
learned while watching night watchmen decorating their sticks, and heproduces many wire baskets (Figure 1) (Sellschopp, Goldblatt and Hemp 2002: 88-89).

Figure 1: Wire basket by Elliot Mkhize
(Source: Sellschop, Goldblatt and Hemp 2002: 89)

Telephone wire, also known as “scooby wire”, is currently one of the most popular materials used for weaving artefacts (van Heerden 2009: 60). This material is currently also used by many female weavers. The technique of weaving with telephone wire begins by taking two or more strands of grass to create a twine, which is then tied into a knot. An awl, or plain thick pointed wire, is used to pierce a hole at the centre of the knot, into which telephone wire is inserted. The telephone wire is then wrapped around the twine to form a coil (spiral shape). According to van Heerden (2009: 24), this is a technique originally used to create baskets and bowls.

Another development is found in the Mdukatshani Rural Project, where crafters produce a number of woven artefacts, amongst them grass bangles. Mdukatshani, established in 1975, is a non-profit crafts project and Non-Governmental Organisation (NGO), based in the Weenen/Msinga area of
KwaZulu-Natal, which uses traditional weaving techniques to produce contemporary artefacts.

Threads of Africa is a collaborative project between the Mdukatshani Development Trust and Julia Meintjies Fine Art studio (n. d.). Some of these crafters produce beaded jewellery, others work with fine-gauge industrial copper wire to create items, such as woven beaded eggs, bangles, and different kinds of bowls (Figure 2). “In the 35 years since the project has started, Mdukatshani’s customers have included celebrities such as Elton John, Princess Michael of Kent, Paloma Picasso, Aretha Franklin, Jacqueline Bisset”, in addition to which the project “was commissioned to produce jewellery for two haute couture collections for the French designer Yves Saint Laurent” (R. Alcock n.d.).

![Figure 2: Woven beer pot (Source: Julia Meintjies (n. d.))](image)

Traditional weaving stitches used by crafters of the Mdukatshani Rural Project include:

1. *Isizembe esiphambene* (Crossing Protrusions)
2. *Nemcimbi* (Caterpillar)
3. *Amahlandla enyoka* (Snake’s Spine)
4. Icansi (Sleeping Mat)
5. Isisefo (The Sieve)
6. Jika-jika (Turn and Turn Again)
7. Inkostina (Concertina)
8. Umhlavuhlavu (The Mixture)
9. Umchamo wengulube (Pig’s Penis)
10. Ubhedezane (The Twisted Plait)
11. Ibhola (The Drill)
12. Insontane (Twist)
13. Indundu (Square Plait)
14. Umthamo wempisi (Hyena’s Mouthpiece)

2.3 INTERACTION WITH MDUKATSHANI CRAFTERS

In search of a location in South Africa where traditional grass weaving and braiding techniques are still practiced, I came across the Mdukatshani Website. Mdukatshani is a rural development project aimed at empowering female farmers and crafters (Vanderhaeghen 2016: 52). Mdukatshani rural project is based on the banks of the mighty Tugela River, surrounded by the hills of Msinga in KwaZulu-Natal.

I initiated contact in 2014, and expressed my interest in researching and documenting grass weaving techniques practiced by the crafters. The project director, Rauri Alcock, expressed an interest in my project, but indicated that due to a severe four-year drought, there was no available grass in the area at the time, and that I should contact him again in 2015. Julia Meintjies, the curator of the Threads of Africa project, in partnership with the Mdukatshani crafters, contacted me in 2015 and requested that I interact with the crafters. Although the drought had not yet broken, they had managed to source grass from outlying areas near Ladysmith.
Creina Alcock, who has lived in Msinga for many years and manages the learning centre where crafters meet for group sessions, comments in a private email conversation (2016) as follows:

Because of drought for two years there had been no grass for weaving. Bangles are made out of *sporobolus africanus*, a grass that grows in damp places. There were no damp places, the trees were leafless and there were dead cattle everywhere. So many animals had collapsed when they came down to drink at the river that the Tugela was soupy with rot, and crocodiles had appeared up and down river, presumably drawn by the carrion.

![Dead cattle affected by drought](photo: Creina Alcock 2015)

**Figure 3: Dead cattle affected by drought**

What these conditions indicate is that ethnographic research cannot simply be imposed on the culture being studied, and that the researcher should remain perceptive to the embodied life world of participants when conducting an ethnographic study. It is also appropriate and necessary to acknowledge the subtleties of embodied skills of the subjects being studied.
Van Heerden, Getz and Smuts (2006) published a resource for educators, for arts and mathematics, in which they acknowledge the value of indigenous crafts and the mathematical equations inherent in the production of artefacts. As stated by them, the visual language and execution of complex patterns and colour coordination found in Zulu beadwork, pottery and basketry, require complex mathematical calculations and thinking (van Heerden, Getz and Smuts 2006: 27). Other necessary considerations include the age and sex of participants in the study, and the social and cultural protocols which must be adhered to.

As an “outsider from the city”, I was requested to bring extra supplies of water, as well as groceries for the two-day interaction, since protocol necessitated a lunch for all involved in the planned interaction. As a participative outsider, the researcher should therefore structure their ethnographic investigation according to the needs and cultural requirements of the participants.

In this regard, Soumhya Venkatesan (2010: 159), who studied weaving in India, comments as follows: “gender, marital status, or one’s position in a hierarchical order can influence what one can do socially, the things one can or does do (weave, cook, give birth) can locate a person or group by gendering, classing, or categorizing”. The crafters in this study are mostly Zulu women aged between 33 and 80 years of age. Some crafters are second-generation weavers who have been making grass bangles for more than 40 years.

Through interaction with the Threads of Africa project, the crafters are currently weaving in copper, silver and gold wire, making bowls, beer pots and wrist-cuffs. They have never used wire to weave traditional bangles though, and because grass was scarce at the time, they expressed an interest in learning to weave traditional grass bangles in metal wire. Creina Alcock, in a private email, comments as follows (2016):
It was a happy time for everyone, especially the ageing grass weavers. In a world where the new is valued over the old, they found value in themselves and their work – remembering the joy of how it all started when they were just a group of pretty *makotis.*

Figure 4: Veteran crafters soaking grass in preparation for weaving. From left, Phumlele Mbatha (78), Ntombizi Mdlolo (65), Jaji Dladla (83) and Divane Dladla (66)
(Photo: Rauri Alcock 2015)

Figure 5: Crafters with Chris de Beer and Songezo Baleni
(Photo: Rauri Alcock 2015)

1 *Makotis are young brides.*
According to the custom of the participants, we were required to sit in a circle on traditional grass mats on the ground. We shared plastic bowls of water in which the grass was soaked prior to weaving in order to soften it and prevent breakage (Figure 5). At this stage, I decided to abandon my original intention of conducting structured interviews with specific questions, and instead chose to adapt my interactions with the individual crafters based on what transpired in the moment.

The crafters preferred to sit on traditional grass mats, on the ground outside in the open air, although there is a hall where they can congregate (Figure 5). This corresponds with their tradition of working outside in natural light, since there is no access to electricity where they live. It also makes cleaning up after working much easier. The conversation while weaving centred on the current drought, crop planting, along with recent and upcoming social and cultural events.

The fact that I communicated in isiZulu had a constructive influence on our interactions, as only one crafter spoke English. We exchanged information regarding similar experiences and traditional events in our respective rural homes, my home being in Ntsikeni at Umzimkhulu in KwaZulu-Natal. This contributed to building mutual trust, since although I am affiliated to an institution of higher learning, I enthusiastically identify with my rural home and cultural traditions.

In ethnographic terms, I am a participant observer, and an outsider to their cultural group. In spite of this, I did not present myself as an obvious ‘outsider from the city’, as I dressed in work wear (overalls), and conformed to cultural protocol as much as possible. I used the required forms of respect when addressing crafters and did not address them by their first names, although I had been introduced to each crafter according to their first name and surname. Addressing elders by their first names is frowned upon in Zulu culture, and regarded as disrespectful.
On the first day of our two-day interaction, I identified specific weaving stitches related to my jewellery interest. The crafters know more than 20 individual grass-weaving stitches, but each crafter specialises in stitches of their choice. I documented each crafter’s work by taking photos and writing down additional information during our conversations, which were informal, and yet informative. We exchanged information, as I have been using weaving techniques for some time to produce contemporary jewellery, and I demonstrated specialised techniques for weaving in wire (Figure 6).

Weaving in wire is different from grass weaving, as metal has a ‘memory’, and maintains its position once it has been manipulated; whereas grass stalks need to be held in place using one’s fingers in order to prevent the weave from unravelling (Figure 8 and 9). Weaving in metal has its own challenges, because wire becomes work-hardened during manipulation, and can break if not annealed in order to restore its original crystalline structure.

It is significant that the crafters, unlike myself, insist on making use of only one stitch when producing a bangle, and refuse to switch to another technique while creating an artefact. The crafters choose specific grass strands based on their length, which enables them to complete a bangle without having to splice the strands together. The number of grass strands for weaving a bangle determines the width (flat) or thickness (round) of each bangle, and each specific technique requires intricate mathematical calculations, which they recognise intuitively through years of experience.

The majority of the crafters have received no formal schooling, and cannot read or write. Since their knowledge is tacit, and weaving happens intuitively, changing a technique ‘mid-stream’ does not figure in their traditional way of learning or working. In this regard, the basket weaver, Reuben Ndwandwe, according to van Heerden, Getz and Smuts (2006: 27), states that when he starts weaving a new basket, “he never knows exactly what it will look like when it is finished”. Ndwandwe claims that “the basic shapes in his baskets are inspired by the things
around him”, “he counts stitches so that his design is straight – or symmetrical”, while he “works out new ways of combining basic geometric shapes such as triangles and diamond shapes” (van Heerden, Getz and Smuts 2006: 27).

According to Getz (in van Heerden, Getz and Smuts 2006):

Using images and patterns to convey abstract concepts is not a new idea – one of the most exiting examples of this can be found in the graphic works of the Dutch artist M. C. Escher, who manages to communicate such esoteric and arcane concepts as gravity, duality, hyperbolic geometry and mathematical recursion through his art. And this is in spite of never doing particularly well in mathematics in school.

The elders taught them to weave through visual demonstration, without ever referring to written knowledge. In this regard, it is significant that my method of documenting and preserving traditional skills also employs visual demonstration. The crafters learned each stitch according to a traditional method that requires them to complete an individual bangle according to a required format, and changing the sequence of a stitch would therefore be problematic. The video clips in this document, which include short clips of weaving done by the crafters, contain sequential steps that demonstrate specific techniques using different colours of telephone wire.

As a contemporary designer familiar with identifying various design challenges and corresponding accordingly, I had to adjust my interaction with the crafters based on their approaches and tacit knowledge. As a jewellery designer who weaves in precious metal, I am required to manufacture rings according to specific sizes and widths, which necessitates the application of mathematical calculations. Unlike grass strands, which do not conform to one thickness, metal wire is manufactured according to required thicknesses, which allows me to

---

2 Van Heerden, Getz and Smuts (2006) produced an educators’ resource book in support of teaching mathematical concepts, such as numbers, polygonal figures, tessellations and symmetry with regard to cultural expression and artefacts.
accurately predict the outcome of the artefact. For example, if I weave in wire with a thickness of 0.45 mm, using 12 separate wires, the width of the completed woven object will be 5.4 mm.

As a participant and observer, I acknowledge the ethnographic challenge of being an observer who has to interpret and reconceptualise intuitive tacit knowledge and skills that form part of practice. Christina Torren (1996) indicates that ethnography is to render strange what may be taken for granted, meaning that there are wonderful and strange things in everyday life that go unnoticed. This includes having to identify aspects which the crafters ‘take for granted’, as they have become second nature after many years of practice. An example would be the method of starting the weave, which requires the grass strands to be tied in a knot. What goes unsaid, though, is that the ends of the grass stalks have to be ‘chewed’ to make them more pliable in order to tie the knot (Figure 6).

![Figure 6: Example of a knot at the start of a weave](https://vimeo.com/256309402)

During these interactions, I identified certain stitches that I had learned as a child, and also some of the stitches documented by Grossert (1985). There were stitches that were new to me, with some being similar in terms of how they were made, such as *isizembe esiphambene*,
*isisxwexwe* and *inhlandla lenyoka*, which are all woven ‘from both sides’. *Nemcimbi, icansi* and *isisefo* also have similar patterns when compared. (The different stitches are discussed in Chapter 3.)

According to the crafters, as young girls, they would wear white shawls, as an indication of purity, and they often collected grass from the riverbanks, where they fetched water in the morning before the cattle dirtied it for drinking, to weave grass bangles that they wore around their wrists.

After I identified the stitches I wanted to document, I sat down on the ground next to each crafter who specialises in a particular stitch, while she demonstrated the technique from start to finish. It was interesting to observe how crafters use different methods to ‘hold’ grass strands, which are directly influenced by the techniques of the stitches (Figure 8 and 9). As mentioned previously, the harvested grass strands are dry, and need to be soaked in water before weaving to prevent breakage (Figure 12).

![Image](image_url)

*Figure 7: Various traditional woven grass bangle stitches practiced in Msinga*  
(Photo: Rauri Alcock 2015)
Figure 8: Ntombizi Ndlolo demonstrating how to hold grass strands while weaving
(Photo: Rauri Alcock 2015)

Figure 9: Gog’ Phumelele Mbatha weaving grass
(Photo: Rauri Alcock 2015)
On the second day of our interaction, I collaborated with crafters who also weave in metal to produce wrist-cuffs and beer-pots. These crafters included some weavers from the previous day’s interaction, as well as two male weavers who work in metal only.

None of the crafters weaves bangles in wire using traditional stitches. The wrist-cuffs and beer-pots made in wire are all constructed using the *ubhedezane* stitch, which provides a hollow centre when woven around a mandrel, such as a bottle, clay pot or wooden club (Figure 12). The crafters use innovative methods to compensate for their lack of specialised jewellery and craft tools, such as in using a beer bottle as a mandrel (Figure 12). I demonstrated specialised jewellery skills, such as wire making and soldering, to the crafters, as well as methods to “finish off” stitches when working in metal (Figure 10 and 11).

Unlike grass, metal wire cannot be tied in a knot, and the wires need to be soldered together in order to prevent the weave from unravelling. Once the metal has been melted and cast into ingots, metal wire needs to be prepared with a drawplate and draw tongs. Contemporary crafts demand artefacts that conform to specific design standards, and are durable. Grass bangles are therefore no longer coveted. The crafters specialise in creating wire cuffs using one specific stitch only, and this poses a threat to the conservation of original traditional knowledge, because the other stitches are no longer taught. Documenting these stitches is therefore of utmost importance in order to prevent the loss of this knowledge to future generations.
Figure 10: Songezo Baleni demonstrating the *inhlandla* stitch to crafters using copper wire
(Photo: Rauri Alcock 2015)

Figure 11: Songezo Baleni demonstrating wire making
(Photo: Rauri Alcock 2015)
Figure 12: Silver and copper wires are woven around a Savannah beer bottle into a bangle
(Photos: R. Alcock 2015)

Figure 13: Grass soaked in water prior to weaving
(Photo: Rauri Alcock 2015)
Chapter 3

In this chapter, I provide images that explain, in a systematic fashion, the techniques for seven different grass-weaving stitches. I also provide a short description of the techniques and the various mathematical equations used for executing the techniques. As part of practice-based research, I offer detailed photos of the specific weaving techniques using telephone wire in various colours, in order to clarify the intricate nature of the process.

The quick response codes (QR) provided can be scanned using a smartphone to access demonstration videos online. Kristina Niedderer (2009: 65) explains that the production of artefacts through creative exploration proves to be useful when:

…it is necessary to gain insight into the complexity of a concept, situation, phenomenon or process, and where scientific reduction is unable to provide a sufficiently rich or coherent picture of the subject under investigation. It is helpful, because it allows the expert practitioner to draw on their tacit knowledge in the process of research regarding process-related methods and creative analysis or synthesis, as well as evaluation and judgment, due to their expertise and connoisseurship.

My understanding is that the artefacts provided – in this case visual demonstrations of the process for producing artefacts – serve as a method for documenting, communicating and preserving traditional knowledge. This chapter, and the videos which form part of this dissertation, serve to elucidate the problem statement, whilst at the same time providing evidence of my creative exploration in striving to produce new solutions for the preservation of knowledge. Niedderer (2009: 65) argues as follows:

In terms of input into the actual research process and process of knowledge generation, artefacts may, for example: provide the
starting point for an inquiry by generating the research questions, provide data as a basis for analysis, using existing artefacts as examples, or new artefacts may be produced in the process where no suitable examples exist.

This chapter, and the videos provided, therefore demonstrate the research process, serve as evidence of the research undertaken, and provide a creative exploration of the problem statement and the study’s aim of preserving traditional knowledge.

The type of grass traditionally used for creating woven bangles, umzingizane. umsingizane (African Lovegrass, eragrostis curvula), is a relatively large, densely tufted, and long-lived grass usually growing from about 30 to 120 cm tall. The stalks are hairless, and consist of sheathes which are tufted where they meet the leaf blades (Gibbs-Russell et al. 1989). Umsingizane grass is harvested during the dry winter season, after which the grass stalks are sorted and kept in a cool dry place to prevent contact with moisture. When needed, the dry and brittle grass is soaked in water for a few hours, after which it can be used for weaving. In autumn, when the grass is still green, these green strands can also be used for weaving.

3.1 GRASS WEAVING STITCHES
3.1.1 Umthamo wempisi

Figure 14 Grass bangle using the umthamo wempisi/ibhiyo weaving stitch – Natal Museum
(Photo: Songezo Baleni 2016)
Grossert (1978: 16) identifies *umthamo wempisi* as his sixth stitch, of traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani rural project (R. Alcock n.d.) identifies *umthamo wempisi* as their fourteenth stitch, and the name refers to “the mouthpiece of a hyena”. I refer to this stitch, as *ubhijo* (creating by twisting a round plait).

*Ubhijo* is one of the first stitches I used to create grass bangles as a child while herding cattle growing up at Umzimkhulu in Northern KwaZulu-Natal. I remember teaching my friends how to weave bangles using the *ubhijo* stitch (*umthamo wempisi*) when I was a scholar at Fairview Primary school at Mount Fletcher in the Eastern Cape. We used to sit along the banks of the dam, inside the boarding school grounds after gathering lots of grass with which we made bangles and skipping ropes. The Phansi Museum in Durban has a grass bangle adorned with glass beads made using the *ubhijo* stitch. According to the curator at the Phansi Museum, someone belonging to the Ndebele tribe made the bangle.

### 3.1.2 Demonstration of *umthamo wempisi* weaving technique

(Phone Version)

[https://vimeo.com/256308511](https://vimeo.com/256308511)

(Computer Version)

[https://vimeo.com/256308530](https://vimeo.com/256308530)

*Umthamo wempisi* is made using two sets of grass strands, which are held perpendicular to each other. The number of grass stalks used in a set determines the thickness of the bangle. In order to clarify the process, I use black, yellow, blue, red and green telephone wire to explain the technique (Figure 15-21).

Start by placing four strands of knotted telephone wire (black, yellow, blue and red) next to each other on a horizontal plane, with the knots facing to your left.
(Figure 15). Bend a single (green) strand into a U-shape around the four horizontal strands.

**Figure 15: The start**
(Photo: Songezo Baleni 2016)

Working from the bottom up, continue by twisting the black strand over the yellow, blue and red strands, behind the vertical green strand, until it lies horizontally on top of the red strand (Figure 16).

**Figure 16 Next step**
(Photo: S. Baleni 2016)
Turn the strands around, allowing the knots to face to your right (Figure 17), whilst always working towards the right-hand side. Repeat the same process using the other half of the black strand (Figure 18).

Figure 17: Turn-over
(Photo: Songezo Baleni 2016)

Figure 18: Black strand cycle complete
(Photo: Songezo Baleni 2016)

Turn the strands around again, letting the knots (which resemble the seed-ends of stalks when weaving grass) face to the left. Repeat the process, given for the black strand, using the yellow strand (Figure 16). Turn the strands around, allowing the knots to face to your right, and always work towards the right-hand
side. Repeat the process using the other half of the yellow strand (Figure 17). Turn the strands around again, allowing the knots to face to the left. Repeat the same process using the blue and red strands (Figure 18).

Figure 19: Next step
(Photo: Songezo Baleni 2016)

Turn the strands around, letting the knots face to your right, always working to the right-hand side. Repeat the process using the other half of the blue strand (Figure 18). Turn the strands around again, allowing the knots to face to the left. Repeat the process using the red strand (Figure 16). Turn the strands around, letting the knots face to your right, always working towards the right-hand side. Repeat the same process using the other half of the red strand (Figure 17).
Turn the strands around again, allowing the knots to face to the left (Figure 16). Keep repeating the process until the length required for your bangle is reached. You will notice a spiral “twist and turn” forming as you work (Figure 21).

Figure 20: Full cycle completed
(Photo: Songezo Baleni 2016)

Figure 21: The spiral “twist and turn” forming
(Photo: Songezo Baleni 2016)
3.2 TRADITIONAL WEAVING TECHNIQUES

3.2.1 Indundu

Grossert (1978: 16) identifies indundu as his seventh stitch amongst traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani rural project (R Alcock n. d.) identifies indundu as their thirteenth stitch. The name refers to the square plait used. I refer to this stitch as ubhijo (created by twisting a square plait).

3.2.2 Demonstration of indundu weaving technique

The artefacts are crafted using two strands of grass, which lie perpendicular to each other. The number of grass stalks used in a set determines the thickness of
the bangle. In order to clarify the process, I use purple, yellow, blue, red and green telephone wire (Figure 23-36) to explain the technique.

Start by placing four strands of telephone wire (red, blue, green and yellow) next to each other on a vertical plane, with the U-shape facing downwards (Figure 23). Bend a single (purple) strand, and insert the four vertical strands into the U-shape formed (Figure 24).

Figure 23: The start
(Photo: Songezo Baleni 2017)

Figure 24: The beginning
With reference to the top view given in Figure 25, start by separating the yellow, green, blue and red strands in opposite directions to each other (north, south, east and west). The green strand (south) moves forward between the blue and yellow strands (Figure 26).

![Image of separated strands]

**Figure 25: North, south, east, west**
(Photo: Songezo Baleni 2017)

![Image of the start – green strand moves]

**Figure 26: The start – green strand moves**
(Photo: Songezo Baleni 2017)
Turn the strands around and repeat the separation process, with the yellow strand going between the blue and red strands (Figure 27). Repeat this process using the red strand, which goes between the green and blue strands (Figure 28). Turn the strands around and do the same, with the blue strand going between the yellow and green strands (Figure 29).

Figure 27: Yellow strand moves
(Photo: Songezo Baleni 2017)

Figure 28: Red strand moves
(Photo: Songezo Baleni 2017)
Figure 29: Blue strand moves
(Photo: Songezo Baleni 2017)

Figure 30: Complete cycle
(Photo: Songezo Baleni 2017)

Turn the strands around again to complete the cycle (Figure 30). Repeat the same process using the green strand (south), which moves forward between the blue and yellow strands (Figure 31). Turn the strands around. Repeat the process once more using the yellow strand, which moves forward between the blue and red strands (Figure 32). Turn the strands around again, and repeat the process using the red strand, which moves forward between the green and blue strands (Figure 33).
Figure 31: Green strand moves (completed cycle)
(Photo: Songezo Baleni 2017)

Figure 32: Yellow strand moves (completed cycle)
(Photo: Songezo Baleni 2017)

Turn the strands around and repeat the process using the blue strand, which moves forward between the blue and yellow strands (Figure 34). Turn the strands around again to complete the second cycle (Figure 30).
Figure 33: Red strand moves (cycle completed)
(Photo: Songezo Baleni 2017)

Figure 34: Blue strand moves (cycle completed)
(Photo: Songezo Baleni 2017)
Keep repeating the process until the required length for your bangle is reached. You will notice a “twist and turn” of square plait forming (Figure 35 and 36).

Figure 35: *Indundu* starting to form
(Photo: Songezo Baleni 2017)

Figure 36: The *indundu* “square plait” forming
(Photo: Songezo Baleni 2016)
3.2.3 Amahlandla enyoka

Figure 37: Grass bangle using the amahlandla enyoka (ubhijo) weaving technique – Mdukatshani rural project
(Photo: Songezo Baleni 2015)

Grossert (1978: 16) identifies umhlandla wenyoka as his eleventh stitch for traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani Rural Project (R. Alcock n. d.) identifies amahlandla enyoka as their third stitch. The name refers to a snake’s spine. I refer to this stitch as ubhijo (flat braid).

3.2.4 Demonstration of amahlandla enyoka weaving technique

The amahlandla enyoka stitch uses two sets of grass strands, which are V-shaped to the left and right of each other. The number of grass stalks used in a set determines the thickness of the bangle. The stitch is worked with even or
uneven numbers of strands, weaving from both sides (right and left). In order to clarify the process, I use yellow, green, red, blue and purple telephone wire (Figure 38-65) to explain the technique.

Start by placing four strands of telephone wire (yellow, green, red, blue) next to each other on a vertical plane (Figure 38), with a purple strand lying horizontally below them. Bend the yellow, green, red and blue strands into a V-shape (Figure 39). Bend the purple strand into a U-shape and wrap it around the four vertically-placed strands (Figure 40).

**Figure 38: The start**
(Photo: Songezo Baleni 2017)

**Figure 39: Step two**
(Photo: Songezo Baleni 2017)
Figure 40: Step three
(Photo: Songezo Baleni 2017)

Start weaving from the right-hand side (whilst weaving, the same colour strands will go from right to left, and vice versa in order to create the stitch). Weave from the right-hand side. Start with separating the red strand, by pulling it down away from you (Figure 41). Following this, the green strand goes over the red strand, under the blue and yellow strands, towards the left, next to the yellow strand (Figure 42). Thereafter, the red strand moves back into position, in line with the blue and yellow strands (Figure 43).

Figure 41: Red strand moves down
(Photo: Songezo Baleni 2017)
Weaving from the left-hand side, separate the red strand by pulling it down away from you (Figure 44). Following this, the green strand goes over the red strand, under the blue, yellow and green strands, towards the right, next to the yellow strand (Figure 45). The red strand then moves back into position, in line with the blue and yellow strands (Figure 46).
**Figure 44:** Red strand moves  
(Photo: Songezo Baleni 2017)

**Figure 45:** Green strand moves  
(Photo: Songezo Baleni 2017)

**Figure 46:** Red strand moves  
(Photo: Songezo Baleni 2017)
Weaving from the right-hand side, separate the blue strand by pulling it down away from you (Figure 47). Following this, the red strand goes over the blue strand, under the yellow and green strands, towards the left, next to the green strand (Figure 48). Thereafter, the blue strand moves back into position, in line with yellow and green strands (Figure 49).

**Figure 47: Blue strand moves**
(Photo: Songezo Baleni 2017)

**Figure 48: Red strand moves**
(Photo: Songezo Baleni 2017)
Weaving from the left-hand side, separate the blue strand by pulling it down away from you (Figure 50). Following this, the red strand goes over the blue strand, under the yellow, green and red strands, towards the right, next to the green strand (Figure 51). The red strand then moves back into position, in line with the yellow, green and red strands (Figure 52).
Weaving from the right-hand side, separate the yellow strand by pulling it down away from you (Figure 53). Following this, the blue strand goes over the yellow strand, under the green and red strands towards the left, next to the red strand (Figure 54). The yellow strand then moves back into position, in line with green and red strands (Figure 55).
Figure 53: Yellow strand moves
(Photo: Songezo Baleni 2017)

Figure 54: Blue strand moves
(Photo: Songezo Baleni 2017)

Figure 55: Yellow strand moves
(Photo: Songezo Baleni 2017)
Weaving from the left-hand side, separate the yellow strand by pulling it down away from you (Figure 56). Following this, the blue strand goes over the yellow strand, under the green, red and blue strands towards the right, next to the red strand (Figure 57). The yellow strand then moves back into position, in line with the green, red and blue strands (Figure 58).

**Figure 56: Yellow strand moves**
(Photo: Songezo Baleni 2017)

**Figure 57: Blue strand moves**
(Photo: Songezo Baleni 2017)
Weaving from the right-hand side, separate the green strand by pulling it down away from you (Figure 59). Following this, the yellow strand goes over the green strand, under the red and blue strands towards the left, next to the blue strand (Figure 60). The green strand then moves back into position, in line with the red and blue strands (Figure 61).
Weaving from the left-hand side, separate the green strand by pulling it down away from you (Figure 62). Following this, the yellow strand goes over the green strand, under the red, blue and yellow strands towards the right, next to the blue strand (Figure 63). The green strand then moves back into position, in line with the red, blue and yellow strands (Figure 64).
Figure 62: Green strand moves
(Photo: Songezo Baleni 2017)

Figure 63: Yellow strand moves
(Photo: Songezo Baleni 2017)
Keep repeating the process until the required length for your bangle is reached. You will notice a “flat braid” of plait forming (Figure 65).

Figure 64: Green strand moves
(Photo: Songezo Baleni 2017)

Figure 65: Amahlandla enyoka stitch
(Photo: Songezo Baleni 2017)
3.2.5 Nemcimbi

Figure 66: Grass bangle using the nemcimbi (isizembe) weaving technique – Mdukatshani rural project  
(Photo: Songezo Baleni 2015)

Grossert (1978: 16) identifies isizembe as his ninth stitch of traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani rural project (R. Alcock n. d.) identifies nemcimbi as their second stitch. The name refers to the caterpillar. This stitch is new to me, and is executed by weaving from both sides, like amahlandla enyoka, to which I can relate. According to Grossert (1978: 17), a flat braid, such as isizembe, is used to produce lightweight summer hats in the style of a panama hat.

3.2.6 Demonstration of nemcimbi weaving technique

(Mobile version)  
https://vimeo.com/256308323

(Computer version)  
https://vimeo.com/256308352
This stitch uses two sets of grass strands, and forms a V-shape. The number of grass stalks used in a set determines the width of the bangle. The stitch can be done using an even or uneven number of strands, weaving from both sides (right and left). In order to clarify the process, I use red and blue telephone wires (Figure 67-82) to explain the technique.

Start by placing four strands of red and blue telephone wire next to each other on a vertical plane (Figure 67), and group the strands into a V-shape according to colour (Figure 68). Bend the blue binding strand into a U-shape, wrap it around the vertical strands, and then tie a knot (Figure 69).

Figure 67: The start
(Photo: Songezo Baleni 2017)
Start weaving from the right-hand side (whilst weaving, the same colour strands will pass from right to left to create the stitch). Begin by separating the red strands, by drawing the second strand from your right up towards you (Figure 70). The first red strand then goes under the red, and over two red strands, towards the left, next to the blue strand (Figure 71). The red strand then moves towards you back into position, in line with the other red strands (Figure 72).
Figure 70: Red strand moves
(Photo: Songezo Baleni 2017)

Figure 71: Red strand moves
(Photo: Songezo Baleni 2017)
Figure 72: Red strand moves
(Photo: Songezo Baleni 2017)

Continue using the same process, by drawing the second strand from your right up towards you (Figure 73). The first red strand then goes under the red, and over red strands, next to the red strand towards the left (Figure 74). The red strand then moves towards you, back into position, in line with the other red strands (Figure 75).

Figure 73: Red strand moves
(Photo: Songezo Baleni 2017)

Figure 74: Red strand moves
(Photo: Songezo Baleni 2017)
Continue using the same process, by drawing the second strand from your right up towards you (Figure 76). The first red strand then goes under the red strand, next to the red strand, toward the left (Figure 77). The red strand then moves back into position towards you, and completes the cycle (Figure 78).

Figure 75: Red strand moves
(Photo: Songezo Baleni 2017)

Figure 76: Red strand moves
(Photo: Songezo Baleni 2017)
Turning the red strand towards the left-hand side (Figure 79), continue with the same process, whilst working on the right-hand side, by drawing the second blue strand on your right up towards you (Figure 79). Thereafter, the first blue strand goes under a blue, over two more blue and three red strands, next to the red strand, towards the left (Figure 80). Next, move the blue strand back into position towards you, in line with the other blue strands (Figure 81). Continue this process until you complete the cycle (Figure 78), and then repeat the process until the required length of weave is reached (Figure 82).
Figure 79: Nemcimbi stitch
(Photo: Songezo Baleni 2017)
3.2.7 Insonto/insontana

Figure 80: Grass bangle using the insonto (insontane) weaving technique – Mdukatshani rural project
(Photo: Songezo Baleni 2016)

Grossert (1978: 16) identifies insonto as the third stitch in his list of stitches for traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani Rural Project (R. Alcock n. d.) identifies insontana as the twelfth stitch on their list. The name refers to a twist. I refer to this stitch as ubhijo (twisted rope).

3.2.8 Demonstration of insonto weaving technique

(Mobile version)
https://vimeo.com/256308287

(Computer version)
https://vimeo.com/256308308

This stitch uses four or eight sets of grass strands that are divided perpendicular to each other. The number of grass stalks used in each set determines the
thickness of the bangle. The stitch is done with an even number of strands, weaving anti-clockwise, while you rotate the braid clockwise. In order to clarify the process, I use blue, green, red, yellow and brown telephone wires (Figure 84-99) to explain the technique.

Start by placing four strands of telephone wire (blue, green, red, yellow) next to each other on a vertical plane (Figure 84), grouping the strands into bundles according to colour (Figure 85). Bend the (brown) binding strand into a U-shape and wrap it around the vertical strands, then tie a knot (Figure 86).

![Figure 81: The start](Photo: Songezo Baleni 2017)

![Figure 82: Step two](Photo: Songezo Baleni 2017)
Weaving begins by separating the yellow, red, blue and green strands, pulling them apart away from each other on a perpendicular plane (Figure 87). The blue strand then goes over the red strand, in between the red and yellow strands (Figure 88). The red strand then moves over the blue and yellow strands, in between the green and yellow strands (Figure 89).
This formula starts by moving one strand, consisting of two blue wires, over the following strand, consisting of two red wires (Figure 88). Proceed by moving one strand (all strands consist of two wires) over two strands (Figure 89). Skip the next blue strand, and move the yellow strand over the red and green strands, in between the blue and green strands (Figure 90). The green strand then goes over the yellow and blue strands, in between the red and blue strands (Figure 91). The blue strand then moves over the green and red strands, in between the red and yellow strands (Figure 92).
Figure 87: Yellow strand moves over red and green strands
(Photo: Songezo Baleni 2017)

Figure 88: Green strand moves over yellow and blue strands
(Photo: Songezo Baleni 2017)

Figure 89: Blue strand moves over green and red strands
(Photo: Songezo Baleni 2017)
This weaving formula skips one strand, and moves over two strands. Start by skipping the green strand. Move the red strand over the blue and yellow strands, in between the yellow and green strands (Figure 93). The yellow strand then goes over the red and green strands, in between the green and blue strands (Figure 94). The green strand then moves over the yellow and blue strands, in between the red and blue strands (Figure 95).

**Figure 90: Red strand moves over blue and yellow strands**
(Photo: Songezo Baleni 2017)

**Figure 91: Green strand moves over red and green strands**
(Photo: Songezo Baleni 2017)
Figure 92: Green strand moves over yellow and blue strands
(Photo: Songezo Baleni 2017)

Figure 93: Blue strand moves over green and red strands
(Photo: Songezo Baleni 2017)
Figure 94: Red strand moves over blue and yellow strands
(Photo: Songezo Baleni 2017)

Figure 95: *Insonto* starting to form
(Photo: Songezo Baleni 2017)

This weaving formula skips one strand and moves over two strands. Start by skipping the yellow strand, by moving the blue strand over the green and red stands, in between the yellow and red strands (Figure 96). The red strand then goes over the blue and yellow strands, in between the green and yellow strands (Figure 97). The *insonto* stitch starts to form (Figure 98). Repeat the process until the required length of weave is reached (Figure 99).
Figure 96: *Insonto* stitch

(Photo: Songezo Baleni 2017)
3.2.9 Ubhedezane/insontana

Figure 97: Grass bangle using the *ubhedezane* (*insontana*) weaving technique – Mdukatshani rural project
(Photo: Songezo Baleni 2016)

Grossert (1978:16) identifies *insontane* as the fourth stitch in his list of stitches for traditional grass bangle weaving techniques used in KwaZulu-Natal. The Mdukatshani rural project (R. Alcock n. d.) identifies *ubhedezane* as the tenth stitch on their list. The name refers to a twisted plait. I refer to this stitch as *ubhijo* (twisted braid).

3.2.10 Demonstration of *ubhedezane/insontana* weaving technique

![QR Code](https://via.placeholder.com/150)

(Mobile version)
[https://vimeo.com/256308421](https://vimeo.com/256308421)

(Computer version)
[https://vimeo.com/256308459](https://vimeo.com/256308459)

This stitch uses four or eight sets of grass strands, which are divided perpendicular to each other. The number of grass stalks used in each set
determines the thickness of the bangle. The stitch is done with an even number of strands, weaving anti-clockwise, whilst rotating the braid clockwise. In order to clarify the process, I use blue, green, red, yellow and brown telephone wires (Figure 101-119) to explain the technique.

Start by placing four strands (two wires) of blue, green, red and yellow telephone wire next to each other on a vertical plane (Figure 101), grouping the strands into bundles according to their colour (Figure 102). Bend the purple binding strand into a U-shape, and wrap it around the vertical strands, then tie a knot (Figure 103).

![Figure 98: The start](Photo: Songezo Baleni 2017)
Weaving starts by separating the yellow, red, blue and green strands by pulling them apart away from each other perpendicularly (Figure 104). The green strand then goes over the green strand, in between the red and green strands (Figure 105). The green strand then moves up vertically, creating a ninety-degree angle with the green strand (Figure 106).
Figure 102: Green strand moves over green strand
(Photo: Songezo Baleni 2017)

Figure 103: Green strand moves up vertically
(Photo: Songezo Baleni 2017)

Figure 104: Green strand moves horizontally over red strands
Figure 105: Red strand moves up vertically
(Photo: Songezo Baleni 2017)

Figure 106: Red strand moves over red and blue strands
(Photo: Songezo Baleni 2017)

Pull the red strand horizontally over the red strands next to the blue strand (Figure 107). The red strand then moves up vertically, creating a ninety-degree angle with the green strand (Figure 108), after which the red strand moves over the green and red strands, in between the blue strands (Figure 109).

Move the red strand up vertically, creating a ninety-degree angle with the red strand (Figure 110). The red strand then moves horizontally over both the red
and blue strands next to the yellow strands (Figure 111). Move the blue strand up vertically, creating a ninety-degree angle with the blue strand (Figure 112).

Figure 107: Red strand moves up vertically
(Photo: Songezo Baleni 2017)

Figure 108: Red strand moves over blue strands
(Photo: Songezo Baleni 2017)
Figure 109: Blue strand moves up vertically
(Photo: Songezo Baleni 2017)

Move the blue strand horizontally over the red and blue strands next to the yellow strands (Figure 113). The blue strand then moves up vertically, creating a ninety-degree angle with the blue strand (Figure 114), after which the blue strand moves horizontally over both the blue and yellow strands next to the green strands (Figure 115).

Figure 110: Blue strand moves over blue strand
(Photo: Songezo Baleni 2017)
Move the yellow strand up vertically, creating a ninety-degree angle with the blue strand (Figure 116). The yellow strand then moves horizontally over the blue and yellow strands next to the green strand (Figure 117). The *ubhedezane* stitch starts to form (Figure 118). Continue weaving using the same process, and the stitch will end up looking like the example given in Figure 119.
Figure 113: Yellow strand moves up vertically
(Photo: Songezo Baleni 2017)

Figure 114: Blue strand moves over yellow strand
(Photo: Songezo Baleni 2017)

Figure 115: *Ubhedezane* starting to form
(Photo: Songezo Baleni 2017)
Figure 116: *Ubhedezane* stitch

(Photo: Songezo Baleni 2017)
Figure 117: Grass bangle using the icansi weaving technique – Mdukatshani rural project
(Photo: Songezo Baleni 2015)

The Mdukatshani Rural Project (R. Alcock n. d.) identifies icansi as the fourth stitch on their list. The name refers to a sleeping mat. Icansi is not mentioned in Grossert’s list of stitches of traditional grass bangle weaving techniques used in KwaZulu-Natal. I first encountered this stitch while conducting my research.

3.2.12 Demonstration of icansi weaving technique

(Mobile version)  
https://vimeo.com/256308079

(Computer version)  
https://vimeo.com/256308108

The stitch uses two sets of grass strands, forming a V-shaped to the left and right of each other. The number of grass stalks used in each set determines the width of the bangle. The stitch is done with an even number of strands, weaving from
both sides (right and left). In order to clarify the process, I use yellow, green, red, blue and purple telephone wire (Figure 121-144) to explain the technique.

Start by placing four strands of yellow, green, blue, pink, black and red telephone wire next to each other on a vertical plane (Figure 121). The purple strand wraps in between all the other strands (Figure 122). Stack the yellow, green, red and blue strands into a V-shape (Figure 122). Group the strands into a vertical bundle, and wrap the purple strand around them (Figure 123).

Figure 118: Step one
(Photo: Songezo Baleni 2017)

Figure 119: Step two
(Photo: Songezo Baleni 2017)
Weaving starts when separating the red, green, yellow, pink and blue strands by grouping them vertically on a perpendicular plane (Figure 124 and 125). Firstly, the red and black strands alternate, swapping places up and down (north and south) (Figure 125). The green, yellow, pink and blue strands then alternate, swapping places from side to side (east to west) (Figure 124).
Figure 122: Divide strands (top view)
(Photo: Songezo Baleni 2017)

Figure 123: Green strand moves down between red and black strands
(Photo: Songezo Baleni 2017)

Figure 124: Red strand moves over green strand forward towards the black strand
(Photo: Songezo Baleni 2017)
Weaving from the right-hand side, move the green strand down in between the red and black strands (Figure 126). The red strand then moves over the green strand towards the black strand (Figure 127). The black strand then moves over the green strand towards you (Figure 128). The green strand then moves up to the left, next to the blue strand (Figure 129).
Figure 127: Pink strand moves down between red and black strands
(Photo: Songezo Baleni 2017)

Figure 128: Black strand moves over pink strand, forward towards red strand
(Photo: Songezo Baleni 2017)
Figure 129: Red strand moves over pink strand towards weaver
(Photo: Songezo Baleni 2017)

Figure 130: Pink strand moves up to the left
(Photo: Songezo Baleni 2017)

Repeat the process by moving the pink strand down in between the red and black strands, next to the green strand (Figure 130). The black strand then moves over the pink and green strands towards the red strand (Figure 131). The red strand then moves over the green and pink strands towards you (Figure 132). The pink strand then moves up to the left, next to the green strand (Figure 133).
Figure 131: Yellow strand moves down between red and black strands
(Photo: Songezo Baleni 2017)

Figure 132: Red strand moves over yellow strand towards black strand
(Photo: Songezo Baleni 2017)
Figure 133: Black strand moves over yellow strand towards weaver
(Photo: Songezo Baleni 2017)

Figure 134: Blue strand moves down between red and black strands
(Photo: Songezo Baleni 2017)
Repeat the process by moving the yellow strand down between the red and black strands next to the pink strand (Figure 134). Move the red strand over the yellow and pink strands towards the black strand (Figure 135). The black strand then moves over the pink and yellow strands towards you (Figure 136). The yellow strand then moves up to the left, next to the pink strand (Figure 137).

Figure 135: Blue strand moves down in-between red and black strands
(Photo: S. Baleni 2017)
Figure 136: Black strand moves over blue strand, forward towards red strand
(Photo: Songezo Baleni 2017)

Figure 137: Red strand moves over blue strand towards weaver
(Photo: Songezo Baleni 2017)
Figure 138: Blue strand moves up to the left next to yellow strand
(Photo: Songezo Baleni 2017)

Repeat the process by moving the blue strand down between the red and black strands next to the yellow strand (Figure 138). The black strand then moves over the blue and yellow strands towards the red strand (Figure 139). The red strand then moves over the yellow and blue strands towards you (Figure 140). The blue strand then moves up to the left, next to the yellow strand (Figure 141). Turn the weave over and repeat the process as given, since the stitch is done from both the left- and right-hand sides.

After finishing the first stage of weaving, it is noticeable that the red and black strands alternate (Figure 142). Turn the loose strands to face the right-hand side (Figure 143). Repeat the process by moving the green strand down between the red and black strands, as before (Figure 126). Continue until the required weave length is reached (Figure 144).
Figure 139: Side view
(Photo: Songezo Baleni 2017)

Figure 140: Strands turned to the right-hand side
(Photo: Songezo Baleni 2017)
Figure 141: *Icansi* stitch

(Photo: Songezo Baleni 2017)
Chapter 4

4.1 CONCLUSION

As previously stated, South African woven artefacts have traditionally been produced using natural fibres. A recent development is, however, the use of telephone wire to produce artefacts such as bowls, plates, bangles and earrings.

The Mdukatshani crafters produce a number of woven artefacts, such as pots and wrist-cuffs, using both precious and non-precious metal wire. There are also other informal crafters who use non-precious wire to produce sculptural artefacts, and which are sold informally, usually on the sidewalks, at shopping centres, and at tourist venues.

No woven bracelets using precious wire are presently manufactured in South Africa, and there is no detailed instructive information available regarding traditional techniques for producing these bangles. One of the aims of this project is therefore to investigate traditional grass bangle weaving techniques, with the objective of improving my creative practice as a designer and jeweller.

As a contemporary jewellery designer and qualified goldsmith, I have a particular interest in traditional weaving techniques, more specifically techniques that are suitable for manufacturing fine contemporary jewellery. My intention is to produce fine jewellery, using precious metal, which is considered contemporary and celebrates traditional South African crafting skills and knowledge. This is congruent with the development of a distinctly South African design identity in the jewellery industry.

One of the outcomes of this research project is that my knowledge of traditional weaving skills and techniques has been enhanced and broadened, and I have applied this knowledge in improving my creative practices. I have since produced various forms of jewellery in precious metal, such as 18ct gold and platinum, concentrating on weaving as a manufacturing technique (Figure 145). Apart from
contributing to my own personal development, the research findings provide valuable information for other jewellers and crafters who are interested in traditional weaving techniques.

My jewellery is showcased on a social media site, Instagram (S. V. Baleni 2016). This research project therefore serves as a contribution to preserving and developing traditional crafting knowledge and skills, and contributes to the development of contemporary jewellery based on the South African heritage of traditional knowledge.

![Thembelihle neckpiece using the amahlandla enyoka stitch](image)

**Figure 142: Thembelihle neckpiece using the *amahlandla enyoka* stitch**
( Photo: Songezo Baleni 2017)

Apart from the abovementioned, my main motivation for undertaking this research project is in keeping with the objective of contributing to the preservation of South Africa’s cultural heritage and traditional knowledge. The foremost aim of this project has been to document my research findings as part of the preservation of traditional knowledge and skills.
Bruce (1994: 144) argues that students, as part of producing an academic thesis, “have to write a literature review”, which normally appears “early in the thesis, but in some styles of thesis, may appear throughout the work”. Although I provide a literature review of existing information on weaving techniques in this dissertation, it is evident that my research serves as a contribution to existing literature that, as mentioned previously, is yet incomplete.

My research, which will be available at various museums in KwaZulu-Natal, therefore serves as a contribution to the documenting and preservation of traditional knowledge. The detailed images and accompanying explanations, and the videos accessible via QR codes that record the weaving process of individual stitches, provide valuable data for further research. [https://vimeo.com/257088773](https://vimeo.com/257088773)

I intend to apply the knowledge gained from this research project to design and continue to produce jewellery that celebrates a South African design identity. The recognition and use of traditional crafts knowledge, using contemporary skills, is of vital importance in order to preserve our heritage. As stated by van Heerden in (van Heerden, Getz and Smuts 2006: 5), “economic and cultural disruption” threaten the preservation of traditional knowledge.

My jewellery, which applies traditional weaving skills in its production, can be compared to the notion of “new wine in old bottles”, because it serves as an original and contemporary contribution to the preservation of traditional knowledge, in an attempt to prevent it from becoming obsolete due to the effects of economic development and technological expansion.

The documentation of my research findings therefore creates readily accessible archival information regarding an important portion of this area of knowledge.
REFERENCES


Vanderhaeghen, Y. 2016. Goats revive rural farming project: A rural development project aimed at empowering female farmers is reaching new levels of success. Farmers Weekly, 13 May 2016: p 52-54.


APPENDICES

Appendix A: Questions for study participants

**Title of the Research Study:** An investigation into the use of traditional woven grass bangle techniques to design and develop contemporary jewellery.

**Principal Investigator(s)/researcher:** Songezo Baleni, M-Tech, Fine Art.

- Who taught you the traditional weaving techniques?

- When did you start learning how to weave, how old were you?

- In which area/location did you reside at the time?

- How many different stitches do you know how to do?

- Do traditional weaving techniques have significance messages (silent meaning)?

- Have you ever tried grass weaving techniques in a different medium?

- Have you taught your skills to anyone else?
**IMIBUZO**

**Isihloko sophenyo:** Ucwaningi lwezobuciko bomsebenzi wezandla wesintu ekuthuthukiseni ukwakhiwa kobucwebe besimanje manje.

**Umphathi wocwaningo:** (Songezo Baleni, ofundela iziqu zeM-Tech Fine Art)

- Ingaba ngubani owakufundisa lomsebenzi wezandla?
- Waqala nini ufunda ukwaluka umsingizane, wawuneminyaka emingaki?
- Kweyiphi indawo owawuhlala khona ngelesosikhathi?
- Inhlobo nhlobo ezingakhi okwazi ukuzenza?
- Lobucwepheshe bezandla bamandulo ingaba lunemiyalezo thizeni?
- Wakhe wazama ukuluka ngezinye izinto ngaphandle komsingizane?
- Ingaba ukhona owake wamfundisa lobucwepheshe bezandla?
Appendix B: Participant consent form

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Songezo Baleni, about the nature, conduct, benefits and risks of this study – Research Ethics Clearance Number: ____.
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

_________________________  ___________  __________________________
Full Name of Researcher          Date                      Signature

_________________________  ___________  __________________________
Full Name of Witness
(If applicable)              Date                      Signature

_________________________  ___________  __________________________
Full Name of Legal Guardian (If applicable)  Date                      Signature

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_________________________  ___________  __________________________
Full Name of Participant          Date                      Time                      Signature/Right Thumbprint
Isitatimende sesivumelwano sokubambiqhaza kucwaningo:

- Ngiyavumelana nokuthi ungazisiwe umcwaningi, uSongezo Baleni ngendlela, ukuziphatha, izinzuzo Kanye nezingozi zalolucwapingo – izimiso zokusebenza kocwaningo inombolo yokusula: __________.

- Ngiphinde ngathola, ngafunda ngaqondisisisa lonke ulwazi olubhalwe ngenhla (incwadi yolwazi yombambiqhaza) mayelana nocwaningo.

- Ngiyazi imiphumela yalolucwapingo, iquka imininingwane yobulili, iminyaka, iminyaka yokuzaialwa, konke kohlungwa ngokuyimfihlo kwincwadi yocwaningo.

- Ngiyazi ukuthi ngikhululekile ukuhoxa kulolu cwaningo noma nini, ngaphandle kwencazelulo, nakuthi (ndivumelekile ukubusa imibuzo noma yinini ngokuthanda kwam) ngiyavumelana nokuthi noma yinini ngiyozilungiselela ukubamba iqhaza kulolucwango.

- Ngiyazi ukuthi ngikhululekile ukuhoxa kulolu cwaningo noma nini, ngaphandle kwencazelulo, nakuthi (ndivumelekile ukubusa imibuzo noma yinini ngokuthanda kwam) ngiyavumelana nokuthi noma yinini ngiyozilungiselela ukubamba iqhaza kulolucwango.

I, Songezo Baleni, ngiyavumelana nokuthi umbambiqhaza ongenhla wazisiwe ngako konke maqondana nokuziphatha kanye nenzuko yalolucwango.

---

<table>
<thead>
<tr>
<th>Igama lombambiqhaza</th>
<th>Usuku</th>
<th>Isikhathi</th>
<th>Isiginesha/ Isithupha sasokudla</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amagama omcwaningi</th>
<th>Usuku</th>
<th>Isiginesha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amagama ofakazi (uma ekhona)</th>
<th>Usuku</th>
<th>Isiginesha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amagama omnakekeli Osemthethweni (uma ekhona)</th>
<th>Usuku</th>
<th>Isiginesha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONSENT (English version)

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Songezo Baleni about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number:
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_________________________________________  ___________  ___________________________
Full Name of Researcher                      Date                         Signature

_________________________________________  ___________  ___________________________
Full Name of Witness (If applicable)          Date                         Signature

_________________________________________  ___________  ___________________________
Full Name of Legal Date Guardian (If applicable)  Date                         Signature

_________________________________________  ___________  ___________________________
Full Name of Participant                      Date                         Time                         Signature/Right Thumbprint
Appendix C: Ethics clearance

29 October 2015

IREC Reference Number: REC 83/15

Mr J Baleni
31 Brand Road
3 Beacon Sands
Glenwood
Durban

Dear Mr Baleni

An investigation into the use of traditional woven grass bangle techniques to design and develop contemporary jewellery

I am pleased to inform you that Full Approval has been granted to your proposal REC 83/15.

The Proposal has been allocated the following Ethical Clearance number IREC 130/15. Please use this number in all communication with this office.

Approval has been granted for a period of two years, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOPs] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOPs.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOPs.

Yours Sincerely

Professor M N Sibiyà
Deputy Chairperson: IREC