

DOCUMENTING THE HISTORY AND PRACTICES OF ANIMAL SKIN TANNING  
AND LEATHER CONSERVATION AMONG THE OVAHIMBA AND  
OVAHERERO COMMUNITIES IN KAOKO, KUNENE REGION, NAMIBIA

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## **ABSTRACT**

This study delves into the traditional practices of animal skin tanning and leather conservation among the Ovaherero and Ovahimba communities, Bantu-speaking groups that settled in Namibia during the early 16th century. Spanning from the 19th to the 21st century, it aims to document the historical evolution of these practices within these communities. Skin and leather have held a profound significance in Ovaherero culture, serving purposes ranging from clothing to shelter and adornment. The study employed an ethnographic research methodology, and the findings reveals that these materials not only signify cultural identity but also reflect societal traditions, landscapes, and available resources. However, colonialism, formal education, Christianity, and climate change have exerted significant influences, leading to the alteration or abandonment of traditional practices such as leather-making. Despite these challenges, communities have persisted in sourcing skins from wildlife and domesticated animals, utilizing animal fat mixed with herbs and minerals for preservation. The study concludes that the enduring practice of skin tanning and leather conservation among these communities embodies resilience and facilitates intergenerational knowledge transfer. Through their daily activities, community members uphold leather as a tangible link to their heritage, preserving its intrinsic cultural value while navigating the complexities of modernity.

**Key words:** Material culture; Traditional cultural practices; Oral traditions; Skin tanning; Leather conservation

# TABLE OF CONTENT

ABSTRACT.....	i
LIST OF TABLES .....	v
LIST OF FIGURES.....	vi
ACKNOWLEDGEMENTS.....	ix
DEDICATION.....	x
DECLARATIONS.....	xi
CHAPTER 1.....	1
<b>INTRODUCTION AND BACKGROUND OF THE STUDY .....</b>	<b>1</b>
<b>Introduction .....</b>	<b>1</b>
<b>1.1. Introduction and Background of the study.....</b>	<b>1</b>
<b>1.2. The History of Ovahimba and Ovaherero of “Kaokoland” in the Kunene region 3</b>	
<b>1.3. Historical events in Namibia and their impact on indigenous people .....</b>	<b>6</b>
<b>1.4. Problem statement.....</b>	<b>9</b>
<b>1.5. Study objectives.....</b>	<b>10</b>
<b>1.6. Significance of the study.....</b>	<b>10</b>
<b>1.7. Limitations of the study.....</b>	<b>11</b>
<b>1.8. Delimitations of the study.....</b>	<b>11</b>
<b>1.9. The study area .....</b>	<b>12</b>
<b>1.10. Understanding Documentation of indigenous knowledge and the definition of terminologies used in this study.....</b>	<b>13</b>
<b>1.11. A preliminary outline of chapters .....</b>	<b>18</b>
CHAPTER 2.....	19
<b>LITERATURE REVIEW AND THEORITICAL FRAMEWORK.....</b>	<b>19</b>
<b>Introduction .....</b>	<b>19</b>
<b>2.1. Skin and Hide.....</b>	<b>19</b>
<b>2.2. Skin / Hide preparation.....</b>	<b>22</b>
<b>2.3. Tanning processes and techniques .....</b>	<b>24</b>
<b>2.4. Types of Leather .....</b>	<b>29</b>
<b>2.5. Gender roles in skin tanning and hide processing and preparation.....</b>	<b>31</b>
<b>2.6. Skin / Hide and Leather colours. ....</b>	<b>32</b>
<b>2.7. Leather conservation practices .....</b>	<b>32</b>
<b>2.8. Rudimentary practices for leather conservation/ preservation.....</b>	<b>34</b>

2.9. Agents of leather material degradation .....	34
2.10. Intangible heritage and the oral tradition behind tanning and leather conservation for material culture.....	35
2.11. The Future of Decolonising Museum Practices .....	36
2.12. Theoretical Framework.....	37
<b>CHAPTER 3.....</b>	<b>39</b>
<b>RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>39</b>
Introduction .....	39
3.1. Research design and methodology .....	39
3.2. Population .....	40
3.3. Sampling.....	41
3.4. Research instrument .....	42
3.5. Procedure .....	43
3.6. Data preparation and analysis .....	45
3.7. Research ethics.....	46
3.8. Limitations of the study.....	47
3.9. Delimitations of the study.....	48
<b>CHAPTER 4.....</b>	<b>49</b>
<b>RESEARCH FINDINGS .....</b>	<b>49</b>
Introduction .....	49
4.1. Sources of animal skin for Ovahimba and Ovaherero communities.....	50
4.2. Skin/hide preparation and processing by Ovahimba and Ovaherero communities. ....	52
4.3. Conservation issues associated with skin/hide products experienced by Ovahimba and Ovaherero communities. ....	71
4.4. Conservation measures of skin/hide products employed by Ovahimba and Ovaherero communities.....	73
4.5. Gender roles in tanning, hide preparation, and processing.....	77
4.6. Interpretation of the historical changes in tanning and leather conservation practices .....	79
4.7. Factors contributing to the changes in skin/hide tanning preparation and leather conservation practices. ....	85
4.8. Different types of leather products and their significance to Ovahimba and Ovaherero communities .....	91
4.9. Communities Narratives on Leather Conservation and it's Historical changes between the 19 <sup>th</sup> to the 21 <sup>st</sup> Century.....	102

4.10. Oral tradition and the link to tanning and leather conservation practices. ....	105
<b>CHAPTER 5.....</b>	<b>109</b>
<b>DISCUSSIONS .....</b>	<b>109</b>
<b>Introduction .....</b>	<b>109</b>
<b>5.1. Guiding study questions.....</b>	<b>109</b>
<b>5.2. Sources of animal skin/hide.....</b>	<b>111</b>
<b>5.3. Skin/hide preparation and processing .....</b>	<b>112</b>
<b>5.4. Conservation issues associated with skin/hide products, experienced by Ovahimba and OvaHerero communities. ....</b>	<b>115</b>
<b>5.5. Conservation measures of skin/hide products employed by Ovahimba and OvaHerero communities.....</b>	<b>117</b>
<b>5.6. Gender roles in tanning, preparation, and processing .....</b>	<b>118</b>
<b>5.7. Interpretation of the historical changes in tanning and leather conservation practices .....</b>	<b>120</b>
<b>5.8. Factors contributing to the changes in tanning preparation and leather conservation practices. ....</b>	<b>127</b>
<b>5.9. Different types of leather products and their significance to Ovahimba and OvaHerero communities.....</b>	<b>128</b>
<b>5.10. Communities' narratives on leather conservation and its historical changes between 19<sup>th</sup> to the 21<sup>st</sup> Century .....</b>	<b>130</b>
<b>5.11. Oral tradition and its links to tanning and leather conservation practices. ....</b>	<b>131</b>
<b>CHAPTER 6.....</b>	<b>134</b>
<b>RECOMMENDATIONS AND CONCLUSION.....</b>	<b>134</b>
<b>Introduction .....</b>	<b>134</b>
<b>6.1. Conclusion.....</b>	<b>134</b>
<b>6.2. Recommendations .....</b>	<b>137</b>
<b>References.....</b>	<b>140</b>
<b>Annex 1.....</b>	<b>146</b>
<b>Annex 2.....</b>	<b>147</b>
<b>Annex 3 A .....</b>	<b>148</b>
<b>Annex 3 B .....</b>	<b>149</b>

**LIST OF TABLES**

Table 1. Translation of Otjihimba and Otjiherero words used in this study.....16

Table 2. Types of animals that are used in the production of skin/hide.....20

Table 3. Shows types of animals used to produce skin/hide in "Kaoko "Opuwo.....51

Table 4, Shows tools, substances, and materials used during traditional skin/hide tanning preparation and processing. ....70

Table 5. Traditional tools used by Ovahimba and Ovaherero for skin tanning and leather conservation. ....80

## LIST OF FIGURES

Figure 1. Image of Himba women in their daily skin and leather attire. Which fully depicts a representation of animal skin/leather as material culture. The attires are adorned with various materials which represents their status in the community. This was a very exciting opportunity for me to wear leather clothing which are made by the Ovahimba communities.(phot: J Tjikongo) .....	5
Figure 2. shows Ovaherero women in their Victorian hoop dresses, with horned head wrap/dress (google photos) .....	6
Figure 3. Shows Omungunda, Okondaurie, and other villages inhabited by Ovahimba and Ovaherero communities in the Kunene region. Map by Geotrend & Research Data Solutions ...	13
Figure 4. Tannery site in Ashanti Region, Ghana, Africa. 1. Curing (drying); 2. Soaking; 3. Liming; 4. Unhairing; 5. Bating; 6. Fleshing; 7. Vegetable tanning; 8. Red dyeing; 9. Black dyeing .....	25
Figure 5. Shows a goat carcass laid on fresh branches of Omutati. Neat incisions are made starting from the mid-point on the central side of the neck along the middle of the chest to the stomach. (Photo: JN Nghishiko, Omungunda, 2022).....	54
Figure 6. Shows the skinning process of a goat. An older man and a young boy are seen here removing the skin off the goat carcass, while its hanged between the tree trunks to ensure stability. Skinning is mainly carried out by men. (Photo: JN Nghishiko, Omungunda, 2022)....	54
Figure 7. Shows the final skin removal from the goat, which is done by hands, and requires experience to prevent breaks and tear. (Photo: JN Nghishiko, Omungunda, 2022) .....	55
Figure 8. Shows a hanged skin of a young lamb "kid" this style of drying is mainly used on delicate skins, to prevent damages.(Photo: JN Nghishiko, Omungunda, 2022) .....	56
Figure 9. Shows a skin pegged onto the ground, this style of drying is mainly used on fully grown goat/lamb skins. (Photo: JN Nghishiko, Damara living museum, 2022) .....	56
Figure 10. Shows a Himba woman, laying a skin flat onto the ground, this style of drying is done immediately after skinning. The skin is air/sun dried for 10 - 20 minutes, before the next step. (Photo: JN Nghishiko, Omungunda, 2022).....	57
Figure 11. Show a group of Himba women immersing a "green" hide (a hide of a cow, which has been kept for a few days) in boiling water for the dehairing step. The water is extremely hot, hence they are a lot to relief each other of the heat. (Photo: J Tjikongo, 2022) .....	59
Figure 12. Show a group of Himba women (the researcher became a part of the community, which presented a great opportunity to experience the feeling of touching, smelling, and hearing the chanting of women as they mumbled songs throughout their work) holding a hide strip removing hair with hands and wooden scrappers. this step is done by many people to prevent the hide from stiffing up. (Photo: J Tjikongo, Omungunda, 2022) .....	59
Figure 13. Shows Himba women demonstrating another "quick" method of dehairing. The hide strip is held side by side against the shrub trunk, and its moved side to side removing the hair faster, preventing stiffing. (Photo: J Tjikongo, Omungunda, 2022) .....	60
Figure 14. Shows Himba women defleshing the skin/hide, using their hands and some metal blades. The brownish on the flesh side is from the dust, as the skin/hide exposed to the dust to remove the flesh easily. (Photo: J Tjikongo, Omungunda, 2022) .....	61
Figure 15. Shows a Himba woman scrapping a sheep skin, which has been dried for 4 days. The skin is placed flat on her leg to ensure stability. The metal flat and blunt blade is moved from bottom to top. (Photo: JN Nghishiko, Omungunda, 2022).....	62

Figure 16. Shows an Omuhherero man demonstrating how scrapping is done since 20th Century. They employed the use of Otjiharaova to make it easier and efficient. Otjiharaova is held against the flesh side of the skin/hide from top to bottom and end to end. (Photo: JN Nghishiko, 2022).  
.....63

Figure 17. Shows an older woman and young kids looking on as she jumps on the skin. This process is used to loosen fibres for easy tanning. (Photo: JN Nghishiko, 2022) .....65

Figure 18. Shows Himba women softening a goat skin by pulling, squeezing, and wringing it from side to side. (Photo: JN Nghishiko, 2022) .....66

Figure 19. Shows how a hot water fleshed hide is softened by being bashed with Ombine over a stone. The hide is rolled over and over and bashed it until its soft enough and ready for the next step.(photo: JN Nghishiko, 2022).....66

Figure 20. Shows a Himba woman applying Otjize onto Ombanda. The paste is only applied on the inside of this type (semi tanned leather) of leather. The application is worked thorough into the leather, making sure it is fully absorbed for flexibility. (Photo: JN Nghishiko, 2022).....68

Figure 21. Shows a Himba woman shaping Ombanda, to give it a pleated shape toward the end as it hangs. Shaping is done by one person only, with minimal distraction to ensure all pleats are same size.(Photo: JN Nghishiko, 2022).....69

Figure 22. Shows a Himba woman grinding red ochre stones to make powder which is then mixed with animal fat or Vaseline to create a paste. She is using a round granite stone, against the piece a flat surface large stone (granite), these stones are collected from the areas near by the waterfall (Epupa waterfall). She holds the stone in one of her palms and the other hand on top to support, as she moves the stone over the red ochre stones in a round rhythm.(Photo: JN Nghishiko, 2022) .....69

Figure 23. Shows decorations added a leather skirt / Ombanda, these are made from iron beads, plaited palm leaves, and seeds of Mongongo (Schinziophyton rautanenii). They are arranged in pattern that gives a beautiful outlook. (Photo: JN Nghishiko, 2022) .....70

Figure 24. Shows various conservation concerns associated with Epando which is made from a fully tanned leather, which is decorated with various materials. ....72

Figure 25. Shows various concerns associated with Otjinguma which is made from a raw-hide.  
.....73

Figure 26. Shows a Himba woman dabbing Otjize paste onto the inner side of Ombanda to prevent it from drying out and from insect infestation. (Photo: JN Nghishiko, 2022).....75

Figure 27. Shows a Himba woman stitching pieces of leather materials together, (this process is referred to as okuyatata) which belongs to a child. This process falls under remedial conservation. (Photo: JN Nghishiko, 2022) .....76

Figure 28. shows a Himba woman, smoking a leather skirt, as a preservation and conservation routine, to prevent insect infestation, and to insure flexibility. The smoke is coming from Otjipuina which has a mixture of herbs, and grasses and hot charcoals. The cup is covered with an Otjihanda which acts as a diffuser.(Photo: JN Nghishiko, 2022).....76

Figure 29. Shows a Ovaherero woman showing repairs made to Otjinguma, by stitching the pieces of leather materials together using synthetic threads. The clear line folds of stitches are visible on the materials. She explained that she inherited the Otjinguma from her late mother, and it's important that she repairs it, as it is a recollection of her late mother's heritage. (Photo: JN Nghishiko2022) .....76

Figure 30. Shows a Himba young couple dressed in a traditional marriage attire. The man has a cross necklace which is made from leather and decorated with shiny metals. It is a sign that the

man is a Christian. Nonetheless, he is embracing his traditional leather attires. Photo: National Museum of Namibia.....	88
Figure 31. a Ovaherero-Himba man wearing oMalapi as a replacement of Otjiteta and he wore a leather headdress, and shoes. This photo was taken late 20 <sup>th</sup> century. (Photo: National Museum of Namibia).....	89
Figure 32. A group of Ovaherero women, men, and children in early 1900s in Kaokoland, all embracing the Ovaherero traditional dressing codes, with Ekori headdress. (Photo: National Museum of Namibia) .....	91
Figure 33. Two women seating down in the old Katutura location in the late 1900s. (photo: National Museum of Namibia) .....	91
Figure 34. Shows a fully tanned Oruhira/ Otjitati/ Omukova wokotjipara (from apron skirt). (Photo: JN Nghishiko, 2022) .....	92
Figure 35. Shows Ombuku/Ombanda. (Photo: JN Nghishiko, 2022).....	93
Figure 36. Shows Erembe. (JN Nghishiko, 2022).....	94
Figure 37. Shows Okana komozombati (Photo: JN Nghishiko, 2022) .....	95
Figure 38. Shows Omuhanga. (Photo: JN Nghishiko, 2022) .....	96
Figure 39. Shows Epando. (Photo: JN Nghishiko, 2022).....	97
Figure 40. Shows 2 types of Ondikwa.....	98
Figure 41. Shows on the left Ekori for a Himba married woman and on the right Ekori which is over a Century old, which is worn by a Ovaherero married woman. Photo (left, JNNghishiko and right, Ethnographic Museum of Berlin German).....	100
Figure 42. Shows an Otjiyambura (Photo: JN Nghishiko, 2022) .....	101
Figure 43. A photo of an omuOvaherero woman wearing traditional leather clothing, in early 1900s. (photo: the National Museum of Namibia, ethnographic collection).....	122
Figure 44. A photograph of a group of Ovaherero women, men, and children. Taken in early 19 <sup>th</sup> Century (photo: National Museum of Namibia)).....	122
Figure 45. Photograph of an omuOvaherero woman, carrying a baby on the back with Ondikua. The photograph was taken in early 20 <sup>th</sup> Century. (Photo: National Museum of Namibia) .....	123
Figure 46. The change ad adoption of Victorian dress among the Ovaherero women, as shown in Dress: Living History of Genocide & Cultural Identity publication by Kristina Akhrarova 2022 (Photo: MERELL) .....	123
Figure 47. Photos of Ovaherero women in the 21 <sup>st</sup> Century, depicting the change in fabrics, fashion design, and contemporality. (Photos: eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians).....	124
Figure 48. Shows a photograph of an omuOvaherero woman wearing a Victorian renowned Ovaherero traditional attire in the 21 <sup>st</sup> Century. (Photo: MERRELL - eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians).....	124
Figure 49. An archival photograph of Ovahimba men and women taken in 19 <sup>th</sup> Century by Germany collectors. (Photo: National Museum of Namibia) .....	125
Figure 50. Show a Himba man and woman, on their wedding day. The photograph dates back from early 20 <sup>th</sup> Century. (Photo: National Museum of Namibia) .....	125
Figure 51. Shows Ovahimba women in Omungunda village, in their traditional attires 3 Centuries later (21 <sup>st</sup> Century). (Photo: Job Tjikongo).....	127

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## **DEDICATION**

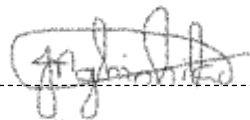
This study is dedicated to my late mother, MOM! this is the only way I can honour your legacy and I will continue to uphold it for your grandchildren. May your soul forever rest in eternal peace.

## DECLARATIONS

I, **Johanna Ndahekelekwa Nghishiko**, hereby declare that this study is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution. No part of this thesis/dissertation may be reproduced, stored in any retrieval system, or transmitted in any form, or by means (e.g. electronic, mechanical, photocopying, recording or otherwise) without the prior permission of the author, or The University of Namibia in that behalf.

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# CHAPTER 1

## INTRODUCTION AND BACKGROUND OF THE STUDY

### **Introduction**

This chapter introduces the study by outlining its significance and objectives of the study. The first part of this chapter will give a background of the study area and the communities. It then looks at the context and aims of the study, and it further discusses the key objectives which guide this study's restrictions and boundaries, the study area, and the history of the communities as a case study. It then highlights the keywords, terminologies, and phrases of Otjihimba and Otjiherero used in this study. The outline structure of all chapters within this study research will conclude this chapter. The defined terminologies, words, and phrases in vernacular will not be redefined in other chapters and hereafter will be used to prevent cluttering the text, however, they will be written in italic.

### **1.1. Introduction and Background of the study**

Ovaherero form a Bantu ethnic group inhabiting southern Africa and migrated into Namibia during the 16th Century. In addition, there are an estimated 250,000 Ovaherero in Namibia, counting as the majority (Drechsler, 1980). The Ovaherero (ethnic) is an umbrella to Ovaherero, Ovahimba, Ovatjimba, and Ovambanderu sub-ethnic. These sub-ethnic groups have different and unique dialects, and they are pastoralists, who by the

nineteenth Century had large herds of cattle. They possessed over 150,000 herd of cattle which was recorded until 1890 before German colonialism (Bruwer, 1966).

The Ovaherero have persevered, and cattle still form the centre of their lives, through which wealth is measured (Hangara, Kavari, & Tutjavi, 2020). The research focuses on the Ovaherero and Ovahimba communities of Kaoko in the Kunene region. There two sub-ethnic group is distinguishable; Ovahimba are renowned for their sculptural beauty, intricately decorated hairstyles, their nomadic pastoral lifestyles, and the women's red ochre daubed skins. Whereas Ovaherero are farmers and pastoralists, they are identifiable also because of the clothes worn by women which is their traditional dress, derived from a Victorian woman's dress and consists of a giant hoop skirt worn over a several underskirts, and a horn shaped headdress (which is said to be depicting cow horn). However, Ovaherero just like the Ovahimba communities all make use of animal skin as their material culture, and a significant role player of their economic life.

The study selected Ovahimba and Ovaherero communities because of their resistance toward the external influences of colonialism, missionaries, trade, and climate. The flow and effect of the afore mentioned events have all impacted Namibian ethnic groups in various ways. However, the Ovaherero of Kaoko remained engaged with their traditions, including working with skin/hide and leather to make aprons, girdles, and headdresses. They craft jewellery, makes bracelets and neckbands out of copper wire and the making of baskets, pottery, and musical instruments (Hangara, Kavari, & Tutjavi, 2020). The Ovaherero communities depend on their livestock for food consumption and material culture, "material culture is the aspect of social reality grounded in the objects and architecture that surround people" (Sully, 2013). Linstadter et al. (2007) discovered that

the first use of animal skin could be by *Australopithecus habilis*, who roamed East Africa some two million years ago. It is noted in (Cooker, 2001), that leather-making practices are over 7,000 years, and the earliest record of leather artefacts discovered dates to 2200 BCE (Cooker, 2001).

Therefore, this study seeks to document the history of indigenous tanning and leather conservation practices used to preserve, material culture and how it has changed over-time among Ovaherero and Ovahimba communities between the period of 19<sup>th</sup> and 21<sup>st</sup> Century.

The study wishes to provide the oral tradition and the intangible cultural heritage imbedded in the material culture products. To narrate the story behind each unique piece of material, the study wants to find out the spiritual, cultural, and religious significance behind the communities' creations. Olsen, (2003), a historian and an archaeologist who writes about material culture, have emphasised that the loss of knowledge creates a gap in the society's cultural beliefs and norms. Therefore this study understands that it is crucial to document the memories, experiences and living practices among the Ovahimba and Ovaherero communities.

## **1.2. The History of Ovahimba and Ovaherero of “Kaokoland” in the Kunene region**

The Ovahimba and Ovaherero are two distinct sub-ethnic groups in Namibia, each with their own unique cultural practices, including skin tanning and leather conservation

techniques. In Kunene “Kaokoland”, now known as Kunene, is a region in north-western Namibia, both groups have traditionally relied on livestock herding as a primary livelihood, and leather plays a crucial role in their daily lives.

Ovaherero communities were the first Bantu to occupy “Kaokoland” early 16<sup>th</sup> Century, today the Kunene region, North-West of Namibia (Bruwer, 1966). They migrated from Angola, where related groups can still be found today. The pastoralists occupied the extreme mountainous and dry parts of the area, adopting dispersed pattern of settlement, as the migration into Namibia, Botswana, and South Africa became prominent (Hangara, Kavari, & Tutjavi, 2020). This also resulted into a separating historical, social, and environmental factor among the Ovaherero communities (Malan, 1974).

Ovahimba and Ovaherero of Kaoko have remarkably remained engaged with their traditions, including working with skin and leather to make aprons, girdles, and headdresses. They craft jewellery, making bracelets and neckbands out of copper wire and making baskets, pottery, and musical instruments (Hangara, Kavari, & Tutjavi, 2020). Leather materials in many cases are decorated with other material diversity such as, ostrich beads, copper and iron beads, plastic, and glass beads etc.

Today, Ovahimba are renowned for their sculptural beauty, intricately decorated hairstyles, their nomadic pastoral lifestyles, leather and skin attires, and the women's red ochre (*otjize*) daubed skins (Hangara, Kavari, & Tutjavi, 2020) (see figure1). Whereas Ovaherero are farmers and pastoralists. Also, they are identifiable because of the clothes worn by women which is their traditional dress, derived from a Victorian woman’s dress and consists of a giant hoop skirt worn over several underskirts, (adopted from the western

missionaries), and a horn shaped hat (which is said to be depicting cow horn) (see figure 2) (Drechsler, 1980).

Nevertheless, before the arrival of the missionaries around in the late 19<sup>th</sup> Centuries, Ovaherero too, just like the majority Ovahimba (if not all) today, they used to make their clothing using mainly cowhide, goat skin, sheep skin, and the hides of other animals, this means they too have been practicing hide and skin tanning, and they have the knowledge of leather conservation. However, like afore mentioned, Ovaherero no longer wear leather attires daily. However, until today in villages of Kunene region Ovaherero just like the Ovahimba communities all make use of animal skin as their material culture uniquely, although Ovahimba are slightly influenced by the 21<sup>st</sup> Century's so-called civilisation.



*Figure 1. Image of Ovahimba women in their daily skin and leather attire. Which fully depicts a representation of animal skin/leather as material culture. The attires are adorned with various materials which represents their status in the community. This was a very exciting opportunity for me to wear leather clothing which are made by the Ovahimba communities. (Photo: J Tjikongo)*



*Figure 2. Shows Ovaherero women in their Victorian hoop dresses, with horned head wrap/dress (google photos)*

### **1.3. Historical events in Namibia and their impact on indigenous people**

According to Nangula, (2013) (a Namibian historian and theologian) Namibia has conceded a series of historical events which are divided into periods of; pre-history until 1484, a time with no recorded history; **the period of explorers, traders, and missionaries (1484-1884)**, in 1484, the Portuguese explorer Diogo Cão reached the mouth of the Cunene River (now the Cunene which border Angola and Namibia). This marked the beginning of European contact with the local communities in the area. Later, in the 17<sup>th</sup> and 18<sup>th</sup> centuries, Dutch and British traders began to establish commercial relationships with the indigenous groups along the Namibian coast. They were particularly interested in obtaining goods like ivory, ostrich feathers, and other natural resources from the region. European traders established trading posts and tried to establish control over

the coastal areas (Melber, 'Namiba, land of the brave': Selective memories on war and violence within nation building, 2003). Further, in early 19<sup>th</sup> Century Missionaries from various Christian denominations began arriving in Namibia. They sought to spread Christianity and convert the local communities to their faith, and the same time convince and persuade Namibians and various other ethnic groups to give up their traditional ways of living and customs, (Drechsler, 1980).

**The time of colonialism under Germany (1884-1915)**, colonial period under German rule in Namibia, was known as German South-West Africa. During this time, Namibia experienced significant social, political, economic, and cultural changes because of German colonisation. The colonial administration aimed to exploit the country's resources, establish settlements, and assert control over the indigenous population. This period is remembered for Wars of Resistance, the Ovaherero, and Nama Wars of 1904- 1908 known as “Genocide” which was a major armed uprising against German rule. It resulted in the deaths of thousands of indigenous people through military action, forced labour, and detention in concentration camps. Where indigenous people’ population were controlled, the conditions in these camps were deplorable, and many people died due to starvation, disease, and maltreatment (Melber, 2005).

**The South African military administration (1915-1920)**; After the end of German colonial rule in Namibia during World War I, South African forces under British dominion occupied the territory. During this period, the South African government established control over the country and initiated various policies that laid the groundwork for later periods of South African colonialism.

**The Mandate and South African colonialism (1920-1966);** the League of Nations granted South Africa a Class C Mandate over Namibia, which formalized South Africa's control and administration of the territory. The mandate system was intended to oversee the administration of former German colonies until they were deemed ready for self-government or independence (Melber, 2005).

However, the South African administration pursued a policy of apartheid, imposing racial segregation and discriminatory laws on the indigenous population. Land dispossession, forced labour, and racial discrimination were prevalent during this period, deeply impacting the lives of the indigenous communities. South African rule led to the forced removal of people from their ancestral lands to create "homelands" or Bantustans, which were designated areas for specific ethnic groups. This policy aimed to divide and control the population along ethnic lines, perpetuating a system of racial segregation and oppression (Bruwer, 1966).

**The illegal occupation of the country by South Africa and the liberation struggle against South African occupation between 1966-1990, which led to its independence on 21 March 1990.** In 1966, the South West Africa People's Organization (SWAPO) launched an armed struggle for independence, opposing South African rule and calling for self-determination for Namibia. SWAPO's military wing, the People's Liberation Army of Namibia (PLAN), engaged in guerrilla warfare against the South African security forces. The liberation struggle against South African occupation was marked by significant sacrifices, human rights abuses, and international solidarity. Namibia's independence represented a historic moment in the struggle for self-determination in Africa and a triumph against colonialism and apartheid (Bruwer, 1966).

The background effect of these colonial events has led to a historical, social, and environmental shifts on Namibian communities in general, and especially in among the Ovaherero, whose population has drastically decreased due to such historical events of war (Drechsler, 1980).

The study does not aim to provide a fully detailed information on these events; however, it wishes to establish a light on the major events and their impacts on the traditional tanning processes and leather conservation practices among Ovahimba and Ovaherero communities in Kaoko.

#### **1.4. Problem statement**

The use of animal skins or leather in the early history of Ovaherero communities was well beyond food to include clothing, shelter, and other purposes (Hangara, Kavari, & Tutjavi, 2020). The history of leather among Ovaherero communities' dates to time immemorial, with significant changes to traditional skin tanning processes and leather conservation methods over the years. Nevertheless, most communities have continued to perform conventional cultural practices with minimum interference (Hangara, Kavari, & Tutjavi, 2020). These practices continued to evolve over the years, while others are on the verge of extinction in some communities. In addition, machine operating technologies are taking over traditional practices. Therefore, this study seeks to investigate and documents the history of skin tanning and leather conservation practices used to preserve material culture and how it has changed over time among the Ovaherero and Ovahimba communities between the period of 19<sup>th</sup> and the 21<sup>st</sup> Century.

## **1.5. Study objectives**

The objectives of this study are to:

1.4.1. Assess and document the skin tanning processes and leather conservation methodologies used by the Ovahimba and Ovaherero.

1.4.2. Document and interpret the historical changes that have taken place between the 19th and the 21st Century, their factors, and the significance of leather as material culture among the Ovaherero and Ovahimba communities and its link to intangible cultural heritage.

1.4.3. Collect and record the narratives of the source community regarding the conservation of leather.

## **1.6. Significance of the study**

This study is crucial because it focuses on and explores various methods of the indigenous animal skin tanning processes and leather conservation techniques and practices, filling a void in scholarly literature. It gives insight into indigenous heritage conservation practices aimed at the protection and safeguarding of indigenous knowledge. It further acknowledges and celebrates the creativity and achievement of indigenous people. Which further draws into getting new insights and impulses for the still-to-establish field of museum preservation in Namibia, therefore forming as a major contribution to the field of “indigenising” and “decolonising” heritage conservation. The insight may sustain and confirm that indigenous knowledge systems also utilise 'scientific' rationale in their practices. This study will make a scholarly contribution to the current thin documentation

on tanning processes and leather conservation practices. It illuminates an art form and indigenous knowledge, which is slowly disappearing. It further, fills a void in Therefore, it is crucial to document indigenous conservation practices to preserve and restore material culture among Ovahimba and Ovaherero communities.

### **1.7. Limitations of the study**

Bhatia, (2018), refers to limitations as weaknesses that maybe derived from the study design. The study experienced limitations when it comes to living practices of tanning and leather practices, among Ovaherero community. The community no longer practice tanning and conservation due to a change in their traditional attire. Therefore, the findings from this community is mainly based on memories of experience and shared stories from the elders who had first-hand experiences on tanning and conservation.

### **1.8. Delimitations of the study**

The study focused on Ovaherero and Ovahimba communities, specifically those residing in Kaoko in the Kunene region. Therefore, the focus is on the participants derived from the purposive sampling technique that is employed in the selection of participants. The study excludes other communities that practice tanning and leather conservation due to the limited study frame and to avoid comparisons. However, references are made to documented tanning work by indigenous communities.

## 1.9. The study area

The study took place in two villages, Omungunda and Okondaurie, of Kaoko in the Kunene region. The region forms part of Namibia's fourteen (14) regions, which are governed by regional councils, and they are created under the statute "Regional Council Act of 1992" (Act No.22 of 1992, as amended). Regional councils are the highest governing authority in their respective regions (KuneneRegionalCouncil, 2022). The region's main settlement is Opuwo which host all the governing offices, across the region. The two villages were selected based on the information provided by the headman of Ovahimba and OvaHerero communities, and also by the information provided by the culture officers from the ministry of education, arts, and culture based in Opuwo.

The Kunene region covers an area of about 115,293 km<sup>2</sup> in Namibia (Hangara, Kavari, & Tutjavi, 2020), making it the second largest region in the country. Moreover, the region is a home to 86, 865 inhabitants (Agency, 2011). The most represented ethnic group is the OvaHerero, with the Ovahimba sub-ethnic group accounting to about 40% of the overall inhabitants in the region (KuneneRegionalCouncil, 2022).

The landscape is dominated by dry and rocky and mountainous topography. With spatially distribution vegetation, which is dominated by *Commiphora* species, and *Colophospermum mopane*, and the *Pechuel-loeschea leubnitziae*. The annual rainfall in Kunene is irregular and is observed to increases from west to east by less than 50 to 415. The region is very dry comparable to other parts of Namibia, it has short wet season and is characterised by dust storms which takes on from August to October (Inman, Hobbs, & Tsvuura, 2020).

The region has been badly impacted by climate change which is noticeably happening to the entire world in different impacts. Kunene is the increasingly persistent dry spells and frequent droughts, which severely has affected the livelihoods, food security, and health of the indigenous communities, who are now forced to depend on government aids, as opposed to how they would normally depend on their livestock and other natural resources at their disposal (Inman, Hobbs, & Tsvuura, 2020).

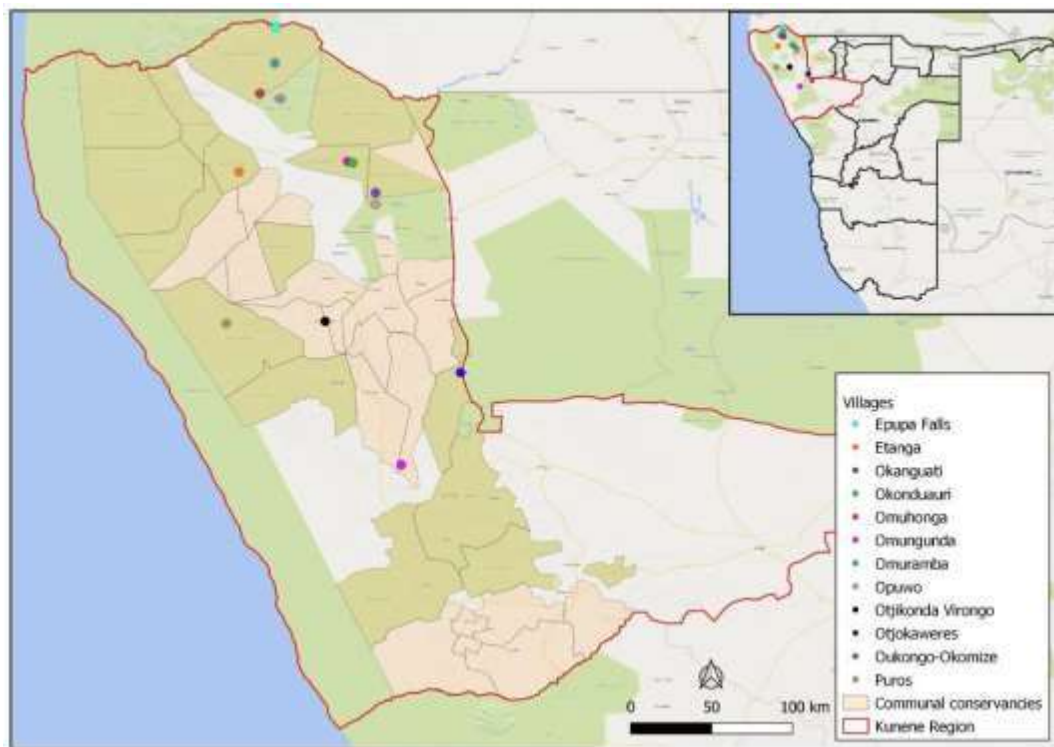


Figure 3. Shows Omungunda, Okondaurie, and other villages inhabited by Ovahimba and OvaHerero communities in the Kunene region. Map by Geotrend & Research Data Solutions.

### 1.10. Understanding Documentation of indigenous knowledge and the definition of terminologies used in this study.

Olsen (2003) narrated that documentation of indigenous knowledge plays a crucial role in remembrance and recreation of memories, that can be used as a transmission of generational knowledge in communities. It is with the above that, the study did all it could

to critically collect data in its most authentic form to represent and create the base knowledge of the communities past and present oral and practical knowledge of skin tanning and leather conservation practices.

**Indigenous knowledge:** Indigenous knowledge is commonly understood as traditional knowledge, although (Nakata, Byrne, Nakata, & Gardiner, 2005), have mentioned in their study about the debate of whether the term Indigenous knowledge should be used interchangeably with the term traditional knowledge or whether it is more accurately a subset of the traditional knowledge category. Moreover, (Semali & Kincheloe, 2002) defined Indigenous knowledge as “an everyday rationalization that rewards individuals who live in each locality. In part, to these individuals, indigenous knowledge reflects the dynamic way in which the residents of an area have come to understand themselves in relationship to their natural environment and how they organize that folk knowledge of flora and fauna, cultural beliefs, and history to enhance their lives”.

**Traditional knowledge:** Nakata, Byrne, Nakata, & Gardiner (2005) define traditional knowledge as the knowledge, innovations, and practices of indigenous and local communities around the world. They further explained that this knowledge is derived from experiences gained over centuries and adapted to the local culture and environment. Which is transmitted orally from generation to generation. Moreover, (UNESCO, UNESCO.ORG, 2021) have also narrated that traditional knowledge tends to be collectively owned and takes the form in stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds.

**Intangible cultural heritage:** UNESCO (2003) defines Intangible Cultural Heritage (ICH) as ‘the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their Cultural Heritage’. UNESCO, UNESCO.ORG (2021) has further given examples of intangible heritage which are oral traditions, performing arts, local knowledge, and traditional skills. Moreover, (Lenzerini, 2011), concludes the definition of ICH as all immaterial elements that are considered by a given community as essential components of its intrinsic identity as well as of its uniqueness and distinctiveness in comparison with all other human groups. Further, the culture of a people is composed by the totality of elements representing the very heart of its distinctive idiosyncrasy.

**Tangible cultural heritage:** UNESCO (2003) defines Tangible Cultural Heritage (THC) as the physical artefacts produced, maintained, and transmitted intergenerationally in a society. It includes artistic creations, built heritage such as buildings and monuments, and other physical or tangible products of human creativity that are invested with cultural significance in a society. Moreover, (UNESCO, UNESCO.ORG, 2021) further explained that THC and ICH are inseparable to a certain extent as the immateriality of heritage are in many cases imbedded in the tangible heritage.

**Culture:** Sibani (2018), defines culture as a set of shared ideas, values, and standards of behaviours. He further explains that it’s the common aspects that makes the acts of the individuals that share these factors intelligible to their ethnicity and its members. That has the capacity to influence any individual knowingly or unknowingly. Moreover, (Uwandu & Nwankwo, 2006) expanded that, values are important ingredients in the content of

culture, as part of the aspects of cultural practices, objectives, and actions that a community holds in high esteem for its people. Values are goals that make the norms, beliefs, and custom meaningful with the cultural context. For example, norms of Ovahimba or Ovaherero communities are set to ensure that their material culture, traditions etc, are values that should be preserved. Their values speak loud on relationships, sense of sacredness, hostility and their believes.

**Material culture:** Sully (2013) defines material culture as "the aspect of social reality grounded in the objects and architecture that surround people". Examples are tools, weapons, utensils, machines, ornaments, art, buildings, monuments, written records, religious images, clothing, and any other ponderable objects that are produced or used by humans. There will be a topic on Material culture on the latter.

**Heritage conservation:** According to Sendrea, Miu, Crudu, & Badea (2017) heritage conservation deals with actions or processes that are aimed at safeguarding the character-defining elements of a cultural resource so as to retain its heritage value and extend its physical life. Moreover, Muhamed (2018) explained that heritage conservation doesn't mean freezing cultural heritage in time, creating a museum or tying the hands of the custodians so they can't do anything with their heritage, to prevent them from deterioration etc. Instead, it seeks to maintain and thereby increase the value of the heritage by keeping its original crafted, built etc. form. which then ends in restoration over replacement or demolition and, when restoration is not possible, respectfully recreating scale, period and character.

*Table 1. Translation of Otjihimba and Otjiherero words used in this study.*

<b>Ovaherero</b>	Used in this study to refer to the entire ethnic group, as well as a sub-ethnic group, and as a reference to the sub-ethnic of Ovaherero and as a group or
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	community (written with small o in the middle of a sentence, and capital O to begin a sentence)
<i>Ovahimba</i>	Used in this study as a reference to the sub-ethnic of Ovaherero, which is Ovahimba community,
<i>Erembe</i>	A prominent skin object that is placed on Ovahimba ladies' heads with two opposite skins.
<i>Otjiyambura</i>	A skin object looks like an upper but is not, worn hanging on their back.
<i>Ombanda yondu</i>	Cloth made of sheep skin
<i>Otjivereko/Onḡikwa (Upper)</i>	Baby carrying skin (abba skin)
<i>Ombanda yondana</i>	Cloth made from a calf skin
<i>Ekori romukupwa nomukupe</i>	Hat for those who being married and those who marry .
<i>Otjikaiva</i>	Ovaherero modern head-dress
<i>Ohorokweva yozonde</i>	Ovaherero Victorian dress / Ovaherero women long dress
<i>Ombanda yongombe</i>	Cloth made of cattle skin
<i>Otjikumba tjokurarwa</i>	A type of skin that is used as a sleeping skin
<i>Otjītana</i>	Panga/machete
<i>Ongiki</i>	Knife
<i>Ohumba</i>	(Seashell) Triangle shell worn by Ovahimba on their chest.
<i>Omihanga</i>	Metal beads
<i>Okupurura</i>	Skinning
<i>Epando</i>	Flat belt-like object around Ovahimba lady's waist.
<i>Otjītati</i>	Front worn material
<i>Orumba</i>	Oval container made of cattle skin, normally, in which they store traditional butter.
<i>Okutura omukova</i>	Bashing the hide with wooden
<i>Ondavi yomuti</i>	Tree branch
<i>Omūtjira</i>	These are small multiple tail-like skin objects made by Ovaherero for small kids to wear. Especially from the age of 2-15.
<i>Okunanununa</i>	Stretching
<i>Okukahisa</i>	Drying
<i>Okuisako ozonyama komukova</i>	fleshing/ flesh removal
<i>Okuningenisa</i>	Soaking
<i>Okupuhura omainya komukova</i>	Dehairing/ hair removal
<i>Okutararisa nawa omukova</i>	Softening
<i>Okuhwa</i>	Applying / to smear
<i>Otjipapeko</i>	A piece of materials that is sewn on a material where there is a missing material due to insects, fire, tore etc. (a lid)

### **1.11. A preliminary outline of chapters**

The research study is outlined in five chapters. Chapter **one** introduces the research topic, provides the introduction and background of the study, definition of terminologies, statement of the problem, research objectives of the study, and research outline. Chapter **two** provides the reviews taken from the available published literature which are relevant to the research topic and explained concepts and words that form the basis of the research. Chapter **three** discusses the research design and research instrument and methodologies, sampling strategy and procedures, data collection and analysis, ethical considerations, limitations and delimitations of the study and the expected outcomes. Chapter **four** presents the overall findings of the research study based on narratives collected through interviews and observations, which answers the research study's objectives? Chapter **five** discusses the research findings, and it further offers concluding explanations and future recommendations.

## **CHAPTER 2**

# **LITERATURE REVIEW AND THEORITICAL FRAMEWORK**

### **Introduction**

This chapter describes some significant concepts and terminologies used throughout the study. It further reviews and explores works of literature which is relevant to the research topic. Moreover, the literature review presents the processes of animal skin tanning and leather preparations and further explores the different types of leather in various communities. It also outlines the gender roles in skin tanning processes and further explains the general terminology of conservation in heritage and indigenous leather conservation practices. The chapter further looks at different general deterioration agents that are associated with leather products and measures taken to prevent and treat them. Lastly, the chapter try to explore literatures whose work contributes to the decolonial work in museum conservation practices for material culture.

### **2.1. Skin and Hide**

According to (Kite & Thomson, 2011), skin “is defined as the external integuments animals” however, there is a distinctive reference between skin from large animals and those from smaller animals which are mainly defined by size and thickness. Skin is referred to as “Hide” for large animals and “skin” for smaller animals (Leach, 1995). In addition, both skin and hide are built on the same tissues although this differs in size

depending on the type of animal. Moreover, (Leach, 1995) narrated that skins and hides can be obtained from domestic and non-domestic animals. To avoid misunderstanding the study will refer to the living structure as ‘skin’ and the harvested structure as ‘hide’, and in review, it will be used interchangeably.

*Table 2. Types of animals that are used in the production of skin/hide.*

<b>SOURCE</b>	<b>HIDES</b>	<b>SKINS</b>
Mammals	Cattle	
	Buffalo	
	Horse	
	Kudus	
	Zebra	
	Oryx	
	Etc...	
		Sheep
		Goat
		Pig
		Impala
		Rabbit
Reptiles		Snake
		Crocodiles
Birds		Ostrich

According to Haines (1991), skins and hides were sourced from animals that were deliberately slaughtered beyond consumption purposes. Communities used the skin and hide to craft leather products as a material culture such as bedding, clothing, headdresses (ekori), traditional belts, girdles, sandals, ornaments, bags etc. (Hangara, Kavari, & Tutjavi, 2020). Leather is defined as “skin or hide that has been processed or tanned” (Haines, 1991). Ancient civilisations have been using animal hide since pre-historic times and used different preparation methods to turn the hide into different types of leather products adequate for people’s use (Cooker, 2001).

Moreover, in the early 20<sup>th</sup> Century Namibia was well known as one of the largest producers of Karakul sheep in Africa and one of the world's leading producers. The breed

was introduced by the German colonists. The main product of Karakul sheep farming in Namibia is their fine, lustrous wool, which is highly valued in the global market. The wool is used in the production of high-quality carpets, garments, and other luxury products. One of the most distinctive features of Karakul sheep is their lambskin, known as "Persian lamb" or "Astrakhan." The pelts have a tightly curled pattern and are highly sought after in the fashion industry for making fur garments and accessories. Karakul sheep later became a sought-after domestic animal in many indigenous ethnics in Namibia, for example, the Ovaherero, as it later became a part of their material culture especially for their distinctive traditional attire, which includes garments made from Karakul wool (Moore, 2020). The Karakul sheep industry in Namibia has faced challenges, including fluctuations in international demand for their wool and pelts and competition from other wool-producing countries. However, it remains an important sector for the country's economy, providing income and livelihoods for many white farmers and a few local indigenous tanners (Declercq, 2016).

According to Kite & Thomson (2006), the hide was used to produce different objects due to its unique properties, which includes "flexibility, a relatively high tensile strength with resistance to shock loads, resistance to tearing, puncturing and abrasion, low bulk density, good heat insulation and water vapour transmission. They also include mouldability, resistance to wind and liquid water, and the ability to be stretched and compressed without distorting the surface (Kite & Thomson, 2006).

Moreover, before hide is turned into leather, it must undergo various tanning processes and steps performed with great care to avoid reducing its quality. This is because untanned hides decay quickly and tend to dry out, making them inadequate for materials or products

they are intended for. Whereas tanned hides protect the leather from cold temperatures, moisture, and wind chills and allow mobility (Leach, 1995). However, some processes that hide undergo to be turned into leather affect the hide's chemical properties and ability to resist water. These tanning processes can also change the hide's toughness, flexibility, colour, and strength (Kite & Thomson, 2006).

## **2.2. Skin / Hide preparation.**

Human beings have been processing hides since pre-historic times throughout the world (Tsegaye, 2019). The first use of animal skins is attributed to *Australopithecus habilis* who is noted to have been roaming East Africa some two million years ago and possessed a diet with significant meat consumption (Linstadter, Frank, Bollig, & Wissel, 2007) .

In many African countries, tanners are historical custodians of traditional leather manufacturing, the tradition has been passed on from generation to generation in communities which also spread in different regions with immigration movements in search of grazing land for animals (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade, 2020).

Skin and hide processing activities are carried out in the open spaces, which are traditionally dedicated to tannery and leather works, normally poorly constructed small shelters which house the skins, leathers, and other working materials (Maxwell, 2007). In the 21<sup>st</sup> Century skins or hides of animals are obtained from slaughterhouses, markets and occasionally from hunters (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade,

2020). Whereas, according to (Tsegaye, 2019) in the 19<sup>th</sup> Century skin and leather were part of the household essentials. Many Bantu communities in Southern Africa hunted wild animals and they owned domestic animals which all formed part of their daily consumption. Skin and hide are then put aside for processing into leather products as material culture, in the order of preparation, tanning and finishing (Badenhorst, 2009).

The preparation stage with dry hides begins with them being dusted thoroughly and then soaked in warm water for two to three days to prepare them for de-fleshing and epilation, while for fresh hides' epilation starts directly (Gebremichael, 2016). Moreover, de-fleshing is the process which removes any remaining flesh, debris, and fats and is performed after the hide is stretched on the ground with wooden pegs with the flesh side facing upwards. This process is best done immediately after flaying, sharpened stones, axe blade, and aloe leaf are used. If the hide is already dry, then it will have to be soaked first. The hide can then be salted and pegged down to dry for five to seven days (Badenhorst, 2009).

Epilation which is the process of removing hair (fur), is employed in different methods in Southern African traditional hide preparation and methods vary between indigenous communities (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade, 2020). The Bantu-speaking communities in South Africa bury the hide in a pit of about 15 cm deep for at least a week if temperatures are favourable (preferably damp ground and not too wet and not too hot either), if not it can take up to four weeks for the hair to be detached. The other method of epilation is submerging hides in a barrel of water with ice plant leaves (*Delosperma Cooperi* is a succulent, evergreen perennial, indigenous in Southern Africa.) for a week in summer and three weeks in winter. Ice plant leaves are chosen because of

their high salt content (Badenhorst, 2009). Another observation narrated by (Rifkin, 2011) stated that, in the early 1920s, the Karoo San hunter-gatherers processed their animal hides mechanically by scraping and rubbing. The hide is then folded and later stamped on with feet by a group of people to soften it. The hide would then be buried in the sand for several hours, then dried, and a mixture of red clay and fat would be applied and rubbed into the hide. Moreover, in the Gambia, some communities would immerse the hide in a solution of white lime calcium carbonate ( $\text{CaCO}_3$ ) and water can act as the dehairing agent. The solution is usually prepared by reducing oyster shells to powder by heating and mixing them with water in a clay jar. The hide is immersed in this solution overnight and the hairs are scraped off the following morning (Ceesay, 1986). These processes are carried out to prepare the skin/hide for tanning processes.

### **2.3. Tanning processes and techniques**

The study done by (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade, 2020), has documented three phases in the skin and hide tanning processes, namely, the pre-tanning, tanning and post tanning/ dressing and finishing phases. The pre-tanning phase includes soaking, liming, unhairing/ bating, and fleshing, which is done to prepare the skins/hides for the tanning phase. This is the stage where dirt, hairs, flesh, and fats are removed from the hide leaving the collagen fibre which is the only essential part of the hide that is processed into leather. Moreover, during the pre-tanning phase, the fibrils making up the collagen structure are split up for easy penetration of tanning agents. The second phase of tanning depends on the final product required. Post-tanning/ dressing and

finishing phase also depend on the final products required and it consists of different operations such as stretching, trimming and the alum tawing technique (Maxwell, 2007).



*Figure 4. Tannery site in Ashanti Region, Ghana, Africa. 1. Curing (drying); 2. Soaking; 3. Liming; 4. Unhairing; 5. Bating; 6. Fleshing; 7. Vegetable tanning; 8. Red dyeing; 9. Black dyeing. Photo:*

Dirksen (1997) has defined tanning as “a chemical process that stops the natural decay process of raw skin”. During tanning, the hide is turned into a stable material, that can resist microbial attack, humidity, and desiccation (Rifkin, 2011). (Badenhorst, 2009) have explained a noticeable colour change during the tanning process which varies from a light brown-red colour to a dark brown, as oils and waxes are used. To ensure that leather remains flexible different pigments, colourants and other ornamental materials are used during tanning. Tanning processes include chrome, vegetable, oil, brain fat, aldehyde or zirconium tanning depending on the desired outcome of the tanning process. The last stage is the post-tanning process which can include shaving or splitting, neutralising, re-tanning, dyeing, fat liquoring, staking, and finishing, in general (Leach, 1995)

In Southern Africa, the history of hiding tanning involves three commonly used traditional methods, brain tanning, salt and alum also known as mineral, and vegetable tanning (Badenhorst, 2009). Animal brains are most used as a source of oil because of their high-fat content, this fat source is known as brain tanning. The Khoekhoe traditionally uses the animal fat tanning method. They rub the fat into the flesh side of the hide or mix it with cow dung and rub it into the hide/skin (Badenhorst, 2009) . The hide is then repeatedly beaten hard with sticks (Schapera, 1962). The last step involves stretching, rolling, pulling, twisting, and rubbing hides as well as trampling with feet for large hides, to ensure that they are pliable, light, and soft (Leach, 1995).

Vegetable tanning is a slow process consisting of placing the leather in baths containing tannin materials. Upon completion of this process, oils and lubricants are applied to the leather to provide flexibility or for further manufacturing processes. The natural colour of vegetable-tanned leather before finishing ranges from a pale brown to a reddish-brown depending on the specific tanning agent used (Leach, 1995).

Vegetable tanning is practised by using tannins derived from plant material including acacia inner bark or pods, chestnut wood, oak bark, or the juice of grapevines. The Nama communities in Namibia are long known for using the tannin technique (Cooker, 2001). According to (Badenhorst, 2009) the traditional method involves; firstly, drying the fresh hide by pegging it on the ground, ensuring that the hairy side is facing upwards until it is dry enough which is determined by eyeball observation. The hide is then turned over and the saps of indigenous succulent plants are then applied on the flesh side of the hide and left for some time to soak. When the hide is considered soft enough, the saps are then dried off. The hide is then rolled to prevent it from drying out too quickly and left until it

is considered ready to be worked on. It is then spread out with the flesh side upwards, smeared with sandstone powder, and rubbed with stones. After enough rubbing, the hide is left out to dry to some extent before being twisted and hand kneaded. The Nama indigenous tanners would then pour the tanning agent; the pounded inner bark of acacia, onto the flesh side of the hide and rolled it up so it would dry slowly. Finally, the hide is pulled and stretched from different angles until smooth, and lastly, it is dried in the sun (Badenhorst, 2009).

The characteristics of leathers made using vegetable tanning vary, since the tannin can be derived from a wide variety of vegetation. Where conservation is concerned, the vegetative material source for the tannin is particularly important. The overall life of the final product may be related to the tanning used in the processing of the skin/hide. Likewise, the ageing characteristics of the leather vary considerably depending upon the type of vegetative materials used (Thomson, 1991).

The mineral (salt and alum) process also known as tawing, produced pure white leather that is soft and resistant to microorganisms. The product produced by this method is not permanent leather since the process can be reversed by immersion in warm water. According to (Haines, 1991), organic acids were used during the hair removal process. Because these acids are not as active as mineral acids, they did not remove all the calcium salts (non-tans) in the leather.

The dressing/ finishing phase determines the purpose of the final product. In some cases, the changes that leather undergoes do not occur until the leather enters the dressing and finishing stage of processing where it could experience any one of a variety of different treatments. These treatments change the appearance of the leather and add desirable

qualities to its overall performance. Dressing of leather follows the actual conversion of raw hides and skin into leather and is used to modify the character of leather for different end uses. For example, sole leather undergoes the further process of being rolled or hammered to flatten the leather, then it is lightly oiled. These final processes give it solidity and a degree of pliability with which to perform its intended function, it also prevents cracks, tears, and scratches on the leather (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade, 2020).

Finishing methods go beyond the altering of properties of leather resulting in changes to its overall appearance. Leather finishes can be considered analogous to any other paint or surface coating since they are applied to make the surface more attractive and to protect it. Traditional finishing processes include staining or colouring the surface, dyeing, graining, or embossing a pattern on the surface, plating to produce a smooth and glossy surface, enamelling as with patent leather, and abrading to produce a suede or velvet finish (Badenhorst, 2009). Each dressing and finishing possibility offer its issues regarding the conservation of leather objects. This is also the stage where ornamentation is added to the products, for example looking at the Ovahimba cloak, aprons etc. you will see the embellishment of iron beads, glass beads, shells etc. which are symbolically significant (Hangara, Kavari, & Tutjavi, 2020). The further engraving and plating of patterns and the addition of ornamental decorations represent spiritual meanings, which gives each material and product a deep meaning of its creation (Ceesay, 1986).

The below nomenclature explains in further detail the processes that turn hide into different leather types as described (Kite & Thomson, 2006). Moreover, describes the characteristics of each type of leather and the conservation issues that each may be at risk.

## **2.4. Types of Leather**

General various traditions of processing hides and skins into leather from the different indigenous groups have been described above. The differences lie basically in the agents used for dehairing and tanning processes. However, the productivity of each type of leather depends on how long a particular hide or skin has undergone the tanning processes, which in turn depends on the use it is intended for also in the end the type of hide and its thickness plays a role. Further, understanding different types of leather is crucial when deciding on conservation methods.

### **a) Rawhide**

This is the untanned skin of an animal which has had all its flesh and sometimes hair removed and has been allowed to dry out. As it has not been exposed to any tanning processes it cannot be referred to as leather yet (Gilroy, 1998). This type of skin appears tough and rigid, and it is mostly used where these criteria are required and deemed essential for example in the making of drum (ngoma/ ongoma/) coverings, traditional knives handle covers etc. However, this type of material is not durable as it is susceptible to deterioration and therefore susceptible to conservation issues (Caple, 2000).

### **b) Parchment**

The skin of an animal which has had its flesh removed (Haines, 1991). After cleaning, the skin is soaked in a lime bath. It is good to have it so that you can later refer to the specific community. You can then indicate that they do the same or they do it differently. and, while still in a swollen state, is stretched on a frame to dry. Simultaneous stretching and drying cause the skin fibre structure to dry in a “frozen,” stretched state and to be packed more tightly together (Raphael, 1993). The result is thin, flat, and stiff skin. The surface is normally treated with an abrasive, such as pumice, to even out the texture. Various fills, like chalk, are rubbed in to whiten the skin and make it more receptive to paint and ink. The skin becomes light and smooth compared to rawhide. These types of skin can be used for various material productions such as clothing since it can take different colours of dye. In addition, the ancient parchment is said to have been stronger than the modern parchment which undergoes different processes (Reed, 1972).

### **c) Semi-tanned leather**

This is a skin of an animal which has had its flesh removed, however, is manipulated by being stretched out and having fat and oil emulsion (animal brain was used sometimes) rubbed into it till it is dry, soft, and flexible (it can also be smoked after the process) (Raphael, 1993). Semi-tanning has a very long history and is still used by indigenous peoples in North America and other peoples, including Australian aborigines and Mongol communities. It has been used extensively for making pouches or clothing items such as vests, jackets etc. In African communities like the Makololo of Linyathi in Namibia, the hides are also worked using the brain of the flayed animal, while the Xhosa and the Zulu

in South Africa use clotted sour milk (Badenhorst, 2009). Semi-tanned hides are somewhat resistant to water but if they get soaked by water, they become brittle, stained, and stiff (Caple, 2000).

#### **D) Fully tanned leather**

This is described as “the skin which has undergone tanning and finishing processes” (Raphael, 1993). Furthermore, vegetable, or mineral tanning processes can both be used to increase the shrinkage of leather, which in turn prevent agents from deterioration (Thomson, 1991).

### **2.5. Gender roles in skin tanning and hide processing and preparation.**

Badenhorst (2009) has deliberated on general gender roles in skin/hide preparation and processing in different societies. He mentioned that in some cultures there are clear demarcations of roles men and women play while others overlap. According to (Baillargeon & Des Civilisation, 2010) in North America, many aboriginal communities regard hide tanning as a women’s job. However, in most Southern African ethnic groups, hiding preparation and processing is regarded as men’s job, although women and children also have roles to play during the process (Badenhorst, 2009). Examples observed in his study research, explained how in the case of Nguni and Sotho communities, hide preparation takes a long time and needs much strength to carry out such as constant stretching, drying, scraping, trimming, etc., requires men to do the job. In contrast, in Nama communities in Namibia, women prepare the skin and do all the tanning processes for leather materials and designs. For most of the Khoisan communities as well as the

!Kung of Botswana, men process the hides (Schapera, 1962). Moreover, (Badenhorst, 2009) narrated that among the Basotho, hides are processed at the village courts, where women would traditionally not be allowed.

## **2.6. Skin / Hide and Leather colours.**

Traditionally processed leather materials and products are presented in different colours, which come in brown, tan, grey, green, red, and black. Becoming the adornment desired by the user. Ceesay (1986) narrated that traditional colouring methods are still extant, in Gambia red colour is derived by thoroughly boiling the bark of the Mangi (Red Mangrove). The greater the quantity of mangrove bark the darker the colour. In Southern Africa, Red colour is derived from red Ochre, which is pounded, and boiled to produce a reddish solution whereby leather / hide is immersed (Badenhorst, 2009). In Namibia, various indigenous communities use ochre for colouring leather materials and products. Moreover, Ovahimba and Ovaherero are known for various uses of ochre which include leather material colouring, body, decorations, and rituals etc., they would normally mix ochre powder with animal fat which they then dab on their leather clothing, hair, and skin (Hangara, Kavari, & Tutjavi, 2020).

## **2.7. Leather conservation practices**

Heritage conservation is an important act by a community, country, and continent at large. As it is aimed at prolonging the life span of tangible cultural heritage which allows future generations to glimpse their ancestors' ways of living and for them to understand their identity (Caple, 2000). Conservation has been defined in different understandings based

on the field of studies, however, all definition has the same ultimate objective, which is to protect and preserve cultural heritage for the present and future generation. This study quoted the definitions of heritage conservation by ICOM-CC, which defined conservation in general as “all measures and actions aimed at safeguarding tangible cultural heritage while ensuring its accessibility to present and future generations. Conservation embraces preventive conservation, remedial conservation, and restoration. All measures and actions should respect the significance and the physical properties of the cultural heritage item” (Guy, 2016).

Cultural artefacts change due to their physical composition, which is influenced by deterioration agents, age, and historical/ handling damage. According to Dirksen (1997), it is difficult to conserve hide or leather objects as one must consider the nature of hiding/leather and the processes used in its tanning. Also, the environmental conditions that might have influenced the object in its lifetime should be considered. Usually, conservation practices for skin and leather products are accomplished by either interventive or preventive conservation methods (Caple, 2000). According to Badenhorst (2009), many African communities have been preserving their leather products using animal fat mixed with ochre, plant saps etc. to prolong their life span. However, the repair is only done to the most significant materials or products. Moreover, (Davis, 2005) also explained different kinds of conservation treatment entail diverse processes carefully executed to ensure that objects retain their original shape and appearance. Preventive conservation can be further separated into passive conservation, stable and appropriate storage environments, and proactive conservation, where the situation is actively monitored and adapted to changing needs.

## **2.8. Rudimentary practices for leather conservation/ preservation**

These practices are described in (Ceesay, 1986); (Rifkin, 2011). They may not necessarily apply to other African indigenous communities, as the used plants may be completely different in different geographical regions in Africa and other parts of the world. However, it demonstrates great examples of how leather can be preserved traditionally using natural remedies which goes on to include ethnobotany.

- ❖ Making whatever artefact one desires whilst the leather is in its wet state. This allows a great deal in shaping and therefore makes it pliable and easy to store and clean.
- ❖ Dipping the leather in a mixture of kerosene and oil. This neutralises the scent and distracts insects.
- ❖ Ochre is also used as a traditional cure to protect hides and leather products from insects.
- ❖ When mould appears on leather, it is simply dusted off and the leather is allowed to air dry.
- ❖ Stains can be dealt with by simply changing the colour of the leather. For example, when black stains occur the leather is coloured with Ochre (red/yellow).

## **2.9. Agents of leather material degradation**

Hide and leather materials deteriorate due to different agents of deterioration. A common form of degradation of tanned leather is red rot, which is a poorly understood form of

degradation, but it is commonly held that strong acids may be a cause, specifically sulfuric acid (Caple, 2000). The source of these acids is inadequately understood, they may have been added during the tanning process or absorbed from a polluted environment as sulphur dioxide is the main component of air pollution (Kite & Thomson, 2006). The effect of red rot on leather objects is irreversible, and conservation measures can only be employed to slow down the decaying (Dirksen, 1997). Dirksen (1997) further narrated other causes of deterioration that affect leather materials such as exposure to excessive dryness and extreme light tend to crack, break, fade and become brittle; exposure to high levels of humidity leads to mould infestation, and as a result, they become stained, have their surfaces distorted and have a distinct stuffy odour; insects infestation will cause holes and loose parts, and if it has accumulated dust, insect droppings will normally stick to it. Both dust and insect droppings are difficult to remove. Additionally, dust particles can act as abrasives on leather or hide surfaces, so care should be taken during regular maintenance cleaning (Kite & Thomson, 2006). How do indigenous communities define the red rot process, and how do they slow down the degradation process? According to (Badenhorst, 2009), hide and leather products would normally be stored in a controlled environment to minimise contact with potential pollutants. Moreover, in southern Africa leather products are in many cases dabbled with animal fat mixed with ochre.

#### **2.10. Intangible heritage and the oral tradition behind tanning and leather conservation for material culture**

Grassby (2005); Gazin-Schwartz (2001), have both described the relationship that exist between intangible and tangible cultural heritage, whereby they referred to material

culture and the rituals connected to their purpose of use in everyday life, which are complex and difficult to interpret. How they communicate, transferred, created, and their context of meaning and the norms are therefore created by the relationship between the materials tangibility and purpose, which are specific to the cultural and traditional beliefs of each community and its oral tradition.

Therefore, intangible heritage explains the cultural and traditional connotation of materiality and its power that defines a community is imbedded in the tangible heritage created by the community.

Intangible heritage is explained and understood in forms oral traditions, performed rituals, initiations, and storytelling (Appiah-Brempong, Essandoh, Asiedy, Dadzie, & Momade, 2020). Turner (1969) made a reference to how communities use structures and materials that have special designations and how it is connected to the intangible form through regulated motions, words, and relationships. For example, *ekori*, its form of intangibility is defined and imbedded in it from the choice of skin, the tanning process, to its finishing and dressing processing, and the significance example, who wears it, when should it be worn etc. Hence, the connotations defined by the taboos, the significance, and the status it represents in the Ovahimba cultural and traditional beliefs. Therefore, creating a relationship between its tangible and intangible form.

### **2.11. The Future of Decolonising Museum Practices**

Reading and studying the work of (Sully, Decolonising Conservation, 2016) has lead this study to the realisation that decolonising museums requires confronting the colonial past,

acknowledging historical injustices, and working towards more equitable and inclusive approaches to conservation and representation. The above author's work further delves into colonisation and conservation, greatly contributing to the growing movement within the museum sector to decolonize exhibition practices and engage in more equitable and inclusive approaches to conservation and representation. This involves re-examining the provenance of museum collections, engaging with source communities in collaborative conservation efforts, and centering Indigenous voices and perspectives in exhibition narratives. The above is also well articulated in (Sully, Colonising and conservation, 2016); (Tolia-Kelly & Raymond, 2020). Nghishiko, J. N. (2024). Decolonizing Conservation: Integrating Indigenous Knowledge for Sustainable Preservation for Material Culture: Focus on leather works of the Ovahimba Community in Namibia. (Manuscript submitted for publication) exemplifies how indigenous conservation practices for leather among the Ovahimba community in Namibia offer a holistic approach to sustainable future use by integrating traditional knowledge, cultural values, and ecological stewardship. Concluding, that Indigenous conservation practices for material culture offer valuable insights and methods that hold significant potential for promoting sustainable methods and techniques, which will contribute toward green conservation, cutting down chemicals which contaminates museum collections and causing health issues in a long run.

## **2.12. Theoretical Framework**

This study falls within the theoretical framework of material culture, oral tradition and cultural heritage conservation. The study seeks to narrate the living culture, memories, and experiences of Ovahimba and Ovaherero community by capturing the skills and knowledge employed in tanning and leather conservation, which is known to be a significant material culture beyond food consumption. (Prown, 1982) emphasised that material culture represents a broad range of “objects”, and in this study material culture is used to refer to the adornments (decorations, clothing, arts, tools, etc.) as produced and used by the two communities in this study. The fabrication of these materials involves skills and knowledge that are transferred orally (Lenzerini, 2011), especially in indigenous communities, hence the study will capture the meanings and functions of the communities tanning and conservation methods of leather. Furthermore, the study objectives seek to understand the issues experienced with leather materials and how they are conserved. According to Sully (2013) conservation is crucial for society as it helps future generations understand their ancestors' ways and identity. The changes observed in Indigenous communities regarding animal skin tanning, leather conservation, and material culture utilisation are indeed indicative of broader insights into material culture, oral traditions, and cultural heritage conservation. And this study recognises and values the dynamic interplay between cultural tradition and innovation, as the communities affirm their cultural vitality and resilience in the face of ongoing social, economic, and environmental transformations.

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **Introduction**

This chapter seeks to provide a detailed explanation and the justification for the choices of this study's research design and methodology, the population and sampling technique, research instrument(s), and the procedures followed. Lastly the chapter will explain how the collected data is analysed to provide answers for the research objectives.

#### **3.1. Research design and methodology**

There are relatively many definitions given by academics and researchers as to what research design is. This study made its reference on (Leedy & Ormrod, 2019) who defines research design as a plan for a study, providing the overall framework for collecting data. Therefore, this study planned its research by putting in mind all the frameworks crucial for collecting the data, which will also answer the overall validity and reliability of the entire research.

Thus, this study dived into ethnography methodologies, as it relied heavily on an up-close, personal experience and the researcher's participation (own interest), not just observation and mere interviews. The study saw the researcher through language and culture learning, to achieve the blend of historical, observational, and interview methods employed by the study. Which in turn produced three kinds of data: quotations, descriptions, and extracts

of records, and resulting in a narrative description of findings. This narrative includes charts, diagrams and additional artefacts that help to tell “the story” just as described in (Genzuk, 2003). Although this study was not typical ethnographic research, it refers to (Genzuk, 2003), who emphasised on employing ethnographic research methodology which aid in the study of culture - the customs, beliefs, and behaviour of a certain community.

Bist (2014) defines research as “an art of scientific and systematic investigation to get information about a specific topic”. Moreover, (Leedy & Ormrod, 2019) further explain and list the different types of research that are commonly carried out as qualitative, quantitative, and mixed approaches. This study is qualitative research which used ethnography as its design to allow the generation of qualitative data, which is very crucial when working with communities. Moreover, (Polkinghome, 2005) explains that qualitative research “aims to describe and clarify human experiences as it appears in people’s lives. For this reason, qualitative data is gathered primarily in the form of spoken or written language rather than in the form of numbers”.

### **3.2. Population**

According to Namibia’s Statistic Agency (2011), the census recorded a population of 86 856 people living in the Kunene region. The population includes people from different ethnic groups who migrated to the Kunene region for various reasons, such as grazing purposes among others. However, this study population only consisted of two communities of Ovaherero sub-ethnic groups, namely, Ovahimba and Ovaherero that

resides in Omungunda and Okondaurie villages, in the Kunene region. These villages were chosen because they are all said to be accommodating a number of Ovaherero and Ovahimba from all parts of the Kunene region.

### **3.3. Sampling**

Leedy & Ormrod (2019), defines sampling as “a technique or procedures employed by a researcher to systematically select a relatively smaller number of representative items or individuals (data sources) from a pre-determined population to serve as subjects (data source) for observation or experimentation as per objectives of the study”. Therefore, this study employed a purposive sampling technique, which is a non-probability sample that is selected based on the characteristics of a population, a predetermined number of observations taken from a larger population, and the study's objective (Crossman, 2017). Furthermore, the study chose 20 participants in total, of which 10 were from the Ovahimba community and 10 were from the Ovaherero community.

The first participants were observed and interviewed from the Ovahimba community, in Omungunda village, who are well known to have a long historical experience and knowledge in skin tanning and leather conservation practices. The participants included both women and men (7 women and 3 men), who have all been involved in traditional skin preparation methods to produce their cultural leather products. The other participants are from the Ovaherero community which includes both participants with well-known history of skin tanning and leather conservation knowledge. The group consists of 6 women and 4 men. All the participants who participated in the research were selected

purposely because of their historical knowledge, memories, and long experience in skin/hide tanning and leather conservation.

### **3.4. Research instrument**

The researcher used a structured interview guide, which was translated into Otjihimba and Otjiherero. The researcher had a great company of university scholars who are also from the region and speak Otjihimba and Otjiherero fluently, which really made the interviews easy. The researcher also had an observation checklist. DeMarrais & Lapan (2003) briefly define an interview as asking questions and getting respondents to react verbally with detailed answers". These interviews and observations were supported with relevant documentary evidence to the study, which included notes, photographs, and audio recording.

The researcher requested permission, (which was also well explained in the consent form) from all participants to use a voice recorder, during interview sessions and as they chant along during practices of tanning and conservation. They were also asked to if it is fine to take photographs of them while working for documentation purpose. Notes were taken as a backup for follow up questions during interview and observation sessions. The researcher did not experience incidents whereby participants declined to be interviewed, recorded, or even take part in the study.

### **3.5. Procedure**

The researcher's search for primary data from the archival records was not a success, as there is no detailed literature documented on the Ovahimba and Ovaherero communities' history with skin tanning and leather conservation practices. However, there were works of literature on indigenous practices on skin tanning and leather preparations from Southern Africa and Aboriginals of Europe, America etc. The other primary data sources the research employed are structured interviews and observations. The research targets two sub-ethnic groups, Ovaherero and Ovahimba communities associated with the historical use of skin and leather material culture, who are the inhabitants of Opuwo (Kaoko) in the Kunene region. The researcher liaised with culture officers in the Kunene region, the traditional leaders of the two communities, who played a crucial role in the identification of potential participants with a known history of skin tanning practices and leather conservation methods. Data collection commenced on 12 September 2022. The consent letters were explained to the communities before the commencement of data collection. The data collection period only took 7 days and not 3 weeks, as projected. This was because of the communities' ways of living exhibited the research's aim, which made it easier to document. The interviews and observations all took place at the participants' place, and they took about 1 hour and 30 minutes. The participant who had more information were given chances to share more of their past and current experiences on schedules. The participants were all informed well in time about the data collection days by their traditional leaders.

The study used structured interviews and observation methods. The interview questions were asked to understand the history and current practices of skin tanning and leather

conservation among the Ovahimba and Ovaherero communities. The interviews were carried out during the practices (action) and observation was carried out during skin tanning processes by the Ovahimba community.

The Ovahimba community was visited first and Ovaherero last, as these communities lived in different villages. The identified participants in the Ovahimba community were primarily interviewed and observed while performing all the steps involved in skin tanning and leather conservation. All information is documented on audio, photographs, notes, and video camera, and will be used during data preparation and analysis. DeMarrais & Lapan (2003) define an interview as “a process in which a researcher and participant engage in a conversation focused on questions related to a research study”, he further defines observation as “A way of gathering data by watching people, events or noting physical characteristics in their natural setting”. The observation carried out was all overt. Hence the interview questions were all translated into Otjihimba and Otjiherero as a vernacular to allow clear communication and free engagement between the participants and the translator. The tanners have explained the difference and the changes that have happened in the tanning practice between the 21<sup>st</sup> and the 19<sup>th</sup> Century. The tanners were also given a chance to give testimonies of their experience working with animal skins, which contributed tremendously to the outcome of the study.

The researcher compared, and matched the information derived from interviews and the actual practical observation, as explained in (Aikenhead, 1997), to fulfil the objectives and provide further inputs for future research purposes.

### **3.6. Data preparation and analysis**

According to (Braun & Clarke, 2012) the most widely accepted framework for conducting thematic analysis is known to involve a six-step process which is listed as data familiarisation, generation of initial codes, searching for themes, reviewing themes, defining, and naming themes, and producing the results. Therefore, this research used thematic analysis to identify, analyse and record the patterns within the data. This method is deemed appropriate for this study as it helps in seeking to understand the experiences, memories, and behaviours across a data set of ethnography and material culture research.

The data sets analysed in this study are derived from interview transcripts, field notes and photographs which are prepared before analysis. (Bhatia, 2018), explains that data preparation “aims to convert raw data into something meaningful and readable”. After conducting the interviews, the data were transcribed and all the collected information from different sources was assembled into a single text for analysis. The objectives of the study were revisited to identify questions answered by the collected data. The final step was to structure and label the assembled data through coding. According to (Kiger & Varpio, 2020), coding is a process whereby “a researcher identifies broad ideas, concepts, behaviours or phrases and assigns codes to them”. The themes in this research are therefore actively constructed patterns (or meanings) derived from a data set that answered the research objectives.

A comparative method is used to compare interview transcriptions of data collected from the individual participant, which are then used to arrive at concluding findings used in documenting the knowledge and practices of the communities. According to (Bowen, 2005) a comparative method is where line, sentence and paragraph segments of the

transcribed interviews and field notes were reviewed to decide the codes that fit the concepts suggested by the data.

A qualitative research method was used to carry out this research, and three of the most appropriate techniques employed in qualitative research were used. These are interviews, observations and literary documents, all of which complemented one another during this study. For these reasons, the researcher is confident that the findings are of good quality. This research is based on indigenous knowledge, and the questions derived from the study objectives focused on historical knowledge, the changes and the current practices entailed in skin tanning and leather conservation practices.

### **3.7. Research ethics**

The researcher was granted an ethical clearance from the University of Namibia's Research Ethical Committee and written fieldwork/ data collection permission by the Ministry of Education Arts and Culture, which the researcher presented to the communities' traditional leaders, who then agreed to the proposed study research data collection in the region, and the respective villages. Moreover, as per the universities ethical committee's requirement, participants were briefed on the nature and objectives of the research so that they grant their consent, to partake in the research. Participation was voluntary, and participants were allowed to withdraw their participation without any prejudice. The participants were also allowed to consent if they would like their identity to be anonymous or known throughout the entire study. The participants are also asked to consent to the use of the photographs taken, to be used as part of the thesis content, and

that it will be acknowledged. The collected data will be handled with confidentiality, and all the recordings and photographs will be transferred to an external hard drive protected with passwords only known by the researcher. Since the research is not based on sensitive topics concerning the communities or the participants, the researcher will retain the data for five years to allow the researcher to further research on the subject and construct other research materials used for future research purposes. Because the research deals with indigenous knowledge, the researcher has recognized and affirmed the contents of the UN declaration on the rights of indigenous people. The researcher will share the research data with the National Museum of Namibia (ethnographic study collection) and the Basler Afrika Bibliographien (the scholarship sponsor). After time 5 years, the raw data will be permanently disposed of by deleting the recorded data and shredding paper documents.

### **3.8. Limitations of the study**

Ross & Bibler Zaidi (2019) described study limitations as a "representation of weaknesses within the study that may influence outcomes and conclusions of the research". The goal of presenting limitations is to provide meaningful information. This study's limitations were derived from the lack of intensive practical or living culture of tanning and leather conservation representation which is observed in the Ovaherero community. However, they have narrated and demonstrated their memories of past experiences and oral traditions, of stories told and spoken by their elders. However, this study chooses to present the data as collected, to ensure that the quality of the study research remains unbiased, but rather informative and representing the historical and current practices of

skin tanning and leather conservation among the two communities. This will also provide base information for future research opportunities on this subject.

### **3.9 Delimitations of the study**

The study focused on the Ovaherero and Ovahimba communities that reside in the Kunene region. Hence, the focus was on the participants that were derived from the purposive sampling technique. The study excluded other communities that are practicing skin tanning and leather conservation due to the limited study frame and to avoid comparison in the study objectives. However, there are mentions from the literature found on local skin tanning and leather practices, which may appear in the discussions as referrals.

# CHAPTER 4

## RESEARCH FINDINGS

### **Introduction**

This chapter presents the overall findings of this study. It provides answers to the research objectives as presented in chapter **one**.

The research has arrived at these findings, by searching the archival records at the national museum of Namibia, and focusing on the data collected on indigenous practices, skills, tools, and the steps involved in skin tanning to manufacturing different types of leather as a material culture. It further explored the products made from the different types of leather, and if there is any link between the tanning process used and the conservation methods employed for the treatment of leather products made from different types of leather and gender roles in tanning processes and leather conservation. This chapter also provides an interpretation of the historical changes that have occurred between the 19<sup>th</sup> and the 21<sup>st</sup> Century on skin tanning practices and leather conservation, by exploring their factors/influences., and the role of oral tradition and intangible cultural heritage in tanning and leather conservation. The research also dived into the decorative materials used to embellish the leather products, which also lead to an understanding of the significance of leather as a material culture to the Ovaherero and Ovahimba communities by looking beyond the different types of leather materials used on daily basis.

Throughout the findings, the study research findings are leaning toward Ovahimba community, this is not surprising because Ovahimba community are up to date practicing skin/hide tanning and leather conservation practices as part of their living material culture. Whereas Ovaherero have demonstrated rather memories, experiences, and oral history of skin/hide tanning and leather conservation practices. The provided narratives from the Ovaherero community are interpreted together with the Ovahimba community.

The research is thus descriptive, documentary, and archival to a certain extent and hopes to capture the intangible knowledge, meanings, and skills of leather tanning and conservation practices, as it has observed, collected, and recorded the narratives of the communities.

#### **4.1. Sources of animal skin for Ovahimba and Ovaherero communities**

Ovaherero people are pastoralists, who by the nineteenth Century had large herds of cattle, who also lived a nomadic pastoralist lifestyle, they hunted wild animals for consumption, clothing, tools, and other purposes (Malan, 1974). Although the Ovaherero communities have persevered with their pastoralist lifestyle, which until today shows how much cattle still form the centre of their lives and is also perceived as a measure of their wealth, as written in (Hangara, Kavari, & Tutjavi, 2020). Cattles are no longer readily available for Ovaherero communities as it used to be in the past. Climate change is felt deeply in the Kunene region, with over seven years of devastating drought. Which has affected the communities and their livestock, and some families have reportedly lost over 100 goats, cattle, and sheep all at once. The government is, however, trying its best to assist the

communities that are badly affected by providing them with relief food and animal feed to keep them afloat, while hoping for better rain days, and planning community green schemes to create sustainable agricultural food supplies (Sheya, 2021). This study has, however, anticipated the readily availability of skin within the communities, with the background understanding that livestock is part of their daily lifestyle.

Although the communities researched by this study do still have enough livestock (probably less, compared to what they had in the past, before devastating turns of climatic events, war, etc.), they are all sustainably utilising their resources. Hence the research has made options to mobilise the skin/hide needed to carry out this research study’s objectives. The communities would normally wait when there is an event or celebration in their families that will have cow, sheep, or goat slaughtered for meat as part of their tradition during special events, skin/ hide is collected and dried to be used later to produce material culture. For this study, skin / hide used is obtained (bought) from a local slaughter ground in the heart of Opuwo, where men are slaughtering and skinning the cows, goats, and sheep for market purposes, and each part of the cow is useful and that included the skin, hooves, horns etc.

*Table 3. Shows types of animals used to produce skin/hide in "Kaoko" Opuwo*

<b>Type of animal skin/hide</b>	<b>Price range (N\$)</b>
Cow	70 – 500
Calf	70 – 500
Goat	50 – 200
Sheep	50 – 200

#### **4.2. Skin/hide preparation and processing by Ovahimba and Ovaherero communities.**

Among Ovahimba and Ovaherero, skin/hide preparation and tanning used to be a collective activity, and for the Ovahimba community it remained as such. However, among the Ovaherero community, the practices are no longer perceived as communal activities the way it used to, as most of their practices have completely perished and some are commercialised and are now regarded as individual practices/ activities.

The communities normally acquire their skins from their kill which would normally happen often, but recently they acquire the skins from slaughter grounds as they are sold, without any specification on the skin/ hide cuts of how they would prefer.

The study was privileged to witness a thoroughly practical on traditional/ indigenous practice on skin tanning processes and preparation, carried out by Ovahimba community. Ovaherero community did not carry out any practical practices, however, they have given detailed narratives based on memories and experiences on the processes involved in the practices, as they no longer practice tanning and leather conservation as a living tradition. In addition, “traditional/ indigenous practice” is emphasised in this research, as it distinguishes the tanning processes used by modern tanners who employ techniques that cut down on the number of hours involved in softening process (these are mostly large industries, which use modern techniques). There is nothing wrong with modern techniques, however, this research aims to contextualise the indigenous/ traditional methods employed to arrive at the end of beautifully finished leather products.

This section provides the steps in the skin/hide tanning process and preparation carried out by Ovahimba community and it includes the shared memories and experiences from Ovaherero communities:

**a) Skinning**

From the observation made at the Ovahimba household, the first step carried out is skinning, (when having your own kill). The goat is suffocated, by holding its mouth and nostril and ensuring that the limbs are not moving, three people carried out the task of killing, and skinning. It takes approximately 3 to 5 minutes, to execute a silent death, without any blood spilling. Blood spilling is avoided, as it is believed to bring bad luck to the family. The goat is then laid flat on a pile of freshly cut branches from *omuṭati* tree (*Colophospermum mopane*). A deep cut is made to its neck and a pool of blood is saved in a small iron pot which is placed under the cut till most of the blood is drained out. A straight incision is then made from the cut in the neck through its chest, stomach, and across the inner side of the limbs as shown in fig 5. The carcass is then hung on the tree (between a Y tree trunks), this allows easy skin removal as seen in fig 6. The skin is then pulled down, by first pulling it off gently from the 4 limbs to a point on the back, where it is then pulled off at once as shown in fig.7. Sharp metal knives are used, to ensure a lot of meat is removed from the skin as much as possible. According to narratives obtained from Ovaherero community, a similar procedure of skinning is carried out, however skinning can be carried out differently from individual to individual and the purpose of skin also plays a role.



*Figure 5. Shows a goat carcass laid on fresh branches of omuṭati. Neat incisions are made starting from the mid-point on the central side of the neck along the middle of the chest to the stomach. (Photo: JN Nghishiko, Omungunda, 2022)*



*Figure 6. Shows the skinning process of a goat. An older man and a young boy are seen here removing the skin off the goat carcass, while it's hanged between the tree trunks to ensure stability. Skinning is mainly carried out by men. (Photo: JN Nghishiko, Omungunda, 2022)*



*Figure 7. Shows the final skin removal from the goat, which is done by hands, and requires experience to prevent breaks and tear. (Photo: JN Nghishiko, Omungunda, 2022)*

## **b) Stretching and Drying**

In Ovahimba community and tradition, stretching and drying steps are carried out immediately after skinning, depending on what type of leather product is going to be manufactured. It is a step that also happens in between other steps. This is where the skin is stretched by being pulled from different angles vigorously, this is done by more than four people, however, the number of people is dependent on the size of the skin being worked on. Subsequently, the hide is then laid flat on the ground stretched and pegged down with small wooden sticks, which are sharpened and then hammered to the ground, holding the hide while drying, without shrinking as shown in fig.7. Some hides are not pegged, especially those that only need a short period of drying before fleshing, and thus hanged over a wooden stick line or on the ground (see fig 8 and 9). On a good, sunny day, the hide is dried within a day, the period of drying determines the type of tanning processes that will be employed

and the leather product that will be made from the hide. In Ovaherero community its recalled that this step, does not include stretching, and thus the skin is dried immediately after skinning, it can either be pegged to the ground depending on the size of the skin or just hanged on the line or on the ground.



*Figure 8. Shows a hanged skin of a young lamb "kid" this style of drying is mainly used on delicate skins, to prevent damages.(Photo: JN Nghishiko, Omungunda, 2022)*



*Figure 9. Shows a skin pegged onto the ground, this style of drying is mainly used on fully grown goat/lamb skins. (Photo: JN Nghishiko, Damara living museum, 2022)*



*Figure 10. Shows an Omuhimba woman, laying a skin flat onto the ground, this style of drying is done immediately after skinning. The skin is air/sun dried for 10 - 20 minutes, before the next step. (Photo: JN Nghishiko, Omungunda, 2022).*

### **c) Soaking and Dehairing**

The skin/hide that goes through this step is mostly those of the cow. This can be freshly skinned or green hide/skin (is not freshly skinned and have been exposed for long). Water is boiled in a large pot, and the skin is quickly immersed for about three to five minutes, as shown in fig.11. It is removed and immediately about 5 – 7 ladies start to work on it, using their hands and blunt flat metal tools to remove the hair, as seen in fig.11. b. The hide is also put against a tree trunk and moved

side by side to remove the hair faster, as depicted in fig.13. This process takes 2 to 3 hours to completely remove the hair. A lady from the Ovahimba community said softly “*okuisako omainya pe ya aku toora orure, posi ya matji zu kotjivarero tjovandu mbu mave puhura*”, which translates that removing the hair can take longer than the time they took, and it all depends on the number of people working together. The hide is cut into long and narrow strips (1m by 30 cm), and this is a shape that is already aimed for the final product. The hide strips are dried for 30 minutes, and then rolled to overnight in a well-ventilated room and wait for the next step. For the hide which doesn't need to be dehaired, it is soaked for 5 minutes just to soften it and it is put back to dry for one more day or overnight (the drying period between the steps in the tanning processes depends on the size and thickness of the hide).

In Ovaherero community, it is recalled that soaking used to be done with cold water for over five days, the processes allow the hair to be removed easily. This process is normally carried out when working with large hides/skins and is also aimed at the final desired product. Although they no longer/ hardly practice the tanning processes, they remembered the processes from years ago, when leather was a daily material culture.



*Figure 11. Show a group of Ovahimba women immersing a "green" hide (a hide of a cow, which has been kept for a few days) in boiling water for the dehairing step. The water is extremely hot, hence they are a lot to relief each other of the heat. (Photo: J Tjikongo, 2022)*



*Figure 11b. Show a group of Ovahimba women (the researcher became a part of the community, which presented a great opportunity to experience the feeling of touching, smelling, and hearing the chanting of women as they mumbled songs throughout their work) holding a hide strip removing hair with hands and wooden scrapers. This step is done by many people to prevent the hide from stiffing up. (Photo: J Tjikongo, Omungunda, 2022).*



*Figure 12. Shows Ovahimba women demonstrating another "quick" method of dehairing. The hide strip is held side by side against the shrub trunk, and it's moved side to side removing the hair faster, preventing stiffing. (Photo: J Tjikongo, Omungunda, 2022).*

#### **d) Defleshing**

In this step, the meat and all other unwanted flesh are removed from the skin/hide. Fleshing the hide is done immediately after skinning, or after stretching and drying the hide (depending on the desired final product). For freshly skinned hide Ovahimba women remove the flesh with their hands and some metal fleshing tools as shown in fig.14. For the stretched and dried hide, it can be soaked before fleshing, or be saved for the scrapping process. The Ovahimba women sit across each other, holding the skin from corner to corner; making sure no trace of flesh is remaining. Lastly, an older woman goes through the fleshed skin, to scrutinise it, and just gives it a last check before the next step is taken. An Omuherero woman, explained that, fleshing is mainly carried out by men, and women mostly

only assist or have a say in the type of leather material or the final product shaping and finishing processes.



*Figure 13. Shows Ovahimba women defleshing the skin/hide, using their hands and some metal blades. The brownish on the flesh side is from the dust, as the skin/hide exposed to the dust to remove the flesh easily. (Photo: J Tjikongo, Omungunda, 2022)*

#### **e) Scraping**

In Ovahimba community, the stretched and dried skin/hide that has not undergone the process of fleshing is scrapped. This process is done after the skin is dried to a certain judged suitable hardness, so it will not tear during scrapping. It can take one to five days depending on the type and thickness of the skin / hide. Scraping is carried out by both men and women, and mostly by the experts on the process. However, the availability of men at home is limited, and therefore women are forced to become experts and are well-known for the practice, as they are patient and more careful. This process is carried out to remove the remaining flesh on the

skin, left during skinning, to prevent the skin/hide from getting stiff and from insect infestation before its tanned/ softened as shown in fig.15.

Scrapping is done with a scrapping tool called *otjitote*, which is a sharp flat metal attached to a wooden handle and sometimes *etemo* is used when working on bigger skin/hide, which is mostly used by men. Men prefer *etemo* because it is not very sharp, and they can work alongside four people on the same skin/hide at the same time. The skin/hide is tanned finely, and it is ready for the next process of softening, or it can be stored for a period before it is tanned/softened. For Ovaherero community, scrapping is carried out mainly by men, and they use *otjiharaova*, which is pressed against the flesh side while being stepped on at the other end, the experts have adopted this method, see fig 16.



*Figure 14. Shows an Omuhimba woman scrapping a sheep skin, which has been dried for 4 days. The skin is placed flat on her leg to ensure stability. The metal flat and blunt blade is moved from bottom to top. (Photo: JN Nghishiko, Omungunda, 2022)*



Figure 15. Shows an Omuhero man demonstrating how scrapping is done since 20th Century. They employed the use of otjiharaova to make it easier and efficient. Otjiharaova is held against the flesh side of the skin/hide from top to bottom and end to end. (Photo: JN Nghishiko, 2022).

#### **f) Softening/tanning**

In this step, the skin/hide is in a stage where its final destiny is decided, whether it will be used as rawhide, semi-tanned, or fully tanned. Therefore, the hide's fibres are broken down simultaneously through different tanning methods. The hide previously exposed to the sun, wind etc. is immersed in warm water depending on how big and tough it is, if it is small and not too hard, warm water is splashed on the hide using fresh leaves of an *omuṭati* preferably (or any other available plant species, except the ones with unpleasant scent). The skin/hide is jumped upon by one woman or two children (young boys and girls under the age of 14), as shown in fig. 17. This practice serves as a multifaceted practice within this communities, providing a means of teaching and transferring knowledge, preserving cultural heritage, fostering community bonding, and developing valuable life skills among young members of the community. The skin is later rubbed and scrubbed as if one is washing clothes as shown in fig.18. For the hide which had its flesh only scrapped off after drying, and it didn't go through soaking, it is twisted, flipped,

squeezed with hands as a way of softening it. This process can be done by more than two people holding each end and exchanging vigorously. When working with a cowhide, this process requires several hours of work over the course of a day or two. However, it also depends on how many people are working on the skin/ hide. For thinner skin/ hide such as goats, calves, and sheep, it takes 30 minutes to an hour a day. The hide that has had its hair removed, dried, and rolled, in this step, it is bashed with *ombiṅe* to soften it. Ovahimba women sit in a group while softening different types of skins/hides and singing along to joyful songs, sharing stories, and showing the young children how to tan. Which shows how much dedication is put into this and what it means to the community, and the oral traditions of knowledge transfer employed. An elder from Ovahimba community said “*Okuṭukuṭura nawa omukova, ivimwe vyoviṅenge ovinahepero, nu mbi hepwa tjinene. Ku nao omikova mbya ṭukwa nawa otji vi nana ombango yovengi*” which translates that softening the skin is very demanding, but necessary, as it is the key to attending a beautifully tanned hide/ skin.

For Ovaherero community, tanning is carried out by both men and women, those with long term experience, however, for those that are learning, they are also given a chance to practice on skin/hide that is not dedicated to any specific final product. An Omuhherero woman said, “Tanning is now mostly done by men, and they are mostly doing it for commercial purposes”. Moreover, during tanning, Ovaherero community uses different methods, which includes using animal fat mixed with a small amount of red ochre which is then worked into the skin/skin which has had

its hair removed. The skin/hide is rubbed and squeezed, sometimes it is worked on by moving back and forth against a tree trunk.



*Figure 16. Shows an older woman and young kids looking on as she jumps on the skin. This process is used to loosen fibres for easy tanning. (Photo: JN Nghishiko, 2022).*



*Figure 17. Shows Ovahimba women softening a goat skin by pulling, squeezing, and wringing it from side to side. (Photo: JN Nghishiko, 2022)*



*Figure 18. Shows how a hot water fleshed hide is softened by being bashed with ombiṇe over a stone. The hide is rolled over and over and bashed it until its soft enough and ready for the next step.(photo: JN Nghishiko, 2022).*

### **g) Finishing and Dressing**

Finally, after five to ten days of skin tanning preparation and processing in Ovahimba community, all hides that have been worked on are brought into a dressing room and (this is the biggest room in every homestead) are laid onto

*otjinguma*. Their skin / hide has now met the ideals of “leather”, and are now grouped according to their types of leather, and their purpose of use.

The materials are then put into the finishing process, which includes colouring, graining, boarding, and enamelling to produce different textures on either side of the leather e.g. inside- velvet, smooth, rough etc.; outside- hairy, smooth, velvet, rough, shiny etc). Finishing methods is depended on the type of animal which the leather is derived from, in many cases, as the skin/ hide properties tend to be different.

This is also the step where the materials are cut, shaped and turned into usable products. Embellishments are also added, which are a diversity of decorative materials, engraved and plaited onto the leather materials, such as iron, copper, glass and plastic beads, ostrich egg shells, sea shells, plaited palm leaves, and plant seeds.

The raw-hide is treated as less important compared to other types of leather, in terms of maintenance. However, they are used to make chair covers, sleeping mats/ *otjinguma*, doors, tool handles, bags etc., this type of skin/hide is hard and very rigid. The rawhide is finished by brushing it using two types of brushes, one made out of palm leaves, and the other from *omutjira wongombe*, to ensure that the hair side is neat and ready to be utilised.

For Parchments, semi-tanned, and fully tanned leather, the incorporation of different oils and fats is done during the dressing process, to produce the desired properties of the material. The oils and fats are applied differently for a different

texture and the desired looks, for example, *otjitati* has a mixture of oil and fat worked onto it to induce strength, flexibility and water resistance, whereas *ombanda* is rolled and lightly oiled to give it a hard, and slight pliability.

Colouring is also carried out during the finishing and dressing processes, the colours that are common among Ovahimba and Ovaherero communities are mostly red and black. The red colour is derived from red ochre stones known as *otjize*, which are ground into powder. The powder can be mixed with plant oil and animal fat and then dabbed onto the material, it can also be boiled, and the material is immersed into the water to soak up the colour. The black colour is derived from charcoal, which is also ground into a fine powder and mixed with plant oil and animal fat.



*Figure 19. Shows an Omuhimba woman applying otjize onto ombanda. The paste is only applied on the inside of this type (semi tanned leather) of leather. The application is worked thorough into the leather, making sure it is fully absorbed for flexibility. (Photo: JN Nghishiko, 2022).*



*Figure 20. Shows an Omuhimba woman shaping ombanda, to give it a pleated shape toward the end as it hangs. Shaping is done by one person only, with minimal distraction to ensure all pleats are same size.(Photo: JN Nghishiko, 2022).*



*Figure 21. Shows an Omuhimba woman grinding red ochre stones to make powder which is then mixed with animal fat or vaseline to create a paste. She is using a round granite stone, against the piece of a flat surface large stone (granite), these stones are collected from the areas near by the waterfall (Epupa waterfall). She holds the stone in one of her palms and the other hand on top to support, as she moves the stone over the red ochre stones in a round rhythm.(Photo: JN Nghishiko, 2022).*



Figure 22. Shows decorations added on a leather skirt / ombanda, these are made from iron beads, plaited palm leaves, and seeds of Omukongo (*Schinziophyton rautanenii*). They are arranged in pattern that gives a beautiful outlook. (Photo: JN Nghishiko, 2022).

Moreover, Ovaherero community do not regularly use *otjize* on their leather materials, which is mostly *otjiteta* worn by young boys and girls before they are initiated into young adult. However, leather materials like *ekori/omakori* which used to be worn by women were slightly dabbed with *otjize* and embellished with different decorative materials, which also defined the marital status, age, and wealth status in their community. Ovahimba community's *ekori/omakori* are greatly dabbed with *otjize* which gives them a rich vibrant reddish colour.

Table 4, Shows tools, substances, and materials used during traditional skin/hide tanning preparation and processing.

Tools, substances and materials	Uses
Hoe blade/ <i>etemo</i>	Stretching, scrapping
flat Scrapper/ <i>otjitote</i>	Used for scrapping
Knives/ <i>oruvyo/ongiki</i>	Skinning, dehairing, trimming, cutting and shaping
Metal flesher/ <i>oruvyo/ongiki</i>	For fleshing the skin/hide
Stone scrapper/ <i>ewe</i>	Used for scrapping hides after tanning, to create texture

A large disc stone/ <i>ewe</i>	Used as support for bashing during the tanning
Wooden bashing stick/ <i>ombiṇe</i>	For bashing the hide during the tanning
scrapping Granite/ <i>ewe</i>	To sharpen metal knives, scrapping metals for decorations
Cow dung / fabric cloth	For tucking during shaping
Pot (s)	To boil water, cook animal fat
Spade / <i>otjiharaova</i>	For scrapping, fleshing
pegging sticks/ metals/	For pegging and holding the hide in position.
Flat grinding stone/ <i>ekungwa</i>	A type of stone Ovahimba use to crush the achre and other objecs

### **4.3. Conservation issues associated with skin/hide products experienced by Ovahimba and Ovaherero communities.**

The conservation issues pointed out by the communities are mostly derived from the materiality composition contained in the leather products. This means, the composite materials tend to have complex conservation issues which needs complex conservation needs as well. Because the materials vulnerability and potential deterioration is depended on the materials the product is made from.

The issues such as drying out of materials that are made from rawhide e.g., *otjinguma*, is caused by dry air as the materials cannot stand too much air exposure, however due to their use by the communities, drying out is expected. The Ovahimba community have also explained how embellished materials tend to rust easily as the fat used reacts with metal beads, making it to become rigid/stiff over time. These types of materials are disposed of, and new ones are then made as a replacement. This condition is known as inherent vice, which is explained by (Caple, 2000) as internal deterioration factors due to the raw materials used and the manufacturing process used to create the object or the combination of materials within the object. Ovaherero further added that, most leather materials are also

prone to tear and degradation due to age, and other environmental factors, such as increased humidity, temperature, light exposure, air, and dust.

The community further pointed out the issues of dehairing which affects materials such as *ombanda* which are made from semi-tanned leather; issues of sizzling/warping of glass beads; copper beads oxidation; iron beads rusting; red rot; tear etc. Below are figures depicting 2 different leather materials and issues that may arise due to material composition and environmental factors (fig. 24 & 25)

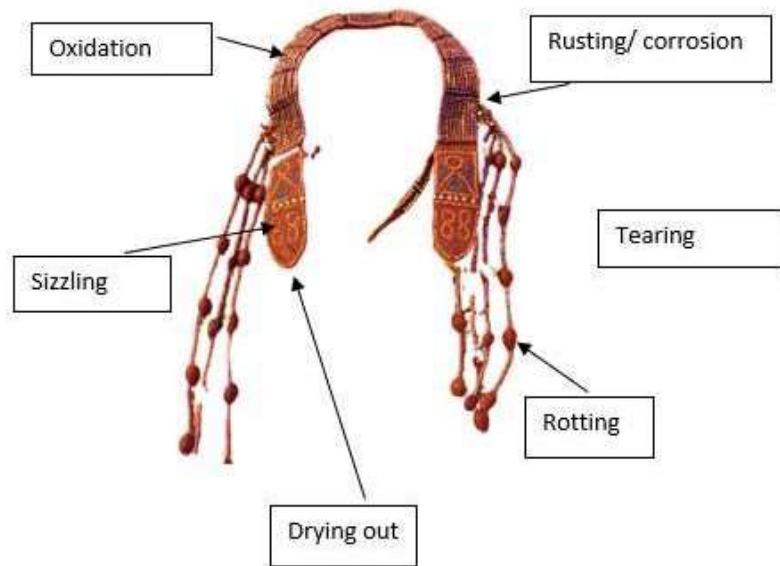


Figure 23. Shows various conservation concerns associated with *epando* which is made from a fully tanned leather, which is decorated with various materials.

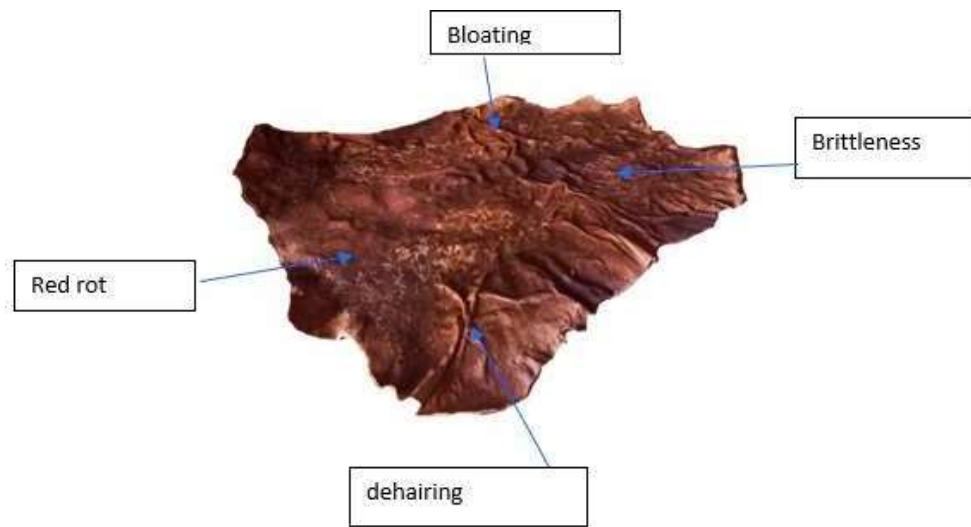


Figure 24. Shows various concerns associated with otjinguma which is made from a raw-hide.

#### 4.4. Conservation measures of skin/hide products employed by Ovahimba and Ovaherero communities

*“Tara ombanda yandje! I nozombura ndano, posi ya mai munika oupe uriri”* these are the words of an Omuhimba lady busy dabbing *otjize* paste onto an *erembe*. Which translates to, “look my skirt is more than five years old, and it still looks as good as new”. Leather products are conserved through different preservation methods, which are tailored for each type of leather, and the issues associated with it. The methods are aimed at preventive, remedial and restoration conservation aspects.

As a preventative measure, most of the materials are for example shaped while the leather is not completely dry, to ensure pliability, for storage, cleaning and usage purposes. Leather materials such as the ones fully tanned have red ochre and fat mixture worked onto them (fig.26) to ensure their flexibility and moisture resistance. This is to prevent the materials from drying out, mould, insect

infestation, corrosion, and rotting (red rot), which can lead to deterioration. Other leather products especially *ombanda/ombuku* are made from sheep skin and are semi-tanned, very soft and delicate pieces, in terms of wealth status and significance among other types of leather. These types of leather materials are preserved with plain fat on the fur side, which is later smoked (fig.27) with a mixture of herbs, leaves, and grasses of certain ethnobotany species, which is aimed at preserving and preventing insect infestation, hair loss and drying out, the smoke also serve as sweet scents. Smoking the material allows it to soak the smell and also melt the fat/ oil which leaves the fur looking shiny, flexible and non-sticky. The inner side of semi-tanned materials is treated with ochre and fat/oil mixture to protect it from drying out as well as from insects infestation. Red ochre oil and fat mixture (*otjize*), is known as one of the ultimate cure to almost all the conservation issues associated with leather materials.

When leather products are exposed to harsh conditions, they tend to dry out easily and faster. Which needs a remedial conservation response, dry materials are moistened by putting them over hot water steam, once they regain flexibility, red ochre and fat mixture is worked onto them (keeping in mind what type of leather it is). The material is then put inside a room with little to no ventilation (these are special rooms constructed for storage of leather materials in the Ovahimba homesteads). If any material is infested by insects, it is put in the sun and later smoked and dabbed with *otjize* paste.

When leather materials are deteriorating beyond repair, they are thrown away and new ones are made as replacements. Restoration conservation is only carried out

for materials of high value based on cultural significance. If for example an *erembe*, *embuku*, *otjiteta* etc. which are made out of sheep skin are torn they are restored by stitching (fig.28 & 29) the torn pieces together using threads made from the barks of a Baobab tree (*Adansonia digitata*), animal fibre or fibres from synthetic materials. Moreover, significant materials that are for example missing pieces of the original materials are filled with another piece of material similar to the original referred to as *otjipapeko*. This piece is chosen based on the type of leather is being repaired (the type of animal it comes from and what tanning processes it has undergone).

Leading to the strong link between hide tanning processes and leather conservation methods employed. “*Ounahepero tjinene okutjiwa okutja omuhoko womukova, wa tukwa poo wa ungurwa vi kokutja u yenene okuutjinda nawa*” translated as “It is important to understand how the type of leather material was made for you to know how to conserve it best”.



Figure 25. Shows an Omuhimba woman dabbing *otjize* paste onto the inner side of *ombanda* to prevent it from drying out and from insect infestation. (Photo: JN Nghishiko, 2022).



Figure 26. Shows an Omuhimba woman stitching pieces of leather materials together, (this process is referred to as *okuyatata*) which belongs to a child. This process falls under remedial conservation. (Photo: JN Nghishiko, 2022)



Figure 27. shows an Omuhimba woman, smoking a leather skirt, as a preservation and conservation routine, to prevent insect infestation, and to insure flexibility. The smoke is coming from *otjipwina* which has a mixture of herbs, and grasses and hot charcoals. The cup is covered with an *otjihanda* which acts as a diffuser.(Photo: JN Nghishiko, 2022)



Figure 28. Shows an Omuhero woman showing repairs made to *otjinguma*, by stitching the pieces of leather materials together using synthetic threads. The clear line folds of stitches are visible on the materials. She explained that she inherited the *otjinguma* from her late mother, and it's important that she repairs it, as it is a recollection of her late mother's heritage. (Photo: JN Nghishiko2022).

#### **4.5. Gender roles in tanning, hide preparation, and processing**

The study has observed, recorded, and archived that, in the Ovahimba and Ovaherero communities, gender roles play a significant role in the processes of animal skin tanning and leather conservation practices. These tasks are often divided based on traditional gender roles and responsibilities within the communities.

Among the Ovahimba, the process of skin tanning and leather conservation involves the participation of both men and women, each contributing in specific ways: According to Ovahimba community men (older men) primarily focus on hunting, slaughtering animals, and preparing the hides. They are basically responsible for obtaining the animal skins/hides through hunting, purchasing, and skinning during a kill at home. After the animal is slaughtered, men carefully remove the skin and perform initial cleaning and scraping to prepare the hides for further processing. This responsibility is mainly carried out by the most experienced men, in the presence of young boys, as a way of teaching them. Whereas, women play a crucial role in the tanning process and are responsible for the subsequent steps. They are involved in soaking and softening the hides, smoking them over the fire, and ensuring their proper drying. Women also take part in the decoration of the tanned hides, using traditional techniques such as dyeing, painting, and adding embellishments. Likewise, this processes is carried out by the experts while younger women and children are observing, as a way of teaching and learning.

Similarly, among the Ovaherero, the tasks related to skin tanning and leather conservation are also recalled to have been divided based on gender roles; Men are typically responsible for hunting, slaughtering animals, and preparing the hides. They ensure that the animal skins are obtained and properly cleaned, scraping off any flesh or fat residues. Whereas, women take charge of the tanning and softening process. They apply the mixture of animal brains and oils, known as *otjize*, to the hides to soften and tan them. Women are skilled in rolling and folding the hides to facilitate the penetration of the *otjize* mixture. They also contribute to the decoration of the leather, incorporating intricate patterns and designs.

It is important to note that while these gender roles are often observed within these communities, they may not be strictly adhered to in every individual case. Over time, there have been instances of adaptations and changes to these traditional gender roles, influenced by factors such as education, exposure to different cultures, and socio-economic shifts (Badenhorst, 2009).

However, the division of labour in skin tanning and leather conservation reflects the collective knowledge, experience, and cultural practices that have been passed down through generations within the Ovahimba and Ovaherero communities. These roles contribute to the preservation of cultural heritage and reinforce community bonds and identity.

#### **4.6. Interpretation of the historical changes in tanning and leather conservation practices**

*“Oviṅa ovingi vya tanauka, nu wina matu undjire ko ondanaukiro”*

Vepaka Kauta

Which translates that a lot has changed, and it is inevitable.

This section will provide a detailed description of the notable changes that have been experienced between the 19<sup>th</sup> to the 21<sup>st</sup> Century, in skin/hide tanning and leather conservation practice, among Ovaherero and Ovahimba communities.

The historical changes in skin tanning and leather conservation practices among the Ovahimba and Ovaherero communities in Kunene region can be interpreted in various ways, considering the specific cultural and historical context of these groups.

The study has recorded and observed cultural continuity and resilience, which is visible through the continued practice of skin tanning and leather conservation, especially among the Ovahimba community. Reflecting their deep-rooted cultural traditions and resilience in preserving their material culture and heritage. Despite external influences and socio-economic changes, these communities have maintained their traditional knowledge and skills, passing them down through generations. The preservation of these practices can be seen as a form of cultural resistance and an affirmation of identity, and these two communities live and speak it.

Over time, the Ovahimba and Ovaherero communities have experienced significant historical events and socio-economic transformations. External influences, such as colonialisation, Christianity, globalisation, and urbanisation, which have brought new materials, technologies, and market demands. The changes in tanning and leather conservation practices reflects adaptations to these circumstances, such as the integration of modern tools, the use of alternative materials, or the production of leather goods for commercial purposes.

The historical changes in tools and substances used for tanning and leather conservation among the Ovaherero and Ovahimba communities in Kaoko can be traced through various periods. The communities have described that tools details vary based on family variations and individual practices.

In the earlier traditional practices of the Ovaherero and Ovahimba communities, the tools used for tanning and leather conservation were simple and primarily made from natural materials, see table below.

*Table 5. Traditional tools used by Ovahimba and Ovaherero for skin tanning and leather conservation.*

<b>Scraping Tools</b>	Wooden scrapers or sharpened animal bones, were used to remove flesh and hair from the animal hides.
Beating Tools	Wooden mallets or stones were used for beating the hides to soften them and make them more pliable
Smoking Tools	Open fires were typically used for smoking the hides, with the smoke helping to preserve the leather and make it more resistant to water and pests
Stone Tools	Stones or pebbles were utilised for rubbing and smoothing the hides during the tanning process.

Water	Water was used for soaking the hides, which helped to remove impurities and make them more pliable
Natural Tanning Agents	The Ovaherero and Ovahimba traditionally used a variety of natural tanning agents, such as tree barks, leaves, or fruits, to tan the hides. These tanning agents contained tannins, which helped to preserve and soften the leather

Over time, external influences, technological advancements, and changing market demands have brought about some changes in the tools and substances used for tanning and leather conservation.

The communities explained that since the introduction of metal tools through trade and modernisation, the Ovaherero and Ovahimba communities began incorporating metal scraping tools, such as knives and shovels, to assist in the cleaning and scraping process since the 19<sup>th</sup> Century.

Alongside traditional tanning agents, the communities now also use commercially available tanning agents, such as Vaseline and industrialised animal fat, and dyes, to achieve specific results and some such as Ovaherero to meet market demands.

The Ovahimba communities have further explained that, although these changes have occurred and explored, they normally strive to maintain a balance between traditional practices and the incorporation of modern tools and substances. There is a continued appreciation for the traditional knowledge and skills passed down through generations, ensuring the preservation of cultural heritage and craftsmanship among the Ovaherero and Ovahimba communities in Kaoko.

The communities have also shown how much they understand the environmental and resources, considering the availability of natural resources and environmental

factors. These changes in nature have influenced the changes in skin tanning and leather conservation practices. Both communities have emphasized on the lack of accessibility to wildlife hunting, as it used to be in the days of their forefathers; access to specific trees for tanning and the variations in grazing lands for their cattle, all these factors have impacted the availability and quality of raw materials used in the tanning process. However, the communities have adjusted their techniques and practices accordingly to ensure the sustainability of their resource use.

Both Ovaherero and Ovahimba communities have expressed how much tourism and the demand for authentic cultural products have influenced the production and marketing of traditional leather goods. Of which Ovaherero community have further explained that they are now mostly only practicing skin tanning and leather making for commercial purposes. However, the Ovahimba community are living their culture, but have adapted their practices to cater to the preferences of external markets or tourists seeking authentic cultural experiences. They have explained that these demands have influenced the design, presentation, and production scale of their leather products.

The communities have spoken about the historical interactions with neighbouring communities such as Aawambo and some Angolan communities, issues of colonial powers, and how much they have influenced their techniques and skills related to tanning and leather conservation. These interactions have resulted in the adoption of new techniques, materials and/or decorative elements, leading to a

certain degree of hybridisation in the practices of the Ovahimba and Ovaherero communities.

The communities further explained that they used knives (handmade, by the blacksmith of their Century) to make cuts on the carcass, and the skin was removed using their hands to avoid making accidental holes in the skin/hide. Their tanning processes were shorter, as they jumped some steps in the processing of the hide. Because they worked on the freshly skinned skin/hide, which in many cases was tanned in the same manner despite the type of animal. The first step used to be fleshing, removing the flesh of the hide/skin by scrapping using fleshing tools, made from bones, wood and iron. The skin/hide is then buried in the wet ground for some days for the dehairing step/ process, the hair is removed using metal scrapes, stones, and wooden sticks (flat shaped and blunt). The skin/hide is then stretched and dried for a day or two depending on how thick they are. The tanning process included the use of animal brains, animal fat, plant juices, and boiled tree bark. For finishing and dressing, they used cow dung for shaping, and cutting was made with knives. They did not care much about decorations; however, decorations were done to pieces belonging to wealthy women and those of high status in the communities. The materials were dressed using red ochre mixed with animal fat, which also gave the materials a rich red colour.

Traditional tanning preparation and processing is a practice and a tradition that has been passed on from generation to generation in Ovahimba and Ovaherero communities. However, the practice has immensely changed among the Ovaherero community, the little they practice is influenced by modern ways of tanning, as

they employ all methods that are no longer labour-intensive. They have indicated that they only make *otjitati* for young children, which are also inherited as they grow out of them to the next younger child in the family, and for them this is an important practice as it aims at teaching the children while they are young about their original identity and cultural practices,

*“We have been receiving many visitors, white people, and black people from local and international organisation. They want to know more about us, our clothing, cattle, plants etc. some want to send our children to schools”* In recent years, there has been a resurgence of interest in traditional craftsmanship and indigenous knowledge systems globally. This resurgence, coupled with efforts to reclaim cultural heritage, has revitalized the appreciation for traditional tanning and leather conservation practices among the Ovahimba and Ovaherero communities. These practices are now often celebrated as sources of cultural pride and identity, contributing to community cohesion and a reconnection with their roots.

Interpreting historical changes in skin tanning and leather conservation practices among the Ovahimba and Ovaherero communities requires an understanding of the cultural, social, economic, and environmental factors that have influenced these shifts. However, this study did not do a thoroughly research on these factors, but the study have approached the interpretation with sensitivity, and has acknowledged the agency and unique perspectives of these communities in shaping their practices over time.

#### **4.7. Factors contributing to the changes in skin/hide tanning preparation and leather conservation practices.**

Several factors have contributed to the changes in tanning preparation and leather conservation practices among the Ovaherero and Ovahimba communities. These factors can include cultural, social, economic, environmental, remnants of colonialism, christianity and technological influences.

Shifts in the socio-economic conditions is one of the experienced factor which has especially influenced the Ovaherero communities in Kaoko. The participants have strongly expressed how much increased access to modern goods and changes in livelihood patterns have influenced their traditional tanning and leather conservation practices. The Ovaherero community have adapted their practices of the imposed Victorian fabric dresses, and occasional leather products to cater to changing fashion preferences and to fulfill their own evolving needs. This was coupled with another factor of technology advancements, which have completely influenced the traditional way of tanning practices. Since the introduction of modern tools and equipment, such as scraping tools and sewing machines, many Ovaherero tanners have adapted the more efficient and effective tanning and leather processing by rather seeing leather from the economic aspect and not as a cultural material.

Increased connectivity and global trade have exposed the Ovaherero and Ovahimba communities to external market demands and consumer preferences. The Ovahimba community have expressed that, they have a variety of decorative materials to choose from and it is also accessible, as long as one has money. This

gave them an opportunity to adjusted their practices, including changes in design, especially when it comes to decorative materials, their quality standards, and/or product diversity.

Over time, cultural and social dynamics within the Ovaherero and Ovahimba communities have evolved. Factors such as changing gender roles, migration patterns, education, christianity and exposure to new ideas have influenced the transmission and adoption of traditional practices. These shifts have contributed to modifications and adaptations in tanning and leather conservation practices.

Furthermore,the impact of education and christianity on the tanning and leather conservation practices among the Ovahimba and Ovaherero communities in Kaokoland, has been through complex and multifaceted processes. Both education and christianity have brought significant changes to these communities, including their traditional practices related to tanning leather practices and ways of living.

Formal education has introduced the Ovahimba and Ovaherero communities to modern knowledge, technologies, and ways of life. With access to formal schooling, the younger generations have been exposed to alternative economic opportunities and different lifestyles, this exposure has influenced their perceptions of traditional practices.

They have fearfully explained how education and christianity poses danger to their culture, an elderly woman in her late fifties further narrated that *“Tu na ohange okuungurisa oviugurisiwa vyakandino, vyomahi wopendje. Posi ya tu tira okutja omahongero, maye pandjarisa ombazu yetu. Tara Ovaherero, rukuru aave zara*

*omikova tjimuna eṭe nao, matu katjiukwa otjoouṅe tji twa yandjere ovanatje vetu okupukisiwa omahongero? Nu eṭe mbu tu ri ovanene katu na okukara keyuru nga kongaa, twe kuru twa yenene okuhonga ovanatje vetu ombazu yetu. Kokutja tu kare nonḁero nongamburiro kutja ombazu yetu mai karerere? Ii ombazu i tanauka posi ya, kai sokutanaurwa i yozongamburiro ṅḁa ungurwa ovandu. Ondanaukiro ndji tu tjiwa ndji mape ya ai tanaura ozombazu zetu, oyo ndji yokuti nozondendera. Nambano tara oviṅa avihe mbya konda mo.“*

This translates to, although the Ovahimba community is privileged to have access to western inventions, they fear the negative impacts that come with it. Speaking about how education might impact their traditional practices. Making references to how christianity has impacted the entire outlook of the Ovaherero community, as they use to have the same culture comparable to Ovahimba. A great emphasis is made on the future of Ovahimba culture/tradition, concerning education, which they fear will decrease the knowledge transfer channel between the young generation and elders. For Ovahimba and any other culture, indigenous oral knowledge transfer of their indigenous knowledge is one of the valuable aspects when it comes to safeguarding their heritage for generational continuity. They know culture is not static, and its changes are depended on what the natural environment has to offer, but not necessarily the man-made invention of what is right.

Christianity has brought about significant changes to the Ovahimba and Ovaherero communities in their cultural practices, which have impacted traditional tanning and leather practices. The impacts have been mostly felt and caused a change in

practices in the Ovaherero community. Ovahimba, however, have adapted some and incorporated rather the influence of christianity into their cultural practices, dressing, including certain aspects of tanning leather conservation which is tied to cultural rituals and beliefs, has all continued to be emphasised. The christian practices are adapted and became part of their beliefs and are made to align with specific traditional practices. See figure 30 below.



*Figure 29. Shows an Omuhimba young couple dressed in a traditional marriage attire. The man has a cross necklace which is made from leather and decorated with shiny metals. It is a sign that the man is a Christian. Nonetheless, he is embracing his traditional leather attires. Photo: National Museum of Namibia.*

Ovaherero community has also adopted and adapted western materials, however, they have integrated these fabrics into their dressing style, and they refer to them as “*omarapi*” (see figure 31) which are simple and weak textiles, and are only worn when their leather attires are being treated (conserved).



*Figure 30. An Omuhimba-himba man wearing omarapi as a replacement of otjitatiti and he wore a leather headdress, and shoes. This photo was taken late 20<sup>th</sup> century. (Photo: National Museum of Namibia.*

The memories of community members interviewed also made a reference to the early 1900s German colonial administration which launched a brutal military campaign against the Ovaherero and Nama people, known as the “Ovaherero and Nama genocide”. The genocide resulted in the deaths of a significant portion of the Ovaherero population and forced many others to flee their traditional lands.

As a result of the conflict and subsequent German control over the territory, Ovaherero communities were dispersed and displaced from their ancestral lands. Many Ovaherero individuals and families were forced to seek refuge in other parts of Namibia. The dispersion of Ovaherero communities was also fueled by the establishment of German colonial farms, which led to the seizure of Ovaherero land and forced labor practices (Melber, *Namibia's past in the present: colonial genocide and liberation struggle in commemorative narratives*, 2005).

The participants from Ovaherero community gave personal references in regard to their movement back from central Namibia after independence in search of ancestral land to settle down, hoping to reconnect to their cultural practices. In

further discussion, (Steinmetz & Hell, 2006), have narrated how over time, some Ovaherero communities were able to return to their ancestral lands, but the effects of the genocide and land dispossession have had a lasting impact on their settlement patterns. Dispersed Ovaherero communities often face challenges in terms of accessing resources, services, and maintaining their cultural practices and identity.

Ovaherero community have adopted and adapted the western dress, Women now wear traditional headdress called the "*otjikaiva*" and and hoop dress which is known as "*ohorokweva*." Which has become a prominent symbol of the Ovaherero culture in Namibia. The *otjikaiva* is a large, distinctive headdress that consists of a wide, horn-like structure made of fabric, which is typically adorned with intricate patterns, embroidery, and decorative beads.

*Otjikaiva* is often paired with a long, flowing dress called an "*ohorokweva-yozonde*".The dress is characterized by its voluminous, floor-length skirt, and puffed. The overall attire is colorful and vibrant, reflecting the rich cultural heritage of the Ovaherero, even linked to some social association within the chiefmanship.

The *otjikaiva* just like *ekori* used to be is an important cultural symbol for the Ovaherero community, representing their history, identity, and resilience. It is typically worn during special occasions, such as weddings, festivals, and traditional ceremonies, where Ovaherero women proudly display their cultural heritage.

The traditional ways of worship have changed, as most of the Ovaherero are now Christians and they no longer extensively worship *Ovakuru* “ancestors”. Although, there are circumstances that force them to practice certain rituals of worship, the traditional ways of worship have drastically changed and as they are perceived as ungodly.



*Figure 31. A group of Ovaherero women, men, and children in early 1900s in Kaokoland, all embracing the Ovaherero traditional dressing codes, with e kori headdress. (Photo: National Museum of Namibia)*



*Figure 32. Two women seating down in the old Katutura location in the late 1900s. (Photo: National Museum of Namibia)*

#### **4.8. Different types of leather products and their significance to Ovahimba and Ovaherero communities**

This section provides narratives on the culturally/ traditionally significant leather material products that carries different meanings and power. Therefore, a series of

photographs showing different leather materials are presented in this section, which are accompanied by narratives of their significance to the communities.



*Figure 33. Shows a fully tanned oruhira/ ojitati/ omukova wokotjipara (from apron skirt). (Photo: JN Nghishiko, 2022).*

This clothing material is part of the Ovahimba community's traditional culture, which has been passed on from generation to generation. It is not a learned practice of dressing, it is caught and passed on as it is as a continuation of the community's cultural heritage of material culture.

This dressing material can be made from a fully tanned leather of a cow/ goat, and sheep. It is worn by Ovahimba women as a front cover for *omuzu*. A similar material is made for men; however, it is longer and is not containing pleated shape like the one shown in the photograph for women. Ovaherero and Ovahimba children both boys and girls also have this dressing material made for them from birth. This material is the softest and well looked after especially for women, as it

is considered as a sacred clothing material which is meant to cover the most divine part of a feminine body.



Figure 34. Shows ombuku/ombanda. (Photo: JN Nghishiko, 2022).

This clothing material is made from a semi-tanned leather of a sheep; however, it can also be made from a semi-tanned/ fully tanned leather of a cow or a goat.

The dress is worn by Ovahimba women on the backside of their body to cover their *omuzu*, it worn as a complete outfit with *oruhira* and other materials. The picture on the left shows the material's overall appearance laid flat picture on the right, shows how the material hangs on the body. The pleated shape is a definition of beauty and elegance, which is meant to give women a confident posture when standing or walking.

This specific one shown in the photograph is representative of wealth, and women who wears an *ombanda* made from a sheep skin/hide are linked to wealthy background in the Ovahimba community. Wealth is ranked as part of the traditional cultural values, and it is respected.



Figure 35. Shows erembe. (JN Nghishiko, 2022).

Is a head dress which is made from a semi-tanned leather from the skin of goat/sheep head. It is worn by Ovahimba young women. *Erembe* is given to girls as part of their initiation into womanhood.

It is part of the Ovahimba cultural beliefs that when a young lady has reached a certain stage in life, which includes seeing her monthly menstrual period, a

ceremony is carried out, which includes a change in their dressing code, and *erembe* is one of the additions to the dressing code.

Moreover, *erembe* is worn throughout most of a woman's life in everyday life. Even old women can wear the *erembe*, which shows that they still play an active role in their communities.

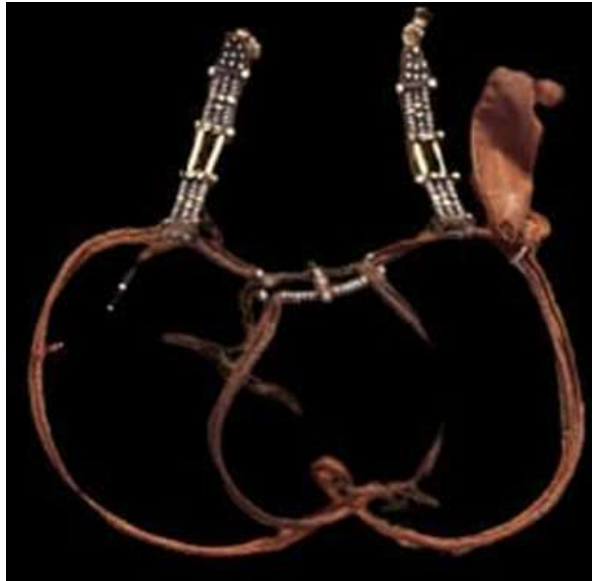


Figure 36. Shows *Okaṇa komozombati* (Photo: JN Nghishiko, 2022)

This chest dressing is made from fully tanned leather strips of a cow. It is given and worn by young Ovahimba ladies as part of the initiation into womanhood. This material is embellished with copper and iron beads which on the hanging flaps which are meant to cover their breast nipples. This bra sets the young ladies apart in the community.

There are two types of *okaṇa komozombati*, one is worn by elder women which has one flap and a large white attached to an object known as *ohumba*, whether

married or not married, but have reached a certain stage. The two are meant to provide a distinct between fully grown women and young adult women.



Figure 37. Shows omuhanga. (Photo: JN Nghishiko, 2022).

This material is made from a fully tanned leather of a cow. It contains leather strips which are seen on the photograph, and they are known as *ozondoo* plural / *ondoo* singular.

*Omuhanga* is worn by Ovahimba women who have been initiated into womanhood. It is meant to provide balance to the women's anklet, and the *ozondoo* is added to the anklet to represent the number of children a woman has given birth to or the number of children the biological sister has given birth to (your sister's children are yours to).

The maximum number of *ozondoo* on an anklet is two, of which one *ondoo* means a woman does not have a child or has only one child and two *ondoo* means, a woman has two children or more than two.



Figure 38. Shows epando. (Photo: JN Nghishiko, 2022)

*Epando* is worn by Ovahimba women as part of their complete traditional dressing. It is made from a fully tanned leather of a cow hide.

There are two types of *omapando*, the one in the photograph is worn by any Omuhimba woman that have been initiated into womanhood. It is embellished with a diversity of materials, such as iron, copper, glass, and plastic beads, of which some are attached onto the leather; there is also *omukongo* fruit seeds, which are hanging on strips with iron beads. The hanging strips are intentionally made to produce a sound that announce the incoming/ presence of an Omuhimba woman.

The second one is worn by Ovahimba women, which have given birth to a newborn, as postpartum belt, which helps to provide balance, and aid in preventing unwanted spirits, and bowel dysfunction.



Figure 39. Shows 2 types of onḁikwa

There are two different types of *ozonḁikwa*, which are used for different purposes in the Ovahimba traditional culture.

*Onḁikwa* on the left is made from a fully tanned leather material, of a cow, goat, and sheep. Mainly made for carrying babies. It is a present that is presented to the mother of the baby by the baby's father's family. *Onḁikwa* is also used as a measure of wealth, if a woman is gifted *onḁikwa* made from a sheep/ calf skin/hide,

it means the man's family is wealthy, and they are also excited to welcome the baby in their family. The one that's made from a goat/ an old cow skin/hide is a sign of poverty or that the family is not happy about the new baby.

Additionally, the ornamentations added onto *onḍikwa*, shows how wealthy and happy the father's family is. *Onḍikwa* on the right is referred to as "*onḍikwa yoyihako*". It is made from a fully tanned leather of a calf only of traditional beliefs, as it is a special material for sacred occasions such as wedding, funeral, traditional initiations e.g., commemoration of ancestors or a very important person. But never used to carry a baby. It is only worn by married Ovahimba women, both on their wedding day and to the sacred occasions.

The decorations used are specially intended for "*onḍikwa yoyihako*" and should not be used on the one meant for babies.

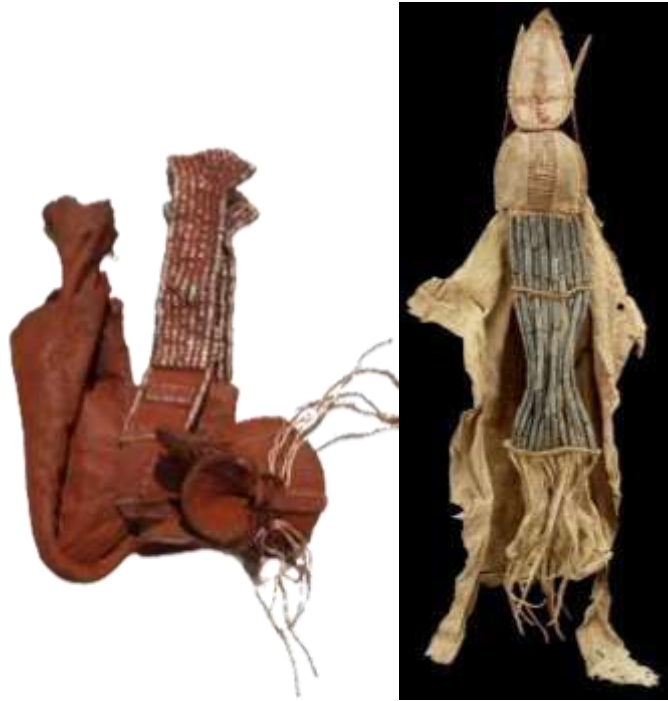


Figure 40. Shows on the left *ekori* for an Omuhimba married woman and on the right *ekori* which is over a Century old, which is worn by (any) Omuherero married woman. Photo (left, JN Nghishiko and right, Ethnographic Museum of Berlin German)

The *ekori* is made from a fully tanned leather of a sheep or goat skin/hide. It is worn by married Ovahimba women. The structure of *ekori* can vary noticeably by the designs presented by different Ovahimba women, however, the rolled-up veil, and the three prongs are always retained to represent the traditional significance, which resemble the cow horn, which is a power animal for the Ovahimba and Ovaherero women.

Newly wedded Ovahimba women wearing the *ekori*, are subject to certain taboos, such as food restrictions, rules of behaviours in the husband's *onganda*. *Ekori* is not meant to be worn daily, but it is only removed after a woman has given birth to her first child or when the village head calls off the taboo, whereby she is initiated in a ceremony referred to as “*okumakera*” which is a meat tasting ceremony. During the ceremony a woman is then welcomed into the husband's

family, and *ekori* is also removed from her head, and she can wear *erembe* daily again.

A woman is only later expected to wear the *ekori* during times of mourning e.g., upon the death of her husband or during certain other ceremonies of importance. If a woman passes away, her corpse is taken to the cemetery in full dress, including her *ekori*, which is only removed together with *ohumba*, *epando*, and clothing just before the burial. Her *ekori* is handed back to her family as a visual sign of her death, part of her belonging that were removed before burial can be inherited by the daughter or younger sister. In (Hangara, Kavari, & Tutjavi, 2020),



Figure 41. Shows an otjiyambura (Photo: JN Nghishiko, 2022).

It is made from a semi tanned leather, of a sheep or a goat skin. It is a back-dress worn by Ovahimba women every day to cover their back. The dress is mostly worn by married women, and unmarried women can wear a different type of

*otjiyambura* on their back during winter. Ovahimba elders believe that a woman's back was not supposed to be seen, especially when she goes out of her husband's *onganda*. Because it is believed that a woman's back defines her posture, which is where her strength and beauty is seen, hence in cases of married women, it is important that they do not show certain parts of their body to other men. However, young girls are recently seen wearing this dress, especially during special occasions as form of respect to the elders.

#### **4.9. Communities Narratives on Leather Conservation and it's Historical changes between the 19<sup>th</sup> to the 21<sup>st</sup> Century**

This section provides personal narratives from the Ovahimba and Ovaherero communities, which have an understanding and have been greatly involved in the practice of leather conservation between the 19<sup>th</sup> and 21<sup>st</sup> Centuries.

*“Ootate noomama, kava ri nomauzeu omengi nomikova vyavo. Omatjindiro wanawa womikova ye uta nomirari vyomaṭukiro womikova, rukuru ovakuru vetu aave kongorere omirari mbyo amave ungurisa ouruvi wovinamuinyo, nomaze womiti novinamuinyo mbi ha ri noviweziwa vyakandino vyokutjinda nawa omikova. Oviṅa avihe vya ri ovize vyomokuti, nu vya tandaverere wina. Ovakuru vetu kava ri nondira yokupandjarisa omuhoko poo otjiṅa tji tja ungurwa pomukova. Wina kaave rikende tjinene nomamunikiro wanawa tjinene tjimuna ku kandino, mena rokutja aave tjiwa nawa kutja omamunikisiro wanawa womikova ye yenena okutanaura ouwa wotjiṅa. Omamunikisiro wanawa potuingi, aaye tjitwa povikando tjiva tje ri ohepero uriri tjimuna tji mo vanga okuyarisa outumbe, okutja u na oviṅa poo otjiwondo tjozombura”*

The above translates that, the forefathers and mothers of the Ovahimba community did not endure so many issues with their leather materials.

Conservation or preservation started with the tanning process, which involved the use of animal brains, plant oil, and animal fat, which did not have any additives, everything was very natural and readily available. Moreover, deterioration of any material was acceptable, as there were resources available to replace them. Decorations were not highly valued back then, they probably knew decorations will alter the life span of the materials, and they only added decorations when necessary, for example, to show wealth, marital status, and age.

The community referred to the 19<sup>th</sup> Century as the years of their ancestors (the ones most of their generation didn't get to see). They conserved their material culture with readily available natural products. For example, when they shaped *ombuku* they used cow dung, which was collected freshly from the kraals every morning (on the day shaping is planned for), cow dung aid in protecting the skin/hide from drying while taking shape, and also from keeping insects away from attacking the flesh side of the material. Now, this method of shaping is replaced by tucking *omarapi* under the skin/hide while shaping, which does not contribute to the preservation of the material other than aiding in shaping.

For drying *otjinguma*, back then they used animal urine to retain the moisture, and enhance flexibility, (urine contains urea, which if stored in a long decays into ammonia, which has a high pH and acts fast in breaking down organic material (Langmaier, Kolomaznik, Mladek, & Sivarova, 2005), therefore making urine the perfect substance for softening animal hides. It is further explained in (Kite & Thomson, 2006) that urine as a tannin is able to bind to proteins and stabilise

their structure, this is an important feature to explain the absorbent and breathable properties it offers to the hide). The urine was collected early morning (this is because it is regarded strong, and to make reference to (Langmaier, Kolomaznik, Mladek, & Sivarova, 2005) it is proved that the longer the urea is kept, the high the pH), by picking the wet sand which is soaked with urine, the sand is put on the *otjinguma* fully or partially, depending on the damage, for short time (approximately ten minutes). This procedure is followed by applying animal fat to seal in the moisture and prolong the flexibility. The animal fat can be mixed with red ochre or charcoal, however, this depends on the colour of the material. Urine is no longer used, as animals are not always in the homestead, as they are moved to temporary better grazing areas, which makes it difficult to keep up the method.

During the 19<sup>th</sup> Century, Ovahimba would relocate from one place to the other, both for grazing purposes and for the availability of needed natural resources e.g. water, food plants etc. They used different plant species to create scents and to obtain resins which aided in the conservation of leather products. For example, they managed to identify different *Commiphora* species that are used for good smells and aid in insect repellent.

The community experienced the change, however it did not affect the way they see leather, “*Omikova eṭe otjOvahimba okututjiukirwa, otjombazu yetu okuza rukuru, ombazu yetu onḍengu yetu atuhe ku tu tjiukirwa nga ku ndino. Omizaro vyetu vi munika peke, nu okandondi akehe ku wa munu komuzaro wetu, ke*

*nomahero*” which translates that leather defines the existence of Ovahimba culture and tradition. With every material being unique and significant to their beliefs.

Before the introduction of synthetic materials to Ovahimba and OvaHerero communities, the ancestors used animal fibre for *okuyatata* which was strong and lasted longer, but now, the communities are using synthetic threads obtained from maize meal bags, to repair tears in their leather materials. Animal fibres were also used to make necklaces, (as thread lines where beads are put). But in present day, the communities are using synthetic materials as a replacement. The use of animal fat is also reduced to petroleum jelly (vaseline, tissue oils etc.), which the communities use to mix *otjize* with to create the paste they apply onto both their leather materials and their bodies.

OvaHerero community explained the same changes in the conservation of leather materials, they further mentioned the similarities in the use of leather material before colonialism and Christianity made a shift in their tradition.

#### **4.10. Oral tradition and the link to tanning and leather conservation practices.**

##### A traditional Cultural Song

*Oweṭe otja tji mo tu munu nai, nu wina tu hupa nao kombanda yanao  
twa suvera ongaro nomuano mbu tu ri.*

*Oweṭe ovanatje vovakuru vetu X2*

*Oweṭe ovanaruhindo, twa suvera onyama nomikova X2*

*Ombazu ndji oku tu zemburukirwa, nu wina ouini wombazu yetu.*

##### **Ovahimba community**

The song above was one of the most chanted by Ovahimba women during their practices, when they are tanning, conserving, and fashioning leather materials and so on. The song translates to “This is us; this is who we are, and we like it. We are our ancestor’s children. We are pastoralists, we like meat, we like leather. This is our identity, tradition, and our heritage.” There is a strong message being communicated here, a message of cohesion, resistance, and preservation of cultural heritage and identity.

The Ovahimba participants have emphasised on how oral tradition and intangible cultural heritage play a significant role in preserving the knowledge and practices related to tanning and leather conservation. It is in their songs, storytelling, and practices that the young generation learnt and understood the customs, beliefs, and so much knowledge.

The community also referred to their ancestors, that oral tradition has been the primary means of passing down the techniques and knowledge of tanning and leather conservation for as far as they can remember. They did not read books or even diaries of their ancestors per say, it was all through spoken words and observations.

Within the Ovahimba community and as per the researcher’s observation, the elders and skilled artisans are the custodians of traditional knowledge. The expertise of tanning and leather conservation is passed down through generations via oral narratives, hands-on training, and shared experiences. Younger community members learn the intricate details of the craft from their elders, ensuring the continuity of traditional knowledge. By doing so, they ensure that the

art of tanning and leather conservation is preserved and continues to be an integral part of their cultural heritage.

Similarly, the Ovaherero shared the same sentiments as Ovahimba community, the participants narrated that, although tanning and leather conservation is no longer a living tradition, for the Ovaherero community in Kaoko, it's highly spoken about. The skills, knowledge, beliefs, and customs that they know today, is all because of oral traditions. The stories are continuously being told of how certain materials were made and preserved. The processes and techniques of tanning and leather conservation among the Ovahimba and Ovaherero are prime examples of oral tradition.

Oral tradition is not limited to the physical objects or artefacts but also includes the skills, rituals, and social customs associated with these practices. The knowledge of the materials, tools, and techniques used for tanning and leather conservation is deeply intertwined with the broader cultural identity and worldview of these communities.

Leather plays a vital role in their daily lives, as it is used to create clothing, accessories, and various functional items like water containers, fat containers, and bags. The art of tanning, or the process of converting raw animal hides into durable leather, requires specific skills and knowledge.

In Ovahimba community, they have explained how tanning and leather conservation practices are associated with specific rituals, prayers, and ceremonies that have cultural and spiritual significance. It is through the tangible materials

created from leather material that these rituals are also passed down orally and are closely tied to the broader intangible cultural heritage of the communities. In Ovaherero community, the memories and experiences of oral tradition are as strong as the living experiences in Ovahimba community. Ovaherero community also expressed that the leather materials especially *ekori* and many others that are remnants of their ancestors and some that are inherited from generation to generation, are significantly imbedded with oral traditions of rituals, beliefs, and customs. And these are the beliefs that will continue to be told generationally.

Both communities believe that the practice of tanning and leather conservation fosters a sense of cohesion. As people gather to work on hides and create leather goods, it becomes an occasion for socialising, storytelling, singing, dancing, and reinforcing cultural identity.

They have further expressed; how oral tradition allows for flexibility and adaptation of techniques over time. As social and environmental changes occur the knowledge shared through storytelling is being updated and adjusted to fit new circumstances while recollecting the main values of traditional practices.

The preservation of tanning and leather conservation practices among the Ovahimba and Ovaherero communities in Kaoko, relies heavily on the continuation of oral tradition and the recognition of intangible cultural heritage. These practices not only serve practical purposes but also serve as an essential element of their cultural identity, connecting past, present, and future generations.

# **CHAPTER 5**

## **DISCUSSIONS**

### **Introduction**

The study is limited to indigenous tanning and leather conservation practices among Ovahimba and Ovaherero communities, and therefore the discussions in this chapter will discuss the overall results as presented in chapter 4. It compares the findings of the study with the existing literature as presented in chapter 2. The discussion will be guided by the study objectives and the questions derived from the objectives. It is also important to understand that there is no detailed documentation on indigenous tanning and leather conservation, especially among the communities the study focused on, thus making this study a baseline study. Likewise, the subtitles dealt with in the study findings will be followed.

### **5.1. Guiding study questions**

The guiding questions are based on the study objectives which are in chapter 1 as follows:

1.2.1. Observing and documenting skin tanning processes and leather conservation methodologies

- a) What skin tanning processes do you use? What steps are followed?
- b) Are there different types of leather? What are they?

- c) Are there different tanning processes for different types of leather? Which ones do you use?
- d) What methods do you use to conserve each type of leather materials?
- e) Does the tanning process determine the conservation methodology for different types of leather?

1.2.2. Documenting and contextualising historical changes that have taken place between the 19<sup>th</sup> and the 21<sup>st</sup> Century, their factors, and the significance of leather as a material culture among Ovaherero and Ovahimba communities and its link to intangible cultural heritage.

- a) What notable changes did you experience in skin tanning processes in the period between the 19<sup>th</sup> and the 21<sup>st</sup> Century (1800S to 2000s)?
- b) What factors do you think caused the changes if there are any?
- c) What is the significance of leather as a material culture? What does it mean to you and your community?
- d) Do different leather types have different meaning to you and your community? What are the narratives behind each type of leather?

1.2.3. Collecting and recording the narratives of the source community regarding the conservation of leather.

- a) Do you think there is an immense influence on leather conservation methodologies when it comes to the steps, tools and techniques used in the period between the 19<sup>th</sup> to the 21<sup>st</sup> Century? What are the influences?
- b) Have you used modern techniques/ practices for leather conservation? Which techniques did you use?

- c) What is your position when it comes to leather conservation in the 21<sup>st</sup> Century compared to the 19<sup>th</sup> Century?

## **5.2. Sources of animal skin/hide.**

In discussion, the 19<sup>th</sup> century and earlier, hunting wild animals was one of the primary sources of obtaining animal hides. The Ovahimba and Ovaherero communities were skilled hunter gatherers and pastoralists who lived a nomadic life, and would hunt various animals like antelope, kudu, wildebeest, and other wildlife for their hides as narrated in (Hangara, Kavari, & Tutjavi, 2020) and (Schapera, 1962).

After Namibia gained its independence, the dynamics of obtaining animal hides from wildlife have shifted due to changing land-use practices and wildlife conservation efforts. However, Ovaherero and Ovahimba communities remained pastoralists, who owned herds of ccattle, goats, and sheep and continued with their traditional practices of tanning and leather conservation for their clothing, tools, and household materials (Hangara, Kavari, & Tutjavi, 2020).

Moreover, the Portuguese and European traders who made their entries into Namibia early 19th and early 20th centuries, have engaged with the Ovahimba and Ovaherero communities in trade (Bruwer, 1966). Exchanging animal hides for various goods like clothing, tools, and other necessities, this exchange further influenced their socio-economy and livelihoods. For example, in Opuwo, there is a booming market of skin/hide where different ethnic tanners acquire their green, fresh etc. types of skin/hide mainly of goats, sheep, and cattle.

It is important to note that the specific sources of animal skin/hide may have varied within different subgroups of the Ovahimba and Ovaherero communities and over time due to changing environmental, economic, and social factors. Additionally, modern conservation efforts and regulations may have influenced the availability and procurement of animal hides in the region.

Ancient civilisations have been using animal hide since pre-historic times and used different preparation methods to turn the hide into different types of leather products adequate for people's use (Cooker, 2001).

### **5.3. Skin/hide preparation and processing.**

Traditional skin and hide preparation processes have been practiced by various cultures around the world for thousands of years (Gebremichael, 2016). These processes are explained in (Ceesay, 1986; Baillargeon & Des Civiisation, 2010; Gebremichael, 2016; and Badenhorst, 2009), they involve various steps which differ in different communities due to the availability of tanning agents and the desired type of leather. The processes are ways used to turn raw animal skins and hides into durable, flexible, and usable materials for clothing, shelter, and other purposes.

Based on the study findings and to those of the above authors who researched on traditional tanning and leather processing, the following highlighted steps are mostly employed, in no order. This is because the order of steps depends on what type of skin/hide it is, what the desired product is, and different communities are limited to the resource's availability. **Fleshing**, is considered in many communities as a first step which involves

removing any flesh, fat, and muscle tissue from the underside of the skin. This can be done using tools like scrapers or knives. For example, in Ovahimba community this step can be regarded as used when they are working on small skin (kid, lamb). **Hair Removal:** Depending on the intended use of the hide, the hair or fur may need to be removed. For fully tanned leather requires all hair to be removed (Badenhorst, 2009). There are several methods for hair removal, including: **Scraping:** This involves using a blunt-edged tool to scrape away the hair and the outermost layer of skin, in Ovahimba community this step is taken when preparing semi-tanned leather. Mokotjo, (2021) have recorded that the scrapping step is the first step in tanning process in Joalaboholo community. The hide is typically stretched on a frame for easier scraping. **Soaking:** Among the Ovahimba community the hide is soaked in hot water which helps to loosen the hair and the epidermis. After soaking, the hair can be easily removed with hands, by a group of women, who chants to inaudible songs as they work alongside each other. **Tanning:** Tanning agents like bark, leaves, or minerals are applied to the hide to preserve it and prevent decomposition (Badenhorst, 2009). Tanning also improves the flexibility and durability of the hide (Mokotjo, 2021). Tanning can be done through several methods, including vegetable tanning, using hands, red ochre, animal fat, stamping etc. **Softening:** After tanning, the hide can be quite stiff. Softening techniques are used to make the hide more pliable and comfortable to work with. Common methods such as **smoking** the hide as observed among Ovahimba community whereby the hide/ skin in its last stages to becoming a leather is smeared with cow fat and then exposed to smoke, which contains plant materials that help soften and preserve the material. **Working and rubbing** the hide is repeatedly folded, twisted, and rubbed to break down the fibres and make the material suppler as narrated in (Ceesay, 1986). **Stretching** the hide is stretched and pulled in

various ways to further loosen the fibres and make the material softer, among Ovahimba ladies seat in a circle (closely) whereby the hide/skin is stretched intensively between each other, this makes this step easier and fast. **Dressing** involves applying oils, fats, or other substances to the hide to improve its texture, appearance, and water resistance (Ceessay, 1986). This step is observed among the Ovahimba community, they use animal fat (when available) and Vaseline mixed with herbs and red ochre which is worked into the leather. This step is explained to further help prevent the leather from becoming brittle over time. **Decoration** in Ovahimba and Ovaherero communities, leather materials are decorated using various techniques such as dyeing with red ochre, plant barks, and charcoal, adornment such as sea shell beads, ostrich egg shells, iron, copper, brass, and glass beads are also used. These decorative materials are added to communicate certain status within the community, and to enhance the aesthetic appeal of the finished product. Mokotjo, (2021), have also recorded that different decorations have different meanings, and some are just to show creativity for aesthetics. **Shaping and cutting**, this step usually comes before decorations, but in some communities where adornment is not prioritised it can be last. Once the hide is properly prepared, it is cut and shaped into the desired forms for its intended use, whether clothing, footwear, bags, household tools or other items (Mokotjo, 2021).

It is noted that the specific techniques and materials used can vary widely depending on the culture, geographical location, available resources, and intended use of the finished product. Many traditional methods have been adapted or replaced by modern influences e.g., among the Ovaherero community, but traditional skin and hide preparation

techniques continue to be practiced by community who view it as a significant material culture.

#### **5.4. Conservation issues associated with skin/hide products, experienced by Ovahimba and Ovaherero communities.**

The Ovahimba and Ovaherero communities in Kaoko, like many indigenous communities and industrial tanners, face various conservation issues associated with leather materials. These issues are often interconnected with broader environmental factors, which can be biological and chemical and social factors which can be traditional knowledge, availability of resources, etc. (Caple, 2000).

Composition of materiality used in creating and crafting leather accessories, clothing, tools etc. is said to be a contributing factor to conservation issues of such products. Ovahimba uses copper, iron, sea shells, ostrich egg shells, plant fibres, etc. as embellishments, which they have explained that it can be challenging to conserve. It is also narrated in (Ceesay, 1986), that even though leather making is traditionally made and understood, there are circumstances when it comes to preservation. The issues are also addressed in (Dirksen, 1997) who explained the scientific conservation practices of leather degradation issues, associated with material composition, biological factors, and chemical factors.

The findings from Ovahimba community on conservation issues have pointed out issues such as dryness, red rots, pest infestations etc. and according to (Badenhorst, 2009), limited or lack of traditional knowledge can contribute to conservation and preservation issues. This could be due to older skilled artisans passing away or the practice is no longer

actively passed down, leading to a loss of the intricate techniques and methods that have been preserved for generations, as observed among Ovaherero community.

Environmental challenges such as climate change, desertification, and water scarcity have contributed to the decrease in ethnobotany. Ethnobotany refers to features in a folk taxonomy of plants, and how they are utilised by various cultures and communities as narrated in (Molefe, 2015). Therefore, contributing to the scarcity of plants needed for conservation and limiting conservation practices. Additionally, changes in weather patterns and the scarcity of resources have affected the health and well-being of livestock, potentially reducing milk production needed for fat making, which is mostly used for the conservation of leather products (Sullivan & Ganuses, W. S, 2021).

As the communities undergo cultural changes and adapt to external influences, there is a risk of the traditional significance and value of leather-making diminishing, as observed among the Ovaherero community. Hence the younger generation is no longer prioritising the continuation of traditional tanning and leather conservation practices. However, among the Ovahimba community tanning and leather conservation practices is taken seriously as a living cultural identity and material culture. This agree with what (Uwandu & Nwankwo, 2006) narrated when speaking about the ideology of defining what culture is, which is the norms and beliefs of a certain group or community.

Therefore, addressing conservation issues, made by indigenous communities using traditional methods requires a holistic approach that involves preserving traditional knowledge, promoting sustainable consumption and livestock management practices, supporting cultural heritage initiatives, and finding ways to create economic opportunities

for the communities to continue their traditional leather-making practices in a changing world (Ceesay, 1986).

### **5.5. Conservation measures of skin/hide products employed by Ovahimba and Ovaherero communities.**

The Ovahimba and Ovaherero communities in Kaokoland have employed various conservation measures to ensure the sustainability of leather materials and the preservation of their traditional practices. These measures are often rooted in their deep cultural connection to the land and the environment (Ceesay, 1986). Traditional tanning techniques are generally less harmful to the environment compared to modern industrial processes. The communities especially Ovahimba, uses plant-based substances, minerals, and animal fat for the leather material preservation and conservation methods, which thus contribute to a great deed of environmental protection, and contributing to the continuity of natural resources. Efforts to pass down traditional knowledge through oral tradition on conservation remains crucial in maintaining sustainable practices, as elders and skilled tanners are actively transferring the knowledge to the younger generations to ensure the continuity of these skills (Ceesay, 1986).

By practicing conservation measures, the Ovahimba and Ovaherero communities aim to ensure the continued availability of their cattle, goat, and sheep and the preservation of their traditional leather-making practices for future generations. These efforts also contribute to the overall sustainability of their cultural heritage and connection to the land, which foster continuation of their practices.

## **5.6. Gender roles in tanning, preparation, and processing**

In traditional societies like the Ovahimba and Ovaherero communities, gender roles play a significant role in various aspects of daily life, including tanning, hide preparation, and processing. In these communities, gender-based division of labour is often influenced by cultural norms, traditional practices, and societal expectations.

The initial stages of tanning, which involve animal killing, skinning, or collecting animal hides from slaughter ground, are typically performed by men. This also agrees with the practices of early centuries when men were responsible for hunting the animals and obtaining the raw hides from the game they have hunted or from their livestock as narrated in by (Badenhorst, 2009).

After the hides are collected, women often take over the responsibility of hide preparation. This includes cleaning, scraping, and removing excess flesh and fat from the hides. In Ovahimba community this time of work is taken as an opportunity for women to unite and connect through songs, storytelling, and sharing of new ideas. In addition, the process of hide preparation is considered a skilled and time-consuming task that requires precision as observed among the Ovahimba community. Women are known to have a good eye of exquisiteness as exemplified in (Gebremichael, 2016). Moreover, women are also the one that often carry out the tanning process, but men do step in here and there especially when green hide and fully grown cow hide are being worked on. And this is when an overlap is likely to be observed. Tanning processes converts raw animal hides into leather, this process involves using traditional tanning agents, such as plant extracts, animal fat, *otjize* which all then facilitate in the treatment, durability, and resistance to decay.

Both communities have shared interesting, demonstrated practices, memories and experiences on how both men and women can be involved in leather processing. The other activity with overlapping responsibility is well noted to be the cutting of leather into specific shapes for different purposes, such as clothing, accessories, or functional items. However, Women are involved in the artistic embellishments of leather goods, which involves intricate designs, beadwork, or decorative stitching that adds to the visual value of the finished products.

The researcher has also noted that, although there is a general division of labour based on gender, these roles are flexible and adaptable depending on individual skills, availability, expertise, and specific community customs. Moreover, with changing times and increased exposure to external influences, some aspects of gender roles in tanning and leather-making have evolved, and this is very much observed among the Ovaherero community. Ovahimba community have presented a strong adaptability and adoption of external influences into their culture, without diverting from their beliefs, norms, and cultural identity.

Overall, tanning and leather processing are valued skills in these communities, and the division of labour based on gender helps in maintaining the efficiency of the process and the preservation of traditional knowledge and practices. Both men and women play essential roles in the production of leather goods, contributing to the cultural identity and economic well-being of their communities.

### **5.7. Interpretation of the historical changes in tanning and leather conservation practices**

The findings based in the narratives provided by the communities on interpretation of historical changes in tanning and leather conservation practices reveals how these traditional techniques have evolved over time in response to various factors, including cultural, colonial, Christianity, economic, technological, and environmental influences.

According to Badenhorst, (2009), it is narrated that, in the pre-industrial era, tanning and leather conservation practices were primarily based on traditional and labour-intensive methods. From what the researcher have observed, the studied communities did not view tanning and leather conservation as an industrial opportunity, but rather their way of living, they depended and still depend (especially Ovahimba community) on tanning and leather making. They fully relied on local resources and natural tanning agents, like plant extracts, to process animal hides into leather. These techniques were closely tied to their cultural heritage and were passed down through generations via oral tradition.

However, with the arrival of colonisers in the 19<sup>th</sup> Century and the increased trade, there was more than an exchange of knowledge and resources related to tanning and leather. The Ovaherero community have explained how they have lost many cattle, ancestral land, and their identity. As narrated in Drechsler, (1980) the dress that Ovaherero women wear today was introduced to them by German wives of missionaries and colonialists. The Ovaherero community have explained that before the German arrival, they wore *ekori*, *otjitatati*, *ombanda*, which were decorated with ostrich shells, metal bead work, brass, copper, and iron. They wore horn bracelets on the wrist and anklets, leather sandals to name a few. These remarks are evidenced by the photographs found in the National

Museum of Namibia archives (see figure 43.), the change is well documented in photographs (see snippet figure. 44, 45, 46, 47, and 48). However, it is written in Kiunguyu, (2018), that dress worn by Ovaherero women today is reminder of the unsettling past and history, when the Namibian Ovaherero ethnicity was nearly exterminated in the 1904 - 1908 genocide of the 20<sup>th</sup> Century. Hence to the Ovaherero community the Victorian dress design is a continued protest to the German's acts. In-addition, Luts Marten (a linguist at the London school of Oriental and African studies, and he specialises in the Ovaherero tribe) as quoted in (Kiunguyu, 2018) have mentioned that "the renowned *ohorokweva*, reflects a strong sense of history and memory of national rebuilding. The dress further provides a sense of cultural identity looking at the horn shaped headdress". Further, the memories shared by the Ovaherero community evoked emotions, as the community expressed how much they have lost. The researcher has also recognised the transition in the renowned headdress of the Ovaherero women, which remains changing due to contemporary fashion designs, yet it demonstrated the cultural significance of the Ovaherero community and its cultural believes.

Although, Ovahimba community's ways of living thrived through the western influences, some archival photographs from the 19<sup>th</sup> and 20<sup>th</sup> Century have captured how they managed to rather adopt yet adapt the influences especially within their traditional dressing code and accessories, without entirely changed their outlook (figure 49). The Ovahimba community have explained hoe the missionary tried to convince them to change their way of worshipping as it was regarded to be paganism. To which the community adopted the cross design (figure 50) which as seen in the archival photograph worn together with other traditional accessories and as a complement to their traditional attire.



*Figure 42. A photo of an Omuherero woman wearing traditional leather clothing, in early 1900s. (photo: the National Museum of Namibia, ethnographic collection)*



*Figure 43. A photograph of a group of Ovaherero women, men, and children. Taken in early 19th Century (photo: National Museum of Namibia))*



Figure 44. Photograph of an Omuherero woman, carrying a baby on the back with ondikwa. The photograph was taken in early 20<sup>th</sup> Century. (Photo: National Museum of Namibia).



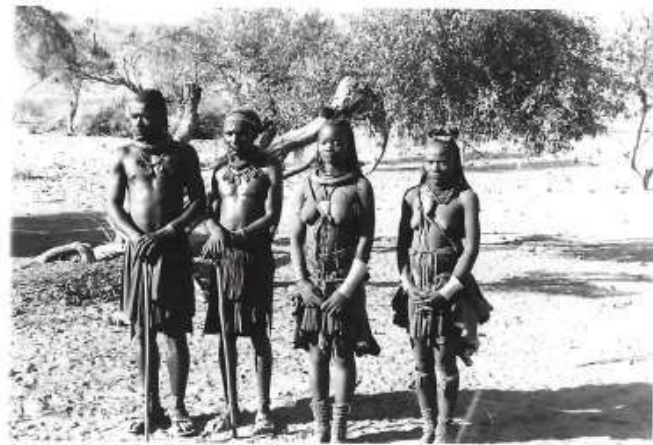
Figure 45. The change and adoption of Victorian dress among the Ovaherero women, as shown in *Dress: Living History of Genocide & Cultural Identity* publication by Kristina Akhbarova 2022 (Photo: MERELL).



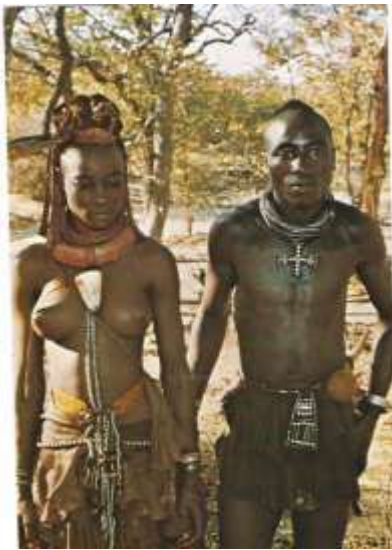
Figure 46. Photos of Ovaherero women in the 21st Century, depicting the change in fabrics, fashion design, and contemporality. (Photos: [eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians](http://eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians))



Figure 47. Shows a photograph of an Ovaherero woman wearing a Victorian renowned Ovaherero traditional attire in the 21st Century. (Photo: MERRELL - [eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians](http://eucarlwears.com/Ovaherero-traditional-attire-of-the-Namibians))



*Figure 48. An archival photograph of Ovahimba men and women taken in 19th Century by Germany collectors. (Photo: National Museum of Namibia)*



*Figure 49. Show an Omuhimba man and woman, on their wedding day. The photograph dates back from early 20<sup>th</sup> Century. (Photo: National Museum of Namibia)*

Ovahimba community have explained how resistant their ancestors were, and that they kept up their cultural identity, and ways of living by continuously practicing it and passing it on through generations. Despite the western influences, Ovahimba community in Kaoko, Kunene region have remained largely untouched (Malan, 1974). It is however

narrated in (Inman, Hobbs, & Tsvuura, 2020) that in the late 20<sup>th</sup> Century, the Ovahimba community as main inhabitants of Opuwo were severely affected by the 1980s drought and war which was ongoing along the Angola/Namibia border, which resulted in a loss of over 80% of their livestock. They still managed to retain their way of life as successful cattle, sheep, and goat farmers with large herds. Their economic independence is directly linked to the land and their livestock, and their semi-nomadic pastoral way of life, is because of the need to move between grazing land and small permanent structures where women and children are living (Malan, 1974).

The Ovahimba community continue to embrace their traditional dressing style, which has survived numerous threats, brought about by western cultures. The Ovahimba explained that they will always take pride in preserving their culture. Today in the 21<sup>st</sup> Century they are still known for their red dabbled skins, unique hairstyles, and leather clothing (see figure 51.).

It is narrated in (Malan, 1974) that there is a growing interest in preserving cultural heritage and traditional craftsmanship. This cultural revival has led to renewed appreciation for traditional practices. Communities like the Ovahimba have sought to safeguard their knowledge and skills, promoting the sustainability and continuity of the traditional techniques in leather tanning and conservation.



*Figure 50. Shows Ovahimba women in Omungunda village, in their traditional attires 3 Centuries later (21<sup>st</sup> Century). (Photo: Job Tjikongo)*

### **5.8. Factors contributing to the changes in tanning preparation and leather conservation practices.**

Societies are continuously experiencing modernisation, traditional lifestyles and livelihoods have transformed, not to mention the ordeals of historical events that have taken so much from indigenous communities in general. Although, traditional crafts, including tanning and leatherworking among Ovahimba have prominently managed to survive the challenges in maintaining their tanning and leather conservation practices in the face of changing world demands. The communities have expressed the alarming low supply of animal fat, blocked access to certain plants due to climate change and some governmental regulations based on environmental acts. Confirming with the (KuneneRegionalCouncil, 2022) 's narratives on the national and international regulations related to wildlife conservation, hunting, and trade of animal products. Which emphasise on the nature conservation ordinance law of 1975, which regulates the utilisation of natural

resources in Namibia, and it covers many closed off conservancies that promotes sustainability.

The passing down of traditional knowledge from one generation to another is crucial for the continuity of traditional practices. Changes in education systems and migration of younger generations to urban areas may have affected the transmission of tanning and leather conservation techniques.

Overall, the changes in skin tanning preparation and leather conservation practices are the result of a complex interplay of historical, wars, economic, technological, cultural, and environmental factors. As societies continue to evolve, striking a balance between tradition and modernity becomes essential for the sustainable preservation of these valuable heritage practices.

### **5.9. Different types of leather products and their significance to Ovahimba and Ovaherero communities.**

Among the Ovahimba and Ovaherero communities, leather holds significant cultural and practical value. These communities utilize various types of leather, each with its own significance in their daily lives and traditional practices.

Animal hides from cattle, goats, and sheep are essential sources of leather for the Ovahimba and Ovaherero communities. Livestock farming plays a vital role in their livelihoods, and these hides are obtained from animals raised within their communities. The use of hides from their own livestock creates a direct connection to their cultural identity and sustains their traditional practices.

In the past, and occasionally in the present, hunting provided additional animal hides from wild game. Game hides could include those from antelopes, kudu, or other wildlife that were hunted for their meat and skins. These hides could hold cultural significance, representing successful hunting expeditions and providing materials for clothing, accessories, and other functional items.

Leather products adorned with intricate beadwork or other decorative elements are highly valued among the Ovahimba and Ovaherero communities. Beadwork is a traditional art form in many African cultures and serves as a means of artistic expression and cultural identity. Leather items decorated with beadwork often carry deep cultural and ceremonial significance.

Leather clothing, as listed in chapter 4 are an integral part of traditional Ovahimba. These garments not only serve practical purposes, protecting against harsh environmental conditions but also reflect cultural identity and social status. Leather is used to craft various functional items, such as water containers, bags, and pouches. These items serve everyday needs and play an essential role in the communities' daily life and nomadic lifestyle.

Leather may hold ceremonial significance in certain rituals, cultural events, and rites of passage. For example, ceremonial clothing or accessories made of leather might be used in weddings, initiations, or other important ceremonies.

The significance of these different types of leather lies not only in their practical applications but also in their cultural symbolism and ties to Ovahimba heritage. Leather-making and the use of leather products are deeply embedded in the communities' cultural

identity, traditional knowledge, and way of life, making them an integral part of their intangible cultural heritage.

#### **5.10. Communities' narratives on leather conservation and its historical changes between 19<sup>th</sup> to the 21<sup>st</sup> Century**

Narratives on leather conservation and its historical changes among the Ovahimba and Ovaherero communities would likely be passed down through oral tradition, storytelling, and shared experiences among the community members, especially the elders. These narratives include insights into how leather conservation practices have evolved over time from the 19th to the 21st century. (Badenhorst, 2009), have captured some of the traditional methods of tanning practiced in the 19<sup>th</sup> century which mainly included the use of use natural tanning agents sourced from plants which were accessible; animals from the wild and domesticated; and tools used were made by indigenous black smith, and stone carver from around.

Both Ovahimba and Ovaherero communities' narratives touched upon the arrival of European colonisers, missionaries, and increased trade in the 19th and early 20th centuries. Which introduced new materials, influencing the community's perception of leather conservation practices. They further emphasised on how colonialism caused displacement of ancestral lands due to forced migration into colonial camps, especially among Ovaherero communities, as narrated in (Melber, 2003). Christianity devalued the cultural importance of leather and its significance in traditional attire, ceremonies, and daily life referring to the practices as satanic (Nangula, 2013). The channels of communications are slowed due to introduction of education, churches, urbanisation etc.

However, communities like Ovahimba have resisted the persuasion of colonial and Christianity western ideas. The Ovahimba community also shed light on other challenges they faced as changes in animal populations due to environmental pressures, and economic shifts. They describe how they adapted their practices to meet these challenges while preserving their traditional knowledge as part of their cultural identity.

In the late 20<sup>th</sup> and 21<sup>st</sup> centuries, issues of modernisation, urbanisation, and external influences have impacted fully the perception of leather as material culture especially among Ovaherero community who have fully adopted the Victorian dress as their traditional attire. Nevertheless, their memories and experience connect them to their ancestral, material culture, and serves as a way to of preserving their cultural heritage and traditional despite these changes.

#### **5.11. Oral tradition and its links to tanning and leather conservation practices.**

Oral traditions and Intangible Cultural Heritage (ICH) have deep and intrinsic links to tanning and leather conservation practices in various cultures (Badenhorst, 2009). It is well noted among the Ovahimba and Ovaherero communities how oral traditions and ICH connections in tanning and leather processing are multifaceted and their contribution to the history, preservation, continuity, and transmission of traditional knowledge and techniques related to leather-making.

Ceesay, (1986) have also narrated how oral traditions serve as primary means of transmitting knowledge about tanning and leather conservation from one generation to another. Whereby elders and skilled tanners within the communities pass down their

expertise through storytelling, demonstrations, and hands-on training. This was well observed in Ovahimba community through their living practices and among Ovaherero through their memories and experiences. This direct and interactive mode of communication ensures the preservation and perpetuation of specialised skills and techniques. Tanning and leather conservation practices are deeply embedded in the cultural identity of Ovahimba communities. It is also mentioned in (Kiunguyu, 2018), that African indigenous communities' traditional practices and cultural significance are reinforced through oral narratives, songs, and ritual practices.

The tanning and leather conservation practices among the Ovahimba and Ovaherero communities are considered intangible cultural heritage. ICH includes living traditions and practices that are passed down through generations and hold cultural significance. By recognising these practices, there is a collective effort to safeguard and promote their value.

Grassby, (2005) have explained how oral traditions allows flexibility and adaptation over time. As societal and environmental changes occur, the knowledge shared through storytelling can be updated and adjusted to fit new circumstances while retaining the core principles of the traditional practice. This adaptability is crucial for the continued relevance and sustainability of tanning and leather conservation techniques.

It is observed among Ovahimba, and Ovaherero have also attested to the practice of tanning and leather conservation as a communal activity, and while working together sometimes audible and non-audible songs are sang among the group, which shows that oral tradition fosters a sense of community and social cohesion as people gather to work on hides and create leather goods. It is also narrated in (Mokotjo, (2021); Ceesay, (1986)

and Gebremichael, (2016) that there is always singing, story telling, and teaching during tanning and leather processing activities. These shared experiences strengthen the bonds between community members and reinforce their cultural identity.

Oral traditions play a critical role in preserving the craftsmanship associated with leather-making. By passing down detailed instructions, techniques, and artisanal skills orally, the communities ensure that the intricate artistry and intricacies of leatherworking are retained and appreciated (Lenzerini, 2011).

Overall, the links between oral traditions, Intangible Cultural Heritage, and tanning and leather conservation practices are interwoven. They form a vital foundation for the transmission, continuation, and celebration of these traditional skills, knowledge, and cultural expressions among the Ovahimba and Ovaherero communities and other indigenous cultures worldwide.

## **CHAPTER 6**

### **RECOMMENDATIONS AND CONCLUSION**

#### **Introduction**

This chapter concerns itself with making recommendations on indigenous tanning and leather conservation practices. It further underlines the multiple benefits of documenting indigenous knowledge on tanning and leather conservation practices, as a way of acknowledging and appreciating the skills and craftsmanship of indigenous people. The chapter further, concludes with the lessons learnt and recommendations for future studies.

#### **6.1. Conclusion**

The overall impression of skin tanning and leather conservation practices among the Ovaherero and Ovahimba communities is one of cultural richness, craftsmanship, and a strong connection to their heritage. Marked with historical changes, inflicted by colonialism which used war, Christianity, civilisation etc. as tools of manipulation. Moreover, climate change which is a natural phenomenon is also noted as a factor in historical changes surrounding tanning and leather processes. The Ovahimba and Ovaherero' s practices of tanning and leather processes are deeply ingrained in the cultural fabric of these communities and play a significant role in their daily lives.

The Ovahimba community demonstrates a high level of experiences, skills, and expertise in the process of skin tanning and leather conservation. The techniques they employ, passed down through generations, showcase their traditional knowledge and mastery of the craft. The attention to detail and the use of natural materials reflects their close relationship with the environment and their resourcefulness in utilising available resources. Ovaherero have a coupled historical experiences and memories affixed to the significance of leather, as their material culture, yet they have adopted and adapted the Victorian fabric dress as their traditional dress which became prominent from early 20<sup>th</sup> century. The dress carries more of their cultural identity and the memories of traumatic events that brought about the transformation of dressing. The dress is worn with a headdress symbolising cow horn, which is a significant animal in the Ovaherero people's culture. These communities have a deep appreciation for the value of cattle, and the resources it produces.

The tanned hides and skins are not only utilised for practical purposes, such as clothing and accessories, but also serve as a canvas for artistic expression. Intricate patterns, decorative elements, and symbolic motifs are incorporated into the leather products, reflecting the cultural aesthetics and values of the Ovahimba people.

The practices of tanning and leather conservation demonstrate a strong sense of community cohesion and intergenerational knowledge transfer. The involvement of both men and women in different stages of the process highlights the importance of collective participation and the division of labor based on traditional gender roles.

While these practices have evolved over time due to external influences, socio-economic changes, and technological advancements, there is a concerted effort within the

communities to preserve and revive traditional techniques. The recognition of the cultural and economic value of these practices has led to a resurgence of interest in recent years, both within the communities themselves and among external observers, including this study.

The living practices and memories of tanning and leather conservation practices among the Ovaherero and Ovahimba communities of Kaoko leave a lasting impression of cultural heritage, craftsmanship, and a deep connection to their ancestral traditions. These practices not only sustain their livelihoods but also serve as a source of cultural pride, identity, and a testament to their resilience and adaptability in the face of changing times.

Today, there is a delicate balance between preserving traditional tanning and leather conservation practices while also integrating modern innovations. Communities like Ovahimba are some of the few indigenous communities who continue to uphold their traditional techniques as a vital aspect of their cultural identity, while others adapt to some extent to meet contemporary needs.

The historical changes in tanning and leather conservation practices reflect a complex interplay between cultural heritage, entangled histories, remnants of colonialism, Christianity, economic forces, technological advancements, and environmental considerations. By understanding and preserving these historical changes, we can appreciate the rich heritage behind leather-making and support sustainable approaches that respect cultural traditions of indigenous communities.

Environmental change as a factor, has been long known and it is what drives their culture, the whole culture is not “static” and is influenced by the natural environment, which

regulates the natural resources, which humans rely on (Badenhorst, 2009). Therefore, when the environment changes, communities' cultures change as well, as a form of reaction.

Moreover, some efforts have been made to integrate traditional practices, including leather conservation, into education and cultural preservation programs to safeguard these valuable aspects of their heritage. The adaptation and preservation of these traditional practices will likely continue to be influenced by ongoing interactions with the modern world and the cultural choices made by the communities themselves.

## **6.2. Recommendations**

Studying and documenting indigenous tanning and leather conservation practices for indigenous communities in Namibia is an important endeavor that will contribute to scholarly literature and to the upholding and preservation of indigenous knowledge, promoting sustainable practices, and maintaining cultural heritage. This type of study further bridge into the development of sustainable conservation methods employed in museums, art galleries, archives etc. (where historical, cultural, archaeological, and natural belongings are stored and exhibited for the present and future generations, Kite & Thomson, 2006). This study did not have a larger population to represent the entire Ovaherero and Ovahimba communities in Kaoko, or in Namibia at large, thus, this could limit the findings, producing only abstract informations on tanning and conservation

practices among the researched communities. Hence the study wishes to make some recommendations for future studies in this field:

- ❖ A thorough fieldwork to document and record indigenous tanning and conservation practices including the entire communities of Ovahimba and Ovaherero in various villages will result in a larger capturing of informations, that this study might have omitted, due to the time framework.
- ❖ A comparative analysis study should be carried out to compare various indigenous tanning methods used across different communities in Namibia. Identifying similarities, differences, and unique characteristics of each technique. This can help in understanding the diversity of indigenous practices among indigenous communities in Namibia.
- ❖ A chemical analysis study, to analyse the chemical composition of the substances, minerals, and plants used in traditional tanning and conservation processes, as well as the resulting leather. This can provide insights into the scientific components contained in the materials and allow for effectiveness comparisons to the existing chemicals used in industrial tanning and conservation methods. Also to find out the impacts of these methods and their potential environmental impacts.
- ❖ An investigation on sustainability and conservation, to investigate the ecological sustainability of indigenous tanning practices. Assess the impact of these practices on local ecosystems, natural resources, and biodiversity. Identify ways to enhance the sustainability of traditional methods.
- ❖ A detailed exploration into the cultural significance and symbolic meanings associated with indigenous tanning techniques among different communities.

Understanding the cultural context can shed light on the social value of these practices.

- ❖ An investigation on how indigenous tanning practices have evolved over time due to external influences, such as colonialism and globalisation. Which should further research on any contemporary adaptations that have been made to these practices to address modern challenges.
- ❖ A research into the development of strategies aimed at conservation and revitalisation of indigenous tanning practices. This could involve collaborating with local communities, artisans, and cultural organisations to ensure that these techniques are passed down to future generations.
- ❖ Encouraging collaboration between researchers, indigenous communities, governmental agencies, NGOs, and other stakeholders, will ensure an establishment of partnerships that respect local perspectives, involve community members, and ensure the ethical conduct of research.
- ❖ Development of educational programs and awareness campaigns to promote indigenous tanning practices among both locals and the broader public. Which should be aimed at highlighting the cultural, environmental, and economic benefits of these practices.

## References

- Agency, N. S. (2011). *Population and Housing Census: Kunene Regional Tables based on 4th Delimitation*. Windhoek: Namibia Statistic Agency.
- Appiah-Brempong, M., Essandoh, H., Asiedy, N., Dadzie, S., & Momade, F. (2020). An insight into artisanal leather making in Ghana. *Journal of Leather, Science and engineering*, 1-14.
- Badenhorst, S. (2009). An ethnographic and historical overview of hide processing in Southern Africa. *Annals of the Transvaal Museum*, 37-43.
- Baillargeon, M., & Des Civiisation, G. (2010). *North American Aboriginal hide tanning; The act of transformation and revival*. Canada: Canadian Museum of civilization.
- Bhatia, M. (2018, 05 18). *Your Guide to Qualitative and Quantitative Data Analysis Methods*. Retrieved from humans of data: [https://humansofdata.atlan.com/2018/09/qualitative-quantitative-data-analysis-methods/#.YTxx\\_tcGJEO.link](https://humansofdata.atlan.com/2018/09/qualitative-quantitative-data-analysis-methods/#.YTxx_tcGJEO.link)
- Bowen, G. A. (2005). Preparing a qualitative research-based dissertation: Lesson Learned. *The qualitative report*, 208-222.
- Braun, V., & Clarke, V. (2012). Thematic analysis. *APA HANDBOOK*, 57.
- Bruwer, J. P. (1966). *South West Africa: The Disputed Land*. Cape Town: Nationale Boekhandel.
- Caple, C. (2000). *History of conservation skills: judgement, methods, and decision making*. New York: Routledge.
- Ceesay, B. (1986). Traditional ways of Processing and preserving leather in Kuonko, a village in Sandu district, Upper River division of Gambia, West Africa. In *Symposium 86. The care and preservation of ethnological materials* (pp. 47-52). Gambia: Actes.
- Cooker, M. (2001). *Rivers of Blood, Rivers of Gold: Europe's Conquest of Indigenous Peoples*. New York: Grove Press.
- Crossman, A. (2017, July 31). *Understanding purposive sampling*. Retrieved from <https://www.thoughtco.com/>: <https://www.thoughtco.com/>
- Davis, L. (2005). Cuir bouilli: Conservation of Leather and Related Materials. In M. Kite, & R. Thomson., *Conservation of Leather and Related Materials* (p. 9). New York: Routledge.
- Declercq, R. (2016). Building Imperial Frontiers. Business, Science and Karakul Sheep Farming in (German) South-West Africa. *Journal of Modern European History*, 54-77.
- Dirksen, V. (1997). The degradation and conservation of leather. *Journal of Conservation and Museum Studies*, 3.

- Drechsler, H. (1980). *Let Us Die Fighting: the struggle of the Herero and Nama against German imperialism (1884-1915)*. London: Zed Press.
- Gebremichael, B. (2016). Traditional leather processing, production, and marketing in Amhara regional state of Ethiopia. *Open access journal*, 1-17.
- Genzuck, M. (2003). *A Synthesis of Ethnographic Research*. Los Angeles: University of Southern California.
- Gilroy, D. (1998). *A PRACTICAL GUIDE TO CONSERVATION AND CARE OF COLLECTIONS*. Australia: WA Museum.
- Grassby, R. (2005). Material culture and cultural history. *Journal of interdisciplinary history*, 591-603.
- Guy. (2016, March 24). *Cultural Heritage Conservation*. Retrieved from culturalheritageconservation.eu:  
<http://culturalheritageconservation.eu/2016/03/24/conservation-according-to-icom-cc/#:~:text=The%20general%20term%20%E2%80%9Cconservation%E2%80%9D%20is,conservation%2C%20remedial%20conservation%20and%20restoration.>
- Haines, B. (1991). *Skin Structure and leather properties*. Northampton: Conservation center.
- Hangara, N., Kavari, J., & Tutjavi, E. (2020). *Ozongombe mOmbazu ya Kaoko Cattle Culture of the Kaoko Ovaherero*. Windhoek: UNAM PRESS.
- Inman, E. N., Hobbs, R. J., & Tsvuura, Z. (2020). No safety net in the face of climate change: The Case of Pastoralists in Kunene Region, Namibia. *PLOS ONE*, 15(9).
- Kiger, M. e., & Varpio, L. (2020). Thematic Analysis of qualitative data: AMEE. *Medial Teacher*, 846-853.
- Kinahan, J. (2000). *Cattle for Beads: The Archaeology of Historical Contact and Trade on the Namib Coast*. Capital Press.
- Kite, M., & Thomson, R. (2006). *Conservation of leather and related materials*. Routledge.
- Kite, M., & Thomson, R. (2011). *conservation of leather and related materials*. New York: Routledge.
- Kiunguyu, K. (2018, July 23). *This is Africa*. Retrieved from The Historic Significance of the Hereo Dress: [thisisafrika.me/arts-and-culture/hitoric-significance-herero-dress/](https://thisisafrika.me/arts-and-culture/hitoric-significance-herero-dress/)
- KuneneRegionalCouncil. (2022, October 01). *Kunene Regional Profile*. Retrieved from Republic of Namibia Kunene Regional Council: <https://kunenerc.gov.na/kunene-regional-profile>
- Langmaier, F., Kolomaznik, K., Mladek, M., & Sivarova, J. (2005). Curing urea-formaldehyde adhesives with Hydrolysates of chrome tanned leather from leather production. *International Journal of adhesion and adhesives*, 101-108.
- Leach, I. (1995). *hides and skins for the tanning industry*. Rome: Viale delle Terme di Caracalla.

- Leedy, P. D., & Ormrod, J. E. (2019). Practical Research. Upper Saddle River: Pearson Prentice-Hall. *Open Journal for Educational Research*, 67-80.
- Lenzerini, F. (2011). Intangible Cultural Heritage: The living culture of people. *European Journal of International Law*, 101-120.
- Linstadter, A., Frank, K., Bollig, M., & Wissel, C. (2007). *Ecological Applications Learning from local knowledge: modelling the pastoral-nomadic range management of Himba, Namibia, 1857-1875*.
- Malan, J. S. (1974). The Herero-speaking peoples of Kaokoland. *Cimbebasia*, 114-116.
- Maxwell, C. (2007). *Animal hide processing: Impact on collagen structure*. United Kingdom: Cardiff University.
- Melber, H. (2003). 'Namibia, land of the brave': Selective memories on war and violence within nation building. *In Rethinking Resistance*, 305-327.
- Melber, H. (2005). Namibia's past in the present: colonial genocide and liberation struggle in commemorative narratives. *South African Historical Journal*, 91-111.
- Mokotjo, M. (2021). *Investigation of artisanal tanning in Lesotho communities using Setlokoa cowhide dress as a case study*. Pretoria: University of Pretoria.
- Molefe, O. (2015). *Physico-chemical characterization of African traditional cosmetics produced by OvaHimba tribes of Northern Namibia*. Johannesburg : University of Witwatersrand, Faculty of Science, School of Environmental Sciences. Retrieved from Google Scholar.
- Moore, B. C. (2020). Smuggled Sheep, Smuggled Shepherds: Farm Labour Transformations in Namibia and the Question of Southern Angola, 1933-1975. *Journal of Southern African Studies*, 93-125.
- Morrell, R. (1998). Of Boys and Men: Masculinity and Gender in Southern African Studies. *Journal of Southern African Studies*, 605-630.
- Muhamed, A. (2018). THE IMPORTANCE OF THE CONSERVATION/PRESERVATION WORKS: A CHALLENGE TOWARDS THE FUTURE OF NATIONAL HERITAGE. *PLANNING MALAYSIA*, 16(8).
- Nakata, M., Byrne, A., Nakata, V., & Gardiner, G. (2005). Indigenous knowledge, the library and information service sector and protocols. *Australian Academic and Research Libraries*, 7-21.
- Nangula, E. M. (2013). *The role of the Evangelical Lutheran Church in Namibia (ELCIN) as a pioneer of social development through Education in Ovamboland (1870-1970): A church Historical Study (Doctoral dissertation)*. Cape Town: Stellenbosch University.
- Nghishiko, J. N. (2024). *Decolonizing Conservation: Integrating Indigenous Knowledge for Sustainable Preservation for Material Culture: Focus on leather works of the Ovahimba Community in Namibia*. (Manuscript submitted for publication)

- Olasunkanmi, A. (2015). A Philosophical Appraisal of Basic Cultural Values in African Traditions. *International Journal of Politics and Good Governance*, 1-12.
- Olsen, B. (2003). Material culture after text: re-membering things. *Norwegian Archeological Reviews*, 87-104.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 137.
- Prown, J. D. (1982). Mind in matter: An introduction to material culture theory and method. *Winterthur portfolio*, 1-19.
- Rifkin, R. (2011). Assessing the efficacy of red ochre as a pre-historic tanning ingredient. *Journal of African Archaeology*, 131-158.
- Schapera, T. (1962). *The Bantu speaking tribes of South Africa*. Cape Town: Miller.
- Semali, L., & Kincheloe, J. L. (2002). *What is Indigenous knowledge: Voices from the academy*. United Kingdom: Routledge.
- Sendrea, C., Miu, L., Crudu, M., & Badea, E. (2017). The Influence of New Preservation Products on Vegetable Tanned Leather for Heritage Object Restoration. *Leather and Footwear Journal*, 9-16.
- Sheya, M. (2021, May 26). *Namibia: Devastating Drought Persist in Kunene*. Retrieved from allAfrica: <https://allafrica.com/stories/202105260708.html>
- Sibani, C. M. (2018). Impact of western culture on traditions of African society: Problems and prospects. *Journal of Region and Human Relations*, 56-72.
- Soest, H., Stambolov, T., & Hallebeek, P. (1984). Conservation of Leather. *Studies in Conservation*, 21-31.
- Steinmetz, G., & Hell, J. (2006). The visual archive of colonialism: Germany and Namibia. *Public Culture*, 147-184.
- Sullivan, S., & Ganuses, W. S. (2021). Densities of meaning in west Namibian landscapes: Genealogies, ancestral agencies, and healing. *Mapping the unmappable*, 91- 139.
- Sully, D. (2013). Conservation Theory and Practice: Materials, values, and people in heritage conservation. *The international Handbooks of Museum Studies*, 293-314.
- Sully, D. (2016). Colonising and conservation. In D. Sully, *Decolonizing Conservation* (pp. 27-43). Oxford: Routledge.
- Sully, D. (2016). *Decolonising Conservation*. Oxford: Routledge.
- Thomson, R. (1991). A history of leather processing from the medieval to the present time in Leather; its composition and changes with time. 12-15.
- Tolia-Kelly, D. P., & Raymond, J. R. (2020). Decolonising museum cultures: An artist and a geographer in collaboration. *Transactions of the Institute of British Geographers*, 2-17.

Tsegaye, T. (2019). An ethnoarchaeological study of hide working with iron scrapers in East Gojjam. *ethnoarchaeology*, 61-79.

UNESCO. (2003). *Convention for the safeguarding of the Intangible Cultural Heritage*. Paris: UNESCO.

UNESCO. (2003). *Convention for the safeguarding of the Intangible Cultural Heritage*. Paris: UNESCO.

UNESCO. (2021, September 30). *UNESCO.ORG*. Retrieved from UNESCO:  
<https://en.unesco.org/links>

Uwandu, N. D., & Nwankwo, J. I. (2006). The concept of culture in the Nigerian social systems. *Readings in Nigerian Peoples and Culture*, 62-79.



## Annex 1



### ETHICAL CLEARANCE CERTIFICATE

**Ethical Clearance Reference Number:** SHS 0039 **Date:** 15 June 2022

This Ethical Clearance Certificate is issued by the University of Namibia Decentralized Ethics Committee (DEC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the School of Humanities, Society & Development Decentralized Ethics Committee.

**Title of Project:** Documenting the History and Practices of Skin Tanning and Leather Conservation Among the Ovahimba and OvaHerero Communities

**Researcher:** Johanna Ndahekeleleka Nghishiko

**Student Number:** 200941241

**Supervisor(s):** Dr Martha Akawa

#### Centre for Research Services

Take note of the following:

1. Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the ethics committee. An application to make amendments may be necessary.
2. Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the ethics committee
3. The Principal Researcher must report issues of ethical compliance to the ethics committee (through the Chairperson) at the end of the Project or as may be requested by the ethics committee
4. The ethics committee retains the right to:
  - i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
  - ii) Request for an ethical compliance report at any point during the course of the research.

The ethics committee wishes you the best in your research.

A handwritten signature in black ink, appearing to read "Trywell Kalusopa".

Prof. Trywell Kalusopa (Chairperson, Decentralised Ethics Committee)

A handwritten signature in black ink, appearing to read "Davis Mumbengegwi".

Prof. Davis Mumbengegwi (Head, Multidisciplinary Research)

## Annex 2



REPUBLIC OF NAMIBIA

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### MINISTRY OF EDUCATION, ARTS AND CULTURE

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Tel: (061) 276 800

P O BOX 1203  
WINDHOEK

Enquiries: MS Golda Ha-eiros  
Email: goldahaeiros@gmail.com

Ms Johanna N Nghishiko  
MA student (History)  
University of Namibia

**RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN KAOKO, KUNENE  
REGION (OVAHIMBA AND OVAHERERO COMMUNITIES)**

The Directorate of National Heritage and Culture Programme has no objection to you carrying out this important research which we believe will enhance and add value to the interventions we are driving in terms of material culture.

I consulted the Regional Team, and they have no problem in assisting you to carry out your research, where they can. I, therefore, copy hereto Ms. Katjuongua, Culture Officer for Kunene so that you may contact her directly and work out the logistics of what you expect from their end.

We request that by the end of your studies you will share the results and outcomes so that we could use them for policy formulation as far as material culture is concerned.

I wish you all the best in this endeavour.

I wish you all the best in this endeavor.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Esther Moombolah/Goagoses'.

Esther Moombolah/Goagoses  
Director, Heritage and Culture Programmes  
Ministry of Education Arts and Culture



## Annex 3 A

### Interview guide

1.2.1. Observing and documenting skin tanning processes and leather conservation methodologies

- a) What skin tanning processes do you use? What steps are followed?
- b) Are there different types of leather? What are they?
- c) Are there different tanning processes for different types of leather? Which ones do you use?
- d) What methods do you use to conserve each type of leather materials?
- e) Does the tanning process determine the conservation methodology for different types of leather?

1.2.2. Documenting and contextualising historical changes that have taken place between the 19<sup>th</sup> and the 21<sup>st</sup> Century, their factors, and the significance of leather as a material culture among ovaHerero and ovaHimba communities and its link to intangible cultural heritage.

- a) What notable changes did you experience in skin tanning processes in the period between the 19<sup>th</sup> and the 21<sup>st</sup> Century (1800s to 2000s)?
- b) What factors do you think caused the changes if there are any?
- c) What is the significance of leather as a material culture? What does it mean to you and your community?
- d) Do different leather types have different meaning to you and your community? What are the narratives behind each type of leather?

1.2.3. Collecting and recording the narratives of the source community regarding the conservation of leather.

- a) Do you think there is an immense influence on leather conservation methodologies when it comes to the steps, tools and techniques used in the period between the 19<sup>th</sup> to the 21<sup>st</sup> Century? What are the influences?
- b) Have you used modern techniques/ practices for leather conservation? Which techniques did you use?
- c) What is your position when it comes to leather conservation in the 21<sup>st</sup> Century compared to the 19<sup>th</sup> Century?

## **Annex 3 B**

### **Interview guide**

#### **1.2.1. Oma kondononeno nongaendisiro younongo womatukiro womikova, nokutwa ounongombwi momatjangwa, nomatunino wanawa womikova.**

- a) Omirari vine mbimungurisa kutuka Omikova, Okuzandi omukova tjiwazu kotjinamwinyo, petjitwavi okuza komautiro ?
- b) Pena omihoko pekepeke viomikova, nu ovine?
- c) Peno omihingo pekepeke viomatukiro womikova, otja komikova pekepeke nu omuhingo une mbumungurisa tjinene?
- d) Omurari une mbumu ungurisa okutjevera poo okutuna nawa Omikova mbi?
- e) Omihingo viomatukiro ombi twapo omiano viondjeverero otja komikova pekepeke?

#### **1.2.2. Okutwa omakuruhungi ngatjitwa rukuru pokati komayuva wozo 19<sup>th</sup> no 21<sup>st</sup> momatjangwa okuzira kounahepero wo mikova otjo mizaro vyo mbazu momihoko vyovaHerero no vaHimba, ovinenge pekepeke momakuruhungi womikova otjombazu nawina omahakaeneno pokati komihoko mbi vivari no mbazu ohanunungwa.**

- a) Ovikwae mbia tanauka mo mbazu yokutuka omikova okuza mozombura ozonguru mo 19<sup>th</sup> nga kundino 21<sup>st</sup> Century (1800s to 2000s) ?
- b) Oviken a mbieta ondanaukiro mombazu yo matukiro yomikova tjiwiripo?
- c) Hapo omukova otjo mbanda yombazu uno ounahepero watjike, nu kove uheya tjike naku auhe motjiwana tjenu?
- d) Omikova pekepeke, vina omahero pekepeke wina kove poo viheya tjimwe kove, viheya tjike kove nakotjiwana atjihe? Nu ovihambarere vine mbitjiukwa ohunga no mikova pekepeke?

#### **1.2.3. Omaonger o nomatiziro wovihambarere okuzira moviwana ovini otja kondunino ya nawa yomikova.**

- a) Otja kove, momunu okutja peno ovinenge pekepeke mbiatanaura ongaro yo matunino wa nawa womikova, noviungurisiwa momatjindiro wanawa womikova okuza momaserondo 19<sup>th</sup> to the 21<sup>st</sup>, nu ovinenge vine mbio?
- b) Warora okungurisa oviungurisiwa viakandino okutjindanawa omikova vioye, nu oviungurisia vine viakandino mbiwarora okngurisa ?
- c) Ongurameno yoye iripi motjina tjomatunino wanawa womikova tjiwasasaneke esereondo ro 21<sup>st</sup> naindi ro 19<sup>th</sup>?