



A study of the performance practice of the Lozi and Nkoya silimba traditions of Western Zambia

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ABSTRACT

This study investigates the silimba traditions of the Lozi and Nkoya people of western Zambia, focusing on their historical, cultural and musical significance. As an indigenous xylophone, the silimba represents a rich cultural artefact deeply embedded in the political, social and ceremonial contexts of these communities. Despite its historical and cultural prominence, the silimba remains underrepresented in academic literature; overshadowed by better-documented African xylophones such as the Zimbabwean marimba and Mozambican timbila. This research addresses this gap by exploring the silimba's role within royal ensembles, its construction and tuning systems and its integration into contemporary educational and performance contexts.

The study adopts a qualitative ethnomusicological approach, combining participant observation, interviews and analysis of performance practices. It highlights the nuanced distinctions between Nkoya and Lozi silimba traditions, emphasizing the instrument's symbolic and musical versatility. The findings reveal the silimba's dual function as a cultural and ceremonial instrument, underscoring its potential to bridge traditional heritage and modern musical innovation.

A significant component of the research explores strategies for incorporating the silimba into Zambia's music education curriculum, advocating for its use as a pedagogical tool to preserve and promote indigenous musical traditions. The study also examined the challenges of globalization and cultural tourism, which have constrained the silimba to a primarily symbolic role, limiting its broader musical potential. This study contributes to the preservation and revitalization of Zambia's musical heritage, offering pathways for cultural sustainability and global appreciation of indigenous African xylophones by positioning the silimba as a dynamic instrument with applications beyond its traditional framework.

Key terms: cultural significance, Lozi, music education, Nkoya, preservation, silimba

Phonetic Key

In the Nkoya language, the orthographic representation of the word *silimba* diverges from its phonological realization. While the word is spelt with the letters [si] it is pronounced with a palatal fricative sound, often transcribed phonetically as /ʃ/. This sound is similar to the *sh* sound in English words like *ship* or *sheet*. Thus, the word silimba is pronounced as shilimba (/ʃilimba/). The Nkoya, assert the name is of Luba-Lunda origin.

In the Lozi language, the letter [s] in the word silimba is pronounced similarly to its sound in English words like *sun* or *see*. This means that the [s] sound in *silimba* is a clear, unvoiced sound, made by pushing air through the teeth and tongue without vocal cord vibration, just as in standard English pronunciation.

LIST OF ABBREVIATIONS`

AMI	African Musical Instruments
BRE	Barotse Royal Establishment
CDC	Curriculum Development Centre
EHC	Evelyn Hone College
IAM	Indigenous African Music
IMT	Indigenous Musical Traditions
KCV	Kabwata Cultural Village
LICS	Lusaka International Community School
LRE	Luyana Royal Ensemble
MoE	Ministry of Education Zambia
MTZ	Ministry of Tourism Zambia
NRC	Nkoya Royal Council
NRE	Nkoya Royal Ensemble
NWU	North West University
RU	Rusangu University

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CHAPTER 1

INTRODUCTION TO THE STUDY

1.1 Introduction

This chapter introduces the study by outlining its foundational framework and key components that guide the research. It provides an in-depth discussion of the background to the study, a clearly articulated problem statement, defined research objectives, and research questions. Additionally, the chapter examines the significance of the study and presents an overview of the dissertation's structure. This study investigates the performance practices of the Lozi and Nkoya silimba traditions in western Zambia, emphasizing their historical, cultural, and musical significance.

1.2 Background to the study

The African xylophone, a percussion instrument crafted from wooden bars struck with mallets or sticks, represents a significant and multifaceted category of musical instruments deserving of in-depth academic scrutiny. Found across diverse regions of the African continent, these instruments share structural similarities with xylophones found in indigenous cultures of Asia and South America, suggesting possible historical connections and cross-cultural influences. However, the African xylophone possesses unique characteristics and a rich history deeply intertwined with the social, cultural, and political fabric of the communities where it thrives. Its adaptability is a hallmark, as it features prominently in both solo performances showcasing the virtuosity of individual musicians and ensemble pieces where it contributes to complex rhythmic and melodic textures. This versatility allows it to function in a wide range of cultural settings, from ritualistic ceremonies to celebratory gatherings and everyday entertainment.

Historical accounts provide glimpses into the long-standing presence and musical significance of the African xylophone. One notable example is the description by Fr. Joao dos Santos in 1586 of a xylophones in eastern Ethiopia. Dos Santos's observation of the instrument's capacity to produce a "sweet and rhythmical harmony" (Blade, 1984:71) offers valuable evidence of its early recognition and appreciation. However, the significance of the African xylophone extends beyond its sonic qualities. As Small (1998:13) argues, the meaning of music transcends the mere notes and rhythms; it resides in the totality of the musical performance and its context. This perspective is particularly relevant to African music, where instruments like the xylophone often serve broader social, cultural, and political functions, acting as conduits for storytelling, community building, and the preservation of cultural heritage.

Despite the profound historical and cultural importance of the African xylophone, scholarly documentation of these instruments lags considerably behind that dedicated to Western classical music instruments. Bae (2001:2) correctly points out the limitations of existing resources on African music, hindering a comprehensive understanding of its global impact. This scarcity of research is particularly pronounced in the case of African xylophones, which have received comparatively less scholarly attention than other facets of African musical tradition. This disparity is largely attributable to the historical reliance on oral traditions in many African societies, where knowledge and cultural practices were primarily transmitted through spoken word and performance rather than written records. Nzewi (2007:49) emphasizes that the theory of indigenous African music is rooted in "consistent creative formulae" embedded in oral memory and passed down through generations. Similarly, Ibekwe (2017:63) highlights the role of oral traditions and folklore in shaping the origin and versatility of traditional music across diverse ethnic groups.

While oral traditions are a vital mechanism for cultural transmission, they also present unique challenges for academic research. Brown (1984:89) notes the limitations of oral histories in western Zambia, often failing to reach back more than a few centuries. Ahorator (2019:89) further cautions that oral narratives, though invaluable, may not always provide a perfectly accurate representation of historical events. However, scholars like Goody (1987:23) advocate against imposing Western notions of historical consistency on African traditions, recognizing the inherent flexibility and adaptability of oral traditions to evolving social contexts. Ong (1982:55) reinforces this perspective, highlighting the dynamic nature of oral cultures, where continuous reinterpretation and adaptation are essential for the survival and relevance of narratives.

The influence of the African xylophone extends beyond the continent, impacting global music traditions, including jazz and Western classical music. Mugovhani (2015:83) observes the increasing exploration of African traditional musical resources in contemporary musicology, while Akwaowo (2019:01) notes the influence of indigenous African xylophones on new compositional approaches. The concept of African pianism, pioneered by Akin Euba, exemplifies this intercultural exchange, integrating African rhythmic and melodic principles with Western piano techniques.

However, the forces of globalization and modernization pose a threat to the preservation of traditional African xylophone practices. The growing popularity of Western-influenced musical styles and the emergence of modern xylophone adaptations have led to the marginalization of traditional forms. Jones (2012:13) illustrates this trend by pointing out that even an electric guitar rendition of indigenous mbira music might be more highly valued than a traditional marimba

performance of the same piece, reflecting a shift towards modernized interpretations. Consequently, authentic indigenous xylophone traditions face the risk of being displaced by commercially driven, hybridized forms.

In the specific context of Zambia's music education, the integration of indigenous instruments like the silimba (a type of xylophone) holds significant pedagogical potential. Nzewi (2010) argues that teaching music through an African philosophical framework enhances students' cultural awareness and appreciation for indigenous traditions. Incorporating the silimba into the curriculum can create a culturally responsive learning environment that connects students with their musical heritage while simultaneously nurturing broader musical literacy and creativity. This approach not only preserves cultural heritage but also empowers future generations to engage with and contribute to the rich tapestry of African musical traditions.

1.3 Problem statement

Academic discourse has frequently stressed the necessity for more extensive and in-depth research on indigenous xylophone traditions. This scholarly gap is particularly pronounced in Zambia, despite the prevalence of xylophones among various indigenous groups, such as the Lenje of the Central Province, the Luchazi and Chokwe of the North-Western province and the Mbunda of the Western Province. Of particular interest are the silimba traditions of the Lozi and Nkoya peoples in western Zambia. Despite their rich and prominent performance practice, the Nkoya and Lozi silimbas have received limited attention in academic literature. This discrepancy is highlighted by Linwood (1995:149), who notes that "very little information exists on instruments...in Zambia" despite the existence of notable works such as that of Atta Mensah (1970) titled *Principles governing the construction of the silimba, a xylophone type found among the Lozi of Zambia*. This oversight is striking, given the rich cultural and musical heritage these instruments embody. In contrast, instruments such as the Zimbabwean marimba, Mozambique's *timbila*, or the West African *balafon* have received more scholarly attention.

It is worth highlighting that the silimba laid the foundation for the development of the Zimbabwean marimba. Jones (2012:37) sheds light on the crucial role that Robert Sibson played in founding Zimbabwe's first college of music, Kwanongoma College of African Music, where the Lozi silimba was initially adapted as a neutral symbol of African identity. Josiah Siyembe Mathe, a talented Zambian silimba player of Lozi descent, served as the institution's first tutor in 1963, where he played a key role in the development of the marimba. His contribution involved building marimbas and adapting the silimba, which gave rise to the present-day Zimbabwe marimba. Over time, the silimba has been overshadowed by the rising popularity of the Zimbabwean marimba throughout

much of southern Africa, causing the recognition of the silimba's historical influence to fade. The marimba, though originally rooted in the silimba, has now supplanted its predecessor in prominence. This shift further accentuates the need for academic efforts to re-engage with and preserve the silimba's musical and historical significance.

My observations further highlight this imbalance, particularly regarding the increasing global recognition of the Zimbabwean marimba. Its prominent presence at events like the Zim Festival in the United States and its growing popularity in regions such as Botswana, where it is non-indigenous, demonstrate its escalating international appeal. Furthermore, during my eight years of participation in the Marimba and Steelpan Festival, organised by Education Africa in South Africa, I have noted the silimba's absence at this prestigious event. This absence is particularly striking given the festival's emphasis on celebrating African xylophone traditions, yet the silimba remains absent.

There is also a noticeable increased presence of Zimbabwean marimba bands in Livingstone, Zambia's tourist capital, a situation which may ultimately overshadow the silimba. This increasing presence can be credited to Zimbabwe's successful commercialization and promotion of its emerging marimba tradition. Despite the presence of the silimba in music programmes at institutions like Evelyn Hone College Lusaka and Rusangu University in Monze, it remains largely underrepresented in academic literature. Upon researching resources for this study, I discovered a significant lack of information on Zambia's silimba in comparison with the more abundant resources available on Zimbabwean marimbas, Ugandan xylophones (*amadinda* and *akadinda*), the Mozambican timbila and the balafon of West Africa.

An additional observation is that the silimba in Zambia is frequently regarded as a cultural artefact, predominantly framed within the context of tourism. The Kabwata Cultural Village in Lusaka and the Dambwa Cultural Village in Livingstone, both recognised as centres for cultural performing arts, fall under the jurisdiction of the Ministry of Tourism rather than the Ministry of Youth, Sport and Arts. This organisational structure reflects a distinct approach to managing and promoting cultural heritage, with the Ministry of Tourism primarily focusing on the preservation and promotion of cultural tourism, while the Ministry of Youth, Sport and Arts typically oversees the broader spectrum of youth and artistic development initiatives. Such a division of responsibilities may lead to differences in the emphasis placed on various cultural and artistic programmes. Cultural tourism typically emphasises the aesthetic and exotic qualities of traditional instruments rather than their technical or artistic depth. Under the Ministry of Tourism, the silimba is often presented in staged performances designed to appeal to visitors' interest in authentic African experiences. While this role sustains the instrument's visibility, it reduces it to a cultural relic, limiting its potential

as a musical tool for broader contemporary musical applications. Unlike the Zimbabwean marimba, which has successfully transitioned into mainstream music and educational institutions worldwide, the silimba remains largely constrained within a narrow framework of cultural representation.

Another observation is the silimba's association with indigenous traditions, particularly in its association with cultural ceremonies and rituals has somewhat limited it to formal events, often showcased at government occasions, diplomatic events or national celebrations. Its performance is typically carried out by cultural dance troupes, which further cements its association with heritage displays, valued more for its symbolic representation of Zambian heritage than for its musical potential.

During my teaching tenure in Zambia from 1993 to 2005, I did not encounter the silimba in any formal music education programmes across public or private schools. In contrast to Botswana, where I have taught at three different schools, the marimba has been consistently featured in the music curriculum. Although Zambia's Ministry of Education promotes the inclusion of indigenous musical traditions, instruments like the silimba remain underutilised, with Zambia's public secondary schools increasingly favouring Western brass and woodwind instruments.

In 2024, I collaborated with a colleague to launch Zambia's inaugural silimba festival under the auspices of a newly registered local marimba and silimba manufacturing company, Ifilimba (LTD) Pty, based in Lusaka of which I am a share partner. This initiative involved 13 music educators, including one non-native music teacher from the Lusaka International Community School (LICS). Notably, none of the local educators have incorporated the silimba into their music programmes, except for the non-native music teacher at Lusaka International Community School (LICS), who has integrated marimbas sourced from a company known as *African Music Instruments*¹ of South Africa. Additionally, a Zambian music teacher who recently moved from Botswana brought his expertise in Zimbabwean marimba performance to his new teaching position in a Lusaka school, having initially learned the practice while in Botswana.

In contrast to the silimba, African instruments like the *djembe* and *mbira* have successfully transcended cultural boundaries, becoming integral to global music scenes. These instruments, while retaining their cultural roots, have been adopted by contemporary musicians such as Oliver

¹ African Musical Instruments (AMI) of South Africa is a company dedicated to the crafting, promotion, and global distribution of indigenous African musical instruments, such as marimbas and mbiras.

Mtukuzi and Thomas Mapfumo, both of Zimbabwe, thus ingraining the mbira's unique sounds into global musical genres, creating new musical aesthetic experiences. Unfortunately, the silimba remains largely confined to Zambia's cultural tourism sector or cultural settings. It is essential to reposition the silimba from being perceived largely as a cultural artefact to recognizing it as a dynamic and innovative instrument with the potential to create new opportunities for musicians to experiment with its unique sound. This, in turn, could increase its visibility and promote its appreciation among a diverse audience.

Taking everything into consideration, the establishment of a silimba repository is essential for Zambia's cultural heritage. It would serve not only to protect the traditional craftsmanship and performance practices associated with the silimba, but also to ensure that these cultural expressions are passed on to future generations. Furthermore, the repository could act as an important resource for academic research by consolidating knowledge on the instrument's history, construction, performance and cultural significance. It could provide detailed documentation of various silimba traditions, including those from the Lozi and Nkoya peoples in Zambia, offering scholars access to a wide range of primary sources such as field recordings, performance practices and ethnographic accounts.

1.4 Objectives of the study

This research seeks to expand the currently limited body of scholarship on silimba music. Additionally, it aims to enhance the broader understanding and appreciation of the silimba musical tradition by focusing on its preservation, promotion and adaptation for inclusion in music education and contemporary performance practices in Zambia. In light of the rapid cultural transformations and the declining interest among youth in traditional music practices (Nota, 2017:35), this study sought to address the pressing need for documenting and revitalizing the legacy of the silimba. Magaraushe (2017:15) underscores the importance of this endeavour, emphasizing that the knowledge and skills related to [silimba] song performances gathered through ethnographic methods, must be formally documented in academia.

Additionally, this research recognises the slow uptake of *silimba* traditions within Zambia and explores strategies to encourage their wider adoption. Integrating the *silimba* into educational curricula offers an impactful method to elevate its cultural and musical significance. Lie (2017:35), as quoted by Nota (2017), notes that the recognition of non-Western musical traditions has prompted initiatives to incorporate indigenous instruments into school curricula. This is seen in Zambia's 2013 educational reforms which explicitly support using indigenous musical instruments with the silimba explicitly prescribed. Nzewi (2007:88) similarly argues that "music can be taught

in African schools through an African philosophical [lens] by incorporating indigenous instrumental music". This, in turn, improves access to music education. The curriculum further promotes a contextual understanding of Zambian music, providing avenues for cultural integration.

My experiences and observations at various International Marimba and Steelpan Festivals in South Africa, organised by Education Africa, highlights the capacity by schools to advance African instruments. School-based ensembles greatly outnumbered those from community and adult groups at this annual event. This study would serve as an effective resource for introducing the silimba into Zambia's public-school system. According to Nzewi (2010:2) "teaching music from an African philosophical perspective, especially through the use of indigenous instruments, enables students to internalize and meaningfully connect with performance elements". The author's statement accentuates the benefits of incorporating indigenous musical instruments into music education, thereby further validating the significance of this study.

1.5 Research questions

To address the objectives highlighted above, the study posited six specific questions in relation to the objectives:

- What is the historical and cultural significance of the silimba in the musical traditions of the Nkoya and Lozi people?
- What are the current challenges in documenting and preserving the silimba in academic literature and how can these be addressed?
- What opportunities exist for the silimba to be incorporated into formal music education in Zambia?
- What primary playing techniques are used on the silimba and how do they vary among the Lozi and Nkoya?

1.6 Significance of the study

It is widely recognized that the study of marginalized indigenous music traditions is essential for preserving unique cultural heritages. According to UNESCO (2018:12), such efforts help "combat the homogenizing effects of global influences," ensuring that diverse musical identities are safeguarded. The silimba, an integral part of Zambia's musical heritage, remains underrepresented in academic literature and contemporary performance spaces. This research seeks to address that gap by ensuring the instrument's accessibility to present and future

generations, thereby countering the declining interest in indigenous musical traditions among younger musicians.

Traditionally, the silimba has been closely tied to ritual and cultural practices, often framed within the narrow lens of cultural tourism. Nota (2017:20) highlights this tendency, noting that "Indigenous musical performances are generally regarded as suitable only for entertainment and leisure." Consequently, the instrument's artistic and pedagogical potential remains largely unexplored. This study challenges such limited perspectives, emphasizing the silimba's versatility as both a performance instrument and an educational tool. By highlighting its capacity for creative expression and cross-cultural engagement, this research aims to reposition the silimba within contemporary musical discourse.

Beyond its cultural significance, this study will provide pre-service and in-service music educators with the necessary pedagogical tools to design curricula that integrate indigenous musical traditions meaningfully. Incorporating the silimba into Zambia's formal education system has the potential to create a more inclusive and culturally responsive music curriculum. Furthermore, by fostering a deeper appreciation for local musical traditions, this study contributes to the broader field of musicology, providing insights that extend beyond national boundaries.

1.6.1 Purpose statement

This study examines the performance practices of the Lozi and Nkoya silimba traditions of western Zambia, investigating their historical, cultural, and musical significance. Through ethnomusicological analysis, it documents and differentiates the stylistic and technical elements of these traditions while exploring the challenges surrounding their preservation and adaptation. The study further advocates for the integration of silimba music into contemporary performance and education, positioning it as a dynamic cultural resource. By doing so, it seeks to revitalize and sustain indigenous African xylophone traditions within both local and global musical landscapes.

In conclusion, the silimba holds immense potential for both artistic innovation and economic empowerment. The global success of instruments such as the Zimbabwean marimba and West African balafon demonstrates the viability of indigenous instruments in contemporary music. This study underscores the silimba's capacity to achieve similar recognition, offering pathways for its adaptation and appreciation across diverse musical contexts.

1.7 Overview of the study

This dissertation is structured into five chapters. Chapter One provides the background to the study, offering an in-depth discussion of the research problem, objectives, and significance of the study. It outlines the purpose and context of the research. Chapter Two presents an extensive literature review on African xylophones, examining historical, cultural, and geographical dimensions. It explores ongoing debates about the origins of African xylophones and the distribution of these instruments across the continent. Chapter Three focuses on the research design and methodology employed in this study. Chapter Four presents the study's findings, analysing data collected through qualitative methods, including participant observation, interviews, and performance recordings. Chapter Five integrates the study's findings with theoretical discussions, reflecting on broader cultural implications and concluding with recommendations for future research.

1.8 Conclusion

This chapter has explored the multifaceted significance of the silimba music traditions of western Zambia, positioning them within the broader context of musical heritage preservation and academic discourse. The silimba, far from being simply a musical instrument, functions as a powerful repository of communal identity, historical narratives, and cultural traditions. It serves as a tangible link to the past, embodying the collective memory and shared experiences of the communities that created and nurtured it. However, this invaluable musical heritage has received comparatively less scholarly attention, particularly when contrasted with the extensive research dedicated to analogous xylophone traditions in other African nations. Examples include the timbila of Mozambique, the marimba of Zimbabwe, and the amadinda and akadinda of Uganda. This disparity in scholarly focus underscores the urgent need for more comprehensive research on the silimba, ensuring its rightful place within the documented history of African musical expression.

A significant obstacle to the thorough documentation and scholarly engagement with the silimba tradition stems from its primary reliance on oral transmission. While oral traditions possess a dynamism and adaptability that allows them to evolve and respond to changing social contexts, they are also inherently susceptible to disruption and loss, especially in the face of rapid modernization and socio-cultural transformations. The absence of comprehensive written documentation or formalized ethnomusicological studies has resulted in a significant gap in our understanding of the silimba's historical trajectory, the intricacies of its construction techniques,

and the nuances of its performance practices. This lack of documented knowledge hinders not only academic understanding but also efforts to preserve and promote the tradition for future generations.

Furthermore, the pervasive forces of globalization exert a profound influence on the contemporary musical landscape. Often, these forces privilege mainstream, frequently Westernized, musical forms, leading to the marginalization and potential decline of indigenous musical traditions like the silimba. This marginalization poses a serious threat not only to the survival of the silimba as a living musical practice, but also to the preservation of the intangible cultural knowledge, beliefs, and social values embedded within its performance, diminishing the richness and diversity of Zambia's cultural heritage. Therefore, it is crucial to implement proactive and multifaceted strategies aimed at the preservation and revitalization of this vital indigenous musical tradition. These strategies must encompass rigorous academic research to document and analyse the silimba's history, construction, and performance practices; the development of culturally sensitive cultural programs to promote its appreciation and transmission; and the integration of the silimba into contemporary Zambian music and educational systems to ensure its continuity and relevance in the modern world.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive review of literature relevant to the study of the silimba traditions in western Zambia. It aims to define and critically analyse key concepts, examine empirical studies conducted by other researchers and elucidate the theoretical frameworks underpinning this research. The review engages with scholarly materials that explore theories concerning the origins of xylophones, indigenous construction techniques, geographical distribution, nomenclature of xylophones and their role in musical practice. This contextualized exploration provides a foundation for understanding the silimba within its broader cultural, historical and theoretical milieu.

The theoretical foundation for this research is grounded in ethnomusicology and cultural theory, concentrating on the interplay between music, society and culture. This study investigates the silimba traditions of the Lozi and Nkoya people in western Zambia, utilising both historical-ethnomusicological and culturally responsive pedagogical frameworks to analyse the cultural, historical and musical significance of xylophones within these communities.

Musical heritage represents a cultural legacy transmitted across generations. Indigenous musical traditions narrate the history of a culture. To thoroughly explore these traditions, it is vital to consider their broader context, a fundamental element of any ethnographic study and the bedrock of this research. As articulated by Hart (1998), a literature review serves to establish an analytical framework that directs data collection, synthesis and interpretation. In examining the Lozi and Nkoya silimba traditions, this chapter offers a comprehensive overview of existing knowledge while situating the research within the broader academic discourse. The literature review highlights various scholarly articles and research studies that have investigated the diverse aspects and characteristics of African xylophones, provided historical and cultural contexts and examined their evolution, possible origins and their cultural significance.

This review also explores key themes identified in different studies to develop a holistic understanding of indigenous xylophones. It investigates the wider contexts in which various xylophone traditions are embedded, aiming to yield insights that will inform the framework for studying the silimba of western Zambia. Ultimately, the review identifies both unique and common themes essential for grasping the current status of indigenous xylophones.

2.2 Xylophone orthography across geographic and cultural landscapes

Because this research focuses on the *silimba* of western Zambia, the review of xylophone names will centre on African xylophones and similar terminology in other cultures. A comprehensive examination of the nomenclature associated with various musical traditions is imperative for elucidating their cultural associations. By scrutinizing the etymology, semantics and geographic distribution of musical terms, researchers can uncover the intricate web of intercultural exchange and transformation. This includes how musical practices have been impacted by interactions with other cultures through migration, trade or colonization. Such insights can form the basis for creating a framework that maps the relationships between different musical traditions and their wider cultural contexts. These insights can serve as a foundation for developing a framework to map the interconnections between various musical traditions. By following this approach, researchers can better explore the intricate relationships and influences that shape the evolution of musical practices across different regions and cultures.

The term *balafon* specifically describes a type of xylophone with wooden bars played with mallets and resonators typically made from gourd or calabash (McPherson, 2018:258). This is a type of xylophone prevalent in Francophone West Africa. While some scholars have proposed that this term may have originated from European travellers, potentially derived from the Greek root *phono* (meaning sound), the more widely accepted etymology traces it to the Mande language (Gourlay & Duran, 1984:117). In this context, *bala* refers to the instrument itself and *fo* translates to "to speak" or "to play a musical instrument" (Gourlay & Duran, 1984:117). The Senufo people, whose primary language is Senari (a member of the Voltaic or Gur language family, not Mandé), are acquainted with the term *balafon* as it is employed in *Jula* (the Mande lingua franca of Côte d'Ivoire) and French. However, the instrument is also referred to by various distinctive terms, depending on regional dialects and the specific types of musical ensembles involved (Zemp 2006:2).

In his ethnographic study, Yip (2013) identifies the *balafon* as the principal musical instrument of the Bobo community, specifically within the Konsankuy subgroup in Mali. Additionally, various Indigenous terminologies for the instrument are prevalent throughout West Africa, including *bala* among the Mandinka people of Guinea, the traditional *gyli* (pronounced Ji-li) in Ghana and East Africa's *amadinda* and *embaire* xylophones found in southern Uganda, among others.

Another essential term to consider is *marimba*, which, in various regions of central and southern Africa, denotes a range of xylophones with names that share common linguistic roots. The nomenclature of these instruments often stems from terms such as *limba* or *rimba*. For example,

the Lozi people of Zambia refer to it as *silimba*, while the Sena people in Malawi use the terms *ulimba* or *valimba*. Likewise, the Chopi people of Mozambique call their distinct xylophones *timbila*. Although these instruments differ in form and function, they embody a significant cultural and linguistic interconnectedness across the region. Pellicer (1999:109) underscores this connection, linking the origins of the instrument to its linguistic associations with Bantu languages. While the marimba is primarily linked to Central and Southern Africa, it has also permeated certain South American societies, where rich traditions of xylophone music exist. Pellicer (1999:108) suggests that the adoption of the term marimba in South America can be traced to the "early cultural and racial blending of African [slaves], Spanish and Indigenous populations".

2.3 Theoretical perspectives on the historical origins of the xylophone

The hypothesis that sea-going peoples from present-day Indonesia contributed to the formation of various aspects of African culture, particularly material culture, remains a controversial topic in African studies. This debate has drawn significant attention from ethnomusicologists, making it of particular interest to students of African music (Blench, 1994). One focal point of this academic inquiry is the origin of the xylophone, an instrument whose precise birthplace remains unclear due to its ancient history. Its geographical roots have sparked extensive scholarly debate, with various ethnomusicologists offering differing perspectives. This literature review critically examines these perspectives, exploring how the xylophone's origins continue to shape discussions in the field of African music.

2.3.1 Southeast Asia as the cradle of the xylophone

A significant volume of scholarly work continues to examine the hypothesis that seafaring peoples from the region now known as Indonesia contributed to the development of Africa's material culture, a topic that remains subject to ongoing debate (Blench 1994:81). Initially proposed in 1898 by Leo Frobenius (1873–1938), a German ethnologist and archaeologist, this hypothesis has been further examined by various prominent ethnomusicologists, including the German ethnomusicologist, Erich Moritz von Hornbostel (1877–1935), Curt Sachs (1881–1959), also of German nationality, and A. M. Jones (1889–1980), a British scholar. All these scholars contend that Southeast Asia is the place of origin of the xylophone. Frobenius (1898) asserts that Indonesian cultural elements, notably musical instruments, significantly influenced the development of African material culture, suggesting the probability of cultural and artefactual exchanges facilitated by maritime routes. In support of this view, Jones and Brill (1965:413) highlight the remarkable similarities between African xylophones and those found in Indonesia and Southeast Asia.

To explore this hypothesis, this review will commence with an examination of Sachs's (1940) foundational research concerning the origins of the xylophone. Sachs (1940:239) conducts a thorough analysis of 14th-century pictorial reliefs from the Panataran temple in Java. From these reliefs, he discerns a unique playing technique characterised by the simultaneous striking of two bars, a method observed among certain African groups, notably the Azandeh of East Africa. Acknowledging the significance of this similarity, Sachs suggests historical ties between Africa and the cultural artefacts of Southeast Asia. He ultimately concludes that "the advanced xylophones found among African populations are derived from the more advanced cultures of Southeast Asia, particularly the Malays" (Blades, 1984:7).

Yet another staunch proponent of the Southeast Asian origin theory is Reverend A.M. Jones. Jones undertook a comprehensive musicological analysis in his seminal 1960 article, *The Xylophone as a Culture-Indicator*, exploring shared musical elements of Asian and African xylophones. Jones's work on xylophones has been pivotal in exploring the cultural connections between Southeast Asia and Africa, positioning these instruments as significant cultural indicators. In his comprehensive analysis, Jones (1960:238) identifies striking similarities in the construction, tuning and musical characteristics of xylophones from both regions, postulating a direct cultural influence imposed on Africa by Indonesia, facilitated via established trade routes. He meticulously examined 212 African and 99 Indonesian xylophones, revealing profound parallels in musical attributes, which according to him suggest an intertwined historical narrative (Jones, 1966:154–156). Jones (1960:240) emphasises the prevalence of the Javanese slendro scale in African contexts, linking this to the broader phenomenon of musical exchange. His exploration extends to the unique tuning systems of the Chopi xylophone ensembles in Mozambique, which share affinities with Southeast Asian tuning practices.

A comparative musicologist Jaap Kunst (1889–1969) made significant contributions to the discourse on xylophone origins. Focusing on the Javanese *gendèr* (a metallophone), he noted a striking geographical distribution, with Africa (from Mozambique and Senegambia) being the sole region outside the archipelago to feature similar instruments. This observation, coupled with his analysis of physical similarities, particularly in the use of bamboo resonators, he suggested a potential transoceanic connection.

Building upon Hornbostel's (1933) hypothesis of a cultural relationship based on scale measurements, Kunst (1936) undertook a comprehensive study of marimba scales. By analysing a large dataset of 96 African marimbas and comparing them to theoretical Indonesian scales, he identified a significant number of similarities, particularly with the Pelog scale, a heptatonic scale used in Javanese and Balinese gamelan ensembles. For example, the Dimbila xylophone of the

Makonde people in northern Mozambique typically utilizes a heptatonic scale that resembles the Pelog scale. Additionally, the Slendro scale, a traditional five-note scale prevalent in Southeast Asian music, particularly in Indonesia and Malaysia, shows similarities to the pentatonic scale used in various Balafon traditions found in Mali. These parallels highlighted the shared characteristics between these African and Indonesian musical systems. This evidence led Kunst (1936) to a definitive conclusion: the origins of marimba scales are undeniably rooted in East Asia, specifically Java and Bali. Moreover, given the exclusive presence of gendèr-type instruments in Africa and the compelling evidence of shared musical characteristics, he strongly asserted a direct or indirect influence of ancient Javanese culture on the development of central African marimbas (Kunst, 1936: 64, 66, 68).

Another notable researcher, Kirby (1934), delves into the similarities in musical characteristics between Southeast Asian and African xylophones. His analysis focuses on commonalities in design, tuning and playing techniques, suggesting a historical connection between the xylophones of Java and those found in various African regions. Kirby argues that the similarities are too significant to be coincidental, proposing that these musical instruments likely spread from Southeast Asia to Africa through established trade routes and cultural exchanges.

However, the arguments surrounding Indonesian influence on African musical culture, broadly, have encountered significant scepticism from various leading scholars. Given the vast geographical separation of Africa and Southeast Asia, the potential for cultural diffusion between the two continents over such immense distances, particularly in antiquity, presents a significant challenge. The authors of these arguments contend that Indonesian explorers visited certain regions of Africa, including Madagascar, leaving behind their cultural imprint without any cultural borrowing from African societies. Critics argue for caution in attributing influences solely based on affinities, highlighting the need for archaeological corroboration to substantiate claims of exchange (Jeffrey, 1967:112).

Jeffrey (1967:66) recognises the similarities in the instruments, particularly in the tunings, construction of xylophones and intervallic values of scales. However, he questions the reliability of these similarities as evidence of cultural diffusion, asserting that such tunings "do not reveal or suggest the musical intentions of performers or prove connections between one culture and another." Additionally, Blench (1994:81) notes that xylophones are similarly categorised within the Malayonigratic stratum, without accounting for the functional requirements that could lead to such morphological parallels. Critics also argue that these similarities could be coincidental or the result of convergent cultural evolution rather than direct influence.

The notion that any form of high culture practised in Africa must be of external origin reflects a deeply entrenched stereotypical bias. This assumption not only diminishes the value and authenticity of African cultural expressions but also shapes the frameworks and perspectives of researchers who perpetuate such ideologies. Such biases distort academic interpretations, leading to incomplete or misrepresented narratives about Africa's cultural and historical significance. Furthermore, such views reinforce a Eurocentric perspective that prioritises Western paradigms as the standard of civilisation, thereby marginalising Africa's extensive and diverse contributions to global civilisation.

2.3.2 Africa as the cultural foundry of the xylophone

The predominantly oral nature of early African history poses a significant challenge to musicological and ethnomusicological research, particularly when attempting to reconstruct the musical traditions of precolonial societies. The lack of written records prior to European contact has necessitated a reliance on oral traditions, archaeological findings and comparative analyses to piece together the historical development of African music. While these methodologies provide invaluable insights, they are inherently constrained by their dependence on interpretation, the potential loss of oral knowledge over generations and the fragmentary nature of material evidence. These challenges are further exacerbated by the limited and often Eurocentric accounts provided by early explorers and colonizers, whose observations frequently lacked cultural understanding. Addressing these challenges is thus essential to advancing a more inclusive and equitable understanding of the continent's rich musical heritage.

Extant literary evidence indicates that fully developed African xylophones were present in Mali as early as the 13th century, suggesting they may have been developed much earlier than the stated dates. This establishes the instrument as part of a long-standing and well-respected musical tradition on the continent. Lois Anderson's 1967 article, *The African Xylophone*, is a significant study that offers valuable insights into the historical context and cultural practices related to East African xylophones. Anderson (1967) explores cultural folklore to trace the origins of the xylophone, noting that texts from the Mande Empire mention the bala in the court of Sundiata, the first emperor of the Mande Empire, as early as the 13th century. This offers historical evidence of xylophones in Africa giving some insights into how far back written history places xylophones (Anderson, 1967:49). Reinforcing a similar notion is Hogan (2006:5), who references an account from 1352 A.D by Arabic travellers who documented encountering xylophones in Niger.

Blades (1984:71) argues that Africa offers a crucial perspective for understanding the xylophone's origins and development. He emphasises the presence of early xylophone variants in what he refers to as *primitive cultures*, suggesting their enduring relevance. However, the term *primitive* is now widely discredited in academic discourse because of its colonial connotations and inherent bias. It inaccurately implies a hierarchical view of cultures, whereas contemporary scholarship emphasises the complexity and richness of all societies, regardless of technological or developmental differences (Friedman, 1994:12). To support his claim, Blades (1984:73) refers to Fr. João dos Santos, a 16th-century Portuguese missionary, who documented a xylophone-like instrument in eastern Ethiopia (1586). This account implies an independent African development of the instrument prior to early European records. Further bolstering his argument, Blades (1984) references Labat's (1728) work, which mentions a similar instrument called the *balafo*. Bae (2001:27) argues that early African xylophones, particularly both free and fixed-key types, provide significant evidence about the instrument's origins. He implies a probable evolution from these simpler free-key xylophones to the more complex fixed-key models, indicating a progression in design and functionality over time. Because Southeast Asia, particularly Indonesia, lacks the simpler models of xylophones, the evidence for the instrument's evolutionary beginnings points to Africa. This reinforces the idea that the development of xylophones likely began in Africa, where simpler designs like the free xylophone were foundational before spreading or evolving into more sophisticated instruments such as the fixed xylophones.

Blades (1984:71) delves deeper by analysing the diverse typology of African xylophones. He identifies a spectrum ranging from simple single-note instruments and free-standing leg xylophones to more complex, fixed-frame models with resonators. This morphological variation, Blades (1984) suggests, might represent a potential evolutionary pathway for the instrument.

While acknowledging potential connections between African and Southeast Asian xylophones, Blades (1984:74) recognises a critical gap in understanding the nature of contact and its influence. He acknowledges that literary references from the 16th to 19th centuries provide a wealth of information about the xylophone's historical presence. However, these sources remain limited in explaining the specific links responsible for the similarities between advanced xylophones in Africa and Indonesia (Blades, 1984:74).

Another unique hypothesis is that of Eric Charry (2000). In his exploration of the origins of xylophones, presents a nuanced perspective that challenges traditional diffusionist theories, including the notion of a singular origin for the instrument. Charry (2000) emphasises the independent development of xylophones in various regions, particularly in Africa and Southeast Asia, while acknowledging possible historical interactions between cultures that might explain

shared characteristics. He cautions against overly simplistic explanations of cultural diffusion, stressing the need for more comprehensive ethnomusicological and archaeological evidence.

Charry (2000) suggests that xylophones in Africa, especially among groups such as the Chopi of Mozambique, developed in response to local musical needs and contexts, which may coincide with similar developments in Southeast Asia. He calls to attention the diversity of xylophones found in Africa, varying in terms of structure, tuning systems and playing techniques, indicating a rich, localised evolution rather than direct external influence (Charry, 2000:37).

2.4 Types and construction of African xylophones

African xylophones, known for their diverse forms and deep cultural significance, have evolved over centuries, resulting in a rich tapestry of varieties. This rich diversity has resulted in a wide range of xylophones, each with its own unique characteristics and cultural significance. This section of the literature review examines the various xylophone types focusing on their construction, classification and the materials utilised in their construction.

Xylophones exhibit considerable diversity in form, size and sound production methods. Notable variations include trough xylophones, which utilise a wooden box as a resonator; leg xylophones, where the player's legs serve as the base for the instrument's keys, and frame xylophones, characterised by bars that are securely mounted on a rigid structure, typically positioned above resonators or soundboards. Additionally, xylophones can be categorised as free xylophones (where the keys are placed on temporary supports rather than being permanently affixed) or fixed xylophones (in which the keys are securely attached to a frame) (Maxwell, 1999:58).

Bae (2001:1) highlights the complexities surrounding the classification and definition of African xylophones, noting inconsistencies within the scholarly literature. Historically, scholars have faced challenges in establishing a unified origin and classification framework for these instruments, often relying on morphological and cultural criteria. Influential scholars, including Hombostel and Sachs (as cited in Bae, 2001:1–2), categorised African xylophones into two main types: log xylophones (created by hollowing out logs and gourd xylophones) that utilise gourds to amplify the sound of the keys. Other sources differentiate between *free-key* and *fixed-key* xylophones as subcategories of the log xylophone.

Anderson (1967) provides a foundational description of the free-key log xylophone, characterising it as an instrument where loose wooden keys are positioned on parallel banana tree trunks. Bae (2001:2) further elucidates this classification by defining free-key xylophones as those with keys

that are entirely independent of the instrument's frame. Corroborating these findings, Blades (1984:75) describes the free-key log xylophone as having keys that rest freely on supporting logs without any form of attachment or insulation. In contrast, fixed-key xylophones, as described by Anderson (1967:66), feature keys secured to a box resonator by cords inserted into holes near their ends. Blades (1984:75) expands on this, noting that “fixed bar xylophones typically employ lacing, pegging, or a combination of both methods to secure the keys to the instrument's frame”.

However, the classification of the log xylophone remains particularly problematic because of vague definitions and overlapping characteristics with other xylophone types. Bae (2001:7) explains: “The basis for the sub-categorisation under the label ‘log’ is rooted in the use of a [hollowed out] piece of wood or tree that supports the xylophone keys”.

Bae (2001) further explores the discrepancies in defining a log xylophone, emphasising the challenges posed by varying materials used for the instrument's frame. The author points out that, while many scholars agree on the basic concept of a log xylophone as having a wooden frame, there is considerable variation in the specific types of wood employed, including banana stems. This lack of standardisation hinders a precise definition and categorisation of the instrument. Moreover, Bae (2001:28) highlights the confusion surrounding the role of resonators in different xylophone types, with variations in their construction and placement contributing to the overall classification complexities. To address these issues, Bae proposes a more nuanced approach to classifying African xylophones. The author distinguishes between free-key and fixed-key xylophones, providing detailed descriptions of each type and their subcategories. The log xylophone is categorised as a free key xylophone, alongside the leg xylophone (as the name suggests, the xylophone's keys are laid across the player's legs) and pit xylophone, which “unlike other free xylophones, in this instrument, the pit becomes a resonator” (Bae, 2001:28).

African xylophones exhibit a wide range of dimensions and configurations. The log xylophone, for instance, can vary significantly in size, with instruments comprising anywhere from [one] to twenty-two keys (Bae, 2001:28). At the smaller end of the spectrum, the mbila, a single-note xylophone of the Sanga people in Haut-Katanga, Democratic Republic of Congo, represents a minimalist example (Valper, 2013:7). Conversely, the akadinda of Uganda stands as a monumental instrument, featuring twenty-two keys and requiring a six-person ensemble for performance (Bae, 2001:28), whose keys are placed on banana stems or grass bundles across the pit.

2.5 The tuning of African xylophones

The intricate relationship between culture, music and acoustics is vividly exemplified in the tuning and scale systems of African xylophones. These instruments, meticulously crafted with wooden keys, produce a diverse range of pitches determined by factors such as the material, dimensions and shape of the keys. The specific tuning and scale systems employed by different African cultures reflect unique historical, cultural and environmental contexts.

Beyond their intrinsic musical value, understanding the tuning systems of African xylophones offers a promising avenue for exploring intercultural connections. By comparing and contrasting tuning patterns across different regions, we seek to identify shared musical languages, potential areas of influence and the broader context of African music within a global framework.

Blades (1984) establishes foundational principles for xylophone key construction and tuning. The primary determinants of pitch include the material, length, width, and depth of the wooden bar. Additionally, a central arching of the bar significantly lowers the pitch (Blades, 1984:75). West African xylophones typically feature a sequential key arrangement from right to left, with descending pitch, as noted by Father Santos (in Blades, 1984:73). This configuration is prevalent across West, East, and certain regions of Central Africa, reflecting a shared structural and tonal approach.

Kubik's (1985) article, *African tone-systems: A reassessment*, provides a comprehensive analysis of the tonal structures inherent in African musical instruments. The study emphasises the cognitive processes musicians employ to understand musical organisation. Expanding upon the foundational research of predecessors such as Klaus Wachsmann (1957) on Ugandan amadinda tuning, Pie-Claude Ngumu (1976) on the Cameroonian mendzan xylophone and Atta Annah Mensah (1970) on Zambian silimba xylophone tuning, Kubik's (1985) work encompasses a broad geographical area, including the Central African Republic, Sudan and the Democratic Republic of Congo. By way of direct interaction with indigenous craftspeople, the outlined researchers gained valuable insights into the temperaments that guided the tuning practices of the instrument makers.

Numerous indigenous musical traditions imbue music-making with cultural and social meanings, serving not only as forms of artistic expression, but also as vital components of community identity and cohesion. Kubik (1985) posits that African xylophone tunings often reflect underlying social and relational structures. He identifies a correlation between these tuning systems and societal hierarchies, suggesting that many exhibit hierarchical tonal organisations (Kubik, 1985:32). To illustrate this point, Kubik describes the Mpyemo people of south-western Africa and the Central

Africa Republic, whose xylophone notes are conceptualized as a familial hierarchy based on age. Furthermore, Kubik (1985:33) observes a widespread African association of high-frequency tones with smallness and low-frequency tones with bigness, as evidenced in the musical terminology of numerous African languages.

Kubik's (1984) study investigates several tuning patterns prevalent in African musical traditions. Noteworthy are the hexatonic scale, a six-note mode distinct from the more familiar seven-note scale and found in use among the Mendzan people of southern Cameroon and the equi-heptatonic system, characterised by evenly spaced intervals across seven notes found within an octave. The two are prominent features of central and western African music. Another noteworthy finding is the shared use of the equi-pentatonic scale, arranged in descending order, among the Azande people of north-eastern Democratic Republic of Congo, Sudan and Central African Republic and the Basoga of eastern Uganda.

Another researcher, Kunst (1935–1936), contributes to the study of xylophone tone systems through a comparative lens. Expanding upon the core argument of interconnectedness between Javanese, Balinese and African musical systems, Kunst (1935–1936) provides geographical context. The author posits a shared ancestral root traceable to ancient Chinese principles of tonal organisation, manifested in the pelog and slendro scales of Java and Bali. These scales, Kunst argues, are derived from the circle of fifths (Kunst, 1935–1936:58). He uses a comparative analysis of African xylophone scales in his aim to further solidify this hypothesis. The prevalence of hexatonic, equi-heptatonic and equi-pentatonic patterns in African xylophones echoes the structural principles found in Indonesian scales. However, it is important to note that these scales are not only unique to Indonesia. For instance, the Scottish folk tradition prominently features hexatonic scales, especially in bagpipe music. This puts into question Kunst's argument. However, Kunst (1935–1936:63) supports this connection by asserting the exclusive presence of the gender-type instrument, a hallmark of Indonesian music, in Africa.

2.6 Distribution of xylophones across Africa

In her 1967 study, Anderson draws on the research of A.M. Jones (1959) and details the distribution of xylophones in Uganda. Anderson (1967) specifically maps their presence across the southern part of the country, covering a geographic expanse from the western border, extending eastward to the Nile River, and from the south-eastern shores of Lake Victoria to the border with Kenya. Furthermore, Anderson (1967) offers a concise analysis of the free-key xylophone, situating this particular type of instrument in Tanzania and Zanzibar, thus contributing to the broader understanding of xylophone varieties and their regional distribution in East Africa.

In his 2001 dissertation, guided by the Grove Dictionary of Musical Instruments, Bae provides a thorough examination of xylophone traditions across various African regions, including West Africa, East Africa, Central Africa and Southern Africa. His work meticulously details the presence of xylophones in each region, encompassing the specific countries, xylophone types and ethnic groups that practice distinct xylophone traditions.

Bae (2001) explores the xylophone's role across various West African ethnic groups, emphasizing its cultural and ritual significance. In the coastal forest region of Guinea, the xylophone, referred to as the *tambour xylophone*, is crafted from banana stems or hollowed logs and plays a crucial role in rites among the Kissi people. Similarly, in Nigeria, the Igbo people use the term *Ngedegwu* for the xylophone, though different regions within the country have distinct names and variations in construction. For instance, in Port Harcourt, a xylophone rack functions like a pit xylophone, where slabs are laid over a deep hole to enhance acoustics. In the Ivory Coast, the Baule people's *jomolo* xylophone is a prominent log xylophone, while large log xylophones are also found among the Barnum and Bamileke people in Cameroon.

In East Africa, the Makonde people of the Ruvumba region in south-eastern Tanzania are known for their use of the *dimbila*, a log xylophone that typically features six keys. The keys are mounted over two stems, often made from wood or soft banana stalks, with bundles of grass placed underneath to provide a cushioned base. The instrument's keys are pegged at one end, allowing for dynamic play, while the other end remains loose. The *dimbila* is traditionally played by two musicians sitting opposite each other, creating a collaborative performance dynamic. The Makonde also use other traditional instruments like the *chityatya*, a gourd-resonated lamellaphone and the *akanyembe*, a one-string fiddle.

In Uganda, the log xylophone is a key feature of the Ganda (or Buganda) people's musical heritage. The xylophones in this region, such as the *embaire* (15 keys), the *amadinda* (12 keys) and the *akadinda* (22 keys), are notable for their size and the complexity of their construction. These instruments are typically built with slabs of wood placed over fresh banana stems, which provide a resonant and sturdy base. The large number of keys on these xylophones allows for intricate melodies and rhythms, often played in ensembles that highlight the communal nature of Ugandan music-making.

Although specific details about the xylophone in southwest Ethiopia are less documented, Bae (2001:7) suggests the use of log xylophones in this area would align with the broader East African practice of utilising available natural resources, such as wood and banana stems, to create resonant musical instruments.

In Central Africa, the xylophone is a significant musical instrument among various ethnic groups, including the Fang in Gabon, the Zande in the Central African Republic and the Pende in Zaire. Two distinct types of xylophones are found among the Fang people in Gabon. The *medzang m'biang* is a log xylophone with 8 to 15 keys, resting on two fresh banana trunks, representing a traditional form of the instrument. The other type is a portable fixed-key xylophone, which showcases the adaptability of the instrument to different cultural contexts.

Among the Zande people of the Central African Republic, the introduction of the xylophone in the early 19th century marked a significant cultural shift. The Zande utilise two types of log xylophones made from the lusambya tree. The smaller manza log xylophone has 5 keys and is uniquely played by striking the middle of the bar, rather than the edge, with a single performer. The larger *Kponingbo* log xylophone, with 12 or 13 keys, is laid over two banana stems, resembling the traditional log xylophones found in other African cultures.

In Southern Africa, xylophones are found among the Chopi people of Mozambique, with complex compositions and performances that involve multiple players. The *mangwilo* xylophone, found among the Alomwe and Ashirima groups, is another example of a prominent xylophone tradition in Mozambique. In the northern region, the Makonde people use the dimbila xylophone, which is distinguished by its unique sound and cultural importance.

In Malawi, the *lomwe mambirira*, a log xylophone with seven keys, is notable for its heptatonic scale. This xylophone is typically played by two musicians facing each other, employing a technique characterised by interlocking patterns and cross-rhythms, similar to the Kiganda music of Uganda. The music of the Yao people also features xylophones, emphasizing rhythm and community participation.

2.7 Compositional models

The subject of composition in African xylophones remains underexplored, despite its critical importance in understanding the music and cultural significance of these instruments. This scarcity of resources necessitated reliance on Akwaowo's 2019 research titled *Nkukwak ikon: An Ibibio xylophone model of composition in Nigeria*. Akwaowo's (2019) dissertation explores the intersection of traditional Ibibio musical practices and contemporary art music composition, providing a distinctive approach to integrating indigenous instruments into modern frameworks. This thematic focus parallels my study of the silimbas of Western Zambia, as both studies emphasise the importance of preserving traditional musical practices while adapting them to contemporary compositional contexts. Furthermore, Akwaowo's (2019) research accentuates the

pressing need to expand scholarship on composition within indigenous xylophone studies. Grounded in ethnomusicology and music theory, the study reviews existing literature on indigenous composition mediums and the xylophone's role in musical traditions, contributing to a deeper understanding of Nigeria's musical heritage.

Key theoretical foundations are drawn from previous works on African art music composition, notably those by Akin Euba and Joshua Uzoigwe, who emphasise the integration of traditional African elements into Western frameworks. The study critiques overreliance on Western instruments in African art music, advocating for the use of indigenous instruments, such as the Ibibio diatonic xylophone. Additionally, the dissertation highlights the gap in standardised notation systems for African instruments, a recurring theme in African musicological literature.

Empirical studies by Onyeji (1994) and Udoh (2008) underscore the limited scope of instrumental compositions that reflect African musical identity. These works provide a comparative framework for Akwaowo's (2019) research, which focuses on developing a model for xylophone compositions that balances cultural preservation and innovation. Furthermore, the study aligns with critiques of Western-centric musicological approaches, as exemplified in Akpakpan (2011) and Ogori (2017), who emphasise the importance of indigenous narratives in musical practice.

Akwaowo (2019) situates the Ibibio xylophone as both a musical and cultural artefact. His dissertation's contribution lies in its original compositions and the proposed methodologies for notation and performance, addressing critical gaps in the literature on African traditional instruments.

2.8 Performance practice

African xylophone performance practice is deeply embedded in cultural and social contexts, characterised by interlocking rhythms, call-and-response techniques and distinctive tuning systems, these traditions vary across regions and often serve ceremonial and communicative roles.

In the 2013 article, *A Practical Guide on balafon: listen, feel and Move*, Yip strives to establish some conventions for the learning of balafon performance practice. The article is in three main parts. Yip (2013) begins by defining performance practice, which, because of his ethnographic approach; investigates balafon performance practice through inquiry into the playing technique, oral tradition, compositional structure, pedagogy and social function. To grasp a deeper knowledge, he adapts learning as a research methodology. According to Yip (2013), the main

way to understand a performance practice is by learning balafon with African musicians and observing their music culture. In the third part, his research carries out a comparative analysis of the Bobo balafon with that of the western marimba. This approach is particularly in alignment with my studies' approaches to exploring the silimba tradition of the Lozi in comparison to that of the Nkoya. By investigating contrasting musical concepts, Yip (2013) states that "this, in return can enrich marimba performance practice".

As stated earlier, Kubik (1960; 1964; 1969; 1985) has written extensively on xylophone music of the southern kingdoms of Uganda, describing it as one of the most interesting kinds of East African music. Two of his articles, *Compositional techniques in Kiganda music* (1969) and *Xylophone playing in Southern Uganda* (1964) cannot go without mention. In both studies, Kubik's focus is on the amadinda and akadinda xylophone musical traditions of Uganda. To discuss compositional techniques of Kiganda music effectively, he emphasises the need to devise notational systems suited to African music's unique features. Kiganda xylophone players use the numbering system, assigning successive numbers to xylophone slats to indicate the ascending or descending sequence of pitch. He discusses the advantages and drawbacks of this system. In order, to effectively discuss, the compositional analysis of Kiganda music, Kubik (1964) adapts a hybrid music notation system, which includes staff notation to illustrate pitch. He discusses the structure tuning systems and harmony and explains the variances there-in. Stylistic melodic tendencies, structure and patterns are extensively explained. He offers these details according to each xylophone tradition, i.e. either akadinda or amadinda. He goes to great lengths to explain playing techniques and posture in his 1964 article, *Xylophone playing in Southern Uganda*.

Another work of interest is that of Akwaowo (2019), which explores performance practice, emphasizing the creation of compositions that embody indigenous musical traditions. It encourages Nigerian composers to prioritize traditional instruments such as the C eighteen-slab diatonic xylophone to preserve cultural significance. The approach includes strategies like developing both partial and complete music scores, arranging ensembles, transcribing traditional pieces and introducing innovative performance techniques such as muffling and alternating hand movements.

2.9 The Lozi and Nkoya of western Zambia

This section draws on the foundational works of Brown (1984) and Linwood (1995), whose dissertations present critical analyses of royal xylophone and drum ensembles within the Nkoya and Lozi communities of Zambia. Brown's (1984) exploration of the political significance of royal music, coupled with Linwood's (1995) detailed examination of xylophone traditions, including their

tuning systems and performance contexts, offers profound historical and cultural insights. These seminal studies provide a crucial framework that underpins the broader analytical scope of this research.

The 1984 dissertation, *Drums of Life: Royal Music and Social Life in Western Zambia*, by Brown and the 1995 dissertation by Lindwood (1995), *The Manufacture of Tuned Percussion Instruments in Indonesia and Africa Selective Study*, are closely related to the focus of my study.

Brown's (1984) dissertation analyses the royal xylophone and drum ensembles of the Nkoya and Lozi of western Zambia. Royal ensembles are at the centre of efforts to create a common worldview through music because they are the primary symbols of political power. By contrasting the Nkoya and Lozi royal music, his study sought to analyse the connection between changing social structures and royal music. Of particular significance is Brown's (1984:21) statement from his abstract, which reads as follows: "Differences in material resources and how production is organised in Nkoya and Lozi societies are linked to discrepancies in the development of Nkoya and Lozi music". The study of music of any culture cannot be studied in isolation without exploring the historical and societal elements that shape arts and culture over time. Brown's (1984) in-depth study discusses xylophones and drums and their connections to ritual, royalty and cultural purposes. The musical structures and tuning systems of the Nkoya and Lozi are discussed in Chapter 10 of Brown's (1984) research report. While this resource may seem to be similar to my study, it does not discuss the stylistic musical elements or the characteristics that define the performance practice of the two-silimba traditions. It is necessary to undertake a study that documents the performance practice if the musical tradition being studied is to be preserved and passed on to the ever-changing future generations of scholars and performing artists.

Linwood's (1995) dissertation examines the geographical and historical contexts of the xylophones of the Lozi and Nkoya. He goes into detail about the two groups' early histories, transformations and historical interactions. He starts by going over the general distribution of xylophones in Zambia. Unlike Brown (1984), Linwood's (1995) research is primarily concerned with xylophones, with a focus on the royal ensembles and their role in the Lozi annual *Kuomboka* ceremony. Additionally, he compares the two-xylophone performance practices with simpler descriptions, such as melodic (in the case of the Lozi) and syncopated (in the case of the Nkoya). There is no thorough musical analysis. He describes silimba designs, dimensions and their locations within the Lozi royal palace. However, Lindwood (1995) provides a thorough scientific illustration of the two tuning systems. He also examines the context of the folk xylophones of the two cultures and describes how they are used in daily society, including gender restrictions to conclude his study. He also describes various xylophone variations used by other ethnic groups

within western Zambia. The broader approach of Linwood's (1995) study is of value to my study because it explains the Lozi and Nkoya cultural ties to other sub-groups in the region, giving insights into potential influences and borrowings that may have shaped the xylophone traditions, as we may know them today.

2.10 African xylophones and music education

The incorporation of indigenous African instruments into formal music education has been widely discussed in contemporary research. Two such instruments, the marimba in South Africa and the silimba in Zambia, have been identified as potential tools for enhancing African music education while also preserving cultural traditions. Gordon (2020) advocates for the marimba as a "gateway instrument" for the Indigenous African Music (IAM) curriculum in South African schools, emphasizing its role in bridging the gap between Western art music and indigenous African musical traditions. Similarly, Wairiuko (2019) highlights the pedagogical value of the Lozi silimba, arguing that its use in music education provides an affordable and culturally relevant alternative to Western instruments.

A shared theme in both studies is the role of these instruments as culturally relevant and accessible educational tools. Gordon (2020) asserts that the marimba's melodic, harmonic, and percussive capabilities make it suitable for integration into the largely Western-oriented South African curriculum, particularly given the challenges associated with implementing IAM in schools. Likewise, Wairiuko (2019) argues that the silimba, as a traditional Zambian xylophone, offers a practical and affordable means of fostering musicianship, especially in resource limited schools.

Another shared theme is the social function of these instruments. Gordon (2020) notes that marimba bands in South African schools serve as a unifying force, promoting inclusivity and providing students with opportunities for public performance at festivals and competitions. Similarly, Wairiuko (2019) describes how the silimba plays a central role in Zambian royal ceremonies and community gatherings, reinforcing its significance beyond the classroom. Both authors emphasize the potential of these instruments to foster group cohesion and social engagement.

Both the marimba and silimba are used to develop aural learning, rhythmic skills, and ensemble performance. Gordon (2020) highlights the importance of rote learning and improvisation in marimba instruction, which aligns with traditional African pedagogical methods. Similarly, Wairiuko (2019) describes how the silimba is traditionally taught through oral transmission, enabling students to develop musicianship skills intuitively.

However, both studies identify significant challenges in implementing indigenous music education. Gordon (2020) points out that despite the South African curriculum's provision for IAM, many schools struggle with a lack of trained teachers and adequate resources. Wairiuko (2019) echoes this concern, arguing that Western musical instruments dominate Zambian schools, marginalizing indigenous alternatives like the silimba. This reflects a broader issue in African music education, where colonial legacies continue to shape curricular priorities and resource allocation.

Despite their shared characteristics, the marimba has been in part integrated into the South African education systems while the silimba is yet to penetrate the Zambian classrooms. The marimba, introduced to South Africa in the 1980s, has gained widespread acceptance in schools, thanks in part to initiatives like the Marimba Education Foundation (MEF), which promotes its use in extracurricular activities and competitions.

In contrast, the silimba remains underutilized in Zambian formal education. While Wairiuko (2019) documents efforts by educators like John Anderson Mwesa to incorporate the silimba into school curricula, its adoption has been inconsistent, largely due to the dominance of Western instruments and pedagogical models and a lack of teacher training. Additionally, the marimba's diatonic tuning system makes it more compatible with Western music theory, whereas the Silimba's tuning requires specialized training that is not widely available.

Both Gordon (2020) and Wairiuko (2019) illustrate the potential of indigenous African instruments in music education. The marimba and Silimba offer culturally relevant, accessible, and socially engaging means of musical instruction. However, the marimba has achieved greater institutional support in South Africa compared to the Silimba in Zambia. Addressing this disparity requires more investment in teacher training, curriculum development, and policy advocacy to ensure that African music education fully integrates indigenous instruments. Further research should explore strategies for enhancing the pedagogical use of these instruments and expanding their role in formal education systems.

2.11 Conclusion

The integration of African musical traditions into broader global musical frameworks, such as classical music and jazz, has been extensively explored by scholars. Acquah and Boahen (2017) argue that blending traditional African musical elements with Western techniques fosters innovative compositions. Acquah and Boahen emphasize the significance of integrating various theoretical frameworks in musical innovation, particularly by drawing on "the application of

Webster's model of creative thinking, Nketia's syncretic approach, and Euba's bi-musicality and African Pianism theories" (2017:16) as motivational elements in the fusion of African and Western musical traditions.

Similarly, Boahen's 2015 article titled, 'Traditional gyil and its evolution into modern compositions', discusses the central role of the gyil (Ghanaian xylophone) in Dagaaba musical traditions, illustrating how its use extends beyond ritual and social contexts to influence contemporary compositional practices. According to Boahen (2015:21), the gyil is more than just a traditional instrument; it's a versatile tool that facilitates musical fusion by enabling the integration of traditional melodies and rhythms into contemporary music.

Furthermore, Acquah and Boahen (2017) highlight how "utilizing melodies, rhythms, and textural elements from traditional music together with Western music elements results in a creative hybrid that maintains cultural authenticity while appealing to global audiences" (p. 23). In light of these insights, this study advocates for a balanced approach that integrates traditional performance practices with contemporary innovations, an approach that not only preserves the cultural intricacies of African musical instruments, particularly xylophones, but also positions them as meaningful contributors to modern musical developments.

As a musicologist and educator, my research undertook a rigorous examination of the intricate musical nuances, performance practices and cultural context of xylophones in Western Zambia. This focused inquiry sought to provide a more nuanced understanding of their distinctive sonic qualities, the underlying factors that have shaped their development and their potential for application within cross-cultural musical contexts. This thesis represents a significant contribution to the under-researched field of ethnomusicology in Zambia.

As the world becomes increasingly globalized, musical innovation and development should not be defined solely by the adoption of Western music as a measure of progress. Colonial influences in Africa have reinforced this perception. While Western music has undoubtedly influenced much of the global musical practices, it has also been significantly shaped by non-Western music traditions. As Case (2013) notes, "its musical growth [...], and certainly the most significant contributor of them all, has been the influence brought to [Western music] from the thousands of unique cultures and practices in Africa" (para. n.a.). Embracing diverse musical traditions enriches both the musical landscape and experience. Neglecting indigenous musical traditions could potentially lead to an increasingly homogeneous global musical culture. In the context of African xylophones, given their widespread distribution across the African continent, African xylophones

warrant thorough analysis and documentation. Their versatility has already demonstrated significant value in contemporary music. This study thus provides essential historical and cultural perspectives that are foundational for a more comprehensive understanding of these instruments.

CHAPTER 3 METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed in conducting the research. It details the research design, data collection methods, and analytical techniques used to ensure the validity and reliability of the findings. The chapter also addresses participant selection, ethical considerations, and potential limitations.

The research design was selected to align with the study's objectives and research questions. A qualitative approach was employed, allowing for an in-depth exploration of the cultural and musical significance of the silimba. Consideration was given to participant selection to ensure that the sample accurately represented the population of interest. Measures to enhance the study's validity and reliability were implemented, along with strategies to mitigate potential biases.

The researcher's role is also examined, acknowledging how personal perspectives and assumptions could influence the research process. Additionally, the study's limitations are critically assessed to provide a realistic understanding of its scope and applicability.

3.1.1 Research philosophy

This study adopted an interpretivist approach, which seeks to understand human behaviour, cultural phenomena, and social dynamics from the perspective of those who experience them. Puller and Carter (2018:9) describe interpretivism as "a tradition linked to the ethnographies of non-Western peoples in the 19th century, continuing to be a popular way to explain human behaviour and social phenomena today." Unlike positivist approaches that seek objective truths, interpretivism focuses on the subjective meanings people construct through their interactions.

Interpretivism is particularly suited to ethnomusicology, which explores music within its cultural and social settings. This approach considers music as part of the broader system of beliefs, values, and traditions within a community, rather than in isolation. This study could therefore gain insights into the role of the silimba in Lozi and Nkoya musical traditions by employing an interpretivist framework.

3.1.2 Study design and methodology

The study of music in its cultural context requires a research design that can capture the intricate nuances and complexities of indigenous musical practices. Fieldwork is an especially effective

approach in this context, enabling researchers to immerse themselves in the community and observe the process of music-making and the meanings attached to it. It also allows for the detailed documentation of performance practices alongside the personal experiences of the musicians themselves. According to Creswell and Crewell (2018:295), “qualitative researchers tend to collect data in the field at the site where participants experience the issue or problem under study”. Therefore, this study adopts a qualitative design as it facilitates a more comprehensive knowledge of how music functions within a specific culture. According to Gordon, L. (2020), “the qualitative approach sets the scene and provides insights through the study of literature and the analysis of the subject Music” (p. 12). Gordon's point is reiterated by Marco (2012:8), who asserts that “ethnomusicologists mainly resort to a qualitative approach and utilise [qualitative] methodologies that are as open as possible, allowing them to analyse music through its unique characteristics”.

A qualitative research design further promotes cultural sensitivity and respect for diverse musical traditions. Musicologists can ensure that their research is conducted ethically by engaging closely with local communities and by actively involving them in the research process. This approach helps guarantee that the findings accurately reflect the perspectives and experiences of the community and ensures that the community voices are represented fairly and that the cultural context is respected throughout the study. Researchers enhance the authenticity and ethical integrity of their work by way of respectful, relationships, focused communication and collaboration with local communities (Sieber, 2010:20). Additionally, a qualitative research design enables researchers to uncover hidden or marginalized voices within a society, which is particularly relevant in this study of the silimba of western Zambia as an underrepresented xylophone tradition in academia. It emphasises the need for culturally sensitive methodologies to avoid perpetuating harm or reinforcing dominant narratives (Burnette *et al.*, 2014:4).

Ethnomusicology, which employs ethnographic methods as its foundational research design, underpinned the theoretical framework of this study. The use of ethnographic techniques, including immersive fieldwork and participant observation, allowed for a comprehensive understanding of the cultural dynamics involved (Hoffman, 2020:52). As articulated by Rice (2014:5): “Ethnography, or fieldwork, is the principal method ethnomusicologists use to study why and how human beings are musica”. Immersion within the community was crucial for this study to grasp the cultural context, performance practices and the impact of cultural norms on musical traditions. Rice (2014:17) also highlights the unique characteristics of ethnomusicological research, stating that “ethnomusicologists study in a place they call, metaphorically, ‘the field,’ a fertile ground where they [labour] to understand the nature of music in a particular [setting]”.

Consequently, “ethnographic research on music provides an important lens through which to understand distinct cultural worlds” (Curran & Radhakrishnan, 2021:101).

3.1.3 Population and sampling

This study investigated the silimba traditions of the Nkoya and Lozi people of western Zambia through an ethnographic approach conducted in an urban setting, initially targeting Kabwata Cultural Village in Lusaka, Zambia. While, according to Hammersley and Atkinson (2007:3), “ethnographic research is a... method aimed at understanding people’s cultural practices, behaviours and beliefs by immersing the researcher directly within the community being studied” the choice to conduct this study in an urban context rather than in the original, rural ethnic environments of western Zambia was driven by several logistical and practical considerations.

Firstly, logistical constraints made direct research in western Zambia’s rural communities challenging. As a resident of Botswana, I faced considerable limitations in my ability to conduct extended research in Zambia. My residence in Botswana at the time of the study was over 1,800 kilometres away from Zambia’s Western Province and international travel incurs significant financial burdens, especially for a self-funded researcher. Beyond the cost of travel, extended stays at a research site demand accommodation, local transportation and daily living expenses, which collectively exceeded the financial resources available for this study. Additionally, my employment obligations restricted the duration of time I could spend away from my contracted employment.

Moreover, the study encompassed two cultural contexts; that of the Nkoya and Lozi communities. The Nkoya predominantly reside around Kaoma, while the Lozi are primarily located in Mongu, separated by a distance exceeding 186 kilometres, which presented significant logistical challenges to navigate the two locations. To represent both Nkoya and Lozi silimba traditions without compromising the study’s depth, I strategically selected Lusaka as the research site, focusing on Kabwata Cultural Village. This urban setting gathers cultural practitioners from both communities, offering a centralised environment for engaging with participants from diverse backgrounds while overcoming the geographical and logistical barriers inherent in the actual rural settings.

Ethnographic research in cultural villages facilitates an emic perspective and a deep, insider understanding of cultural practices. It enables researchers to interact closely with communities in controlled yet culturally authentic environments (Casser *et al.*, 2024). Such settings are significantly accessible, often attracting practitioners from various Indigenous communities who

are drawn to urban centres for economic and social opportunities. This is particularly useful for studying multiple ethnic or cultural groups without the logistical complexities associated with travelling to remote or rural areas (iResearchNet, 2023).

Palinkas *et al.* (2013) describe purposeful sampling as "a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources". Because of the researcher's constraints and the limitations highlighted above, purposeful sampling was adapted to identify participants from Lusaka and at the Kabwata Cultural Village, who were of Nkoya and Lozi descent.

Once the study received approval from the Research Committee of the School of Music and the Basic and Social Sciences Research Ethics Committee (BaSSREC) of the North-West University, as well as from Zambia's Ministry of Tourism, four (4) adult practitioners were identified to participate in this study. Their participation was based on the recommendation of the Chief Culture and Folklore Officer at the Ministry of Tourism. Approval was granted on the condition that the researcher adheres to the Protection of Personal Information, requiring that participants' contact details be used solely for this study. All participants on the list were contacted and they consented to participate and signed consent forms. Only one participant consented to the use of their name in the research report.

Participant ID	Gender	Cultural Background	Role in study	Experience with silimba	Connection to tradition	Location
1	Male	Nkoya	Traditionalist	40 years	From the royal family	Lusaka
2	Male	Lozi	Urban silimba performer		Music Teacher	Lusaka
3	Male	Lozi	Music Teacher		Freelance silimba performer	Mongu
4	Male	Lozi	Silimba construction	Lifetime	Silimba performer at Kabwata cultural village	Lusaka

Figure 1: Profile of participants in the study.

3.1.4 Participants in this study

The participants in this study were male adult individuals of Nkoya and Lozi descent, distinguished as professionals within Zambia's cultural performing arts sector. Their expertise and active engagement as silimba arts performers and cultural custodians position them as highly qualified Participants, who have a profound understanding of the broader musical contexts of the Nkoya and Lozi traditions. Such interpretive capability is critical for understanding the silimba, not merely as a musical instrument but as a medium for storytelling and cultural expression. Their artistic proficiency ensured that the study benefited from authentic, nuanced perspectives.

The participants selected for this study brought diverse perspectives grounded in their expertise with the Indigenous performance art of the silimba. The first participant, ID No 4 (of Lozi descent), is a craftsman of artifacts at Kabwata Cultural Village, proficient both as a silimba player and maker. The second participant, ID No 2, a silimba performer with the Mowana Cultural group of Lusaka, offered valuable insights into silimba

performances within contemporary urban contexts. The third participant, ID No 3, a music teacher based in Mongu, Western Province, contributed an understanding of both traditional and modern silimba practices as practiced in Mongu's western province. The fourth participant, identified as ID No. 1, is of Nkoya heritage and is a distinguished member of the Nkoya Royal family. As senior police officer too, he also contributed to the preservation of Nkoya traditions through his leadership of the Lusaka-based Kanyama Nkoya Cultural Performing Group. Additionally, he served as the longest-tenured chairperson of the Kazanga Cultural Association, an organisation committed to safeguarding and promoting the cultural heritage of the Nkoya community.

All participants were conversant with the English language. Therefore, participant information about the research was provided in English. I sought the individuals' written consent before interviewing, observing and learning from their silimba performance practices. According to Zavisca (2005:131), "ethnographic research, involving human subject's protection requires research participants to sign a formal statement documenting their comprehension of the methods, goals and potential risks, [...] benefits of the research and confirming the voluntary nature of their participation". Good ethical conduct, such as confidentiality, protection of participants' anonymity and their right to withdraw from the research, was explained and assured.

In ethnomusicology, the role of the researcher is pivotal in capturing the nuances of musical traditions, as the researcher has to navigate cultural contexts, interpret practices and maintain ethical engagement with participants. For this study, which investigated the silimba tradition of the Lozi and Nkoya people, my approach required adapting traditional ethnographic methods to an urban setting. While unique, this approach allowed me to engage with practitioners located at Kabwata Cultural Village in Lusaka, where insights were accessible but distanced from the rural roots of the tradition. Therefore, this research balanced ecological validity concerns with practical urban access to participants, as is often necessitated in social research (Hammersley & Atkinson, 2007:92).

3.1.5 The role of the researcher

As a Zambian native with personal and professional connections to the Lozi and Nkoya communities, my positionality is inherently embedded in the cultural and musical contexts of the silimba. My early exposure to xylophones, particularly the silimba, has shaped my appreciation for indigenous musical practices and their educational potential. I bring first-hand experience and technical understanding of these instruments, allowing me to engage deeply with their performance practices. As a music teacher, I possess the pedagogical expertise to analyse and interpret musical traditions. My access to the Lozi community provides unique opportunities for

collaboration and immersion, positioning me as both an insider and a reflective researcher committed to accurately representing Indigenous knowledge systems.

The qualitative research process was essential in structuring this study. I began with thematising, which involved identifying key questions around silimba construction, performance and a variety of cultural themes, and adaptation of the silimba to contemporary settings. This phase allows one to craft research goals that address both traditional and urban expressions of silimba music (Flick, 2014:35).

Interviewing, transcribing and analysing were particularly dynamic activities, as they required flexibility to adjust to participant availability and communication constraints, including the continuation of unstructured interviews over the phone upon my return to Botswana. Each interview was transcribed to preserve the authenticity of the participants' insights and to ensure that the voices of the artists were accurately captured. Finally, verifying and reporting data were crucial in ensuring the study's credibility. I archived interviews and findings digitally for secure preservation, using an encrypted drive for ethical data management. By employing this process, I strived to not only document the silimba tradition but also to offer a pathway for future studies that may benefit from similar urban-based research methods.

3.1.6 Data collection

Barrett and Dowling (2018) emphasize the value of participant observation as an effective method for collecting qualitative data, as it allows researchers to capture a wide range of information, including verbal and non-verbal communication, actions, and environmental factors (p. 63). Similarly, Roux (2019) highlights the importance of ethnomusicological tools, particularly field sound recordings, which he identifies as "an indispensable source of data for ethnomusicologists" (p. 136). In this research, active participation facilitated face-to-face interviews with participants, utilizing journals, audio and video recording devices. Given the need to document both acoustic and visual phenomena in music monitoring, the use of contemporary technology made it easier and more cost-effective to record and store such data. To capture performance and stylistic elements, demonstrations were recorded using a Zoom H1n handy audio recorder and a Canon EOS 4000D still and video camera.

I also recorded my reflections on the outcomes of my experiences while observing and absorbing the silimba repertoire and technique by writing in a reflective journal after each practice session. This reflective journal focused on my research experiences and the knowledge I had gained.

Data collection is a crucial aspect of any academic research, including in the field of music. In the field of ethnomusicology, researchers have employed a range of data collection tools to document and analyse musical practices in various cultural contexts. One commonly used tool is participant observation, which involves immersing oneself in the cultural setting being studied. In the case of this study, overt observation and active participation in music-making activities were applied for first-hand experience and knowledge about the musical traditions and practices being studied. This qualitative method allowed a deeper understanding of the cultural context and the significance of the music (Merriam, 2009).

In addition to participant observation, the use of interviews was found to make it simple to interpret participants' behaviours, attitudes and viewpoints. Researchers can conduct structured or semi-structured interviews with musicians and community members to gain insight into their experiences of, and beliefs and perspectives about, musical experiences. Unstructured interviews were conducted according to the interviewer's ideas, while structured interviews were conducted according to a script or set of criteria. "These interviews [provided] valuable qualitative data that [enriched] the understanding of the cultural significance of silimba music" (Spradley, 2016).

Furthermore, audio and video recordings are widely used data collection tools in ethnographic studies. Recordings allowed the capture of performance practice, rehearsals and creative processes for later analysis, evaluation and reflection. Video recordings, in particular, are a comprehensive feedback tool, enabling the researcher and research participants to analyse technical skills, expression and stylistic tendencies.

Scholarly documents also played a crucial role in gathering information by providing historical context, cultural insights and theoretical frameworks that complement primary research. These documents included ethnographies, historical texts and scholarly articles that documented the practices, beliefs and social structures of these communities.

3.1.7 Ethical considerations

It was crucial to consider the researcher's role in qualitative research to successfully investigate any social phenomenon. As an advocate for African musical arts education with a strong interest in promoting the study of African musical traditions, I recognised my biases. However, I consciously ensured that theories and related research were acknowledged and taken into consideration. Thus, my role as a researcher involved pursuing authentic research by means of strategic planning to ensure effective methodologies by employing multiple validity strategies, such as identifying and categorising themes, strategically collecting and analysing data,

respecting and protecting participants and subsequently reporting and archiving digitally using an encrypted hard drive. This ethnographic study was guided by three ethical principles:

- This research adheres to ethical principles by prioritizing the dignity, rights and autonomy of research participants. Informed consent was obtained, ensuring participants understood the research's nature and purpose and were free to withdraw at any time. Confidentiality and privacy were strictly maintained throughout the research process.
- Beneficence, as an ethical principle, requires researchers to prioritize the well-being of participants by maximizing potential benefits and minimizing harm. In this study, the researcher ensured that the research design promoted positive outcomes for individuals and communities involved.
- Justice in research ethics involves treating all participants fairly and equitably, ensuring no group is excluded or burdened and recognizing and addressing power imbalances to ensure diverse perspectives are represented in the research.

3.1.8 Limitations of the study

While urban-based research remains a viable and ethically responsible method for exploring cultural phenomena, it presents notable challenges concerning ecological validity, especially when studying rural traditions. Ecological validity refers to the extent to which research findings can be generalised to real-world settings (Bickman & Rog, 2009:91).

One major limitation of urban-based research is the potential for altered cultural expressions. Traditional practices often evolve in response to the social, economic and environmental contexts in which they are situated. When these practices are studied in an urban setting, researchers may observe adaptations or changes that reflect urban influences rather than authentic rural traditions. For example, urban musicians may blend traditional elements with contemporary styles, leading to a phenomenon known as cultural syncretism, which can obscure the original cultural context (Higgins, 2011:45). This was evident in the work of one participant (Participant, ID No. 2) whose repertoire partly consisted of some contemporary Zambian cover songs. However, this approach to the silimba aligned with the study's pursuit of exploring ideas for adapting the silimba to mainstream contemporary music.

Additionally, participants in urban settings may not represent the full diversity of perspectives found in their rural counterparts. Urban environments often attract individuals who have migrated for various reasons, such as employment or education, which can lead to a homogeneity of

experiences that may not accurately reflect the broader rural community (Mugambi, 2014:210). Several other constraints and limitations that arose during the research process are highlighted in the next paragraph.

Collaborating with Participant No. 2 presented significant challenges due to his frequent commitments to field performances, which rendered the scheduling of consistent meetings difficult. Furthermore, communication was severely impacted by the extensive load shedding in Zambia at the time, with power outages lasting up to 21 hours. These prolonged blackouts not only hindered mobile phone charging but also further restricted face-to-face interactions and participant observations. Additionally, the participant did not have access to WhatsApp, which could have facilitated communication through recorded voice notes. As a result, it was necessary to continue conducting interviews via telephone even after returning to Botswana to ensure the completion of data collection.

A similar situation arose with Participant No. 3, who was based in Mongu, Western Province, but was available in Lusaka for only a limited period. His contribution primarily involved providing contextual insights into the silimba tradition in Western Zambia. However, his stay in Lusaka was cut short due to his need to attend a funeral in Mongu. Consequently, unstructured interviews were conducted via telephone following his return, limiting the opportunity for direct engagement regarding the silimba.

Participant No. 4, based at Kabwata Cultural Village, possessed extensive knowledge about the silimba; however, he did not have direct access to the instrument, as there was no silimba available on-site. This limitation necessitated supplementing his insights on the construction of the Lozi silimba with information from an unpublished report by Mr. John Mwesa.

The data-gathering period was originally planned to span twenty-one days; however, it was significantly hindered by various challenges, particularly some participant's frequent field performances, employment schedule for Mr. Kaushika, Layson, a police officer, and the extensive load shedding in Zambia at the time. These prolonged power outages, lasting up to 21 hours, not only disrupted communication but also made it difficult to keep mobile phones charged, further limiting the consistency and depth of data collection. Consequently, interviews were less frequent than anticipated, restricting the overall scope of engagement.

To enhance the effectiveness of an urban ethnographic study under similar conditions, several methodological adjustments could be implemented. Establishing multiple communication channels, including in-person meetings where feasible, asynchronous messaging via platforms

such as WhatsApp or email, and pre-recorded voice or video responses, could mitigate the impact of unreliable phone connectivity. The incorporation of local research assistants embedded within the community would further ensure continuity in data collection when the primary researcher is unavailable. Additionally, structuring interviews around the participant's non-performance or working hours and adopting flexible scheduling practices would facilitate more consistent engagement. Given the infrastructural challenges posed by power outages, equipping researchers with battery-powered recording devices and alternative charging solutions, such as power banks or solar chargers, would sustain the documentation process. Moreover, access to a dedicated vehicle would enable researchers to follow participants to performance venues and other key sites, ensuring more immersive observation and engagement. Finally, extending the research period or conducting multiple site visits would help compensate for logistical interruptions, ultimately yielding a more comprehensive and uninterrupted ethnographic experience.

Despite these challenges, the richness and depth of the data collected were remarkable, providing invaluable insights into the silimba tradition and its contemporary practice. Each participant contributed unique perspectives, offering an understanding of performance techniques, cultural significance, and construction methods. The diversity of experiences enriched the study by capturing a varied spectrum of knowledge. Additionally, oral histories and first-hand accounts added authenticity, ensuring that the study documented not just the technical aspects of the silimba, but also its evolving role in Zambian musical heritage.

CHAPTER 4 THE CULTURAL AND HISTORICAL CONTEXTS OF THE SILIMBA

4.1 Introduction

Chapter Four examines the silimba music tradition within its cultural, historical and performance contexts, analyzing its role in the cultural identity of the Lozi and Nkoya peoples. Key areas include its ceremonial functions, symbolic significance, technical construction, performance practices and contemporary adaptations. The chapter also investigates challenges in preserving the tradition, integrating silimba into formal education and exploring its potential in modern compositions, while highlighting its role as both a cultural artefact and a medium for expression.

Chapter Four offers an in-depth analysis of the silimba music tradition within its cultural and performance contexts. It examines how the silimba embodies the cultural values and social practices of the Lozi and Nkoya people, addressing its place in history, ceremonial functions and symbolic significance within the community. Furthermore, the chapter analyses the technical and artistic dimensions of silimba performance, such as instrument construction, ensemble roles, musical structures and stylistic characteristics. Additionally, it explores how contemporary influences are shaping the tradition.

In Chapter Four, the analysis centres on several key research questions that examine both the cultural context and the performance practices of the silimba within Lozi and Nkoya musical traditions. The first research question addresses the historical and cultural significance of the silimba, seeking to understand its role in the traditions of the Nkoya and Lozi people, including its function in ceremonies, community gatherings and cultural expression.

The second research question investigates the challenges associated with documenting and preserving the silimba in academic literature. It sought to identify specific barriers, such as limited resources or knowledge gaps and suggested strategies to overcome these. The third question explores how the silimba could be incorporated into formal music education in Zambia. This question considers the potential benefits of introducing silimba music in educational curricula and the means through which could be achieved. The fourth question considers opportunities for adapting the silimba to new musical genres and modern compositions. This aspect looks at how musicians and composers might creatively integrate the instrument into contemporary music.

The final question focuses on the specific playing techniques of the silimba, noting similarities and variations between the Lozi and Nkoya approaches. This question addresses the technical

intricacies of performance, such as unique rhythms, melodic structures and stylistic nuances that distinguish silimba music.

4.1.2 A cross-cultural analysis approach

Silimba music holds profound cultural significance for the Lozi and Nkoya communities of Western Zambia, reflecting their deep historical and cultural interconnections, particularly through their shared royal traditions. These connections have been a result of the long-standing geographical and social proximity between the two groups. A compelling example of this intertwined heritage is the practice of Lozi chiefs who maintain both their own royal ensembles and the Nkoya ensembles at the Litunga's palace, elucidating both culture's shared heritage.

Brown (1984:50) argues that while the musical traditions of the Lozi and Nkoya have evolved into distinct forms, they remain functionally similar and continue to influence one another. This mutual interdependence suggests that the development of one cannot be fully understood without examining its relationship to the other. Brown (1984) further asserts that their royal music traditions are so deeply intertwined that any analysis must account for their historical and cultural interconnectedness.

Given this context, this dissertation adopts a unified framework to explore the silimba music of both the Lozi and Nkoya peoples. This approach also explores how their historical connections and cultural collaborations have influenced the development of their musics.

4.1.3 History and geographical background of Barotseland

Barotseland,² a region of considerable historical significance and located in western Zambia, is predominantly inhabited by the Lozi people, formerly referred to as the Luyana. As the largest ethnic group in the area, the Lozi play a central role in defining the cultural and historical identity of the region. Alongside the Lozi, other prominent ethnic groups, such as the Mbunda, Nkoya, Lubale and Nyengo Makoma, contribute substantially to the region's vibrant cultural heritage. Each of these groups is characterised by unique languages, traditions and social structures, collectively shaping the intricate and diverse cultural tapestry of Barotseland. Additionally, many

² Historically, Barotseland was an independent kingdom with its own monarchy and legal system, ruled by the Litunga, the Lozi king. The kingdom enjoyed considerable political and cultural autonomy and covered the Zambezi River floodplain.

smaller ethnic communities add to the region's cultural heterogeneity, yielding a nexus of cultural diversity and historical richness.

The genesis of the so called 'original' Lozi peoples is a matter for conjecture. Historians propose various theories concerning the origins of the Lozi people. The Lozi themselves assert a claim to divine origins, tracing their lineage to Mwamba, who is identified as the wife and by others as the daughter of Nyambe, a divine being. In contrast, Brown (1984:90) acknowledges that "the Karanga-Rowzi centre in Zimbabwe, which was well-established by the 10th century, has oral traditions which claim that the Lozi originated among them". Another theory links the Lozi to the Luba-Lunda kingdom, which – as early as the 9th century – existed in what is now known as the Democratic Republic of Congo, while some scholars argue that the Lozi are descendants of Bisa of Nkoyo because of the characteristics that they share in common. The Lozi themselves say they are kin to the Lunda. They assert that their ancestral origins can be traced back to the Luba-Lunda Kingdom. According to Kabimbi (2014:12), "the Luyana of Lealui...are...Bantu descendants who claim origin from the same ancestry in the Lunda-Luba Empire in Kola, in the present Democratic Republic of Congo". While these origins remain debated, historians generally agree that the Lozi kingdom was a conquest state that imposed its institutions upon a relatively resistant indigenous population. This view is supported by prominent historian and Lozi community member, Dr Mutumba Mainga (1968:123).

The Lozi Kingdom that emerged along the Zambezi River floodplains in present-day Western Zambia, traces its establishment to the northern regions of its current territory under the leadership of its first monarch, Mboo. A significant conflict arose between Mboo and his brother, Mwanambinyi, which undermined the centralised system of governance. Mboo also faced opposition from his other brothers, who felt aggrieved by their mother Nyambe's decision to abdicate the throne in his favour. This discontent prompted Mwanambinyi and others to establish a separate kingdom in the south, resulting in a period of fragmentation during which the kingdom was governed by multiple leaders.

The unification of the kingdom was later initiated under Ngalama, the fourth Litunga, who undertook efforts to restore centralised authority and consolidate the Lozi Kingdom. Ngalama's leadership marked a pivotal moment in re-establishing unity and strengthening the political structure of the kingdom. Ultimately, Mboo consolidated power over the southern territories after prevailing over Mwanambinyi. In a strategic move to reduce discord and foster unity, he retained the existing southern kingship structure, integrating it into the broader framework of the Lozi Kingdom to ensure political stability and acceptance among the southern factions.

A distinctive feature of this political arrangement is the appointment of a woman as the ruler of the southern region, known as the *Litunga la Mboela*. This practice reflects a cultural norm that prohibits women from ascending to kingship in the northern regions by limiting women's authority to the south. The relationship between the Litunga,³ who is the supreme ruler of the Lozi people and the Litunga la Mboela exhibits a dynamic of nearly equal status, although the southern ruler occupies a subordinate position. A key indicator of this subordination is that the Litunga is responsible for providing all royal ensembles for the Litunga la Mboela. If the southern ruler were to establish her own royal ensembles, it would indicate a shift towards political autonomy from the northern authority.

In the early 19th century, the Lozi kingdom experienced significant upheaval with the invasion of the Makololo, a Sotho-speaking group from the Transvaal region of South Africa. Under the leadership of Sebitwane, the Makololo established control over Barotseland for approximately two decades, imposing their governance and cultural practices on the Lozi population. Despite the Makololo's influence, the Lozi people demonstrated resilience and organised exiles to the north, culminating in a successful uprising in 1864 that ended Makololo rule. While the Makololo's period of control was relatively brief, their impact on Barotseland's social, political and cultural landscape was profound. As Linwood (1995:152) notes: "The Makololo, although only in control for about twenty-five years, changed many Lozi institutions and managed to introduce their own language to the Lozi, which is still in use today."

The late 19th century witnessed yet another pivotal moment in the history of the Lozi Kingdom as it fell under British colonial rule. This period marked the beginning of a transformative era, characterised by the establishment of a British Protectorate over Lozi territory. The colonial influence extended to the education system, with Lozi chiefs and their descendants being educated in Europe. This exposure to Western education led to a significant portion of the Lozi population engaging in formal schooling. The British colonial era also brought about significant changes to the traditional power structures of the Lozi Kingdom. The authority of the Lozi king was diminished and many Lozi individuals were compelled to migrate to work in Zambia's Copperbelt mines and on commercial farms across southern Africa. The colonial period also introduced Western religious beliefs and practices, which had a profound impact on the traditional cultural and ritual practices of the Lozi people.

³ The Litunga is the supreme ruler of the Lozi Kingdom in western Zambia, specifically in the Barotseland region.

The transformative forces of colonialism significantly curtailed the authority of traditional rulers and, consequently, impacted royal music and traditions. While chiefs retained their titles, their financial and judicial powers were gradually usurped by colonial administrators. This erosion of authority necessitated a reconfiguration of royal musical practices, as traditional rulers sought to adapt to the changing political landscape while preserving cultural heritage.

On the other hand, the origins of the Nkoya remain somewhat obscure, particularly when compared to the more extensively documented Lozi history. Nkoya oral traditions, akin to those of other western Zambian groups, suggest a shared lineage with Lozi royalty, tracing their ancestry to the Lunda state of Mwata Yamvo in the Democratic Republic of Congo. A participant in this study corroborated this claim, identifying key geographical locations associated with the Nkoya, including regions in Zambia, Angola and Namibia.

Historical narratives often link the Nkoya people to the Lozi. Kabimbi (2014:10) postulates that the Nkoya emerged from smaller groups known as the Mbwera, who, upon migrating to Barotseland, adopted the name *Nkoya*, which is derived from the Luyana word *No/a*. In contrast, Brown (1984) is of the opinion that a long-standing Bantu presence in western Zambia, possibly including the ancestors of the Nkoya and related groups, as evidenced by Iron Age artefacts from the Machili Forest.⁴ This suggests the Nkoya may have arrived earlier in the region than the Lozi's.

The realm governed by paramount Chief Mwene⁵ Mutondo encompasses approximately 10,000 square kilometres of fertile, wooded savannah. This region, primarily inhabited by agrarian communities in small villages, is densely populated along its numerous rivers and streams. The area is ethnically diverse, with many residents identifying as members of the Nkoya ethnic group, acknowledging their allegiance to Mutondo and favouring the Nkoya language. Others align with the politically and socially dominant Lozi group of Western Zambia, while additional groups, such as the Luvale and Luchazi, have emigrated *en masse* from Angola since the early 20th century.

Chief Mutondo's hereditary title and royal status are rooted in a kingdom established in the 18th century by his ancestors, who were dissidents from the renowned Lunda Empire in present-day southern Democratic Republic of Congo. The royal lineage adopted the name Nkoya, inspired by a forested region near the confluence of the Zambezi and Kabompo rivers. In the mid-19th century, the Nkoya began paying tribute to the Barotseland monarchy and in 1900, the colonial

⁴ Machili Forest is a natural woodland located in the western part of Zambia, near the Barotse Floodplain.

⁵ Mwene is a title commonly used for chiefs among the Nkoya people, of western Zambia.

administration of Northern Rhodesia incorporated them as *Makonya* under Lozi authority. Mutondo thus acquired a prominent position within the Lozi aristocracy. Following Zambia's independence in 1964, the new government continued to subsidize the Nkoya royal residence, honouring the agreements initially established with the Lozi king in 1900 and reaffirmed at independence (van Binsbergen, 1984).

Structurally, the Lozi are known for their centralised kingdom and traditional monarch (the Litunga), while the Nkoya have traditionally organised themselves in smaller, more autonomous chiefdoms.

4.1.4 Social and cultural considerations

A comprehensive understanding of music within a community requires a historical and contextual perspective, as music is intricately tied to a people's collective identity and experiences. Music evolves alongside societal transformations, reflecting the interplay of cultural, political and economic factors. Researchers such as Nettl (2005:27) argue that cultural and historical knowledge is essential for understanding how musical forms evolve and what they signify within a given culture. Merriam (1964:225) asserts that music does not exist in isolation but is a direct response to the historical and cultural dynamics of a people. Historical perspectives in music sociology highlight how music intersects with various social processes, including performance, distribution, organisation and music education (DeNora, 2004). Geertz (1973) emphasises that culture can only be fully understood when interpreted within its cultural context, a view echoed by Merriam's (1964) assertion that music must be seen through an anthropological lens, a sentiment that draws to attention the need for cultural awareness in interpreting musical meaning.

The practice of music in culture is deeply rooted in the interconnected foundations of religion, politics and economics. This is reiterated by Nettl (2005) who argues that Indigenous musical traditions are deeply interconnected with religious, political and economic dimensions, all of which shape musical expression and its significance. Religious rituals and ceremonies often serve as a primary context for musical performance, imbuing it with spiritual meaning and connecting communities to their sacred traditions. Politically, music functions as a symbol of power, identity and resistance, reflecting and reinforcing societal structures and leadership. Economically, music is intertwined with livelihoods, serving as a means of sustenance for practitioners and as a product of cultural exchange. According to Brown (1984:91), these cultural dimensions form a matrix within which both music and social activities can be analysed. Nettl (2005:237) further asserts that "the significance of [music's] relationship to the rest of culture is paramount for any meaningful interpretation".

In the context of Western Zambia, where the Nkoya and Lozi peoples reside, the intertwining of religious, political and economic systems offers a framework for understanding the role of music in daily life. Brown (1984:62) emphasises that ethnomusicological research must situate music within its broader cultural context, as music serves not just as an aesthetic expression but as a reflection of historical, social and political influences. This approach enables a deeper understanding of music's role within the community, showing how it communicates cultural identities, values and social cohesion. Blacking (2000:23) advocates for exploring the relationships between human organisation and the patterns of sound produced through these organised interactions, further reinforcing the idea that music cannot be understood without considering its social and cultural context.

Clifford Geertz, in his seminal work *The Interpretation of Cultures* (1973), advocates for understanding cultural phenomena, within their specific contexts. He introduces the concept of "thick description," emphasizing that to comprehend an action or symbol, one must consider the intricate web of meanings and contexts surrounding it. While Geertz does not explicitly focus on music, his interpretive approach draws attention to the necessity of analysing cultural practices, such as music, within their broader cultural frameworks to fully grasp their significance.

For the Nkoya and Lozi peoples, music, symbolism and cultural dimensions converge to form a cohesive worldview. Religion, politics and economics are not only interwoven with their musical traditions but actively shape both the creation and transmission of music. Only by considering all relevant processes and factors can one gain a true understanding of musical sound and its meaning in these societies.

4.1.5 Situating the silimba

The role of music in Indigenous communities extends deeply into ceremonies and social life. Music serves as a vital expression of identity, heritage and communal values, often marking important life events, religious rituals and seasonal celebrations. In many African societies, particularly those with established royalty or chieftaincies, music is intricately linked to the prestige and authority of ruling figures, who frequently employ musicians to enhance the ceremonial grandeur and accentuate their socio-political power. Royal courts often patronize musicians, dancers and singers who perform compositions that celebrate lineage and affirm the ruler's legitimacy. To this end, both the Nkoya and Lozi have royal and commoners' (social) versions of silimbas, designed differently in structure, with a more comprehensive tuning in the case of the commoners silimba, while the royal silimba adapts significantly less keys, each serving different contexts.

Apart from the roles and function that the silimba holds in western Zambia's cultures, its cultural meaning and function are also drawn from the instrument itself as an object of material culture. This study is particularly interested in the many facets of the silimba. Such an approach looks at aspects as cultural meaning, symbolism, mythology and iconology, seeing music instruments more as signifying objects of music material culture than as sound-producing objects alone (Johnson, 1995:257). Johnson (1995:259) further argues that "musical instruments themselves do not always function primarily as producers of humanly organised sound". For example, the difference in the physical form between the royal silimba versus the social silimbas, will have different meanings connected with each of the instrument.

4.1.6 Royal ensembles in Lozi and Nkoya culture

In many Indigenous cultures, musical performance is a cultural artefact intricately woven into the historical, social and cultural fabric of a community. Each musical expression reflects a dynamic interplay of traditions, beliefs and societal norms. Performance practice represents nuanced relationships between sound and lived experience. This study focused on the silimba, examining not only the approach to performance, but also the cultural meanings embedded within the instrument and its role as a medium of expression. In the performance context, it is imperative that the playing of the instrument "should be considered in its entirety during ethnomusicological discourse" (Johnson, 1995:262). Also borrowing from De Vale (1991:255), "trying to understand musical [performance] without first investigating the musical instrument is akin to trying to interpret the meaning and function of a disembodied voice".

While the silimba and its accompanying drums hold multifaceted significance, their central role is to visually embody and perpetuate the chief's authority and power and to symbolise the interdependence between the leader and the nation. This phenomenon of royal ensembles is not exclusive to western Zambia alone. Across Africa exists royal music deeply intertwined with the courts and ceremonial practices of kings, chiefs and other traditional authorities? This music is marked by the use of unique traditional instruments and musical compositions, often entrusted to specially enlisted musicians. In West Africa, the prominence of the *Gyil* (a type of xylophone), accompanied by the *bawa* (an ensemble of flutes and drums), is particularly notable during the chief's processions among the Lobi and Dagaare peoples of Ghana (Boahen and Annin, 2015:21). Similarly, Kubik (1964:144) describes the Buganda *amadinda* (xylophone), often performed at the Kabaka's palace and accompanied by the *entamiivu* drums.

The Lozi and Nkoya often refer to their leaders as *chiefs with drums* and their royal musicians as *drummers*. Like their Ghanaian and Buganda counterparts, the Nkoya royal ensembles feature

both xylophones and drums. According to Lytone Kaushiku (personal communication, August 2024), the Nkoya Royal Ensemble (NRE) incorporates the silimba alongside a diverse drum ensemble. This ensemble comprises the *ngoma ya inene*, a large drum; the munkupe, a double-faced drum; the nshikumatwa, a medium-sized drum; and the mundindi, a small, high-pitched drum.

As described in an interview with Participant ID No. 3 (personal communication, September 1, 2024), the Lozi counterpart, known as the Luyana Royal Ensemble (LRE), also includes a ten-keyed silimba accompanied by two single-headed drums collectively referred to as milupa. In both the Lozi and Nkoya cultures, the playing of royal musical instruments is a sacred privilege, reserved exclusively for men. The repertoire of these royal ensembles encompasses themes of royal praises, proverbs and historical references.

In the Barotse Royal Establishment (BRE), musical instruments play a vital role in ceremonial and cultural practices, reflecting their deep significance in the region's social and political life. Among these, the silimba (xylophone) stands out as a prominent royal instrument. According to Lytone Kaushiku (personal communication, August 2024), its performances are deeply intertwined with the ceremonial and political functions of the BRE, used during events to greet the royal highness, convey critical information about the kingdom's welfare and summon royal staff for urgent matters at the Royal Council. These performances are entrusted to highly trained individuals, whose expertise underscores the specialised and esteemed nature of the instrument within Lozi and Nkoya societies.

Central to the Nkoya musical tradition is Shikombwe, the royal residence of the Nkoya chief, which exemplifies the architectural authority of royalty. The compound is encircled by a reed fence supported by pointed poles, a construction privilege reserved solely for royalty. Within Shikombwe lies a modest four-room palace, which includes an audience hall made of reeds and a secure area designated for housing the royal orchestra's instruments. This orchestra performs twice daily, reinforcing the deep-seated cultural and spiritual connection between music, authority and ritual within the royal Nkoya context.

The history of the silimba's origins is contested. Some argue it is an indigenous Nkoya instrument, while others suggest it was adopted from the Kwa Mashi during battles of conquest. Regardless of its origin, its ownership and use are tightly controlled by the BRE. Chiefs authorized to own the silimba must secure skilled musicians to perform its ceremonial roles, emphasizing the instrument's significance. The Royal Council determines its usage, reserving it for select chiefs based on their rank within the BRE hierarchy.

The importance of royal music is deeply embedded in the traditions of both the Nkoya and Lozi peoples, with responsibility for maintaining royal ensembles typically vested in designated chiefs. Four prominent royal courts are associated with these traditions: the Litunga, paramount ruler of the Lozi kingdom; the Litunga la Mboela, queen of the southern Lozi region; Mwene Mutondo, the senior Nkoya chief; and Mwene Kahare, the junior Nkoya chief. In these courts, the silimba and other royal instruments not only accompany the chief's public appearances and official travels but also symbolize leadership and the chief's commitment to his people's welfare (Participant ID No. 3, personal communication, September 1, 2024).

The silimba's performance is central to Nkoya royal traditions, particularly at Shikombwe, the royal residence of the Nkoya chief. Shikombwe's architectural design reflects its royal status, with a reed fence supported by pointed poles, a construction privilege reserved for royalty (Lytone Kaushiku, personal communication, August 2024). The modest four-room palace includes an audience hall made of reeds and a secure area for the royal orchestra's instruments. The Nkoya Royal Ensemble (NRE) performs twice daily, marking significant moments in the chief's routine, such as his awakening and retirement to rest, further emphasizing the integral connection between music, tradition, and royal protocol (L. Kaushika, personal communication, August 31, 2024)

The silimba's symbolic role aligns with broader African traditions, where royal music is closely tied to monarchy and leadership. For instance, in the Ashanti court of West Africa, musical performances marked key moments in the king's routine, such as his morning awakening or evening retirement (Oikelome, 2019). Similarly, Nkoya and Lozi royal ensembles fulfil comparable functions. The silimba's slow tempos and repetitive cycles, accompanied by male singing, reflect its ceremonial dignity and serve to underscore the solemnity of royal events.

Thus, the silimba transcends its role as a musical instrument, symbolizing authority, cultural heritage and political influence. Its use in the BRE reflects a broader African tradition in which royal music serves as a medium for expressing and reinforcing leadership, cultural identity and communal values. By anchoring key ceremonies and embodying the spirit of the BRE, the silimba plays a pivotal role in preserving the region's cultural and political legacy.

The following texts of an Nkoya royal song highlights how royal music embodies and perpetuates the legacy of political power, serving as a symbol of authority, governance and cultural continuity within royal traditions.

Leader: *Shinawaha Mwene walela babawahe, Muyaya.*
Shinawaha Mwene ya ngoma luno lwimbo lwetu wo.
Shinawaha, mwana Shiwowa, nibio titendanga
na bamiene betu.
Shinawaha Likambi lia nyama, Mwene wa Mankoya.
Watamboka sha ndongono, Mwene, ushiku wendanga lubilo.
Baka shivwala mampande muhanga kupana bandungo.

Chorus: *Muyaya ngoma welenu, obe Mwene, yuvwenu kami yuvwililenu.*

English translation:

Leader: It is all right Chief who feeds good people, Muyaya.
 It is all right Chief with drums, this is our song, - oh.
 It is all right, child of Shiwowa, that is how
 our chiefs should behave.
 It is all right Likambi, Chief of the Nkoya.
 He walks like a chameleon, but at night he moves quickly.
 He wears mpande and gives beads to slaves.

Chorus: Muyaya, let us sing, Chief, listen and listen well.

4.1.7 The silimba and cultural ceremonies

Cultural ceremonies are ritualistic practices that often mark significant milestones or occasions in life, such as birth, coming-of-age, marriage, or death. They can also celebrate seasonal changes, harvests, or religious observances. Traditional ceremonies offer a rich tapestry of musical activities, providing an ideal context for exploring cultural musics.

The Kuomboka ceremony of the Lozi provides a crucial lens through which to study the cultural significance of music. This annual event, held around January or February when the plains around the Barotse Royal Establishment begin to flood, illustrates the significance of music in traditional ceremonies. According to Participant ID No. 3 (personal communication, September 1, 2024), the name *Kuomboka*, meaning *getting out of the water*, signifies the migration of the Litunga, the Lozi

king, who is transported in his royal barge, from the Zambezi River floodplain to higher ground to escape seasonal flooding. The royal barge accommodates a diverse group, including one hundred paddlers, six musicians, three ensembles of royal drums including a Nkoya royal ensemble, invited guests, bodyguards, various symbols of royal authority and the chief himself. This major Lozi ceremony showcases nearly every form of Lozi and Nkoya royal music.

Upon the royal barge's arrival at the landing site marking the end of the Kuomboka journey, the chief disembarks, followed by a formal procession accompanied by the silimba and drum ensembles, along with further displays of royal music, displaying the prestige and power of Lozi royalty (Participant No 3, personal communication, September 1, 2024).

The Kazanga ceremony, one of the oldest and most culturally significant events in Zambia, is celebrated by the Nkoya people of Western Zambia as a first fruits and thanksgiving rite. Traditionally held at the royal capitals of the Nkoya, especially at the court of King (Mwene) Kahare, the ceremony coincides with the harvest of staple crops. A highlight of the Kazanga ceremony is the symbolic act of the king, adorned in full regalia, engaging in a fierce royal dance where he brandishes his executioner's axe and royal fly switch. Following this display, the king respectfully lies down on the ground to drink the sacrificial beer, a gesture that culminates in his declaration opening the newly harvested crops for communal consumption.

An essential part of the celebration is the ceremonial entry of the attending Nkoya chiefs, typically Chiefs Mutondo, Kahare, Momba and Kabulwebulwe, each followed by a small royal orchestra of xylophones and drums. One of these chiefs will bless the first fruits and may perform a royal dance, embodying the reverence for ancestors and gratitude for a successful harvest (Kaushika, personal communication, August 31, 2024).

Spanning several days, the Kazanga festival features a wide array of rituals, performances and community activities. Traditional dances and music lie at the heart of the celebration. Participants of all ages – men, women and children – join in synchronized dances accompanied by rhythmic drumming, singing and the melodic tones of traditional instruments, particularly the drums and the commoners' silimba.

4.1.8 Symbolism and cultural significance

Music, deeply embedded in African cultures, functions as a powerful medium for religious expression and a means of connecting with the divine. It is intricately woven into rituals, ceremonies and communal activities, transcending mere artistic expression. Traditional

instruments, such as drums and the silimba, carry profound symbolic weight, serving as sacred tools for spiritual communication. Kaushiku described that the Nkoya people, for instance, believe that their royal songs and ensembles are of divine origin, not human creation (personal communication, August 2024). They refer to their royal repertoire as *the songs of the spirits* and view the instruments themselves as divine gifts that facilitate the spiritual connection between the earthly and divine realms.

Sound has consistently played a pivotal role in the invocation of ancestral spirits across various cultures, utilising diverse forms such as chanting, animal calls, or the resonant tones of idiophones (Madukasi, 2018:38). As Beck (2006:9) asserts, music and chant often serve as the core of sacred and the spiritual in any cultural context. Nzewi (2018:18) further emphasises the spiritual significance of African music, describing it as "a spirituality nexus that imbues consciousness of the divine".

4.2 Instrumentality and musical analysis

The investigation into the structure of musical instruments primarily falls within the domain of organology. Nevertheless, these tangible cultural artefacts are also explored in fields such as ethnomusicology and musicology. This interdisciplinary approach broadens the analysis of instruments beyond their physical form, incorporating cultural significance and iconography. This underscores the instrument's multifaceted role, not solely as a sound-producing object, but as an entity intertwined with its context and music, carrying specific meanings within particular cultural environments (Johnson, 1995:258).

A complex interplay of factors determines the character of music. The instrument's sonic range and its physical compatibility with the human body are key considerations. The physical arrangement of an instrument can mirror the spatial organisation and usage within its performance context or even broader societal structures (Johnson, 1995:265).

Understanding instrument construction is fundamental across disciplines, such as music performance, ethnomusicology and music education, as it offers key insights into sound production, tonal qualities and overall functionality. For instrument makers, proficiency in both traditional and contemporary construction techniques is vital for maintaining cultural traditions while encouraging innovation in design. In music education, this knowledge is especially valuable because it enables educators to teach instrument care and maintenance and even to engage in the construction of instruments themselves.

As part of this study, my ethnographic visit to the music department at Evelyn Hone College (EHC) in Lusaka highlighted the critical importance of knowledge in silimba tuning and construction. At the time of my visit, the silimba programme at EHC was temporarily suspended because of the poor state of the existing instruments. A lecturer at EHC explained that the college faced repair and maintenance challenges, largely because of its reliance on Indigenous silimba makers based in Western Province. Although the silimba is relatively simple in structure, urban players typically source their instruments from Zambia's Western Province. I was also struck by the high maintenance costs charged by Lusaka-based craftsmen. An interview with a silimba maker at Kabwata Cultural Village revealed that urban artisans may charge as much as 5,000 kwachas (approximately \$200 USD) for repairs and tuning.

This section of the study on instrument construction was included to highlight that building a silimba is a skill within reach of non-experts. In the context of music education, the construction process provides educators with the expertise required to manage and potentially construct, their own instruments. Additionally, this knowledge will further enable teachers to guide students in the proper handling, maintenance and care of the instruments, fostering a deeper understanding of their preservation.

4.2.1 The construction of the commoners' silimba

This section was informed by insights from Participant ID No. 4 and cross-referenced with an unpublished outline (nd) by John Mwesa, a renowned music educator and contemporary silimba player who was active from 1971 until his passing in 2011. As my biological father, Mr. John Mwesa played a pivotal role in introducing me to the silimba at an early age of 12 years. His influence as a professional music educator shaped my early musical experiences, particularly in the realm of traditional African musical traditions. His music education philosophies and ideologies and have profoundly impacted my own teaching philosophy and approach to musicology.

The xylophones of the Nkoya and Lozi cultures, while distinct in certain aspects, share several common features. In his 1970 article, *Principles Governing the Construction of the Silimba*, Mensah outlines key principles guiding the construction of the silimba, a xylophone type found among the Lozi of Zambia. Many of these principles are also applicable to the Nkoya xylophone. This understanding of construction methods not only aids in preserving the silimba but also improves its affordability and accessibility, ensuring that both current and future generations can engage with and sustain this musical tradition.

The *capu* is a large axe that is traditionally utilised for cutting silimba keys from trees such as the *mulombe* or *mukwa* (scientific name: *Harungana madagascariensis*). However, with advancements in modern technology, this process can now be efficiently carried out using an electric saw, offering greater precision and ease of use.

The *palo*, a small adze, has been historically employed for the meticulous task of tuning the silimba keys to achieve the desired pitch. In contemporary practices, the carpenter's plane has become a valuable alternative, often used in combination with a small saw to refine the tuning process further.

The *muwayo* is a spear-like metal tool that is traditionally used for drilling holes through the wooden framework that supports the tuned keys of the silimba. With the advent of modern tools, this labour-intensive task has been streamlined by the use of a hand brace or an electric drill, which ensures greater accuracy and significantly reduces the time required for construction.

The *miuku*, or gourds (calabashes), used as resonators are prepared while still green but fully mature. The narrow end of the gourd is sliced off and the *miuku* are soaked in water to allow percolation inside. This process causes the seeds and other contents to rot and loosen. Once this is done, the gourds are removed from the water and the inside contents are scraped out. The empty shells are then dried in the sun and are ready for tuning.

Mulombe or mukwa trees are hardwood species prized for their suitability in crafting high-quality silimba keys. These trees are distinctive for their red sap, which exudes when the bark is removed. To optimize wood quality, mulombe trees are naturally aged or sun-dried until fully seasoned. Once sufficiently dry, the trees are harvested and the inner trunk wood is utilised to produce the sonorous *mabala* (keys) components. This wood is notably resistant to insect infestation, such as worm damage.

The *muambeso*, a wooden framework shaped like an isosceles trapezoid, is used to support the keys. Each of its four sides is crafted from the branches of the same type of hardwood. Mashandi are cords made from mutaya wood. These cords are used to fasten old blankets or rags to the wooden frame, creating a cushion that prevents the keys from directly impacting the wood. This cushioning allows the keys to produce a resonant, pure and mellow sound.

4.2.2 The making and tuning of the silimba keys

Silimba makers in Zambia started to make the low pitches and move up to higher pitches, by chipping off pieces of wood from the ends of the bars, on the inside to raise the pitch. Silimba

keys (singular: libala or simgula; plural: mabala) are carved from the inner part of the mulombe or mukwa tree. This inner part, known as pilu ya mulombe, is the ideal material for crafting these delicate instruments. The capu tool is used to roughly shape the keys, while the palo tool is employed to refine them to a uniform length before the final tuning process. A silimba maker begins by digging a trench, roughly the length of the intended instrument. This trench is sloped, elevated at one end and descending towards the key end. The key section is carefully carved or scooped to produce the desired pitch, as determined by a tuner. Each key is numbered, starting from 1. To raise a key's pitch, the maker slices off its top. To lower it, they scoop material from the underside. The two sides of the trapezoid trench are lined with *mwange*, that is, the grass which acts as cushion for the keys.

Social silimbis (recreational silimbis) come in different sizes, with the largest extending up to 19 keys, with the largest key approximately 70cm. It is tuned by carving or scooping the middle of the underside until it reaches the desired pitch. This key is designated as number 1. To raise a key's pitch, the tuner slices off its length. To lower it, they scoop out material from the underside. After tuning key number 1 to the desired pitch, the remaining keys of the silimba keyboard are tuned relative to it as follows:

- Key No. 1 is matched with key No. 6, at an octave.
- Key No. 2 is matched with key No. 8, at an octave.
- Key No. 3 is matched with key No. 10, at an octave.

Thereafter:

- Key No. 4 is matched with key No. 11, at an octave.
- Key No. 5 is matched with key No. 12, at an octave.
- Key No. 6 is matched with key No. 13, at an octave.
- Key No. 7 is matched with key No. 14, at an octave.
- Key No. 8 is matched with key No. 15, at an octave.
- Key No. 9 is matched with key No. 16, at an octave.
- Key No. 10 is matched with key No. 17, at an octave.
- Key No. 11 is matched with key No. 18, at an octave.

The first three keys (1, 2 and 3) form a major triad, commonly referred to as Do-Mi-Soh, Fa-la-Do, or So-Ti-Re, depending on the specific tuning system used.

In the Lozi tuning system, when the triad is assigned the tonic function (Do-Mi-Sol), key number 9 typically gravitates towards *fe*, which is the raised 4th degree of the diatonic scale. In contrast, the Nkoya silimba tuning system entirely omits key number 9. To make these comparisons more accessible to a large portion of the global population, including many Zambians, who are familiar with the Western major scale, I use tonic solfège to illustrate the tuning. My Eurocentric ear tends to align the perceived pitch heights of Nkoya tunings with the familiar structures of Western music, even though the intervallic relationships within these tunings may not perfectly align with Western major and minor scales. By rearranging the information, I hoped to provide a more accessible framework for understanding these tunings for a wider audience.



Figure 2: An illustration of the key layout and tuning (image credit: author).

Upon completion of the tuning process, the silimba maker drills two perforations at either end of each key. Cords are then threaded through these perforations and secured to the wooden frame, thereby stabilizing the keys and preventing their displacement during performance. Rather than assigning fixed pitch names, I chose to employ sol-fa syllables, as Mensah (1970) notes the intentional variability in Lozi xylophone tunings, rather than strict adherence to standardised pitch. Brown (1984:362) further elucidates this point, stating that “[i]n Zambia, I have found that not only are xylophones...not tuned to an absolute pitch, but also that the intervallic structure of instruments recognised as being capable of playing the same songs varies considerably”.

However, the representation above reflects only one of two common tuning systems. According to Mensah, Nkoya and Lozi instruments often incorporate major or minor triads in their lower three notes. During my ethnographic visit to Zambia’s National Arts Council performing arts festival, I met a participant who possessed a Lozi silimba tuned with a minor triad in the opening bass notes. This distinctive tuning allowed for the following analysis. This was a 15-key silimba suited for one player.

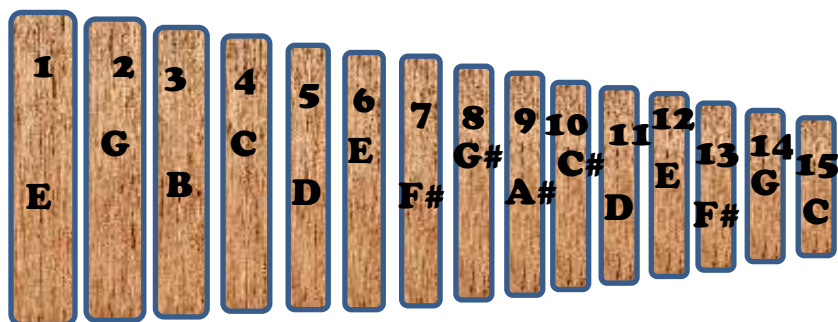


Figure 3: 15-key silimba key layout (Image credit: author).

There appears to be a whole-tone scale (heptatonic) spanning from the fourth key to the tenth key, followed by a distinct scale emerging in keys 11 through 14, characterised by the intervallic pattern T-T-semitone-perfect fourth. Given that the tuning is performed by ear, it is challenging to ascertain the exact intentions of the craftsman, as there may be a margin of error affecting the tuner's intended outcome.

4.2.3 Making the frame

The keys are mounted on a framework constructed from newly harvested mulombe or mukwa wood. Both the frame and keys are precisely drilled with an identical cumber of holes.

Muembeso frame:



Figure 4: Silimba frame illustration 1 (Image credit: author).



Figure 5: Silimba frame illustration 2: Mabutu (stands) (Image credit: author).



Figure 6: Silimba frame illustration 3: Pakiso (Image credit: author).

4.3.4 Division of silimba into two tonal zones

When the silimba is completed, its keys are divided into two zones: the lower zone, consisting of the first six keys, is referred to as *mwambumwaeti*, often described by silimba makers as the bass keys. The remaining upper keys are known as *mindende*.

4.3.5 Preparation of gourd resonators

Dry, empty gourds are selected based on size, arranged from smallest to largest, to optimize resonance. On larger silimba instruments, double rows of gourd resonators are sometimes fitted beneath the keys to enhance acoustic depth, typically applied only to the deep tonic triad keys. Each gourd is carefully tuned by positioning it beneath its corresponding key and striking the key with a rubber mallet to ensure the gourd resonates at the same pitch. Fine-tuning is achieved by trimming small sections from the open edges of the gourds. During a demonstration by a traditional expert, the researcher observed that properly tuned gourds should replicate the scale of the keys to which they are matched. For bass keys, two gourds may sometimes be joined to achieve the desired resonance. Striking a silimba key activates sympathetic vibrations in the gourd tuned to that pitch, which selectively resonates, enhancing acoustic clarity by isolating each key's tone. This approach produces a superior tonal quality compared to trough-resonated xylophones. The beaters used are sticks with rubber heads crafted from recycled tyre material.

4.4 The sound and structure of the silimba

Listening to unfamiliar musical traditions poses significant challenges in accurately describing and comprehending their sonic qualities. According to Miller and Shahriari (2017:17) one has to first become familiar with its medium, particularly its characteristic timbre or tone colour, to familiarise oneself to an indigenous music tradition. The resulting sonority (or acoustic quality) of a musical instrument is determined by various physical and acoustic properties that influence sound production, amplification and perception, including the method of sound generation. These

elements work together to define the instrument's tonal characteristics and the overall auditory experience it provides.

The silimba, a gourd-resonated xylophone of the Nkoya, Lozi and related peoples of western Zambia, is classified as a *struck idiophone* within the Sachs-Hornbostel system. This instrument comprises wooden bars (keys) arranged over a wooden frame, which is cushioned with a cloth blanket to absorb the impact of the mallets, dampen vibrations and enhance tonal clarity. Given the diverse range of musical styles associated with the social silimba, this analysis focused on the royal silimba. While the royal silimba exhibits stylistic variations across its repertoire, it maintains a more consistent playing style, thus easier to document for a limited research such as this one.

Similar to the Ugandan akadinda, the silimba features a distinctive curved dip in the centre of its bars. However, in contrast to the akadinda, this dip occurs on the underside of the bar. This unique tuning technique, where the craftsman scoops material from the bottom surface to lower the pitch, not only adjusts the pitch but also subtly influences the tonal quality, contributing to the silimba's characteristic gentle and resonant sound.

To generate sound, the silimba's wooden bars fitted with a rubber head, often made from tire rubber, strike the keys. Beneath each key, gourd resonators amplify and enrich the sound, resulting in a resonant, warm and percussive tonal quality. This contrasts with the akadinda, which is struck using bare wooden sticks, producing a stronger, more pronounced woody impact. Similarly, the silimba's sound differs from that of the marimba, whose absorbers are rubber strips rather than the softer blankets used in the silimba. The Zimbabwean marimba produces a louder sound with a rattling timbre, due to vibrations from its metal frame. In contrast, the silimba's wooden frame reduces external vibrations, resulting in a cleaner and more refined sound profile.



Figure 7: A typical Zimbabwe soprano marimba with a metal frame

4.4.1 Rhythmic structures

The musical analysis focuses on two specific performances: one by a Lozi royal ensemble and the other by the Nkoya. Based on a review of other music performed in similar ceremonial contexts, it was observed that these performances consistently adhered to the same form and structure. Because of this uniformity, analysing a large number of songs was deemed unnecessary. The generalised analysis derived from the two performances can be applied to all songs typically played within the chief's enclosure and during the chief's processions, as they share the same foundational patterns and characteristics.

Ibekwe (2017:71) observes that "[i]n Africa, royal music is characterised by its slow, less complex rhythms, reflecting its noble and dignified nature". The tempo of both the Lozi and Nkoya royal music is deliberate, typically ranging from slow to moderate. This measured pacing aligns with the ceremonial and symbolic functions where the slower tempo aligns closely to dignity, reverence, appropriate for the authority of the royal court. Such rhythmic intentionality reflects broader African ethno-musical aesthetics, where tempo and rhythmic simplicity often signify status and reverence in performance.

In the performance practice of the Nkoya royal ensemble, the music begins with the first player introducing a melodic idea, followed by the second player, who enters with a drum rhythm interwoven with the first player's beat. This dynamic interplay is exemplified in the performance of the song *Shangwa*. The piece starts with a rhythmic framework resembling 4/4 time, a characteristic that may seem atypical within the broader context of Black African instrumental traditions, which often favour asymmetrical and polymetric structures.

While this apparent conformity to common time might suggest a departure from the rhythmic complexity typically associated with African music, closer analysis reveals otherwise. The rhythm of the silimba incorporates syncopation, as demonstrated by the use of dotted quavers, which adds subtlety and nuance. This rhythmic interplay, as depicted in the transcription, balances structural clarity with intricate syncopation. Despite its structured meter, the composition remains firmly rooted in African musical traditions.

4.4.2 Tonal organisation

The tonality of the Nkoya royal silimba, characterised by its pentatonic scale, is influenced by a combination of cultural, structural and symbolic factors which shape the musical aesthetics and also embed the instrument within the broader cultural identity of the Nkoya people.

The pentatonic tuning of the Nkoya royal silimba inherently limits the harmonic possibilities because of its restricted tonal palette. With only five notes available, the creation of complex harmonic progressions or intricate chord structures becomes impractical. As a result, harmonic content often relies on the use of harmonic octaves, where notes are doubled at higher or lower octaves to create a fuller sound. This approach emphasises resonance and reinforces the melodic lines. The cyclic and ostinato patterns that characterised the music of the are a direct response to this tuning limitation. These repetitive structures served as a foundation for the silimba's performance, providing a consistent rhythmic and melodic framework. The cyclic nature of the patterns ensured continuity.

Within the ensemble, only one silimba player is present, accompanied by two drummers. This configuration highlights the interplay between the melodic and percussive elements. The drums contribute significantly to the overall musical texture by introducing rhythmic complexity and dynamic variation. One drum typically maintains a steady syncopated pattern, reinforcing the cyclic nature of the silimba's and grounding the ensemble's rhythm. The other drum, characterised by its improvisatory role, adds spontaneity and variation, creating moments of contrast and heightening the music's expressiveness. Together, the silimba and drums weave a cohesive texture where the melodic cycles and rhythmic layers interact dynamically. The interplay between the steady pattern of the first drum and the improvisations of the second drum enhances the music's vitality, ensuring that the ensemble's performance remains engaging and vibrant despite the pentatonic tuning's harmonic constraints. This balance between repetition and variation is central to the Nkoya royal ensemble's musical identity.

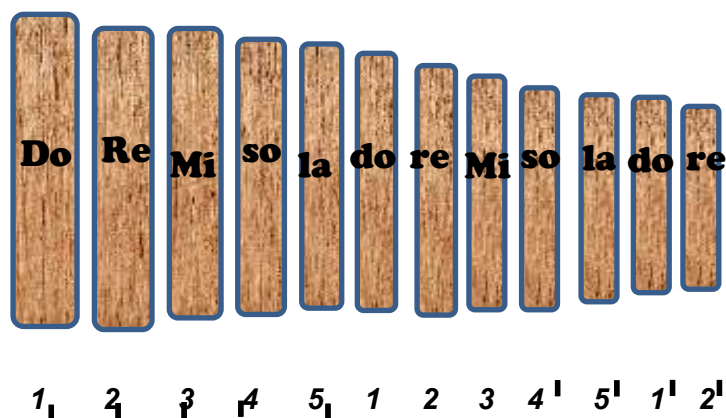


Figure 8: Tuning of the royal silimba (Image credit: author)

The performance of the second song by the Lozi royal ensemble, while maintaining a similar structural and formal framework to its Nkoya counterpart, introduces notable differences because of its distinct tuning and stylistic nuances. Like the Nkoya ensemble, the Lozi performance

employs two-bar cyclic melodic and rhythmic patterns, creating a repetitive framework that is characteristic of traditional royal music. However, the Lozi silimba's diatonic tuning, with its seven pitches, allows for an expanded range of harmonic and melodic possibilities compared to the pentatonic tuning of the Nkoya silimba. This tuning enables the integration of perfect fifths and thirds, which featured prominently in the harmonic structure of the performance.

The two-bar cycle in 6/8 time of the Lozi silimba distinguished itself through the use of increased syncopation and a more pronounced alternation of hands during performance. This heightened rhythmic complexity adds a vibrant energy to the music and reflects a nuanced approach to the cyclic patterns. The greater syncopation and hand alternation are likely influenced by the specific choice of song and is not unique to the Lozi only. Depending on song choice this is also applicable to Nkoya performance.

The interplay with the drums further enriches the musical texture of the Lozi ensemble. As with the Nkoya performance, the drum ensemble typically consists of two drums with distinct roles: one providing a steady rhythmic foundation and the other adding improvisatory embellishments. In the Lozi context, the drums actively complement the extended harmonic possibilities of the silimba, often mirroring or responding to its rhythmic patterns and syncopations. The improvisatory drum adds an element of unpredictability and contrast, weaving between the silimba's melodic cycles to create a dynamic and evolving interaction.

Interestingly, the extended tonality of the Lozi silimba occasionally causes it to take on a leading role in supporting or even overshadowing the singing. Its broader pitch range allows it to articulate melodic and harmonic ideas that enhance the vocal lines. This interplay demonstrates the fluid hierarchy within the ensemble, where the silimba and the vocals alternate in prominence, guided by the demands of the performance and the expressive goals of the song.

Both ensembles emphasise cyclical structures and a close integration of melodic and rhythmic elements, showcasing cultural interconnectedness while celebrating their unique musical identities.

4.5 Transcription

Similar to the Western music system, which limits its tone names to seven letters (A to G) that repeat across octaves, I found it necessary to simplify the transcription of the royal silimba by using only the numbers 1 to 5. This approach mirrors the pentatonic structure of the silimba and allows for a clearer representation of octave relationships. Assigning numbers 1 to 5 to the pitches

avoids overcrowding the transcription with continuous numeric sequences, which could become unwieldy and harder to interpret. The transcription remains concise and accessible by restricting the notation to a smaller range of numbers, making it easier to read and understand without requiring familiarity with a broader or more complex numbering system, facilitating a more intuitive understanding of the melodic and harmonic relationships inherent in the music.

Additionally, each number represents a specific note in the scale. For example, the number 5 corresponds to the fifth note from the fundamental. To indicate whether a note is an octave higher or lower, an underline is used. A number without an underline (eg, 5) refers to the note in its original octave, while a number with an underline (eg, 5) signifies the same note an octave below. This system ensures clarity in identifying both pitch and octave relationships within the scale. Although I have transcribed the key signature as D major, I discovered that the fundamental note of some royal silimbas is C below middle C. This tuning gives the royal silimba a distinctive lower range, coupled with a limited compass. As a result, its musical compositions are confined to the medium and slightly lower registers. This characteristic tuning may be a deliberate design choice, intended to maintain the sombre and dignified nature of the music, aligning with its ceremonial role and royal context.

The tuning system of the silimba, based on a pentatonic scale, equally contributes significantly to its unique tonal flavour and cultural specificity. While scientific measurements may reveal intervallic values between adjacent notes that differ from the diatonic scale, the aural perception of the silimba's tuning aligns more with the diatonic scale. To align with this perception, I chose to describe the silimba scale using solfège, as the accompanying singing often follow a diatonic framework. The silimbas tonal system creates a distinct melodic and harmonic framework that contributes to the music's identity.

$\text{♩} = 135$

4 3 4 4 3 4 3 3 4 1

R L

1st drum (bass drum)

Figure 9: Silimba transcription: Upward stems indicate right-hand parts, while downward stems indicate left-hand parts.

The interaction between the silimba, vocals and percussion further enrich the music, creating a dynamic and textured performance. The vocals, in particular, bring a fluid and expressive quality to the music. The singing weaves in and out of the silimba's cyclical patterns with freedom and variety, adding emotional depth and spontaneity. The structure follows a typical call-and-response pattern combined with a homophonic texture, often contrasting the melody with intervals of a perfect fourth below and octaves. These elements work together to enrich the musical texture. The silimba also maintains a structured, cyclical rhythm and melodic pattern that provides stability, serving as an anchor for the overall composition. The second drummer adds a layer of rhythmic complexity through improvisation, particularly during breaks in the singing. This improvisation contrasts with the structured silimba cycles.

As the music progresses, a noticeable shift occurs with the entry of the vocals. The rhythm transitions into a triplet feel, smoothing all the into even beats. This rhythmic shift becomes particularly clear when the recording is played at a faster tempo, resulting in increased stability and coherence of compound triple time. At the ending, the performers collectively slow their pace, achieving synchronized rhythmic unity on emphasised beats (1, 2, 3, 4 | 1, 2, 3 -). This deliberate synchronization reinforces the perception of a 4/4-time framework.

4.6 Performance practice

Within Lozi and Nkoya cultures, royal musical instruments are imbued with sacred significance, often seen as the very embodiment of life. This deeply rooted belief system shapes the performance practices associated with these instruments.

There are several types of composition in the performance tradition of Nkoya royal music at the chief's enclosure. The silimba player, seated while performing, begins the piece by presenting a melodic motif that establishes the foundation for the entire ensemble is commonly employed in the accompanied of drums. This is followed by the entry of the second drummer, who complements the silimba's rhythm and then the third drummer, who adds an improvisatory layer, enriching the overall texture. The silimba player resorts to double stroke technique to articulate the melodic and harmonic lines. Harmonic lines are primarily in octaves, with occasional syncopated hand alternations introduced at specific points in the musical pattern that break the monotony of the silimba. While these syncopations add rhythmic variation, the player

occasionally, though minimally, mirrors the melody of the singing, creating subtle melodic interplay. The piece reflects the Ibibio xylophone musical culture in terms of combination of instruments,

Because of the sombre and ceremonial nature of royal music, this performance does not align with the typical definition of interlocking as seen in more socially oriented silimba traditions. In the royal context, the silimba performance is inherently self-sufficient, capable of existing as a complete and cohesive musical entity without requiring other parts to fill in rhythmic or melodic gaps. For instance, when the improvising drum momentarily ceases playing, the music continues seamlessly, maintaining its structure and completeness.

This independence contrasts sharply with the interdependent texture of social silimba performances, where multiple parts interlock to create a unified whole. In those settings, the absence of any component often disrupts the balance and coherence of the music. In royal silimba music, however, the focus is on the integrity and continuity of the silimba's cyclical patterns, emphasizing its role as the central and self-contained element of the ensemble. This autonomy reflects the formal character aligning with its ceremonial purpose rather than the communal and participatory nature of social performances.

The Lozi silimba on the other hand, performed before the king, similarly employs a slower tempo, emphasizing its ceremonial and dignified nature. This performance incorporates three drums, complementing the silimba's melodic foundation. Likewise, the silimba player performs while seated. However, the playing technique shows greater alternation between the hands, particularly creating a fuller and more syncopated rhythm.

A UNESCO report on intangible cultural heritage in southern Africa, Chiweshe, M. K., & Mutop, P. (2019:11) notes that while women are involved in music, particularly singing and dance activities, the handling and playing of musical instrument largely remains a male domain. In Nkoya culture, Kaushika (2024, August 31) stated, royal musical instruments are predominantly associated with male performers. For instance, the shilimba (xylophone) and mukupele (hourglass drum) are central to Nkoya musical life and are typically played by men [Interview]. The singing, performed by male voices, closely follows the melody of the silimba, maintaining a strong connection between the instrumental and vocal layers. The music revolves around a cyclic silimba theme, with minimal variation in its melodic content, reinforcing its meditative and structured character. Similarly, the lead drum shows limited activity, focusing instead on maintaining rhythmic consistency that supports the overall ensemble.

Despite the subdued nature of the lead drum, the drumming exhibits more syncopation, adding subtle rhythmic complexity to the otherwise steady and repetitive silimba cycles. This interplay of syncopation, melodic stability and vocal alignment creates a rich, layered texture that highlights the ceremonial purpose of the Lozi silimba performance.

In both Lozi and Nkoya traditions, the chief in procession, the silimba accompanies the chief, positioned behind him. In this case, the royal silimba is secured by a rope around the neck of player and attached to both ends of the instruments. This floating position makes it possible to play the instrument while walking.

4.7 Transmission practice

The silimba has been performed, composed and handed down through generations by the forefathers of the Lozi and Nkoya peoples of Zambia. Central to their musical and cultural heritage, the silimba has been preserved and transmitted through various traditional teaching methods, including oral transmission, apprenticeship, intergenerational learning and family traditions. According to Trelyon (2022:09), "it is a combination of these processes...that enables the continuation of traditions, [...] all of which impact the diverse ways in which music knowledge is passed along". African indigenous musical heritage can be broadly categorised into two distinct areas: traditional cultural dances and music specialising in indigenous instruments.

The Maoma Cultural Group offers an apprenticeship programme designed to teach the silimba. Its membership included boys and girls as young as twelve years old, learning under the guidance of its leader, identified as participant ID number 2. The structured learning experience provided by the group's dance troupe in Lusaka introduces apprentices to the social silimba through traditional methods of oral instruction and demonstration.

The teaching process began with an emphasis on correct posture and hand positions, critical for developing efficient playing techniques and producing clear, resonant tones. The instructor skilfully demonstrated rhythmic and melodic patterns, encouraging students to imitate and internalize the cyclical sequences characteristic of silimba music. Rhythmic nuances were also vocally emphasised during instruction. However, since this observation was based on a single session, it lacked a clear connection to the broader cultural context. Furthermore, the social silimba is inherently more flexible and adaptable, which allows for its application in a variety of informal settings. As a consequence, the urban setting of this learning experience shaped the approach by prioritizing technical mastery over an in-depth exploration of cultural context. Oral transmission, as highlighted by Brown (1984:143), is a cornerstone of silimba education. It relies

on listening, observation and imitation to pass down musical knowledge. This method prioritises aural memory over written notation. The communal aspect of oral transmission fosters an engaging and participatory learning environment.

Apprenticeship is a structured form of mentorship wherein learners acquire skills by observing and assisting master silimba players, including in royal or community settings. This immersive process facilitates the gradual internalisation of complex rhythms and playing techniques. Kubik (1962:9) notes similarly among the Kiganda xylophones of Uganda often involves years of dedication, with students mastering foundational rhythms before progressing to advanced ceremonial pieces. Apprenticeship is particularly prevalent among the royal families, with this tradition enduring for centuries at the Shikombwe Palace of the Nkoya.

Intergenerational knowledge plays a crucial role not only in the practice of music-making but also in research methodologies, as highlighted by Sally Treloyn (2022). It is defined as “purposeful and ongoing exchange of resources and learning among older and younger generations” (Cornacchia and Jaikumar). In the context of silimba traditions, elders are central figures, acting as primary transmitters of both musical and cultural heritage. This process extends beyond technical instruction to include storytelling, historical narratives and the conveyance of societal values, thereby embedding the music within its cultural framework. Among the Nkoya and Lozi peoples, the transmission of knowledge often occurs through parent-to-child or grandparent-to-child teaching, reinforcing communal bonds and hierarchical structures, positioning elders as custodians of cultural authenticity.

The cultivation of folk tradition begins in the family. Family traditions often provide the initial exposure to silimba music, making the family unit a critical site for its transmission. The first musical experiences a child acquires and develops within the family contribute to the development of a generally positive attitude toward music and playing instruments, which greatly and directly impacts “the formation of one’s musical taste and preferences. In many cases, silimba playing is a hereditary skill, with knowledge passed down informally within families. Children are introduced to the instrument through observation and imitation, learning its basic rhythms and melodies in their early years (Ćalić & Durdanović, 2020:104). This practice is particularly prevalent within Nkoya and Lozi royal families, where certain members are skilled silimba players who actively preserve and pass down these traditions within their lineage.

4.8 Contemporary contexts

Urban areas are witnessing a growing emergence of traditional performing arts groups, often driven by economic opportunities. Two notable groups I encountered in Lusaka are the Nkoya cultural performing dance troupe and the Mowano cultural group, which primarily represented the Lozi tradition. These groups actively preserve and showcase their cultural heritage through performances, capitalizing on the demand for traditional art forms in urban settings. Their activities also serve as a means of income generation, ensuring cultural sustainability. Both groups utilised the silimba in its traditional form, adhering to its indigenous tuning and preserving its authentic sound.

Another category of musicians has adapted the silimba for use with electric bands, integrating the traditional instrument into contemporary music settings. This innovation involves blending the silimba's distinct timbre with modern instruments such as electric guitars, keyboards and drum kits, creating a fusion of traditional and contemporary sounds. Amongst this list are the following:

Brian Shakarongo is a prominent Zambian musician known for his innovative use of the silimba in contemporary music settings. He has played a significant role in elevating the instrument from its traditional context to a modern platform, blending its distinct tonal qualities with various genres, including jazz, afrobeat and fusion. However, Brian's tuning is tailored to the western diatonic scale, having been playing for nearly 30 years.

The Luena Buffaloes Band, an army-sponsored ensemble based in Kaoma, Western Zambia, is renowned for its dynamic performances that blend traditional and contemporary musical styles. A distinctive feature of their music is the incorporation of the silimba, which adds a unique tonal quality to their sound which introduces traditional instruments to broader audiences.

There remains a limited number of silimba practitioners within Zambia's contemporary music scene. This limited engagement highlights the need for greater efforts to integrate silimba and related instruments, into contemporary Zambian music.

4.9 Conclusion

Chapter Four reveals distinct playing techniques on the silimba between the Lozi and Nkoya traditions, highlighting variations in rhythmic structure, hand alternation, and harmonic organization. Lozi musicians employ greater syncopation and hand alternation, producing a fluid and dynamic performance, whereas Nkoya players emphasize cyclical harmonic lines in octaves, creating a more stable, repetitive sound. These stylistic differences reflect broader cultural and

musical influences, demonstrating the silimba's versatility across cultures. Understanding these variations not only enhances scholarly appreciation but also supports efforts to preserve and integrate the silimba into contemporary music education and performance settings.

CHAPTER 5 FINDINGS

5.1 Introduction

The findings of this study highlight the cultural, educational, and musical significance of the Nkoya and Lozi silimba traditions of Western Zambia. Royal music among the Nkoya and Lozi peoples serves as a vital social product, designed to convey significant societal concepts (Brown, 1984: 76). Similarly, the silimba holds profound cultural symbolism, functioning as a marker of political authority and societal unity, particularly in royal contexts. As Brown (1984: 62) asserts, "the royal ensembles [of which the silimba is a member] are primarily symbols of power of the Lozi and Nkoya." Furthermore, its role as a medium for storytelling and cultural preservation affirms its deep-rooted importance within these communities. The distinct performance styles of the Lozi and Nkoya peoples also highlight the diversity within Zambia's musical practices, with the Lozi tradition emphasizing melodic structures and the Nkoya tradition favouring syncopated rhythms. Despite its rich heritage, the silimba remains relatively under-documented when compared to other well-known African xylophones, such as the Zimbabwean marimba and the West African balafon.

The silimba faces significant challenges in preservation and prominence. Reliance on oral transmission has led to limited documentation, while its association with cultural tourism and ceremonial functions restricts its potential as a versatile musical instrument. Unlike its counterparts, the silimba has struggled to transition into global and contemporary musical frameworks, highlighting an urgent need for revitalization efforts.

The study also examines the silimba's potential as a culturally responsive educational resource, identifying its underutilisation within Zambia's formal music curriculum despite its inclusion in educational reforms. The development of innovative pedagogical frameworks that integrate indigenous instruments like the silimba could foster cultural awareness and practical musical skills among students.

To address these challenges, the study proposes an adapted silimba design that is tailored for modern use. Features such as a foldable, sturdy frame and diatonic tuning enhance portability and usability, bridging the gap between traditional heritage and contemporary performance contexts. These innovations aim to make the silimba more accessible and relevant in modern musical landscapes.

The research further highlights the silimba's potential for commercial and global engagement. Unlike the Zimbabwean marimba, which has gained international acclaim, the silimba has not yet achieved similar recognition as a result of the limited promotion and the dominance of other instruments in regional markets. Community-driven initiatives and private-sector partnerships are recommended to enhance the silimba's visibility and economic potential.

Ethnographic methodologies employed in this study revealed the silimba's adaptability and evolving significance. Fieldwork provided insight into the diverse roles and meanings attributed to the instrument by different communities, enriching the academic understanding of its cultural and musical dimensions. Additionally, the historical connections between the silimba and other African xylophones, such as its influence on the Zimbabwean marimba, underscore its importance within a larger framework of cultural exchange and innovation.

This study recognizes globalization as a critical factor in the marginalization of the silimba. As Klinger notes in Nota (2017: 35), "given the fact that the world has 'dwindled' to a mere global village due to scientific technological travel and the availability of a range of modern communication devices," younger generations are increasingly drawn to global cultural norms, which has contributed to the diminishing relevance of the instrument in contemporary society. This observation is further reinforced by Nota (2017: 35), who asserts, "In general, most youths are no longer interested in ancient arts practices." The shift in cultural interests reveals the tension between local heritage and the influence of global cultural trends. To counter this trend, the study advocates for initiatives such as community festivals, school-based programmes and collaborations with the private sector to promote the silimba's cultural and musical value.

Finally, the establishment of a dedicated repository for the silimba is proposed as a crucial step in preserving its heritage. This repository would serve as a resource for scholars, educators and musicians, documenting the instrument's history, performance practices and cultural significance. This study asserts the importance of preserving and promoting the silimba, ensuring its legacy endures for future generations.

5.2 Addressing music education objectives through the silimba

There are compelling reasons for the inclusion of indigenous music in the [...] African curricula. First, music has an educative role in African culture. Second, music has been a medium through which African cultural values are transmitted, and it continues to play a central role as a carrier of heritage. Third, African music offers a fertile content source in the project to Africanise curricula [...]. (Carver 2020:1)

Africa's rich musical heritage often finds its music education systems prioritizing Western methodologies. To truly preserve and advance indigenous knowledge, Africa needs to cultivate its own music education landscape by integrating local musical traditions, oral traditions, and community-based learning. According to McConnachie (2016:15), "Music education during [colonial and apartheid] periods concentrated on promoting Western lifestyles, behaviour patterns, heritage, knowledge, and belief systems, to the detriment of many Indigenous cultural practices". Such a curriculum, cantered on African musical practices, will not only foster cultural identity and enhance creativity, but also ensure the sustainability of these indigenous music traditions for generations to come. This need for culturally relevant education finds strong support in the work of scholars like Gloria Ladson-Billings and Geneva Gay.

This call for culturally responsive education, formalized by Ladson-Billings and Gay in the 1990s, emphasizes the vital connection between students' cultural backgrounds and their educational experiences. In her influential 1995 article, "But That's Just Good Teaching! The Case for Culturally Relevant Pedagogy," Ladson-Billings underscored the importance of teaching practices that affirm cultural identities while simultaneously promoting academic success and critical consciousness (1995). Similarly, Bond (2017:153) acknowledges the challenges of teaching music to students from diverse backgrounds but emphasizes the need for teacher preparedness to effectively respond to students' backgrounds. Expanding on this foundation, Gay (2000) advocated for intentional pedagogical strategies that incorporate students' cultural backgrounds into curriculum design. This perspective resonates with Kodály's principle that children should first engage with music rooted in their own cultural traditions. As Agbenyo et al. (2022:14) point out, music education should introduce children to the beauty of their cultural musical traditions, an approach they subsequently identify as Kodály's.

Therefore, the integration of culturally responsive education naturally includes the adaptation of cultural material resources, such as the silimba, into music education. This aligns with Kanu's (2005: 5) assertion that students' approaches to acquiring knowledge are deeply rooted in their cultural contexts. Familiar to many Zambian learners, the silimba provides an accessible entry point for engaging with fundamental music theory elements, including rhythm, melody, and harmony. Its incorporation into the curriculum not only enhances students' theoretical understanding of music but also develops their practical skills, fostering a deeper connection to Zambia's rich musical heritage. This approach enriches both students' academic and instrumental learning.

Furthermore, in light of the growing recognition of *world music* in music education, the scales of the silimba provide valuable insights into how variations in musical flavours are created. For example, the pentatonic scale of the silimba mirrors the tonal structures found in various African and Asian musical systems, offering learners a comparative lens to explore other global music traditions. Additionally, the heptatonic scale, often used in social silimba compositions, showcases rich melodic possibilities distinct from Western diatonic frameworks. Through these scales, students can analyse the melodic and harmonic principles underlying traditional Lozi music and identify their parallels in world music.

The rhythmic complexity of traditional silimba music, with its intricate interlocking patterns and polyrhythms, provides a rich foundation for developing rhythmic literacy. For instance, learners can explore compound rhythms where one player emphasises a triple meter while another plays a duple meter, thereby creating cross-rhythms. Such exercises will help students grasp concepts of time signatures, such as 6/8 or 12/8 and identify syncopated beats within these structures. Transcribing these rhythms into Western notation will enhance student's understanding of rhythmic values and notation systems. Furthermore, performing polyrhythms on the silimba cultivates precision, coordination and an appreciation for rhythmic interplay that students can apply as they explore other musical traditions such as jazz.

This research underscores the silimba's versatility as a tool for creative expression. Traditionally, Zambian schools have relied heavily on vocal-based composition and performance exercises. The integration of the silimba offers an alternative medium for learners, especially those who may not excel in vocal performance. This inclusive approach provides an additional medium and choice, enabling students, regardless of their natural affinities or skillsets, increased opportunities to meaningfully engage with music education.

In addition, the silimba will enable learners to explore composition in innovative ways. Students can transcribe traditional silimba melodies into Western notation or create hybrid compositions that blend indigenous and contemporary styles. This dual approach will also cultivate the students' ability to explore alternative musical systems.

Resource scarcity has been a persistent barrier to effective music education in Zambia. According to Mumpuka (2009:56), who conducted a study on the lack of resources, teachers expressed concern that they felt was paramount to effective provision of quality music education. In contrast, Nzewi (2010:4) argues that "there are string instruments, wind instruments and reed instruments that are of African origin, which can be the focus of instrumental music education in Africa". The prevailing preference for imported Western instruments, which are often costly and challenging

to maintain, contrasts with the practicality of the silimba. Crafted locally from readily available materials such as indigenous wood and gourds, the silimba provides an affordable and accessible alternative, making it a sustainable solution for resource-constrained educational settings. This accessibility makes the silimba an affordable option for schools, particularly those in rural areas with limited resources.

Moreover, collaboration with local artisans to produce silimbas not only ensures a steady supply of instruments but also supports the preservation of traditional craftsmanship. This synergy between education and community resources creates a sustainable model for integrating indigenous instruments into the curriculum while simultaneously revitalizing traditional arts and crafts.

One of the most significant findings is the silimba's capacity to bridge the gap between traditional and formal music education. Incorporating the silimba into the curriculum validates indigenous musical traditions within an academic framework, ensuring that learners view their cultural heritage as a legitimate and valuable component of their education. This integration challenges the dominance of Western-centric music paradigms and promotes a balanced approach to musical knowledge.

By engaging with the silimba, learners gain a dual understanding of music that is rooted in both local traditions and global perspectives. This approach equips students with the skills and knowledge necessary to thrive in an increasingly interconnected world while maintaining a strong connection to their cultural roots. Furthermore, embedding traditional music practices in formal education helps counter the decline of these practices, ensuring their transmission to future generations.

5.3 Contemporary context and revival efforts

Preserving cultural music traditions is essential for safeguarding the heritage, identity and collective memory of communities. Music serves as a repository of history, values and practices, often carrying stories that define a people's worldview. Cultural music traditions, such as Zambia's silimba performances or Europe's Baroque music, bridge past and present and fosters a sense of continuity and belonging. In Western music, the historically informed performance (HIP) movement exemplifies efforts to revive historical practices and instruments. HIP musicians, inspired by primary sources, aim to recreate performances as they would have been heard in their time, by using period instruments like the harpsichord and natural trumpet. Similarly, preserving traditions like the Nkoya and Lozi silimba ensures that indigenous techniques,

instruments and narratives remain alive. Both examples underscore the value of cultural revival, offering modern audiences an authentic experience while deepening their understanding of diverse musical legacies. Preservation also serves as a vital reference for modernisation efforts and provides a foundation upon which contemporary music practices can build. Instruments and repertoires, modern composers and performers can draw inspiration and be innovative while remaining connected to cultural roots.

While many xylophone traditions in Zambia have become less prominent, the silimba traditions of the Lozi and Nkoya people remain vibrant, albeit primarily within rural contexts. These traditions are actively preserved through community engagement and intergenerational transmission. However, their dominance is largely localised, with limited representation in urban or formal educational settings. This rural confinement poses challenges for broader recognition and integration into national cultural frameworks.

The Zambian government has demonstrated commitment to preserving cultural performing arts through the establishment of cultural centres, including the Kabwata Cultural Village in Lusaka and the Maramba Cultural Village in Livingstone. These initiatives, spearheaded by the Ministry of Tourism and Arts, aim to safeguard Zambia's diverse cultural heritage, promote traditional practices and support the livelihoods of artists through employment.

Located in Lusaka, Kabwata Cultural Village serves as a hub for the promotion of Zambian cultural arts and crafts. It was established to preserve traditional craftsmanship, performing arts and indigenous music while providing a platform for cultural exchange. At Kabwata, artists and performers have the opportunity to showcase traditional dances, music and theatre, offering both locals and international visitors a glimpse into Zambia's cultural richness. The venue also serves as an educational resource that allows younger generations to learn about and engage with their heritage in an interactive setting. Performances of traditional dances, such as the Makishi masquerades or Lozi silimba music, are among the key highlights that celebrate Zambia's diversity. During my ethnographic visit to this site, I observed active engagement in traditional performing musical arts, with children as young as 11 years participating in practice sessions. This involvement of younger generations highlighted the commitment to intergenerational transmission of cultural knowledge.

Maramba Cultural Village, situated in Livingstone, near the iconic Victoria Falls, was established to complement the region's thriving tourism industry. The cultural village integrates Zambia's cultural heritage into its tourism appeal and allows visitors to experience the nation's traditions alongside its natural wonders. This centre features performances of traditional music and dances,

as well as exhibitions of crafts and artifacts. It provides a platform for local artisans and musicians to sustain their practices while gaining economic benefits.

The Ministry of Tourism and Arts plays a pivotal role in managing and promoting these cultural centres. It has developed policies aimed at ensuring the sustainability of these initiatives by fostering partnerships with stakeholders, including local communities, private organisations and international cultural agencies for cultural exchange programmes, which has facilitated the participation of Zambian cultural troupes in international festivals.

The silimba has benefited from the Zambian Ministry of Tourism's efforts through its inclusion in cultural centres like Kabwata and Maramba Cultural Villages. These initiatives provide platforms for silimba performances. Furthermore, the ministry's backing of cultural festivals and educational initiatives has played a pivotal role in advancing the silimba, thereby fostering a continuous development of skilled practitioners while enhancing its visibility and passing it on to younger generations.

5.4 Community and private sector initiatives

As a dedicated advocate for the silimba and marimba, I was instrumental in conceptualizing and launching Zambia's first-ever Silimba Festival in Lusaka. This ground-breaking event organised under the auspices of Ifilimba Music Supplies (PTY) Ltd, a Lusaka-based music company in which I am a partner, marked a significant milestone in introducing silimba to the education sector. Hosted by Lusaka International Community School on November 2, 2024, the festival served as both a celebratory and educational platform. It featured a series of workshops and musical performances, of which 13 participating schools were lined up.

A key highlight was the involvement of Chalimba University that brought music students to the event. This participation was particularly significant, as it aligns with the festival's long-term goal of fostering the development of future music educators who will be equipped to implement silimba programmes in schools. The festival showcased the silimba's cultural and musical importance and laid the groundwork for its sustained integration into educational curricula. This initiative marks a crucial step toward preservation efforts ensuring the silimba's relevance in contemporary music and education.

5.5 Practical challenges and solutions

The availability of the silimba in Zambia is a significant challenge, as most skilled craftsmen are concentrated in the Western Province. This geographical constraint impacts efforts to integrate

the silimba into music education and contemporary performance settings across the country. Furthermore, the traditional design of the silimba, while culturally authentic, presents practical issues. The fragile construction, with soft gourd resonators that easily crack, makes the instrument difficult to transport without damage, reducing its viability for performances in diverse locations.

Another challenge is the silimba's traditional tuning, which does not align with the tempered tonal system commonly used in contemporary music. Although the instrument can be re-tuned to accommodate modern scales, this process requires specialised skills and may compromise its traditional sound. Additionally, the silimba's typical limitation to two or three players restricts its adaptability for larger ensemble settings. However, this limitation could be mitigated by manufacturing silimbas in different sizes to support a full ensemble concept, similar to marimba ensembles.

Initiatives such as establishing a silimba repository could play a crucial role in safeguarding traditional knowledge and performance practices, ensuring they are valued not just as cultural artefacts but as living expressions of Zambia's rich musical heritage. A repository would thus be instrumental in fostering future research, education and innovation, potentially inspiring similar initiatives for other Zambian musical traditions and their instruments.

5.5.1 Making an adapted silimba for education contexts

This study would not be incomplete without offering tangible solutions to the challenges highlighted in this dissertation, particularly the creation of an adapted silimba for contemporary use, based on my research. To address this, Chapter Five includes the design of this adapted silimba, serving as the solutions section of the study. A primary objective of this research is to address the challenges identified and provide practical recommendations to bridge the gap in the adoption and utilisation of the silimba in Zambia. This adapted design represents a significant step toward preserving the silimba's cultural significance while enhancing its relevance and functionality in modern contexts.

The proposed design presents several advantages over its indigenous counterpart, the silimba. One of its primary features is a robust and durable frame that ensures long-term usability. Additionally, the frame is both foldable (see Fig. 9) and dismantlable, significantly enhancing its portability and facilitating ease of transportation. Another key innovation is the diatonic tuning system, which broadens the instrument's applicability in contemporary musical contexts while performers may choose to retain the traditional tuning. This modernised design effectively

balances traditional craftsmanship with the demands of modern performance and education, ensuring its relevance and accessibility in diverse settings.



Figure 10: Foldable adapted frame. (Photo credit: author)

The construction of a silimba from its inception is a complex endeavour demanding meticulous planning. A significant challenge arises in acquiring precise dimensional data for the keys, specifically regarding the shape and length of their undercut arches. This difficulty is primarily attributed to the inherent variability of wood as a natural material, which hinders the establishment of a standardised approach. While the crafting of marimba keys is underpinned by scientific principles, it also necessitates a significant degree of artistic expression. Nonetheless, a foundational reference point is indispensable for such a project and the primary objective of this intractable is to provide this essential initial guidance.

This guide offers a practical approach to the construction and tuning of an African soprano marimba, utilising basic tools such as saws, drills and routers, complemented by a few specialised hand tools. To facilitate precise pitch calibration, the guide recommends the use of a mobile application or a piano for reference. It is essential to acknowledge that the nature of this project is inherently flexible and may not adhere strictly to the rigid format of traditional instructional manuals. Because of the potential for unforeseen challenges, exact replication of the process may prove difficult. Nevertheless, this guide provides a valuable foundational framework for those seeking to undertake this creative endeavour.

Step 1: What You Will Need

Keys

To construct the longest marimba key, it is necessary to source well-seasoned, resonant hardwood with dimensions of 5 cm in width, 2.5 cm in thickness and 40 cm in length. Subsequent keys should decrease in length by increments of 1 cm, with the shortest measuring 24 cm. A complete marimba set comprises 17 keys, requiring approximately 6 meters of hardwood in total. The wood should be quarter-sawn, ensuring that the grain aligns lengthwise along each key to optimize resonance and structural integrity.

Templates

Templates should be constructed from sturdy material, such as thick card or foam core. A total of seventeen templates will be required for the project. An A0 sheet of material should be sufficient for this purpose.

Frame, rails and legs

For the construction of the rails, two 200-centimeter lengths of 2.5 x 4-centimetre planed timber will be necessary. Additionally, two more 200-centimeter lengths of identical timber will be required to create a supporting frame for the rails and to attach the legs.

Additional accessories

- x 1m length of planed timber 3 x 1.5cm to make the legs.
- 40 vine screws (long eye screws).
- 6m of cotton sash cord (for sash windows), or its equivalent.
- x bolts to fix the legs in place

A variety of wood screws will be required to assemble the marimba. Additionally, offcuts of wood, derived from the primary materials, can be utilised to complete the project, minimizing material waste.

Resonator rack

To ensure optimal acoustic performance, the marimba frame will require four meters of planed timber, measuring 3 cm by 1 cm, to provide robust support for the resonators.

- A 3-meter length of 50-millimeter diameter plumbing pipe will be required.
- 56 by 4-millimeter diameter by 2-centimeter length nuts and bolts will be necessary to firmly secure the resonator tubes to the support rails.
- You will need plastic stoppers or wooden plugs made from plywood to seal the ends of the resonator tubes.

Marimba beaters

Marimba beaters will be required for both the tuning and performance stages of the instrument.

Step 2: Making a plan

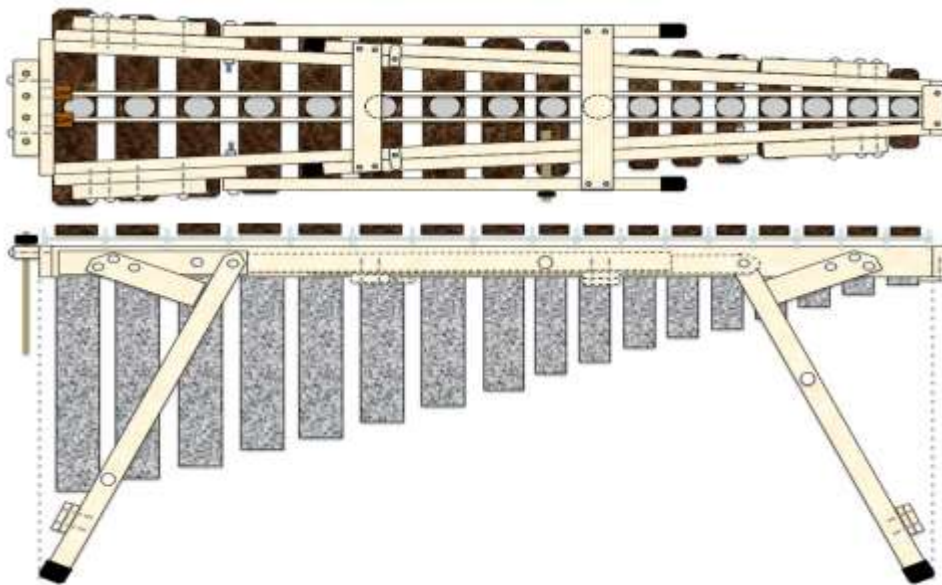


Figure 11: Structure of modified silimba frame (Image credit: author)

Develop a preliminary design or blueprint. Precise dimensions are not essential at this stage; however, a clear vision of the final product is necessary. This instructional guide outlines the construction of a rudimentary two-octave marimba capable of playing in the keys. While not fully chromatic, the instrument incorporates the note F# to expand its tonal possibilities to include the key of G major and its relative minor.

C4 D4 E4 F4 F#4 G4 A4 B4 C5 D5 E5 F5 F#5 G5 A5 B5 C6

The sketch allowed me to tinker virtually.

Step 3: Sourcing wood

Procure a resonant hardwood, ideally well-seasoned, for the construction of the keys. Traditionally, mukwa has been the favoured material, although sustainable alternatives such as rosewood are readily available. Softwoods, such as pine, are not suitable as they are prone to tuning fluctuations with age.

The ideal length of keys lacks a strict standard. Variations in wood density can result in differing pitches for keys of identical dimensions. Thus, the primary focus lies in ensuring harmonious relationships between all keys within a single instrument. Keys must possess sufficient thickness for durability, be arranged in sequential pitch order and maintain an aesthetically pleasing appearance. The vibrational frequency of a struck wooden key is influenced by its length, internal fibre structure and the degree of hollowing in the underside arch.

This guide provides instructions for creating proforma keys with a consistent diameter of 5cm, a thickness of 2.5cm and a length varying from 22cm to 40cm. These dimensions serve as a practical starting point for key-making. To ensure optimal performance and durability, it is recommended to utilise quarter-sawn wood with the grain orientation aligned with the key's length.

Step 4: Gathering your tools

A circular saw can significantly streamline the construction process, especially when precise, orthogonal cuts are required. However, a bench-mounted router is the indispensable power tool for the critical task of undercutting marimba key arches during the tuning process. Additionally, a drill and standard hand tools are essential for general assembly. An electric sander can further enhance the precision of key tuning through fine-grained surface refinement.

Rounded large router bits are best to make a nice edge to the arch.

Additional useful tools include:

- Course and fine sandpaper and a sanding block
- Drill bits for drilling holes in wood
- Tenon saw and mitre block (to cut legs at an angle, for example)
- Safety equipment (dust mask, goggles, ear defenders)
- Wood file to assist with tuning
- Wide chisel and hammer to make joints
- Clamps to hold limiting blocks in place while routing the keys

- Spanners to secure bolts
- Screwdrivers and a bradawl or gimlet to make starter holes to guide the insertion of a screw

Step 5: Producing card or foam core templates

Templates serve as essential organisational and efficiency tools for instrument makers, especially in demanding conditions. By pre-inscribing key details such as note frequency, name, support hole positions, a central axis and arch parameters, templates facilitate precise and rapid construction. This method is particularly advantageous when working on multiple instruments concurrently or when planning for future instruments that incorporate identical note configurations.

Utilise the sourced wood as a basis for your template creation. The template dimensions in the photograph correspond to the width of the procured wooden blocks (5 cm).

To achieve a visually pleasing progression, each subsequent template should be a consistent increment longer than the preceding one. Adhering strictly to these guidelines and maintaining identical dimensions, a template tuned to C4 (261.63 Hz) would measure 40 cm, while one tuned to C6 (1046.50 Hz) would be 24 cm.

Before proceeding to the next stage, it is crucial to delineate the central axis and nodal points on your templates. Conventionally, the nodal points of a marimba key are situated at approximately 22.5% of the bar's length from either extremity. While alternative methods exist for determining nodal positions, this approach offers a straightforward and effective solution.

Beginning with the longest template key (C6, 40 cm), calculate 22.5% of its length, yielding 9 cm. Inscribe lines across the template at a distance of 9 cm from both ends, labelling this as the node line. Apply this procedure to all other templates, as these lines will function as reference points for drilling pilot holes to secure the support cord on each key, a crucial step prior to the tuning process.

Step 6: Making rails, attaching vine screws and cutting keys

Acquire planed softwood timber suitable for constructing key support rails. Each timber piece should measure 2 meters in length, 4 cm in depth and 1.5 cm in width. These dimensions are sufficient to accommodate vine screws without causing the wood to split. While the rails depicted in the accompanying photograph are slightly more substantial, measuring 2 cm in width and 5 cm

in depth, the specified dimensions will suffice for this application. To ensure user safety, the edges of the timber can be rounded using a trim router. A cm should be marked along the top surface of each rail.

Arrange the template keys on a workbench, mimicking the layout of a marimba keyboard. Align the midpoints of each template key and ensure they are parallel to one another, maintaining a consistent 1-centimeter gap between them. Using card or foam core spacers can expedite and simplify this process'.

Once the template keys are positioned in their correct places, lay the rails onto the templates in such a way that the rails more or less cover up the node lines of each and every template. The rails should overhang the end of the templates at one end by about 10cm. There should be plenty of excess wood at the other ends which can then be cut off and used to make the end rails that will ultimately hold the rails apart, completing a trapezoid frame that has greater intrinsic strength.

Once the required rail lengths have been determined, fabrication of the cross rails can commence. Alternatively, to maintain accurate spacing during subsequent key cutting, temporary wooden battens can be secured to the rail ends.

Mark the desired location for each key on the rails, ensuring a one-centimetre gap between their centres. The centre of each gap should align with the centreline of the rail. Drill a two-millimetre pilot hole at the midpoint of each gap to accommodate the vine screw, which will subsequently secure the cord supporting the key

Secure the vine screws to the rails, ensuring that the eyelets protrude approximately two centimetres. Thread the sash cord through the eyelets and form a loose knot to create a temporary support for the cut keys.

Utilise a circular saw to trim the keys to the specified lengths as indicated by the templates. Smooth any irregularities on the key surfaces with sandpaper. Arrange the untuned keys on the cord in their designated positions. Employ a marimba mallet or a cloth-wrapped screwdriver handle to strike the untuned keys, thereby evaluating their resonant qualities.

When bars are cut to specific dimensions, they generally produce a rudimentary scale. However, unrefined wooden bars tend to produce higher-pitched sounds than intended and exhibit a brief sustain. Achieving accurate tuning would be highly improbable without further modification. To address these limitations, wood must be removed from the underside of the bar to increase its

flexibility and prolong the tone's duration. The tuning process not only determines the final pitch of the bar but also ensures its structural integrity to withstand repeated strikes.

Step 7: Make your first keys

Place your template on top of its corresponding key. Using the node lines on the template as a guide, mark a drill hole half way down the side of the key and, using an 8mm drill bit, drill a hole through from one side of the bar to the other, trying to keep the hole 'level' to follow the line of the node. Repeat at the other end too. These will be the holes through which a cord will run to suspend the keys over the marimba rails.

After drilling the holes, suspend the key by holding it between your thumb and finger at one of the pairs of entrance and exit holes. Using this suspension point, strike the key with a marimba mallet or a similarly wrapped tool, such as a screwdriver handle. This process will produce a reference pitch, indicating the bar's natural frequency before any tuning adjustments are made.

Next, use a pencil to mark lines on both sides of the key, positioned at 25% of the total length from each end. These lines indicate the boundaries of the arch of wood that will be removed during the tuning process. Additionally, draw a midline at 50% of the length as a central reference point to guide the shaping and ensure symmetry during tuning.

Using a rounded router bit, carefully remove up to 0.6 cm of wood from the underside of the key, focusing on the area between the 25% lines marked earlier. Ensure the cuts are gradual and symmetrical, avoiding any removal of wood beyond the 25% boundaries. Once the material has been removed, smooth the underside with sandpaper to eliminate rough edges and ensure a clean finish. Strike the key again with a mallet to assess the change in pitch, noting the impact of the adjustment on its tonal properties.

With a rounded router bit, methodically remove up to 0.6 cm of wood from the underside of the key, concentrating on the section between the 25% boundary lines. Maintain gradual, symmetrical cuts to preserve the balance and structural integrity of the key. Take care not to extend the cuts beyond the marked boundaries. After routing, use sandpaper to smooth the surface, eliminating any roughness or irregularities for a refined finish. Test the key by striking it with a mallet, noting the resulting pitch and evaluating the effect of the adjustment on its tonal quality. Repeat the process as necessary to achieve the desired pitch.

Keep sanding after each cut. ⁶As you approach the target frequency it is very easy to cut away too much wood and ruin the key. Change to using a belt sander (or sander bit on your drill), or a sanding block or else use a file to smooth out a very shallow channel from the centre of the bar. Keep checking the note produced by the bar against your reference until you are within about 20 or 30 Hertz sharp. Stop and allow the bar to cool before trying to get to the reference frequency by hand sanding.

Once you have made one key it does get easier and faster. Keep making more keys until you have made all 18.

Step 8: Making the resonator rack

The resonators in the picture above are for a tenor marimba but the principle of their production and suspension is the same. The file included here is the same one from a previous stage of this construction but this time we are looking at the resonator pipe lengths.

Each pipe must be a quarter of the wavelength of the note produced by the key sitting above it. The table shows the frequencies and wavelengths of the keys and the lengths the pipes need to be cut to. Resonator pipes should be closed with a stopper of some sort. Quarter wavelength closed pipe resonators will resonate with the key as it is struck and will increase the volume and sustain of the note produced.

Lay the support rails across the top of the marimba keys when they are mounted on the rails. Using the keys as your guide, mark on the resonator suspension rails positions for drill holes. Mark two holes on one rail and one on the other for each resonator tube. Three bolts prevent the pipes swinging and loosening the nuts over time. Drill through the rails first using the 4mm drill bit, then use these holes as guides to drill through the pipe walls after positioning each pipe level with the top of the rail. Add nuts and bolts as you go to keep everything firmly held together.

⁶ Tuning adjustments on the silimba require careful precision. If a key is tuned too sharp, a slight reduction in pitch can be achieved by sanding small amounts from the ends of the bar.

After attaching all the pipes, cut plugs or stoppers from some plywood to seal the ends of the pipes. Once the frame of the marimba is built you will be able to cut the rails of the resonator rack so that the rack drops into the frame but can be removed later for easier storage.

Step 9: Making the frame

This picture shows the basic design of a crocodile style marimba frame. The key rail is currently devoid of vine screws or keys and is attached to the outer frame at one end by a door hinge. The legs are also bolted to the outer frame.

Wooden blocks must be cut and attached to the out frame using screws. These act as chocks that prevent the legs from splaying out further than the desired angle, without restricting the legs from folding up against the frame.

Cross bars can be used to join and strengthen the integrity of the legs as they swing out. This is all basic carpentry that does not need much explanation. However, this frame is quite different to the frame in the original drawing from the first stage of this construction, so let me explain why.

In the original design, the legs were attached directly to the tapering rails. However, when making the marimba I found the legs too wobbly when attached this way. The problem was the small area of contact between the legs and the rails at the joint. Tighten the legs parallel to the rails gave more contact area between the top of the legs and the rails but prevented them from folding in and out because of the tapering angle of the rails. If I splayed them outward to allow folding there was very little contact area either side of the joint, making the joint too unstable ...and since the joint was held by metal bolts that would ultimately wear the wood away with continued use if there was any flexibility in the joint, I felt it needed a design change. I could have cut off a little from the inside of the top of the leg to make the contact area larger, but I preferred another approach. In the end I came up with what I've called a 'crocodile' design.

To the original design, I added an outer frame around the rails. I attached the legs to this frame in parallel, making the leg hinges tight and firm. I also attached the rails at one end using door hinges. This had the benefit of allowing me to open the 'mouth' of the crocodile and drop the resonator rack in from above. In my tenor marimba, which doesn't have this feature I still have to wrestle with a heavy resonator rack to insert it from underneath. When working on my own, it is generally easier to lay the instrument on its side to achieve this, but this is not the case in this soprano marimba. That said, the soprano is heavy as a result of the extra frame. Without the

resonator rack in place, the two instruments weigh about the same even though the tenor is longer, higher and uses longer keys.

I am sure the design could have been modified differently to solve the problem but, in the end, I am happy with the way it has turned out.

Step 10: Assembling the elements

After completing the frame and securing the rails, attach wooden shelves to the underside of the frame at both ends. Ensure the shelves extend approximately 1 cm beyond the frame's edges for added stability. Secure the shelves firmly using screws, as they will serve as the support for the resonator rack.

Next, cut the rails for the resonator rack to the appropriate length, ensuring that the rack can rest securely on the shelves. The resonator rack should align precisely, positioning the resonators directly beneath their corresponding keys. When the *crocodile jaw* rails holding the keys are lowered into position, the resonators should be correctly aligned to optimize sound production.

To craft beaters for the marimba, begin by preparing 30 cm sticks of 1 cm diameter dowelling. Attach 2 cm-long rounded wooden blocks (cut from a drawing pin or thick broom handle) to one end of each dowel. Drill holes into the wooden blocks, apply glue to the holes and slide them onto the dowels, ensuring that 1 cm of dowelling protrudes beyond each block.

Next, tie a ball of yarn to the dowelling just below the wooden block and begin wrapping the yarn over and under the block, rotating the dowel as you proceed. Continue wrapping the yarn around the wooden block for at least 250 rotations, ensuring that the block is fully covered and no wood is visible. Once complete, cut the yarn and use a darning needle to secure the loose end by threading it repeatedly through the wrapped yarn at the top and bottom of the block. This process will tightly bind the yarn, creating a cohesive and durable covering. Finally, tuck the loose end into the wrapped yarn mass and remove the needle. Repeat the process to create a pair of beaters.



Figure 12: Open-source silimba design courtesy of Pete Merrow Smith.

5.6 Addressing objectives and research questions

The findings of this study directly align with the primary objective of preserving and documenting the silimba tradition by providing an in-depth examination of its historical and cultural significance within Nkoya and Lozi communities. This research ensures a comprehensive understanding of the instrument's heritage. However, despite its rich cultural and musical legacy, the silimba remains underrepresented in academic literature, which poses a challenge to its long-term preservation and inclusion in contemporary music education. One of the key research questions this study seeks to answer pertains to the challenges associated with documenting and preserving the silimba in academic discourse and the potential strategies that can be implemented to mitigate these issues.

As earlier argued in this research, reliance on oral transmission has posed a significant barrier to the documentation and preservation of the silimba due to its cultural reliance on oral tradition. Historically, knowledge about its construction, tuning, and performance techniques has been transmitted through generations via verbal instruction rather than written documentation. While oral traditions offer a dynamic and adaptive means of cultural transmission, they are inherently vulnerable to erosion due to socio-economic changes, urbanization, and the declining interest among younger generations in indigenous music. The absence of comprehensive written records limits scholarly engagement, as researchers often struggle to find consistent sources of information regarding the instrument's origins, playing techniques, and cultural significance.

To effectively tackle this challenge, prioritizing the creation of an open-access digital archive is essential. In an era where technological advancements have made digital resources widely

accessible, such a platform would provide an efficient and inclusive means of documenting and preserving the silimba tradition. This repository could encompass transcriptions of silimba music, high-quality video recordings of performances, interviews with master musicians, and scholarly analyses of its construction and tuning. This initiative would also ensure the longevity of silimba knowledge by facilitating its dissemination across diverse academic and musical communities worldwide, making it readily available to researchers, educators, and cultural enthusiasts alike.

5.6.1 Insufficient Inclusion in Formal Music Education

The findings of this study underscore the need for policy adjustments to prioritize indigenous instruments in Zambia's music education curriculum. A structured approach should be adopted to integrate the silimba effectively, necessitating teacher training in culturally relevant pedagogies. As Mumpuka (2009:54) notes, "this aspect (training) seems to be very urgent [...] among the [...] music teachers." The development of locally relevant instructional materials is equally critical and could be achieved through collaborations with skilled community artisans.

Further exploration is needed to assess the broader pedagogical applications of indigenous instruments in music education. Investigating traditional instruments from various Zambian ethnic groups could enrich the curriculum and ensure a more comprehensive representation of the country's musical heritage. Such initiatives would enhance music education while also contributing to the preservation and advancement of Zambia's cultural traditions.

Zambia also lacks a centralized body focused on traditional instruments research and preservation. The absence of such an entity hinders systematic documentation of the instrument's history, craftsmanship, and performance techniques. Establishing an Indigenous Music Instruments Research Institute could serve as a centre for documentation, instrument production, and educational outreach. This institution would undertake ethnographic and musicological research on the silimba, exploring its cultural significance, historical development, and musical characteristics. Furthermore, it would offer training programs and workshops designed for musicians, educators, curriculum advisers and instrument makers, ensuring the continued transmission of knowledge related to the silimba.

5.7 Conclusion

The findings presented in Chapter Five strongly align with the study's objectives, reinforcing the silimba's role as a vital cultural, educational, and musical resource. Through a detailed examination of the instrument's historical and contemporary significance, this study has put

forward a comprehensive account of its traditions while also highlighting its potential for broader application. The discussion moves beyond mere documentation to advocate for the revitalization and integration of the silimba in various settings, including formal education, performance, and cultural preservation.

Moreover, the identification of key challenges such as limited scholarly documentation, and its underutilization in educational frameworks serves as a crucial foundation for future initiatives. These challenges highlight the need for targeted interventions, including systematic archiving, structural modifications to enhance durability, and curriculum development to incorporate the silimba into music education. Addressing these issues would not only contribute to the instrument's preservation but also open pathways for its evolution in contemporary contexts.

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Interviews

1. Participant ID No. 1 (consented to his name and identity being used in the research):
Mr. Laytone Kaushika. Interview date: 31st August 2024.
2. Participant ID No. 2 (preferred to remain anonymous). Urban silimba player with the Mowana dance troupe. No interview was conducted, but the silimba tuning (figure 3) was documented from his instrument, and a practice session with his trainee children learners was observed. In the research, this is categorized under transmission (4.19).
3. Participant ID No. 3 (preferred to remain anonymous). Music teacher based in Western Zambia. Interview dates: 31 August 2024, 5 September 2024.
4. Participant ID No. 4 (preferred to remain anonymous). Silimba maker. Interview dates: 27 August 2024, 28 August 2024, 5 September 2024.

APPENDIX

A. Gatekeeper's approval letter

All correspondence should be addressed to the Permanent Secretary:
Tel: +260 211 223930
Fax: +260 211 223930
Telex: ZAA5510
Email: permanent@zmta.gov.zm


REPUBLIC OF ZAMBIA

MINISTRY OF TOURISM

OFFICE OF THE PERMANENT SECRETARY
KWACHA HOUSE, CAIRO ROAD
P.O. BOX 30575
10101, LUSAKA

In reply please quote:
No. **MOT/101/1/41**

4th April, 2024

Mr. Alex Dex Mwesa
Unit 05, F23, Jwaneng
BOTSWANA

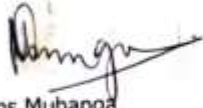
RE: REQUEST TO UNDERTAKE ETHNOGRAPHIC RESEARCH

Reference is made to the above.

The Ministry acknowledges receipt of your letter dated 21st March, 2024 in which you are requesting to conduct ethnomusicological research at Kabwata and Maramba Cultural Villages on Silimba music of the Lozi and Nkoya people of Western Province of Zambia.

In view of the above, I wish to inform you that the Ministry has no objection to conduct the interview. The Ministry will appreciate a copy after the study.

For more information, please contact the Chief Culture and Folklore Officer on Mr. Thomas M. Mubita on +260 97 7750352.


Evans Muhanga
Permanent Secretary
MINISTRY OF TOURISM

No.	Name	Designation	Signature	Date
1	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
2	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
3	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
4	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
5	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
6	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
7	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
8	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
9	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		
10	Mr. Alex Dex Mwesa	Unit 05, F23, Jwaneng		

B. Invitation letter for study participants

Invitation to participate in silimba ethnographic research

Research title: A study of the Lozi and Nkoya silimba performance practice of Western Zambia

Dear [Participant's Name],

I hope this letter finds you well. My name is [Your Name], and I am conducting research on Silimba performance practices as part of an ethnographic study. Your participation in this research would greatly contribute to our understanding and documentation of this important cultural tradition in Zambia.

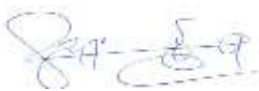
You have been selected based on your expertise and involvement in Silimba music, and I would like to invite you to participate in the following activities:

1. Surveys: Your insights and perspectives on Silimba music will be invaluable in shaping our research findings. We kindly request your participation in completing surveys designed to gather information about Silimba performance practices.
2. Interviews: We would like to conduct in-depth interviews with you to explore your experiences, knowledge, and observations regarding Silimba music. Your personal insights will provide valuable context and depth to our research.
3. Silimba Performance Sessions: As a skilled Silimba performer, your participation in performance sessions will offer firsthand insights into the intricacies and nuances of Silimba music. Your contributions will be essential in capturing the essence of this cultural tradition.

Participation in these activities is entirely voluntary, and you have the right to withdraw at any time without any consequences. Your responses will be kept confidential and anonymized in the final research report. If you are willing to participate, please indicate your consent by signing and returning the enclosed consent form. Additionally, feel free to contact me if you have any questions or require further information about the research.

Thank you for considering this invitation. Your involvement will be greatly appreciated and will significantly contribute to the success of our research endeavor.

Warm regards,



Alex Mwesa

C. Interview protocol

PERSONAL INFORMATION:

Name: _____

Age: _____

Gender: _____

Nationality: _____ Ethnicity/tribe: _____

Years of experience playing the silimba: _____

CULTURAL BACKGROUND:

1. What is your cultural background?
2. How does your cultural background influence your approach to silimba performance?
3. Have you been exposed to any specific traditional silimba styles or practices within your culture?

TRAINING AND EDUCATION:

1. Where or how did you receive your training in silimba performance?

- _____

2. Do you have any formal education or academic training in music?

- - _____

MARIMBA PERFORMANCE PRACTICE:

1. What techniques do you employ in your silimba performance?

- -

2. Can you describe any specific traditional or cultural techniques that you incorporate into your playing?

- -

3. How do you approach improvisation within silimba performance, if at all?

- -

4. Do you primarily perform solo or ensemble silimba music? How does this affect your performance practice?

-

CULTURAL SIGNIFICANCE:

1. How is the silimba perceived within your culture?

-

-

2. What cultural events or rituals involve silimba music in your community?

-

3. How does silimba music contribute to cultural identity or heritage in your community?

-

TRANSMISSION AND PRESERVATION:

1. How is silimba music traditionally passed down from one generation to the next in your culture?

-

2. Are there any efforts in your community to preserve or revitalize traditional silimba music?

- _____

3. How do you personally contribute to the preservation or continuation of silimba performance practice?

- _____

INFLUENCE OF EXTERNAL FACTORS:

1. Have you been influenced by other musical traditions or styles outside of your own culture?

- _____

-

2. How do external influences impact your approach to silimba performance, if at all?

- _____

CHALLENGES AND OPPORTUNITIES:

1. What challenges do you face in practicing and performing silimba music within your cultural context?

- _____

-

2. Are there any opportunities for growth or innovation in silimba performance practice in your community?

- _____

FUTURE DIRECTIONS:

1. Where do you see the future of silimba performance practice in your culture?

- _____

-

2. What changes, if any, would you like to see in the way silimba music is taught, performed, and perceived?

- _____

ADDITIONAL COMMENTS:

Is there anything else you would like to share about your experiences or perspectives on silimba performance practice and its cultural significance?

Thank you for participating in this questionnaire/interview. Your insights are invaluable for furthering our understanding of marimba performance within different cultural contexts.