



FIRST INTERNATIONAL
BOW MUSIC

CONFERENCE
PROCEEDINGS
Edited by Sazi Dlamini

FIRST INTERNATIONAL BOW MUSIC CONFERENCE PROCEEDINGS

* 2016

PUBLISHED BY
*International Library of African Music (ILAM)
Rhodes University, Grahamstown, South Africa*

COVER PHOTOGRAPH
*Women bow players of the Ngqoko Cultural Group
performing at the First International
Bow Music Conference
KwaZulu-Natal
27 February 2016*

University of Kwazulu-Natal, Durban
South Africa, 24-27 February 2016

FIRST INTERNATIONAL
BOW MUSIC
CONFERENCE * SOUTH AFRICA * 2016

University of KwaZulu-Natal
24–27 February 2016

Edited by Sazi Dlamini,
University of KwaZulu-Natal, Durban, South Africa



The financial assistance of the National Institute for the Humanities and Social Sciences (NIHSS) towards the 1st International Bow Music Conference and the publication of articles presented at its proceedings is hereby acknowledged. Opinions expressed and conclusions arrived at are those of the authors and editors and are not to be attributed to the NIHSS.

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PREFACE

The publication of a volume of articles presented at the 1st International Bow Music Conference is the culmination of a research project: *Living Archives as Traditions of Practice in South African Music*. The conference was one of two projects that received a grant from the National Institute for Humanities and Social Sciences (NIHSS) under the auspices of its Sources of Creativity Catalytic Project. ‘Catalytic Projects’ forms part of recommendations of the Department of Higher Education and Training’s Charter for Humanities and Social Sciences – collectively aimed at the sustenance of these fields’ contributions to the ‘world of knowledge and self-understanding ... social justice, anti-racism and reconciliation.’¹

In alignment with some of the Charter’s stated concerns,² a national Musical Bow Conference was initially proposed, to address existing gaps in knowledge about cultural practices of diversity that are central to perceptions of South Africa’s national characterization. The proposal envisaged the possible integration of discrete pockets of cultural performance competencies across South Africa, and sought to engage with historical stratifications that continue to challenge equitable representations of the region’s cultural heritages. In conception, the idea represented the collaborative music research interests of four South African tertiary institutions and support, in principle, by their leading music scholars. Among these were Prof Christopher Ballantine, Dr Patricia Achieng Opondo and Dr Kathryn Olsen (University of KwaZulu-Natal), Prof Dr Dave Dargie and Prof Benhardt Bleibinger (University of Fort-Hare), Prof Stephanus Muller (Stellenbosch University) and Dr Lindelwa Dalamba (University of Witwatersrand).

In practice, geographical distance, restricted social movement, structural poverty, ethnic boundedness and other social stratifications of practitioner societies circumscribe indigenous bow music traditions. A large part of the isolation of idioms is due to their marginality in the commercial priorities of media production for popular consumption. As an example, KwaZulu-Natal bow music styles of Bavikile Ngema and Nodelisa Sibiya, or those by Swaziland *makhoyana* bow players, Bhemani Magagula and Khokhiwe Mpila, are not well known in the Western Cape. Similarly, *uhadi* and *umrhubhe* bow music performances of Cape Town-based Madosini Mpahleni, Mantombi Matotiyana or Dizu Plaatjies (even as their performances may be known to audiences in the US, Canada, Europe, UK or Japan) are hardly appreciated in the provinces of Limpopo or Mpumalanga. In engaging with this regionally moribund national diversity, a Bow Music convention primarily sought to challenge an essentially mono-ethnic, one-dimensional trajectory of traditional research. It was also an attempt to mobilise widely dispersed resources of field research for scholarship and

¹ Sitas, Mosoetsa et al. 2011. *Final Report: Charter for Humanities and Social Sciences*, p12.

² ... [t]here is little doctoral-level research that provides a coherent overview of the vitality of local performance and art traditions, their dominant aesthetic features and their evolution, the variety of urban and rural forms, the shifts between orality, literacy and digitality... (*ibid* p39)

simultaneously avail potent regional bow musical heritages for a broader appreciation and participation across different levels of social stratification.

Most surprisingly, the call for proposals received overwhelming responses from the scholarly research community worldwide, including other popular cultural formations whose practices have musical bows as their focus. The synergies provoked as a result could not be encompassed within a solely southern African imaginary and vision for bow music studies and cultural practice. With expressions of wide-ranging interests emanating from people as far afield as Latin America, West Africa, Papua New Guinea, the Middle East, the United States of America, Europe and elsewhere it seemed appropriate to regard the gathering as ‘The 1st International Bow Music Conference’.

Retrospectively, in the humility of its scope and spectacle, the event of the Bow Music Conference successfully illuminated a vibrancy envisaged of collaborative networks in research and scholarship, social engagement, sustainable cultural practices, and celebration that enlivened its activities. Hopefully this sentiment resonates with those of conference participants and other humanitarians who, in devising the Humanities Charter’s Sources of Creativity Catalytic programme also,

Not[ed] that a “catalyst” has to produce benefits to the research project for the higher education system, and indeed society as a whole, by dynamising the fields, the disciplines and interdisciplinary work, by increasing the capacity to research further, theorise better and by contributing to the raising of our status in the global academic commons.³

The 1st International Bow Music Conference is not only the first ever documented international academic conference dedicated to musical bows – it is also for the first time that the International Library of African Music (ILAM), publishers of the *African Music* journal, put out articles presented in a conference – with plans for the online availability of the articles by mid-2018. However, the authors of articles reproduced in the present volume deserve the loudest of commendations for their most generous scholarship in producing excellent manuscripts.

Without exception, each article illuminates the depth of knowledge possible in any number of investigative approaches engaging with musical bows; whether in scope it may be music analytical, theoretical, socio-historiographical, performance ethnographical, compositional and theoretically generative.

In an email exchange in the (South African) Spring of 2013, Dave Dargie mentioned his enjoyment of the 2004 article ‘The Role of the *Umrhubhe* Bow as Transmitter of Cultural Knowledge among the amaXhosa: An Interview with Latozi ‘Madosini’ Mpahleni’, which I had contributed to an inaugural volume of *Journal of the Musical Arts in Africa*. Semi-retired in Munich and away from his professorial duties at Fort Hare University, Dave Dargie was also enquiring from me about the well-being of Madosini [Latozi Mpahleni], the Cape Town-based doyenne of *umrhubhe*, a mouth-resonated bow performed on by amaXhosa women. An unsurpassed living custodian of the instrument and one of the highlights of the Bow Conference performance programme, Madosini is foremost among Xhosa *umrhubhe* players to

³ Sitas, Mosoetsa, et al. 2011. *Final Report: Charter for Humanities and Social Sciences*, p20.

awaken audiences to the beauty and technical depth of this overtone, friction mono-heterochord. The idea to convene a musical bow conference which came up during our conversation, is significant to mention here; not only in demonstrating a researcher's regard for people whose music is the focus of their studies, but also how such concerns ultimately shaped the Bow Conference programme. In these regards, the event was an auspicious occasion as a reunion with the Ngqoko Cultural Group, which Dave Dargie had founded during his tenure as musicologist for the Catholic Church's Lumko Missiological Institute in Lady Frere, Eastern Cape in the 1970s. Thus, I am delighted in turn at his wholehearted support for the Bow Music Conference and at his acceptance to deliver a keynote address, despite the challenging rigours of long-distance travel.

In 'Bow Songs as Carriers of Heritage', Dave Dargie reminds of the importance of bow melody texts in oral culture, in jogging and sustaining resistant memories of a collective history – in this case focusing on *uhadi* bow songs such as 'Ntsikana's Song' and the traditional Xhosa song 'Hlungulwana'.

* * * * *

Among many musical bow types of African origin, the Afro-Brazilian *berimbau* is unique in that it has received sustained scholarly attention for the better part of the twentieth century. In narrating an inspirationally, unfolding journey following a chance encounter with the *berimbau*, Gregory Beyer unveils an intriguing pattern of fateful co-incidence and independent, far-flung developments building up to invaluable experiences that were shared at the Bow Conference. In 'Genesis of a Repertoire' he presents engaging research, composition, performance and recording practices that have ensued from a passionate engagement with the *berimbau* in diverse contexts of performance as a soloist, in chamber ensembles, and as an orchestral instrument. Pioneering an organic synthesis, Beyer outlines a body of work integrating musical bow performance with literary traditions of contemporary musical composition and presentation. In view of the orality of bow music cultures in their African and global contexts, his research on the *berimbau* illuminates afresh epistemic challenges and musical dialogues between marginal global cultures of indigenous knowledge and the monopolized institutions of knowledge production. Two further articles in this volume, Jason Finkelman's 'Musical Bows in Cross-Cultural Performance' and Tiago de Oliveira Pinto and Mariano Gonzales' 'Berimbau Musical Bow in Brazil: Some Historical and Analytical Considerations' have the *berimbau* as their focus, and also significantly resonate with Beyer's. As inspiration to pick up the instrument, both Jason Finkelman and Gregory Beyer cite similar sources of influence in, among others, the legendary figure of the late Brazilian percussionist, Naná Vasconcelos. Finkelman's acknowledgment of the influence of several *berimbau* performers – including Gregory Beyer – to his own development as a player indicates the centrality of a musically socialising environment. Multicultural social experiences and their mediation of diverse cultural exchanges, artefacts and materials are important in the circulation of, and access to mentoring musical influences. In their own unique ways, both articles focus on important

dialogues and synergies inhering in relationships between scholarly music studies and socio-culturally driven musical practices. Jason Finkelman's experience in performance practice and the creative presentation of cross-cultural musical knowledge invites a discursive engagement of popular culture in the institution while De Oliveira Pinto and Gonzales' study focuses on the *berimbau's* under-theorised, pedagogical aspects in the context of its expanding social and cultural engagement in *capoeira*.

Luka Mukhavele's 'Music Bows from the South and Centre of Mozambique' and Benhard Bleibinger's 'How to Tune Modernised Versions of a Traditional Musical Bow – the Umrhubhe from the Eastern Cape', share organological concerns of unbraced mouth-resonated bows: the *xizambi* friction bow and *umrhubhe*, the dual frictive and percussive Xhosa mouth-bow respectively. Both authors deal with modes of adaptation necessitated by a tenuous cultural persistence in the regionally unique practices of these musical bows. Bleibinger considers structural changes in *umrhubhe* building as a ramification of the instrument's changing role and the contemporary practitioners' needs for its adaptability to non-traditional musical performance requirements, primarily in tuning and orchestration. Locating his discussions in what he refers to as "Ethno-Organology", Luka Mukhavele considers *xizambi* to have originated independently, unlike other regional extra-musical bow instruments that are often characterized by their alluded relationships to hunting traditions, such as *xitende* and *xipendani*. Mukhavele's primary motivation is the reversal of the dwindling use of the *xizambi* and other indigenous Mozambican musical bows, by exploring new avenues for their adaptation to rapidly changing cultural conditions.

* * * * *

Chipendani mouthbows are the focus of Jennifer Kyker's 'Mabimbi Ehurukuro Dzangu Navaridzi Vechipendani Vanonzi Sekuru Tute Wincil Chigamba Nasekuru Compound Muradzikwa - Excerpts from Interviews with *Chipendani* Players, Sekuru Tute Wincil Chigamba and Sekuru Compound Muradzikwa', and Klaus-Peter Brenner's article 'Chipendani (Mouth Bow) – The Origin of the Shona *Mbira* Harmonic System and of Andrew Tracey's 'Basic *Kalimba* Core'. Starting from a systematic analysis of the *chipendani's* unique organologic properties of tuning and techniques of fundamental and harmonic tone production, Klaus-Peter Brenner argues conclusively for the instrument's primacy in a derivation of the Shona *mbira's* complex harmonic system. In its basic organologic construction and sound-organising principle, the *chipendani* is comparable to several types of mouth bows which the Zimbabwean Shona share with some of their neighbours to the southwest and the southeast. In this regard, the study has far-reaching implications for music-theoretical studies of other braced mouth bows still found in relative use in the SADC region, including the Swati/ Zulu/Thonga *isiqomqomana/isithontolo*, the Venda *tshihwana*, the Damara/*noukhas* and the Chopi *xipendani*, among others. The Brenner article is further enhanced with his superbly hand-executed illustrations and an accompanying DVD media which readers will find invaluable.

In her probing of traditional Shona contexts for *chipendani* performance beyond its attributed role as a mere pastoral pastime for cattle-herding youth, Jennifer Kyker uses excerpts from her interviews of two elderly players in the persons of Sekuru Tute Wincil Chigamba and Sekuru Compound Muradzikwa. Kyker considers the role of *chipendani* playing within a complex matrix of gendered Shona social relations and their formalisation through the economic redistribution of material goods and services of value. The article abstract, the preface and interview texts have been transcribed verbatim in their original Shona language and subsequently translated into English. In doing so, the author aims to address the entrenched dominance of English as the language of publication in traditional practices of ethnographic research.

With a view to extending potential resources available to contemporary compositional practice, Andile Khumalo's contribution illuminates the timbral qualities of bow music, which he has chosen to refer to as 'Nguni Art Song'. In Nguni bow music the spectral element of a vibrating string underpins both the harmonic and melodic language of a song. In focusing on this essentially under-researched area of musical bows, in general, Khumalo's article resonates with the Oliveira Pinto-Gonzales study of the *berimbau*. The dialogue thus potentiated truly demonstrates the Bow Conference founding spirit - towards a sustenance of collaborative bow music research, and a sustainable engagement with the cultural sources of its practices.

* * * * *

Acknowledgements

I cannot adequately express my gratitude to all who participated in the conference of which this publication is just one outcome. My sincerest apologies if I have left out anyone but, among the wonderful persons I would like to acknowledge are: Presenters: Dave Dargie, Benhard Bleibinger, Tiago de Oliveira Pinto, Gregory Beyer, Jennifer Kyker, Salil Sachdev, Andile Khumalo, Mestre Cobra Mansa, Mariano Gonzales, Luka Mukhavele, Klaus-Peter Brenner, Dizu Plaatjies, Jason Finkelman, Ncebakazi Mnukwana and Cara Stacey; Performances and Workshops: Grupo de Percussão de UFMG – Alex Fraga, Daniela Oliveira, José Henrique Soares, Natalia Mitre and Rafael Matos, Dizu Plaatjies, Brother Clement Sithole; Lesotho Group – Mpho Molikeng, Mama ‘Matlali Kheoana, Makhetha Setlaba, Malefetsane Mabotsane and Kabelo Makolometse; Mama Madosini, Mama Mantombi Matotiyane; Mozambique Group – Rafael Mathusi, Maneto Tefula and Luka Mukhavele; Sekuru Compound Muradzikwa; Ngqoko Cultural Group – Thandiwe Lungisa, Tsolwana Mpayipheli, Nokhaya Mvoty, Nofenitshala Mvoty, Nopasile Mvoty, Nomthandazo Ntese and Nogcinile Yekani; Swazi Group – Mama Khokhiwe Mphela and Baba Bhemani Magagula; Zululand – Bavikile Ngema.

I would like to acknowledge Andrew and Heather Tracey for attending the 1st International Bow Music Conference as ‘unofficial guests-of-honour’ and Andrew for proposing ILAM as publisher; Diane Thram, the former director of ILAM, and Lee Watkins, current director at ILAM; and Jane Burnett for layout and typesetting.

A big thank you to my Conference Project Co-ordinators, Maria Cristina Giampietri and Steve Jones, for their love, dedication and hard work.

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Note

Excerpts from two concert performances on 26 and 27 February 2016 at the University of KwaZulu-Natal Elizabeth Sneddon Theatre may be accessed at www.bowconference.com

Bow Songs as Carriers of Heritage

DAVE DARGIE*

Abstract: Although musical bows are sadly a disappearing species, nevertheless examples of them are still in use in the great majority of people/language groups in Southern Africa. The bows are deceptively simple instruments, and easily undervalued by outside observers, but nevertheless they have played important roles among the peoples who use them. They have had a powerful influence on the musical techniques of those people — uses of scale, harmony and rhythm. The songs sung with bows are important carriers of traditional heritage. These songs tell of the lives and culture of the peoples, now and in the past, in many ways. They may also carry important insights into the history of the peoples. It is most comforting that steps are being taken to preserve the heritage of Southern African musical bows, at different educational institutions including at the University of Kwa-Zulu Natal. The address will illustrate the various points mentioned with examples from different population/language groups in the region.

***Dave Dargie (keynote speaker)** was born in 1938 in East London, South Africa. In 1987 he was awarded a PhD by Rhodes University for his thesis, published in 1988 under the title *Xhosa Music: its techniques and instruments* [with musical examples] by David Philip. He worked as a church ethnomusicologist for the Lumko Catholic Institute in Lady Frere (Eastern Cape) and from 1995 to 2010 was Professor of Music at the University of Fort Hare where he still holds a position of adjunct professor. His extensive recordings and handbooks of African music, largely comprised of bow music, are kept and distributed by the International Library of African Music, Grahamstown. Between teaching terms at Fort Hare he lives with his wife Monika, in Munchen, Germany.





Figure 1. Pastiche of Photos of Bow Players and Musical Bows. Photo collage by author.

Introduction

The photos in Figure 1 show a selection of musical bows and their players recorded by me from 1980 to 1996. In 1979 I began work as a church musicologist at the Catholic Lumko Pastoral Institute, which at that time was placed near Lady Frere, about 48 kilometres east of Queenstown in the Eastern Cape. I began studying the music of the Thembu Xhosa people around Lumko and was soon fascinated by their musical bows. My work in Lumko gave me the opportunity to hunt for and record musical bows in many corners of southern Africa. The bows include mouth-bows, bows which have calabash resonators, bows built with 5-litre oil cans as resonators, and one which uses a three-legged pot as resonator. Some are played by percussion (tapping the string), some by friction (in various ways), and some are played by plucking. They are a colourful, variegated heritage of southern Africa, and they are disappearing all too quickly.

There are many admirable sides to the musical bows. Using the simplest possible construction, a stick bent by a string, and rubbing the string with a reed or scraped stick, a Xhosa player of the *umrhubhe* mouth-bow may play the melodies of a lead singer using the bow overtones, while at the same time whistling the melodies of the answering singers. Nofinishi Dywili, a player of the *uhadi* bow, could with one string and one beater play melody and harmony, with several patterns of rhythm moving simultaneously in her song.¹ There are three blind bow players in the photo pastiche. Two were keeping body and soul together by playing in public places, with a receptacle by their side to receive the small gifts of passers-by. The third blind player used his bow to find comfort in singing Christian songs composed by himself.

The bows are intensely personal musical instruments, whether the player performs solely for her or himself, or whether the player is leading a group of singers. Perhaps it is this personal aspect of bow playing which differentiates bow songs from the unaccompanied songs. Perhaps this is also a reason why bow songs more than unaccompanied songs seem to touch on matters of deep cultural or historical significance.

Xhosa songs as carriers of heritage

The songs of the Thembu Xhosa people of the Lumko District, especially those of Ngqoko village, are those I know best. I therefore use these songs as the primary basis for discussion in this paper. They include songs for the rituals of indigenous religion, songs sung with musical bows and unaccompanied songs, and diviners' songs sung with drums and songs of the Zionist Christian Churches, also sung with drums. Any song of Ngqoko may be a carrier of heritage. Songs carry the wisdom of the past, they describe the patterns of the lives and culture of the people, often presented in a disguised or

¹ Cf Dargie 2010/11. Regarding the names of Nofinishi and other Xhosa women mentioned here, it is a custom that the father of the groom, who paid the bride price for his son, gives the bride a new name at her wedding. For some unknown reason these names are often based on English words, also often with humorous references. "Nofinishi" (Mother or Mrs Finish) indicates perhaps that her father-in-law does not intend paying any more bride prices for his son. Other such names are Nosinothi (Synod) and Nomawuntini (Mountain), also mentioned in this paper.

humorous fashion. It is often easy to miss the point of these Xhosa songs. As examples of this, I quote some early European travellers among the Xhosa.

“The sense of their songs is not to be unravelled, and the greater part does not consist of words, but of single syllables, which are not comprehensible to themselves” (Lichtenstein 1928–30, 314).

“Singing together, by a party of Kaffirs, takes place solely at a dance...; otherwise one only hears individual persons singing... if indeed this production of sound, completely devoid of melody, and these meaningless ejaculations can be so designated” (Alberti 1968, 80).

“The women have a calabash hung to a bow string, on which they beat and sing in harmony with the beating. The words they use are the names of friends, rivers and places they can recollect, having no songs” (Campbell 1815, 368).

“They sometimes ... amuse themselves the greater part of the night by singing; their song, if song it can be called, only consists of a monotonous and unmeaning repetition of ‘Yo, yo, yo’ or ‘Jei, jei, jai’ ” (Steedman 1835, 265).

Before turning to the comments about the song texts, one must say that the description of the *uhadi* musical bow in Campbell (1815) is also incorrect. Regarding the song texts, perhaps there were reasons for Europeans not understanding the songs. Sometimes when the dancing is enthusiastic, the songs, which began with intelligible texts, may become very repetitive, with more vocalisations than sentences or words, as the dancers focus their concentration on their body movements. This may be seen and heard in recordings of unaccompanied dance songs on the DVD (Dargie 2005b). Nevertheless, all the songs have meaningful texts.

The problem for the European observers was that Xhosa songs are not constructed in the same way as European songs. In the sort of song familiar to Campbell and company, the text follows a logical or thematic development in a recurring pattern of verses. This does not occur in traditional Xhosa songs. Frequently different singers sing different texts simultaneously, perhaps improvising new texts which fit into the harmonic and rhythmic pattern of the song. The texts are often linked by ideas, as a verse by the song leader may be answered by different verses at the same time. When many people sing different texts simultaneously the result may appear chaotic to the outsider, but not to the participants. The song, *Umzi kaMzwindile*, for example, transcribed over six pages in Dargie (1988, 125–30), has nearly 40 text lines which may all be sung simultaneously in about six seconds, if there are enough singers. Of the song lines themselves, some are linked by the main theme of incest, a crime most seriously prohibited by traditional Xhosa law. Other lines are comments, sometimes joking, which take the attention away from the serious nature of the song.

Regarding Xhosa song style in the early nineteenth century, when the quoted texts were written, there is one most important song which gives insights into textual usage at that time. This is the Ntsikana’s Song, the Prophet, the first Xhosa Christian, who after his conversion (in the absence of white people or missionaries) preached to his converts and taught them a hymn or hymns which he composed. He died in 1821 and is the earliest Xhosa composer known by name. After his death, missionaries wrote down the texts of his hymn, arranging them into verse form. They wrote down over twenty lines

of the song, and other lines still exist in traditional renditions of the original song. The story of Ntsikana and his hymns is told in Hodgson (1980). Transcriptions of various traditional and church versions of Ntsikana's hymns are in Dargie (1988, 194-209). The article of 1998 by Dargie discusses the texts which have come down in traditional versions of Ntsikana's Song.

Ntsikana's Song has come down in various forms. It is sung in Xhosa language churches, it exists in versions used in traditional rituals, and it survived in at least two different versions as a bow song. It is one of these versions which forms the main focus of this paper.

The Great Song of Ntsikana

In 1965, the Lumko Institute published a sung mass in Xhosa style composed by the best-known Xhosa sol-fa composer of his day, Benjamin Tyamzashe. Tyamzashe's church songs were mostly in neo-African style (Western influenced), but a Gloria by him used traditional techniques.² Tyamzashe named the music of Ntsikana as his source of inspiration. That was the first time I heard of Ntsikana. In 1978, Janet Hodgson, who was working on a doctoral thesis on Ntsikana, approached me for help with recordings of church versions of his songs made by Hugh Tracey.³ I was delighted to hear these songs and transcribed them. The transcriptions are in Appendix 1 of Hodgson (1980), in which the author tells the history of Ntsikana's Song or Great Hymn.

On the same LP by Tracey there was a recording of a "Wedding Song" which is clearly a version of Ntsikana's Song, with a neo-African use of rhythm but using traditional scale and harmony.⁴ I became convinced that purely traditional versions of Ntsikana's songs (or Song) should still be around.⁵ Whenever I worked with Xhosa musicians I asked them about this, but at the time this information was not known to the musicians I knew in Ngqoko village. On 15th June 1981, at the invitation of Father Arnold Fischer (author of the well-known English-Xhosa Dictionary published by Oxford University Press), I went with my tape recorder to Mackay's Nek mission, not far from Lumko but a long way off by road. Fischer was one of two priests based at Mackay's Nek. He had met a local woman who played the *uhadi* bow, and asked if I would like to meet her. I would indeed! Waiting with Fischer at the mission were two elderly women, Mrs Nosinothi Dumiso who played *uhadi*, and Mrs Nomawuntini Qadushe who sang with her. I recorded them singing some traditional songs, and then asked them if they knew of Ntsikana. In a moment Nosinothi was playing the bow, and she and Nomawuntini were singing a bow version of Ntsikana's Song. For me, it was as exciting as the famous J.L.B. Smith discovering a live coelacanth.

² This Gloria is transcribed in the handbook, and the recording may be heard on the CD, of the set Dargie 2003A.

³ The recordings of Ntsikana's "Four Hymns" (arranged by John Knox Bokwe) are on the LP, disc TR22 of the Sound of Africa series (Tracey 1973).

⁴ See Dargie 1988, 201.

⁵ The article sets out to show that the so-called "Four Hymns" of Ntsikana (arranged by J.K. Bokwe) are in fact all versions of the same original song (Dargie 1982).



Figure 2. Nosinothi Dumiso (with *uhadi*) and Nomawuntini Qadushe with Father Arnold Fischer, Mackay's Nek, 1981: Zingxondo mountain is in the left background. Photo by Dave Dargie.

Figure 3 is part of a transcription of Ntsikana's Song as performed by Nosinothi and Nomawuntini. There are two recordings of their performances on the CD of 2000 (Dargie). The first performance is on track 4, and the transcription follows the order of that performance. The transcription uses pulse notation, the first line of the score showing the basic $3+3+2 = 8$ beat rhythm. Lines 2 and 3 show the bow part, with bow fundamentals (solid notes) in the lowest line and the bow melody (solid notes) mostly in the top line. The overtones are written as hollow notes. The lines marked H (for *hlabela* = lead) are sung by Nosinothi, the lines marked L (*landela* = follow) are sung by Nomawuntini. Nosinothi closely follows the bow melody. The part for the follower (after b) moves in parallel with the melody for the leader (and the bow).

The leader introduces each line with "*Ahom, ahom, hom(-na)*", praise or greeting words addressed to God. Nomawuntini begins her line each time with an exclamation. The verse texts, in the order sung in this performance (ignoring repeats), are as follows:

- i) *Lemfazwe kaMlanjeni* – This War of Mlanjeni.
Alternative line i (L1 in the score): *Lemfazwe kaMfuleni* – This War of Mfuleni.
- ii) *Zidlanza zinamanxeba* – The hands are wounded (dialect form of *izandla* = hands).
- iii) *Likhaka lenyaniso* – This shield of truth.
- iv) *Lemntwan' incinane* – This child is small.
- v) A further line of the song, not included in the page of transcription in Figure 3, was "*(Homna hom...) - lentsimbi kaNtsikana*". This is the Bell of Ntsikana. J.K. Bokwe used the title "*Intsimbi kaNtsikana*" (Ntsikana's Bell) for the first of his "Four Songs" of Ntsikana (Hodgson 1980, 6).

NTSIKANA'S HYMN — NoSinothi Dumiso (uhadi & H)
 Mackay's Nek version — PART 1 NoMawuntini Qadushe (LJ, Mackay's Nek, 1981)

Clap and feet

UHADI Bow
 (Melody and fundamentals solid, other audible harmonics hollow.)

H (hlabela) = leader
 H 1
 h o m, a-h o m, h o m, () le-m fa-zwe kla- MI a-nje-ni. A-

H 2
 h o m, a-h o m, h o m, () z i-d lanza z i-na- ma-nx e-ba. A-

H 3
 h o m, a-h o m, h o m, () l i-kha-ka l e- ny a-ni-sa. A-

L (landela) = follower
 L 1
 H o! le-m fa-zwe kla- (MI a-nje-ni, (Mf u-le-ni) h e.

L 2
 Na-h oo... z i-d lanza z i-na- ma-nx e-ba, h a.

L 3
 Na-h em f h em, h em, h em h em, h em.

L 4
 H u- yo lo... l i- kh a- ka l e- ny a-ni-sa, h o.

L 5
 H e- mna h e- m, l e- mnt wa n' i- nci- na- na... a.

L 6
 Ho! ho-mna, hew' hew'hew' ho, we we ma.

Figure 3. From the Mackay's Nek Bow Version of Ntsikana's Song (Dargie 1988, 203)

Lines ii) and iii) are found in the church versions of the song, transcribed by missionaries after Ntsikana's death (Hodgson 1980, 14-5). In the church versions they are completed as follows (translation by J.K. Bokwe): "Those hands of Thine, they are wounded" and "Thou art Thou, Shield of Truth" (Dargie 1988, 197). Line iv) is of particular interest. In his transcription of the texts missionary John Pringle includes "*Invena inkh'inani sibiziele*" (Hodgson 1980, 15). Correctly transcribed this line reads "*Imvan' encinane sibizela*" – "We call (invite) the Little Lamb". This is very close to the text, "*lemntwan' incinane*". I asked Nosinothi and Nomawuntini about this. They said, yes, they knew the text about the Little Lamb, but they love Christmas, so they preferred the Little Child. The text about the Little Lamb was written down by Pringle, but it has not passed into use in church versions of the song and is not generally known to Xhosas who are Christians. This may indicate that the Mackay's Nek version of the Song indeed is traceable to Ntsikana.

Line (i) (H1 and L1) inserts something quite unexpected into Ntsikana's Song, referring to the War of Mlanjeni (1850-3). This was a terrible, at times genocidal war, conducted against the Xhosa by the British. It played a major role in the events leading to the horrors of the Xhosa cattle-killing, as described by historian Jeff Peires (1989). I asked Nosinothi and Nomawuntini about the reference in the song. They knew nothing about the War of Mlanjeni. They believed the text referred to local fighting caused by the Mlanjeni clan. Therefore, at times they used an alternative for this line: *Lemfazwe kaMfuleni*. According to the *hlonipa* custom (custom of respect in speech), it is not permitted for women to speak the names of their husband's or chief's relatives (Kropf 1915, 161 & 509). *Hlonipa* words of similar meaning are therefore often used. *Emlanjeni* means by the river, *emfuleni* means by the stream.

I approached Professor Jeff Peires to find out if there could be a reason to connect the song to Mlanjeni's War. He told me that during that war, in 1851, a combined force of British and Boers killed some 200 local people in the Battle of Imvani.⁶ The present Imvani railway station lies about 30 kilometres from Mackay's Nek. Towering above the mission, as can be seen in the photograph in Figure 2, is the mountain called Zingxondo in Xhosa, because of its shape called "Three Crowns" by the settlers. "*Zingxondo*" means "places of refuge". It was used as a place of refuge in the wars affecting people in the area, up to and including the time of the Poqo rising in the 1960s. (It is possible that the singer Nomawuntini was named after this mountain by her father-in-law.)

Tiyo Soga (1829-71) was the son of Soga, Ntsikana's first disciple. He was the first Xhosa person to be ordained as a Christian minister. In his journal Soga (1983) writes of the time when the British waged terrible wars against the Xhosa. Soga writes more than once how the Xhosa Christians, having been scattered by battle, would come together again with many tears to pray and to sing Ntsikana's Song (cf. Hodgson 1980, 77). This use of the song indicates that it was a kind of hymn, a freedom prayer for the

⁶ See South African History on Line: Conquest of the Eastern Cape 1779-1878; the Battle took place on the Imvani River, the British were led by Captain V. Tylden after whom the nearby town of Tylden is named. (Should have 'accessed on'?)

Xhosa Christians. The addition of the reference to the War of Mlanjeni, combined with the Battle of Imvani so close to where I recorded the song, clearly shows that Ntsikana's Song should be considered a freedom song of that time.

I was most fortunate to have Father Fischer, extremely fluent in Xhosa, present and helping while I was recording and talking to the two women. I asked them how they had learned the song. Both were church members. Nosinothi was Anglican, Nomawuntini was Catholic. They knew about Ntsikana from attending church. However, the version they had sung had come "from the grandparents"; it was a traditional version of the song. I asked Nosinothi how she had learned to play *uhadi*. Her answer was, she had never learned to play *uhadi*. I repeated the question. She replied that she suffered from a chronic illness. This was glaucoma, which was causing her blindness. This can also be seen in her eyes in the photo in Figure 2. It is a traditional Xhosa belief that a person suffering from a chronic illness is being called by the ancestors. Diviners' apprentices are called "*abantwana bagulayo*" (sick children). Nosinothi felt that she was called to become a medium, someone who is a link between the ancestors and the living. The way she chose to be a medium was to play *uhadi*. As a young person she had observed the women playing *uhadi*. She had not been taught. She had learned to play by observation and imitation in the traditional way. I realized that she had acted as a medium by linking me, a musicologist, to the music of Ntsikana, an ancestral figure and a traditional composer.

I also learned to play the *uhadi* by observation and imitation. Using my western methods of analysis and transcription I studied and learned to play the Mackay's Nek version of Ntsikana's Song. I made an arrangement of the Mackay's Nek *uhadi* version of Ntsikana's Song for singing with multiple harmony, also arranging for the bow version more verses from the texts written down by the missionaries. During the struggle for freedom in South Africa I added text lines to bring it up to date as a freedom song. This version of the song may be heard on the CDs (Dargie 2000 and 2003A), with a score in the handbook published in 2003 (a). Since then I have played and taught this bow version of the song in South Africa, in Europe, in America and the Far East. It is in a hymn book in the U.S.A. and also in one in Taiwan. In 2002 I sang it with *uhadi* bow and a group of Fort Hare music students at the re-dedication of Ntsikana's grave at Thwathwa, near the village of Herzog between Fort Beaufort and Seymour.

In 1985 I was able to return to Mackay's Nek with Brother Kurt Huwiler, who managed a small factory producing marimbas on behalf of the Lumko Institute. He had a video camera, and recorded Nosinothi singing Ntsikana's Song with the *uhadi*. Unfortunately Nomawuntini was away at the time. This performance is on the DVD (Dargie 2005b). One can see from the video how much further Nosinothi's blindness was afflicting her. But the Ntsikana heritage she passed on to me has gone around the world.⁷ This particular experience with recording her was particularly instructive. I

⁷ I should mention that whenever I recorded traditional musicians either I paid them what I could, or they were paid by some other source, such as the person(s) who set up the recording session on my behalf.

not only touched on the history of the people, the performers gave me insights into the origins of the song and how they learned it, and Nosinothi gave me precious insights into the role traditional religion played in her life. Perhaps the stunning part of this was that I came to play a part in her religious experience. A harmonious link between traditional Xhosa religion and Christianity, the role a Christian ancestral figure played in her life and later also in mine.

Going with the crow

There is a strange Xhosa song which I first heard about in 1978 on the LP, disc TR28 of the Hugh Tracey Sound of Africa Series (Tracey 1973). The song is sung by a Gcaleka Xhosa woman playing an *uhadi* bow. The song is entitled, “*Hlungulwana*”, which is translated as “a small hawk”. Since then I have encountered the song and recorded it several times. In my recordings it was once sung as a diviner’s song with drum accompaniment, and with two different musical bows, *uhadi* and *umqangi* (the latter being the name I give to the bow also called *umrhubhe*, when it is played by tapping the string).⁸ Video recordings of these performances may be seen on the DVD (2005c), the performance as a diviner’s song, and the DVD of Dargie (2006). The text of the song is most intriguing:

Leader: *Yakayaka!*

Follower(s): *Ndemka nehlungulwana.*

You ragged (dirty) thing.

I have departed with the scavenger crow.

Ihlungulu is not a hawk. It is the white-necked raven (Kropf 1915, 163) or the scavenger crow (pied crow), black with a white collar, which feeds on dead animals. *Ihlungulwana* means a young crow or chick.

In my search for the meaning behind the text, I approached Dr Cecil Manona, an anthropologist working at the Institute for Social and Economic Research (ISER) at Rhodes University. He told me that to “go with the crow” was a proverbial expression meaning to die. I further consulted Jeff Peires. He told me about the terrible smallpox epidemic of 1770 in which unknown thousands of Xhosa people died (Peires 1989, 31). Because of the extremely contagious nature of smallpox the victims were not buried, but left out in the bush for the crows. From that time only kings or chiefs were buried, the common dead were left for the crows. The first Xhosa commoner to be buried after 1770 seems to have been the Prophet Ntsikana, in 1821. It seemed clear to me that the song re-enacts the driving out of a smallpox victim from a village. Song leader (village elder?): “*Yakayaka* – You ragged thing (get out!)”. Song follower (smallpox sufferer): “*Ndemka nehlungulwana* – I have gone with the crow.” A version of the song sung in Hogsback⁹ also has the response, “*Ndemka nomoya* – I have gone with the wind!” So, like the Mackay’s Nek bow version of Ntsikana’s Song, this song too has a powerful, historical significance.

⁸ The reasons for this I give in the article (Dargie 2011, 36–37).

⁹ This version is performed several times, with *uhadi* and with *umqangi*, on the DVD (Dargie 2006).

Some other bow songs with historical references

In 1981 and 1982 Brother Clement Sithole, a Benedictine Brother and traditional Zulu musician who plays and composes for the *umakhweyane* bow, took me to meet and record bow players in the Nongoma district in northern Kwazulu-Natal. I recorded four different bows and several bow players. Among these were three elderly people who played the *ugubhu*, the bow which is called *uhadi* in Xhosa. Recordings of *ugubhu*, played by the famous Princess Magogo ka Dinizulu, were made by Hugh Tracey (Tracey 1973, no. 37) and by David Rycroft who recorded and wrote about them (Rycroft 1975/6). I was anxious to find out if anyone besides Magogo still played *ugubhu*, and was most fortunate that Brother Clement enabled me to meet three such players, an old woman who lived in Nongoma and a married couple who lived in the district, in the village of Maphophoma. Unfortunately my recordings of these three are apparently the last recordings of that important instrument.

The couple in Maphophoma were Princess Phumuzile Mpanza, a half-sister of Princess Magogo, and her husband was Bangindawo Mpanza. Both were already over 80 years of age. My *ugubhu* recordings, together with recordings of other Zulu bows, are all on Dargie (2003b), with 3 CDs and a handbook. Princess Mpanza sang songs lamenting the genocide of people in the Mfecane, the wars of King Shaka and the wars which resulted from them. Some songs by the Mpanzas and by others referred to the inroads made by white colonisers. Some of Mr Mpanza's songs were war songs, calling on young men to fight for their king and people. After each song he would recite oral poetry in the traditional way. In the poetry following his song, *Hawuthi maye, maye* (CD II, track 3) his poetry included the story of his grandfather, who was wounded by the British at the famous Battle of Isandlwana. His grandfather was shot but not killed. He escaped by pretending to be dead until the British left and the Zulu troops returned. Among his songs was a protest song about the activities of the South African police, probably in the first half of the twentieth century (CD II, track 1), a version of the same song which earlier had been sung by a younger woman with the *umakhweyane* bow (CD I, track 12). The songs of the Mpanzas may be described as ancient royal songs, describing customs and events in traditional life.

In conclusion

Returning briefly to Xhosa songs, Dargie (2013) deals with Thembu songs relating to the sufferings caused to rural women by the migrant labour system which the British imposed on the Xhosa after the horrors of the cattle killing, a destructive system which is still very much part of life in South Africa today. Many of these songs refer to prostitutes (*amahule*), some (especially the boys' songs) in mocking ways. Yet the plight of women driven to prostitution in order to survive is desperately touching. Undoubtedly the greatest of these songs is Nofinishi Dywili's *Inxembula*, sung with *uhadi* bow, as her very special solo song known only to her.¹⁰ As described in that article, it was the first of Nofinishi's songs which I recorded in 1980, but it took me ages

¹⁰ Nofinishi performs this song with *uhadi* on the DVD Dargie 2005a.

to realise the deep meanings of the song, and only with the most insightful help of Mr Tsolwana Mpayipheli of Ngqoko. One can only urge researchers to keep on searching, to document the precious bow songs which help to illuminate the history of the people in very special ways. It is only too easy to neglect treasurable heritage until it is too late.

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Genesis of a Repertoire

GREGORY BEYER*

Abstract: Between the years 2002 and 2004, during the course of research for my doctoral thesis, “O Berimbau: A Project Of Ethnomusicological Research, Musicological Analysis, And Creative Endeavor,” I encountered numerous musical bows from Angola, South Africa, and Mozambique. Particularly in the writings of Gerhard Kubik, I found a useful and inspiring organological description of gourd placement on various bows in Brazil and Angola. Kubik’s use of mathematical ratios to describe how the braced gourd divided the string of the instrument resonated deeply with me, due to prior exposure to the Pythagorean tuning system vis-a-vis the musical instruments of American composer and inventor, Harry Partch. When I first heard the *xitende* musical bow from the Tsonga people in southern Mozambique, discussed at length by Thomas Johnston, I was unaware of the gourd placement of that instrument and was simply curious how the tuning of the bow made it possible to achieve intervals larger than a major second, the maximum interval possible on a *berimbau* played in its traditional position. The collision of all of these ideas and discoveries unleashed a firestorm of creativity as I began investigating a myriad tuning possibilities for the instrument, still approaching the instrument technically from the context of my experience with the *berimbau* (i.e. using a coin to “note” and “stop” the open wire). For the last twelve years, nearly every work of music written for the Arcomusical project considers gourd placement and tuning as a central compositional concern. The gradual development of a large body of work for tuned musical bows has become the result.

**Gregory Beyer is a Fulbright Scholar and a contemporary music specialist with significant experience in orchestral, jazz, and world music who combines the multiple disciplines of 21st Century percussion into a singular artistic voice. He has given solo performances and masterclasses throughout the world. Beyer is Associate Professor and Head of Percussion Studies at Northern Illinois University, where he directs the Percussion Ensemble (performed at PASIC in 2009 and 2013) and New Music Ensemble. He is also the director of Arcomusical, an organization that creates and promotes contemporary music for tuned gourd-resonated musical bows.*



Arcomusical¹ is a non-profit organization that advocates the artistic advancement of the Afro-Brazilian *berimbau* and related musical bows. Its mission is supported by the five pillars of activity: composition, performance, publication, research, and community. This paper traces the historical development of the organization with a focus on its growing catalogue of repertoire for the *berimbau* created over the past two decades. As the director of Arcomusical, I will proceed in autobiographical fashion to explain how an American mid-westerner came to play an instrument that has nothing to do with his own cultural background.

Before continuing, I would like to express that it is a powerful moment presenting at this first Bow Music Conference as it represents a global community coming together to celebrate our common passion. Thank you to Sazi Dlamini for organizing this incredible event that allows us the platform for rich exchanges as well as challenging questions that implore us to reflect on the current state of the art and to plan for the future growth of musical bow culture.

The *berimbau* presents a challenge

I am a professor of percussion at Northern Illinois University. I have developed an interest in ethnomusicology, having fallen in love with the *berimbau* nearly twenty years ago. In the late 1990s I was living in New York City, having recently completed graduate studies at the Manhattan School of Music (MSM). One day, I was at Drummer's World in midtown Manhattan, when suddenly from the back of the shop I heard an amazing sound. I headed toward the source and was surprised to find a thirty-something businessman, in typical Wall Street attire, playing *berimbau* with amazing musicality and control. I waited until he stopped playing and started a conversation. He was from Boston, in town for a convention. That evening his company was holding a banquet dinner and talent show. Earlier in life, he had taken a liking to the *berimbau* and had spent a lot of time with the instrument, and now had come into Drummer's World looking for an instrument to play in the show. Reflecting upon his own inspiration for playing *berimbau*, he said, "If there is one album you need, it is *Saudades* by Naná Vasconcelos."

I left with inexplicable purpose and quickly found the recording. Once home, I put on the CD, and instantly fell in love. I remember kneeling down and putting my head between the speakers and absorbing the vibrations. It was a kind of a rebirth. The experience of first listening to Naná's *berimbau* was so powerful that I was moved to play the instrument although I did not have one. I immediately put myself to transcribing this music. (See Figure 1)

As a performing musician with a background in popular and improvised musics, transcription is my tool of choice to understand the musical world. It is my process of analyzing my positive reaction to listening to great music.

A few months prior, I met a Brazilian singer/songwriter with whom I had begun to play gigs. We developed a camaraderie through a mutual love for Brazilian popular

¹ www.arcomusical.com

music. Although this would not be a lasting relationship, it was a critically important one. Within weeks of my experience at Drummer's World, he, having just returned from a trip to Brazil, called me to his house to rehearse. "By the way," he mentioned, "I have a present for you." I was dumbfounded. He presented me with a *berimbau*, having

O B erimbau

As recorded on Saudades:
ECM1147, (CD)

Naná Vasconcelos (1980)
tr. Gregory Beyer

1 $qk = 98$ 12 L.V. poco rit.

5

7 15 12

9 12 14 12

11 12 2x 11 12

13 12 15 12

©2000, 2004, 2014 Arcomusical (ASCAP)
New York City, Salvador, Bahia, DeKalb, IL

Figure 1. "O Berimbau" (1980) by Naná Vasconcelos. Opening passage.
<https://youtu.be/XI70NKSm0ml>

had no idea of what had transpired. Moved by this synchronicity, I went home that night and played along as best I could with the recording of Naná Vasconcelos.

With both an instrument and source material, I suddenly needed a teacher. I found Eldio ‘Cabello’ Rolim, *Mestre Cabello* (a nickname referring to his impressive mane of well-groomed hair), and his wife *Mestra Tizsa*, who are incredibly talented musicians and *capoeiristas*. Today they co-direct the Barracão d’Angola², a community center for *capoeira Angola* and related Afro-Brazilian cultural studies in Serra Grande, Bahia. In the 1990s, they were living and working in New York City. I began to visit their Lower East Side apartment for lessons.

The first lesson became my deadline to complete the transcription of the first solo section of “O Berimbau,” the first track on *Saudades*, thinking this would demonstrate my seriousness to my new teacher. I could even play the opening phrases. My insulated approach to learning music was taken aback when I realized that *Mestre Cabello* did not read music. While he was appreciative of my work, it did not mean much to him if I could not play it. I left, resolved that at the next lesson I would play “O Berimbau.”

After a month or so, I scheduled another lesson. I had worked on my technique, I had memorized the transcription, and now I would go and play for my teacher. I did. He smiled. Again he was appreciative of the work, but then his smile faded. “You are playing pretty well, and your sounds have improved. But why do you want to become Naná Vasconcelos? You are not Naná, and you never will be. Your job with the *berimbau*, as you are not involved in *capoeira*, will be to discover what you can do with the instrument that tells who and what you are when you play” (E. Rolim pers. comm. 1999).

I left this second lesson more than a little downhearted. He clearly did not understand. I *wanted* to be Naná Vasconcelos! But emotions fade as they always do, and eventually I took his words as a meaningful challenge. I had no idea if I could do anything unique with the *berimbau* but I did not give up the notion, nor did I leave transcribing by the wayside. I already knew how helpful it had been in bringing me this far with the instrument and I knew there would be still more to do.

Early works

Cabello’s challenge remained constantly in mind. A large part of my graduate study was spent studying and preparing to perform great percussive masterworks of the 20th century by Xenakis, Stockhausen, and others. With Cabello’s words, it occurred to me that *that* music did not really belong to me either but was also from a different time, place, and culture. My own music making was in jazz composition and in collaborations with composers. It suddenly became clear that I could bring the *berimbau* into my jazz writing and could ask a composer friend to write for *berimbau*.

I wrote a tune in 1999, “Capoeira no. 1”, that I recorded with my quartet, The Art Department. It took a good bit longer, however, for me to ask someone else to compose a solo *berimbau* work. Any time that new music is brought into the world, risk is involved. For every good work that is created, there is another that will likely

² <http://barracaodangola.com>

never have a second performance. Fortunately, I was lucky. The very first piece in the Arcomusical repertoire is excellent. I have performed “Just Visiting,” by Andrew Noble several times and on multiple continents. (See Figure 2)

In retrospect, I find it startling that Noble’s piece is a sextet disguised as a solo work, as much of the Arcomusical repertoire is now explicitly for *berimbau* sextet. I originally realized the work by pre-recording five parts and playing the sixth part live. Noble, a student of Nils Vigeland (and therefore grand-student of Morton Feldman and inspired by that discrete brand of minimalism), wrote for a very tight gamut of pitches. He tuned three of the instruments to Ab and the other three to Bb. Noble begins the work with the Ab instruments also playing Bb, choosing to exclusively manipulate timbre, resonance, and rhythm. As the piece develops he slowly introduces a chromatic major third between Ab and C.

As his original score was handwritten on 11x17” sheets of manuscript paper, neither Andy nor I knew exactly what the work sounded like until all the parts had been recorded. After spending a day working with friends at a home recording studio, we were astonished with the result. It is beautiful, haunting, ritualesque, and deeply resonant.

From the momentum of this first success, over the next several years I both composed and commissioned further works. Gradually, a small body of quality solo *berimbau* repertoire came to be. Not every commissioning project was a success, yet there remain a few noteworthy pieces from that early period that demonstrate the very different musical syntaxes that various composers cast onto the musical bow.

A member of the composition faculty at the University of the State of São Paulo (UNESP) in São Paulo, Brazil, Alexandre Lunsqui is a celebrated composer whose musical language is generated through his hands-on research of instrumental timbre combined with his background as a performer of jazz and Brazilian popular music. He is a musical explorer who takes note of every possible color and sound that an instrument can produce and creates sectional works in which textures and colors are introduced, combined, and recombined to create unique sonic experiences infused with rhythmic propulsion. In preparing for “Iris,” (See Figure 3) Lunsqui and I discussed sounds, colors, and the instrument’s connection to the Afro-Brazilian experience. The latter led to physical gestures that served as metaphoric resistance and a search for freedom. In this opening passage, the performer wears a special harness to support the instrument such that both hands can strike the gourd using a rich assortment of gestures.

My first large scale composition, *Bahian Counterpoint*, presented a multi-media and minimalist environment for the *berimbau*. It is an homage to Steve Reich’s Counterpoint series of works. *Electric Counterpoint*, composed for guitarist Pat Metheny, was and remains particularly inspiring. In that work I could hear the *berimbau* and wanted to create a work that I could perform. While the first movement hews very close to the Reich model, the second and third movements, written some months later, are products of my own creativity. In the opening of the third movement, I began creating single melodic lines that hocket between multiple instruments. (See Figure 4)

The image shows a musical score for six parts, labeled Bau 3 through Bau 6. Each part consists of a grand staff with a treble and bass clef. The time signature is 4/4. The score is divided into measures by bar lines. The music features complex rhythmic patterns, including triplets and quintuplets, and various accidentals (flats, naturals, and a sharp). The score is divided into measures by bar lines, with some measures containing rests. The overall texture is dense and intricate.

Figure 2. “Just Visiting” (2001) by Andrew Noble. Opening passage.

<https://youtu.be/SQhuNsziIHO>

Mathematics in music

In 1998, one of my first professional gigs that I landed after graduate studies was with a unique ensemble called New Band. Then managed by composer/performer Dean Drummond (1949-2013), the group performed upon an incredible yet delicate and aging collection of musical instruments created by American composer, Harry Partch. Partch created his own theoretical system of microtonality based upon an extension of Pythagorean whole number ratio interval tuning. To perform it, he handcrafted

Iris Alexandre Lunsqui (2001 - rev. 2012)

version 2012 *f* p

Verga
(parte superior)

Cabasa MD - baqueta
ME - polegar
- demais dedos

Verga
(parte inferior)

região 1 (topo)
região 2 (alto)
região 3 (meio-alto)
região 4 (meio)

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Figure 3. “Iris” (2001) by Alexandre Lunsqui. Opening passage.

https://youtu.be/LyLhj_A0Ntw

outrageous string and percussion instruments tuned accordingly. Partch succeeded in building a heady musical culture embodying his fascination with ancient Greek music, southwest American hobo and train culture, and the freedom proposed by literary figure, Jack Kerouac.

The instruments themselves are incredible. Some are enormous. The first time I drove to Nyack³ to practice, I found myself parking in back of a large, unmarked warehouse building. When I opened the door, I felt like I had fallen into Alice's Wonderland. Although I am tall, I had to climb up onto these instruments to play them.

My first part assignment involved playing a "kithara," a reference to an ancient Greek instrument of the same name. Partch's instrument is a large wooden structure onto which are stretched six sets of six guitar strings. On the sounding board of each set, in positions the performer could easily read, Partch had painted mathematical ratios in various colors...9:8, 5:4, 4:3, 3:2, etc. The "kitharist" slides a plexiglass rod, loosely held by the tension of the strings against the sound board, from ratio to ratio to obtain the correct pitches, effectively bridging the strings at particular lengths.

The title of this article is a paraphrase of the title of Harry Partch's book *Genesis of a Music*, in which Partch wrote, "A stretched string is a thing of beauty." (Partch 1949: 100) Yesterday, when Professor David Dargie mentioned that he was "pursuing something beautiful," it became clear to me that we are all of like mind when it comes to stretched strings.

In 2000, I re-entered MSM to begin doctoral studies. The stipulated written thesis created the opportunity to delve into researching the *berimbau* in Brazil and its African ancestry. Tipped off by the word "Angola" in the name of the most traditional practice of *capoeira*, I spent many hours reading articles and hunting down recordings concerning musical bows from that country and later from Mozambique, South Africa, and elsewhere in southern Africa.

I found the writing of Gerhard Kubik to be particularly inspiring. In two different articles, Kubik made use of mathematical ratios to describe organological traits of musical bows. For instance, he describes a *berimbau* he encountered in Salvador, Bahia, while spending time with "Vicente dos Santos who had been a player of the *berimbau* as a young boy...the string is made from steel wire...fixed to the two ends of the bow...a loop is then used to attach the large calabash, dividing the string into two sections. The relationship between the two parts should be 4:1, so that the shorter section sounds two octaves higher than the longer one..." (Kubik 1979: 32) Similarly, in Kubik's *Oxford Dictionary of Music and Musicians* entry, "Angola," he mentions a certain *hundo* musical bow from the Luanda region. "The division of the long bow of Miguel Francisco dos Santos Kituxi (b. 1941) which had a staff of 1.7 meters, was 8:1." It was this presence of ratios in discussions of musical bows that inspired much of what was to yet to come for Arcomusical.

I began wondering about the other Portuguese speaking country in Africa, Mozambique. And just by chance, or perhaps by fate, I came across the early 1990's field recordings of *xitende* musician Antônio Maquina, recorded and compiled by none other than our friend and colleague, Luka Mukhavele. Once again I set about transcribing the music. (See Figure 5)

I am amazed at the incredible musicianship of Antônio Maquina. As I began to analyze the music, I realized that the Maquina's tuning was a minor-third, G and Bb.

³ Nyack is a small, quaint village in the Catskill Mountain range northwest of New York City.

17. Niteke nyumba

Composed/Performed by António Maquina
Transcribed by Greg Beyer

q = 106

Voice

xé wéna — ndo ló sé o ma ni la mon di é na mé num xé

Xitende

4

_ wé na wé gé ndo lo sé a ma ni la mon di é na mé num ca

6

çé ma xa ca mó_ ca né gé sa guan_ gó la car ní ca

8

_ çé ma xa ca mó ca né nó mo cha mo la car ní wa

© 2004 Arcomusical

Figure 5. “Niteke nyumba” (1995) by António Maquina. Opening passage.

This was perplexing as my only physical contact with musical bows at that point was my *berimbau*. My *dobrão* (coin) could only reach at best a major second interval with the gourd at the positions mentioned above, roughly 6:1. What was going on with the *xitende* that made this tuning possible?

Then I found a pencil-drawn image in Maria da Luz Teixeira-Duarte’s *Catalogo dos instrumentos de Moçambique* and found the answer. The gourd is near the middle of

the instrument. While this may seem an obvious detail for those of you who are already intimately familiar with braced gourd-resonated musical bows from southern Africa, for someone working in New York City at the turn of the millennium with only articles and recordings as references, it was a stunning realization.

I asked myself, “What happens if I try to do the same?” And the result was the work I played last night in our opening concert, “Berimbau Solo no. 1, ‘Home-ing’” (See Figures 6 and 7). As I began experimenting, I placed the gourd at a 9:8 position, yielding a major second interval between the two sides of the wire, Bb and C. With the use of the *dobrão*, I could also reach as far as A minor third above the open pitch. I realized that it is possible to reach wider intervals on shorter strings. When playing the instrument with the shorter wire on top, I was suddenly able to play melodic passages using scale degrees 1–4, Bb–Eb.

When I flipped the instrument over, a thought which never occurred to me when playing the top-heavy *berimbau*, I was able to play in unison with the shorter wire and half steps on either side, creating a tight chromatic pitch gamut between Bb and Db.

This was a stunning moment for me and hit with such strong inspiration that this piece literally composed itself in a matter of minutes. It was as if an alternate universe of musical possibility opened its doors and welcomed me in.

I then wondered what would happen if I began moving the gourd to other locations along the staff. I took one of my instruments and tuned the open wire without a gourd to the pitch C2. I then took the gourd and moved it to various locations along the staff and I realized, logically, that the result is a wedge of ascending and descending pitches, gradually reaching unison when the gourd finally reaches the very middle of the wire.

As I was only playing solo music at that time, however, I was not really certain what to do with this vast new set of options. I gradually began experimenting with various possibilities. (See Figure 8)

Northern Illinois University, the NIU Bau-House, and middle period repertoire

In early 2004, I spent two months on the island of Itaparica, Bahia, Brazil, as a Fellow at the Sacatar Institute. There I conducted research and composed a good deal of my DMA thesis. While there I was contacted by Northern Illinois University (NIU) to interview for a percussion teaching position in their School of Music. Twelve years later, I am still proud to call NIU home.

When I began teaching at NIU, I gradually began sharing the *berimbau* with my students. I received a small internal grant to purchase instruments, and I contacted composers to ask for *berimbau* sextets. The sextet model seemed appropriate for two reasons. The physical models of the guitar and of Partch's *kithara* resonated clearly in my mind. Furthermore, the European and American percussion sextets such as Les Percussions de Strasbourg, Kroumata, and Steven Schick's Red Fish Blue Fish, have succeeded in creating lasting repertoire for over half a century. The NIU Berimbau Ensemble began performing new works in 2005 and over an eight-year period premiered seven new pieces. (See Figure 9)

A % $qk = 132$
dancing

7

Figure 6. “Berimbau Solo no. 1: “Home-ing” (2004) by Gregory Beyer, letter A.
<https://youtu.be/u2JQaXF1Mzw?t=1m2s>

C $h = 99$

25

Figure 7. “Berimbau Solo no. 1: “Home-ing.” (2004) by Gregory Beyer, letter C.

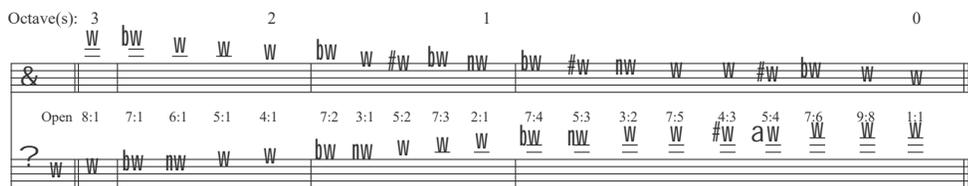


Figure 8. Pitch chart for *berimbau* with full complement of measured gourd locations.

In 2009, member Daniel Pratt suggested the playful name, NIU Bau-House, given the historical reference to the Neue Bauhaus’ existence in nearby Chicago (1937–1944). Working with that identity, we chose a Piet Mondrianesque pattern for our gourds, based upon an inspired design by member, Daniel Eastwood. (See Figure 10)

Date	Composer	Sextet
2005	a e a e	e a e e
2006	e a e	e e o
2007	o a ag e	a
2009	e a a	o a o
2010	a e o o	P e e
2011	e e e	o e e
2012	a o o	g a e

Figure 9. NIU Bau-House Sextet Repertoire.

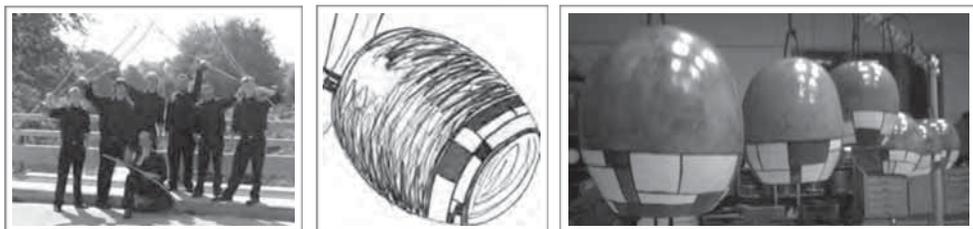


Figure 10. NIU Bau-House Collage. Photos by author. Drawing by Daniel Eastwood.

The NIU Bau-House is now the student training ensemble at NIU, dedicated to the ideas of Arcomusical performance practice and the study of the *berimbau* in *Capoeira Angola*. To its credit, the ensemble performed at the Percussive Arts Society International Convention (PASIC) in 2009 on two different stages, performing two excellent works from its growing repertoire, “Repercussio” by Alexandre Lunsqui (See Figure 11) and “Rotations” by Miles Okazaki. (See Figure 12)

Lunsqui’s sextet brings dynamism, rhythmic drive, polyphonic textures, and large washes of instrumental color that slowly blend and cross-fade from section to section.

Repercussio
for six berimbau's - dedicated to Greg Beyer

Alexandre Lunsqui

♩ = 86

The score consists of six staves, each labeled 'Berimbau' with a number (1-6). Each staff begins with a treble clef and a common time signature. The notation includes various rhythmic patterns and dynamic markings. Key performance instructions include: 'scratching ergua with stick' (pp), 'tremolo between wire and verga (also on the upper part of the instrument)' (pp), and 'tremolo between wire and verga (also on the upper part of the instrument)' (pp). Dynamic markings range from *ppp* to *f*. The score is organized into measures, with some measures containing multiple notes and rests.

Figure 11. “Repercussio” (2006) by Alexandre Lunsqui. Opening passage.
<https://youtu.be/5-0Xn6tWzo>

ROTATIONS

FOR BERIMBAU ENSEMBLE

BERIMBAU TUNING:

LOWER NOTE OF EACH DYAD IS THE UPPER PORTION OF THE STRING.
PITCHES ARE GIVEN IN SEMITONES ABOVE THE BOTTOM PITCH OF THE SYSTEM (F)

1: 0,7	2: 2,9	3: 4,11	4: 1,6	5: 3,8	6: 5,10
-----------	-----------	------------	-----------	-----------	------------

RHYTHMIC MODES:

2,3,2,3,2 = P (Prime Form)
3,2,3,2,2 = R 1 (Rotation 1)
2,3,2,2,3 = R 2
3,2,2,3,2 = R 3
2,2,3,2,3 = R 4

RHYTHMIC VALUES OF 2 AND 3 CORRESPOND TO THE ROOT AND 5TH OF THE KEY OF THE BERIMBAU.
FOR BERIMBAU 1 - 3, THE ROOT IS THE UPPER PORTION OF THE STRING, AND THE FIFTH IS THE LOWER PORTION.
FOR BERIMBAU 4 - 6, THIS IS REVERSED.

MILES OKAZAKI, 2009

Figure 12. "Rotations" (2009) by Miles Okazaki. Performance notes.

<https://youtu.be/zpBECocAMyw>

"Rotations," by contrast, deals systematically with jazz-like tonal harmonies built upon a 12-tone chromatic gamut in which every instrument is responsible for two notes only (no coin is utilized in this piece!) and is tuned in either a P4 (4:3) or P5 (3:2). As the instruments rotate in and out of playing through a similarly rotating 3+2 rhythmic scheme, the colors steadily shift and change, creating a gorgeous harmonic progression.

Alexis C. Lamb, Arcomusical and *MeiaMeia*

In the fall of 2011, Alexis C. Lamb began her undergraduate studies at NIU. She participated in the premieres of the last two Bau-House sextet commissions by Jeremy Muller and David M. Gordon (See Figure 9). At that time, I began to have the sense that this music would be limited in its success and impact unless we as performers began composing music built upon our intimate knowledge of the instrument. A *berimbau* sextet was such a foreign construct for most composers that every collaboration required thorough explanation of the instrument and its fundamental possibilities. I shared my concern with Alexis and asked if she would be interested in collaborating on various aspects of Arcomusical, including composition. We began working together in the spring of 2013 under the auspices of the NIU Undergraduate Artistry and Research

Apprenticeship Program (UARAP).⁴ In that first semester, we began by composing duos to perform together. Alexis's first composition, "Descobertas por pau e pedra," earned her first prize in her division in the NIU Artistry and Research Day. With that success, we happily decided to continue. What we began as a one semester experiment gradually turned into a multi-year ongoing project and is now a professional endeavor. Spurred on by mutual respect and creativity, Ms. Lamb and I co-composed a cycle of *berimbau* chamber music now called *MeiaMeia*, comprised of twelve works in total, six of mine, half a dozen of hers, growing in series from solos to sextets (See Figure 13). As the cycle expanded, we coalesced an identity as Projeto Arcomusical,⁵ inviting colleagues to join us one at a time to perform these works. Moving gradually this way, the works slowly became more sophisticated and intricate. Arriving at the two sextets, in this sense, felt like a true pinnacle of achievement.

Work	Alexis C. Lamb	Gregory Beyer
Duo Spring 2013	e o e a o a e e a	o o 5 e
Trio Fall 2013	Pa o o	o o 1 a o a
Quartet Spring 2014	e a e a o	a e o 1
Quintet Fall 2014	a a e o a	e o 1 o a
Sextet Spring 2015	e a ea	e e o 1 o a
Solos Spring 2015 & Spring 2004		o o o 1 o e g

Figure 13. *MeiaMeia* compositions and dates.

The *MeiaMeia* works are radically different from any previous Arcomusical compositions. The principal guiding factor is a combination of multiple instruments tuned harmoniously, thinking consciously of the ensemble as a sort of harp where any one performer is responsible for only a handful of pitches and both harmonies and melodies are necessarily realized by sharing.

In her sextet "Apenas seja," Lamb employs mixed meters, rapid-fire melodies that move from one end of the ensemble to the other, percussive effects, and deliberately accessible and attractive harmonic language inspired by popular musicians such as Imogen Heap and Emmy Rossum. The result is thoroughly engaging. (See Figure 14)

In "Berimbau Sextet no. 1: 'Kora'" (Figure 15), I took inspiration from the

⁴ The UARAP encourages faculty "to engage undergraduates in their artistic and other scholarly activities in one-to-one mentorships."

⁵ <http://www.arcomusical.com/projeto-arcomusical/>

wonderful recording, *New Ancient Strings*, by celebrated Malian *kora* performers, Toumani Diabate and Ballake Sissoko. The *kora* is a harp-like instrument and as Projeto Arcomusical grew to six performers, I sensed a glimmer of possibility to realize music of similar complexity and elegance. Rapid melodic phrases cascade over repetitive bass lines meant for groove and dance.

A penas seja

SCORE

Alexis C. Lamb (2015)

$\text{♩} = 108$

Berimbau 1
5:4 (Ab3:C4)

Berimbau 2
3:2 (Gb3:Db4)

Berimbau 3
2:1 (Eb3:Eb4)

Berimbau 4
5:2 (Db3:F4)

Berimbau 5
3:1 (Cb3:Gb4)

Berimbau 6
4:1 (A2:A4)

$\text{♩} = 108$

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Figure 14. “Apenas seja” (2015) by Alexis C. Lamb. Opening passage.
<https://youtu.be/u2JQaXF1MZw?t=3m34s>

Touring, new instruments, recording, and travel to Brazil

As *MeiaMeia* neared completion compositionally, Projeto Arcomusical succeeded in creating substantial forward momentum through touring that culminated in a featured performance once again at PASIC in November 2014. That December, the group made video recordings of much of its repertoire at the Quilombo Center in Chicago,

The image shows a musical score for a six-berimbau ensemble. The score is divided into two systems, each with six staves labeled Bau 1 through Bau 6. The key signature is three sharps (F#, C#, G#). The first system starts at measure 21, marked with a box containing the letter 'K'. The second system starts at measure 109. The score includes various musical notations such as slurs, accents, and dynamic markings (f, F, P). Berimbau 1 plays a melodic line with slurs and accents. Berimbau 2 has a dynamic marking of 'f' and a triplet. Berimbau 3 has a dynamic marking of 'f' and a triplet. Berimbau 4 has a dynamic marking of 'f' and a triplet. Berimbau 5 has a dynamic marking of 'f' and a triplet. Berimbau 6 has a dynamic marking of 'f' and a triplet. The score ends with a dynamic marking of 'P'.

Figure 15. “Berimbau Sextet no. 1: “Kora”” (2015) by Gregory Beyer. Melodic passage.

headquarters of the Chicago branch of the International Capoeira Angola Foundation (FICA), run by *Contra Mestre* Beto Defreitas and his wife, *Treinel* Huu Nguyen, with whom we had begun studying *capoeira* earlier that year. Everything to that point we performed on traditional *berimbaus* hand crafted by widely respected *capoeirista* and luthier, *Mestre Valmir* of FICA in Salvador, Bahia.

When Projeto Arcomusical reconvened in early 2015 to begin work on the sextets, we began using for the first time a new instrument, one that I had been slowly developing over the previous year with family friend and expert woodworker, David “Snappy” White.⁶ White’s interest in hand-crafted, wooden hunting bows sparked my imagination in the summer of 2014. After a series of no less than eight prototypes, his incredibly beautiful instruments completely changed our music. They were like nothing we had ever experienced prior when performing with traditional instruments. Aside from their physical beauty, their tuning is precise. Our harmonies and melodies are now incredibly clear; we no longer lose time in rehearsals, tuning and retuning instruments; we can tune in both directions, sharp and flat. The new instruments drastically improved our ensemble intonation, making it possible to hear the music we had written as never before.



Figure 16. “Snappy” White and the birth of a new instrument. Photos by author.

Plans to record *MeiaMeia* gradually took shape in the first half of 2015. We signed a contract to release the project with Innova Recordings, performed the entire cycle in late April and recorded it that May.⁷ That July, with much support from NIU and the local community, Projeto Arcomusical traveled to Minas Gerais and Bahia, Brazil, to perform six concerts of our music, to offer workshops to demonstrate our unique approach to the *berimbau*, and to train and to learn more about the tradition of *Capoeira Angola*. At our performance at the Winter Festival in the colonial city of Ouro Preto, we were featured in an educational music television program sponsored by the Federal University of Minas Gerais, *Concertos didáticos*.⁸

⁶ “Snappy” is an incredibly gifted, humorous, and meticulous artist. His nickname came from his decades-long career as the Southern Wisconsin regional salesman for Snap-On automotive tools. My father’s career as an automotive mechanic caused them to first cross paths and over time galvanize our decades long friendship between families.

⁷ The album is scheduled for release in October of 2016.

⁸ <https://youtu.be/u2JQaXF1MZw>



Figure 17. Projeto Arcomusical in Brazil. Photo on left by Tizsa Rolim.
Photo on right by Noel Childs.

Fulbright, university culture, Capoeira Angola, travel to Africa and Arcomusical Brasil

At the end of the Projeto Arcomusical Brazilian tour, I remained in Brazil until December with the support of the Fulbright Scholar program. I chose to both teach and research, which offered insight and community engagement in two extremely different subcultures of the same city of Belo Horizonte, the capital of Minas Gerais. Thanks to my colleague, Dr. Fernando Rocha, I taught percussion and offered a musical bow symposium at the Federal University of Minas Gerais (UFMG). For the symposium's final performance in November 2015, I finished two duo compositions (numbers two and four) to complete a series of six. There I developed meaningful relationships with a large group of student percussionists and enthusiasts of *capoeira* and the *berimbau*. I found this community to be very comfortable as I understood its codes and behaviors due to my own decade of teaching experience at NIU. Despite language differences, I found incredible cultural parallels between the two universities.

My experience in the *Capoeira Angola* community was not nearly as comfortable at first. I had to work to understand their dialect of Portuguese. I had to build and earn trust, rather than it being assumed as it was at UFMG. I also had to own up to the fact that I was not very good at the physical movements or the music making for quite some time. It was easy to accept this on the physical side of *capoeira*. Accepting my novice status as a musician, however, was difficult. Despite having played the *berimbau* for nearly two decades, I simply did not know how to play in this context. I had and continue to have much to learn, a realization that now gives me pleasure. Prior to this realization, however, I was frequently frustrated with my inability to understand and react to musical structures and social cues.

As an outsider determinedly working to demonstrate my intention to belong, I eventually did earn that trust through my presence and commitment as well as a pair of in-depth transcription projects of *Capoeira Angola* music: one, a historically important recording from 1963 entitled, *Mestre Traíra: Capoeira da Bahia* (See Figure 18), and the other, a 2007 recording produced by my own *capoeira* group, the Capoeira Angola Dobrada Association (ACAD). I became very close to my *capoeira* “family,” especially with my teacher, *Contra Mestre* Alcione Oliveira. It was a revealing conversation with her teacher, *Mestre* Rogério Soares Peixoto, that led me to discover for myself the *Traíra*

recording. As a result, I was able to catalyze this trust into opportunities to bridge the academic and *capoeira* communities.

In August 2015, I participated in the annual international conference of the FICA

Mestre Traira
Track 1 - Santa Maria

Mestre Traira
trans. G. Beyer

SCORE

[A] grad accel.

Chorus

q = 72

Voice

Viola B/C

Gunga G/Ab

Berra-boi F/G

Pandeiros

Angola

São Bento grande

simile

— ô meu bem, ³sem pen sar ³sem 'ma gi nar — Quan do ba ter am na port',

³

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Figure 18. *Mestre Traira: Capoeira da Bahia*. “Santa Maria.” Transcription by author. Opening passage.

organization. There I interacted with *Mestre* Cobra Mansa and his research partner, historian Matthias Assunção.⁹ These two men have traveled throughout Angola on three different occasions (2006, 2011, and 2012) to collect footage that ultimately became their 2013 film release, *Jogo de Corpo*. This film clearly demonstrates the roots of *capoeira* in Angola and furthermore delivers footage of musical bows related to the *berimbau*. This research brings up to date the vintage work of Gerhard Kubik in the mid-1960s. Having heard about this film for well over a year, I purchased a copy and took it back to Belo Horizonte.

Watching the film, I was transported to Angola. It felt as if I were with these two men and their team. Having done my own research a decade prior in books and recordings, I was very familiar with what I was seeing. I simply had never *seen* it before. It was a moving experience. I resolved to contact *Mestre* and Matthias to congratulate them and to suggest that I could work alongside them to help their cause as a musicologist. My first overtures were pleasantly rejected but when I sent a second overture accompanied by my transcription of the *Mestre* Traíra recording (see Figure 18), everything changed. Within days I was having conversations with *Mestre* Cobra Mansa and within weeks he had invited me to co-present a lecture concerning connections between the *berimbau* and Angolan musical bows at this Bow Music Conference.

With this invitation, I reached out to the organizer of the conference, KwaZulu Natal University Professor of Music, Sazi Dlamini, to inquire whether he would also accept a proposal to perform the music of Arcomusical. He happily accepted, and I immediately put together a group of performers from my symposium at UFMG. They applied to the government of Minas Gerais and succeeded in securing sufficient grant funding to travel with me to Africa to perform.

When the instrument you play has deep historical roots in a part of the world that you have only dreamed about for years and you suddenly have an invitation to present and perform there, you do not say no. The experience not only for myself but for everyone in the group that went with me was exceptional and emotionally profound. Upon return to Brazil, the group of performers approached me to express their desire to continue performing this music and learning about the rich history of musical bows even after my departure from Brazil. I happily accepted and the group is now named, Arcomusical Brasil.¹⁰ Prior to leaving Brazil, the group gave me an incredible gift. They commissioned an artist to create a shadow box to commemorate our travel to Africa and our performances together (See Figure 19).

Composer, percussionist, and Arcomusical Brasil member, Mateus Oliveira, wrote “Caminhos,” a trio that was originally performed in November 2015 on the final concert of the UFMG musical bow symposium. When we included it in our African program, Oliveira significantly revised and expanded the work. The piece is unique and has become part of the published Arcomusical repertoire. It brings to the foreground the *chepa*, the

⁹ Assunção is the author of one of the most authoritative and exhaustive books concerning the history of *capoeira*.

¹⁰ <http://www.arcomusical.com/arcomusical-brasil/>



Figure 19. Arcomusical Brazil. Photo on left by Natália Mitre. Shadow box photo by author.

buzzing sound of the coin held loosely against the wire, a sound utilized in the *MeiaMeia* cycle. “Caminhos” makes for a striking contrast to the other trios. (See Figure 20)

Since my departure from Brazil, Arcomusical Brasil is now working on two more works with which I am not yet familiar: “Clareira”, a quartet by composer Igor Maia and “Sonho de mbira”, another quartet by ensemble member, José Henrique. I mention this with genuine enthusiasm, as the development of a second ensemble in Brazil is already creating more opportunities for collaboration with composers and yielding further depth and diversity to the Arcomusical repertoire.

Community

Arcomusical currently has a catalog of forty works for *berimbau* in diverse contexts from solos to sextets to concerti to mixed chamber works. In looking back upon its development, it is remarkable how the project has brought so many people together in a spirit of community. As that community continues to grow, I am sincerely grateful for all that the musical bow has brought to my life. In closing, I wish to honor that community and give very special thanks to Alisha Scott, Bruno Betat, and the Fulbright Scholar program without whose support I would not have been able to have had such a meaningful year; Sazi Dlamini and Cristina Giampietri, Dizu Plaatjies and Cara Stacey, Luka Mukhavele and Mariano González, Mama Bavikile Ngema and everyone in the Bow Music Foundation community; *Mestre Cobra Mansa*, Matthias Assunção; *Contra Mestre Alcione Oliveira* and *Contra Mestre Iran Lacerda*, *Mestre Índio Gallo*, *Mestre Rogério Soares Peixoto*, *Contra Mestre Alexandre* and *Treinel Ramoci*, my family at the Associação de Capoeira Angola Dobrada; *Mestre Valmir*, *Mestre Jurandir*, *Contra Mestre Beto*, *Treinel Huu* and the FICA group in Chicago; Alexis C. Lamb, Christopher Mrofcza, Kyle Flens, Daniel Eastwood, Abby Rehard, Alexv Rolfe and everyone who has been a part of Projeto Arcomusical; Richard Holly, Janet Hathaway, Deana Eberly, Kristin Huffine, Sandy Lopez, and and everyone at NIU; the Kishwaukee Rotary Club; Daniela Oliveira, Natália Mitre, Alex Fraga, José Henrique, Rafael Matos, Mateus Oliveira, and Igor Maia and my other wonderful students at UFMG; Fernando Rocha and Elise Pittenger; Alexandre Lunsqui, Andrew Noble, Miles Okazaki, Jeremy Muller, David M. Gordon, Charles D. Bayne, Matthew Dotson, Tobias Wagner; *Mestre Cabello*

Caminhos

SCORE

Mateus Oliveira

$\text{♩} = 78$

Bau 1 2:1 (Eb3- Eb4) fora do palco

Bau 2 3:1 (Bb2-F4) entra no palco

Bau 3 6:1 (G2-D5) fora do palco

3 Bau 1 2:1 (Eb3-Eb4) 2 x: entra no palco

Bau 2 3:1 (Bb2-F4) chega na posição definitiva

Bau 3 6:1 (G2-D5)

5 Bau 1 2:1 (Eb3-Eb4) chega na posição definitiva l.v.

Bau 2 3:1 (Bb2-F4)

Bau 3 6:1 (G2-D5)

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Figure 20. “Caminhos” (2015/16) by Mateus Oliveira. Opening passage.

and Mestra Tisza; Steven Schick, Chris Lamb, Duncan Patton, John Riley, Dane Richeson; Gerhard Kubik, David Dargie, Thomas Johnston, David Rycroft, Tiago Pinto de Oliveira; and to the incredible musicians and capoeiristas whose music inspired so much transcription: José Emanuel Virasanda, Antônio Maquina, and José Ramos do Nascimento (Mestre Traíra) and José Gabriel Goes (Mestre Gato Preto); and, of course, to Naná Vasconcelos (1944–2016).

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Musical Bows in Cross-Cultural Performance

JASON FINKELMAN*

Abstract: The Afro-Brazilian berimbau was introduced to American audiences through its innovative use in jazz of the 1970s, followed by the emergence of “world music” in the late 1970s. Limited exposure obscured this musical bow through the late 1980s, but as this paper indicates, a number of influential artists from this period, performing outside of the tradition inspired a new generation of players today. My introduction to musical bows came in the late 1980’s, when I met Adimu Kuumba, a self-taught instrument maker from Philadelphia, Pennsylvania specializing in building and performing on African and Brazilian instruments created from found materials. From this uniquely urban folk artist I received fundamental training as a percussionist, and an introduction to a wide variety of instruments including the musical bows, *umuduli* from Burundi, and *berimbau* from Brazil. Fascinated by the sound and complex simplicity of the *berimbau*, it became my foundation in exploring improvised music in avant-garde, cross-cultural settings. With limited availability in the late 80’s, the most accessible *berimbau* recordings were by Nana Vasconcelos, perhaps the best-known player who revolutionized the instrument in jazz and world music, extending its musical range beyond capoeira traditions. I would also soon learn about jazz percussionists Airto Moreira, Dom Um Romero, and Guilherme Franco, discover African musical bow recordings from Burundi and Madagascar, and capoeira music by Mestre Acordeon and through brief study with Loremil Machado of Dance Brazil. Today, online video and audio provides immediate access to traditional practices by players like Xhosa storyteller Madosini and *berimbau* innovators like Greg Beyer performing contemporary chamber music and the late Ramiro Musotto, whose electronica fused traditions are revelatory. The precedent set by Vasconcelos and his contemporaries significantly inspired my music practices, and those of Beyer and Musotto, who successfully expanded the tradition of *berimbau* performance in cross-cultural music.

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Introduction

Cross-cultural musical bow recordings from the mid-1970s through the mid-1990s featuring artists who incorporated the Afro-Brazilian *berimbau* in jazz and “world music” were referenced in my presentation for the 1st International Bow Music Conference at the University of KwaZulu-Natal in Durban, South Africa. These recordings represent a music collection from the age of compact discs and vinyl LPs that inspired and informed my journey with the *berimbau*, which included enjoyable hours searching record store bins in the United States. For many readers, the principal artists from this period may be well known, influential figures in the field, but I hope the personal narrative I share here offers new insight and information on *berimbau* music and performers, with a concentration on the years 1988-1995 in Philadelphia and New York.

Adimu Kuumba

My introduction to musical bows came in the late 1980’s, when I met Adimu Kuumba, a self-taught instrument maker based in Philadelphia, Pennsylvania, who specializes in building and performing on African and Brazilian instruments created from found materials.

A major factor in meeting Adimu, as well as for initiating a life as a performing artist and music curator, was my involvement at the Painted Bride Art Center from 1987-1992. I first walked through the doors at 230 Vine Street in Old City Philadelphia in the 1987 fall season to see pioneering “world music” artist Adam Rudolph lead a percussion quartet comprised of three local drummers blending music traditions of India and West Africa with experimental, improvisational forms. That catalyst moment led me to volunteer, and soon be employed at the Painted Bride, a multi-disciplinary, artist owned organization, which rapidly expanded my artistic consciousness. The theater manager at the time was Lamont Steptoe, a poet steeped in the African-American tradition who I met as a young, 19 year-old, enthusiastically untrained player of a wooden slit drum. He suggested I meet Adimu Kuumba, which occurred on February 14, 1988, a Valentine’s Day that significantly changed my life.

From this unique, African-American urban folk artist, whose Swahili name translates to “one of a kind creativity,” I received fundamental training as a percussionist and an introduction to a wide variety of instruments including the musical bows, *umuduli* from Burundi, and *berimbau* from Brazil. From 36 year-old Adimu, I learned of and soon performed with him on many instruments such as *kalimbas*, *balafone*, *riti*, *adungu* (Ugandan harp), and *shekere*, to name a few, but with the *berimbau*, I immediately fell in love with its sound and complex simplicity, where intricate rhythms and patterns are produced with a very limited set of available pitches and tones from the musical bow. My first instrument was a small, fixed wire bow constructed of bamboo, but after Adimu heard I was running all over Philadelphia playing it in public, he made sure I had a better instrument, which turned out to be the one he was using when we first met. The *berimbau* soon became the principal instrument informing all the others I play and greatly influenced my approach to the performance of improvised music.



Figure 1. Adimu Kuumba. Photo by Lamont B. Steptoe.

In asking Adimu where he first encountered the *berimbau* before he made one for himself, he recalled always seeing Philadelphia percussionist Doc Gibbs carrying a *berimbau*, but never having the opportunity to hear it played live until his band Ile Kuumba appeared on a double bill with Codona, featuring Nana Vasconcelos, Collin Walcott, and Don Cherry.

Codona

In the 2008 reissued set of three Codona recordings released on ECM in 1979, 1981, and 1983, the excellent liner notes by Steve Lake describes three key components of Codona's sound-world as "acoustic music, ancient instruments, and silence." He further notes that by "Weaving together melodies and rhythms from everywhere – North and South America, Africa, Asia, Europe – Codona presaged the surging advent of a pan-cultural 'world music.'" (Lake 2008)

Presented by the Cherry Tree Music Co-op, on the campus of the University of Pennsylvania on Friday, June 18, 1982, this concert tour predates the September 1982 recording session of the third and final Codona release, described by Walcott as "the most intuitive I've ever experienced." (Lake 2008). Adimu mentioned a newspaper review of the June 18 concert in the Philadelphia Inquirer, in which his group from

south Philadelphia was mislabeled as being from South Africa. In tracking down the June 19 review by Frances Davis, I was surprised to read his opinion,

“Codona’s music is a noble attempt to describe a better world in which humans are closer to nature and in which people of all cultures can gather harmoniously to make music on the same stage. The results are predictably muddled and naïve, even if some of the improvised passages shimmer playfully and appealingly. I realize that many people find this sort of music spiritually nourishing, but...”

Ok, I’m one of *those* people. Davis continues,

“But the liveliest music of the evening was made by some friends the band brought with them — eight South Africans, men and women, who sang and swayed and struck an infectious chord on ancient and homemade percussion instruments. Their leader was Adimu Kuumba” (Davis 1982).

Nana Vasconcelos

Born in 1944 in Recife, Brazil, Nana Vasconcelos began playing percussion at the age of 12. In the 1960s he would be a noted collaborator with Milton Nascimento, and in the early 1970s was based in France performing with European improvisers and visiting Americans. It was also in France where he first teamed up with guitarist Egberto Gismonti, who appears on the March 1979 release, “Saudades,” which is perhaps Nana’s most noted recording featuring “O Berimbau”, a work close to 19 minutes in length for *berimbau* and strings. “Saudades” ends with a shorter *berimbau* solo titled “Dado.” These two works continue to inspire and excite my imagination today.

In the 1980’s Nana’s collaborations outside of Codona included recording and touring with several projects including the Pat Metheny Group and the Jan Garbarek Group. I would first encounter Nana Vasconcelos live in 1989, at the International House in Philadelphia where I participated in a workshop and heard a solo performance. Two things I shall never forget about the concert was the way he activated the large audience, having them quietly clap sounds of the rainforest, and on the closing number having everyone singing together the Codona chant song, “Hey Da Ba Doom.” I am glad to now recognize lines of inspiration connecting the *berimbau* from Nana to Adimu, and both of them to me.

Influential *berimbau* players

In recalling the origins of how the *berimbau* came into my life, the following mix tape (any readers remember mix tapes?) lists the *berimbau* performers and music I was listening to in 1992. With these titles I will illustrate the dynamic range of his music. I shall start with Aírto Moreira. Born in August 1941 he performed in the 1960s with prominent *samba* jazz artists, including Quarteto Novo with Hermeto Pascoal in 1967. In 1968 he moved to the United States, reuniting with his wife, singer Flora Purim. He was invited to join Miles Davis’ group after his appearance on the Bitches Brew recording sessions, and soon became a founding member of Weather Report. I first learned about Aírto from Philadelphia guitarist, Rick Iannacone. Surprised I had not heard of him, Rick provided an introduction by playing the Miles Davis recording “Live/Evil”, released in 1971. Rick also pointed out that two tracks were credited to Hermeto Pascoal, and familiarized me

with his music as well. From that moment forward, I sought out recordings by Airto. “Seeds on the Ground”, originally released by Buddah Records in 1971 and “Struck By Fire”, released in 1989, were two albums I particularly enjoyed.

However, on this mix tape there is a cross-cultural duet between Airto and *tabla* maestro Zakir Hussain, produced and recorded in 1991 by Mickey Hart of the Grateful Dead, and released as part of The World series in 1992. This particular track brings fond memories of seeing Airto, Zakir and Puerto Rican percussionist Giovanni Hildago at the Painted Bride in the 1992 fall season. It would be my third time seeing Airto perform in Philadelphia, and the third time again without his *berimbau*. On his previous appearance in Philadelphia, he relayed a crazy story about his instrument’s gourd laying in pieces in his hotel room after a bellboy destroyed it. However, on this third appearance he would borrow a *berimbau*, and choose my instrument for a duet performance with Zakir. That moment was something else!

Multi-instrumentalist Hermeto Pascoal became another favorite musician whose recordings I began collecting. I often describe him as a combination of Duke Ellington,

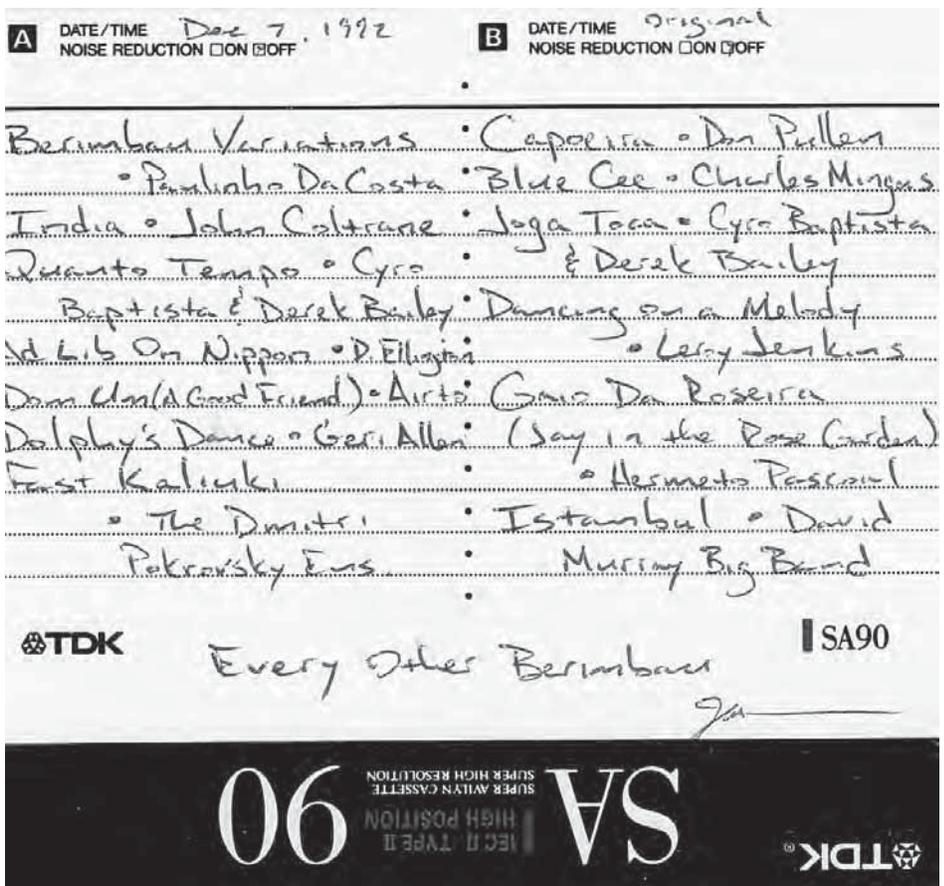


Figure 2. Mix tape cover. Photo by author.

Charles Mingus, and Frank Zappa from Northeast Brazil. On the 1973 release, “The Free Music of Hermeto Paschoal”, there is a much wilder version of “Gaio Da Roseira” than the more groove-oriented version heard on Airtó’s “Seeds on the Ground” from 1971. On Hermeto’s version, percussionist Anunciação is listed as performing *berimbau* bass, which is used in a very abstract way. Widely considered a musical genius, I was thrilled to attend a performance by Hermeto’s group at the Central Park Summer Stage series in New York City, on a double bill with Medeski, Martin and Wood, in June 1997.

Another Brazilian musician that presented the *berimbau* in a very abstract, avant-garde collaboration was Cyro Baptista, who made his first recording as a featured artist with guitarist Derek Bailey on “Cyro: Guitar & Percussion,” recorded in 1982, and released on Incus in 1988. Born in 1950, Cyro arrived in the United States in 1980. I later understood that one of his first U.S. destinations was the Creative Music Studios near Woodstock, NY, an arts organization that played an important role in the development of cross-cultural collaborative work between international folkloric musicians and jazz artists. In the early 1990’s I briefly studied privately with Cyro Baptista, who was then part of Paul Simon’s Rhythm of the Saints tour. I enjoyed visiting his Lower East Side basement studio, where I once asked him about Hermeto Paschoal. My questions evoked stories of when Hermeto would visit Cyro’s family home in Brazil to play the piano. Cyro had me falling off my chair laughing, retelling Hermeto’s famous stories of boxing with Miles Davis and recording with live pigs in a NYC studio, complaining, “but they are in tune”, as he was being kicked out of the building.

A very special track on the mix tape is by Don Pullen, whose African-Brazilian Connection was formed through a residency at Yellow Springs Institute in Chester Springs, PA in Fall 1990, when institute director Vesna Miksic invited the jazz pianist to realize his “dream project” of leading a pan-African-American band. Meeting Pullen for the first time, members of the project included Brazilian musicians Nilson Matta on bass and Guilherme Franco on percussion, Senegalese percussionist Mor Thiam, and Panama-born saxophonist, Carlos Ward. One of the great traditions of Yellow Springs Institute residencies was inviting regional artists in for a day of exchange. Adimu Kuumba was invited to this residency, and lucky for me, he asked if I could drive him there. The afternoon included lunch, where I recall a Philadelphia bass player asking Pullen what it was like playing with Charles Mingus. (The significance of his question was soon understood, as I would begin listening to and collecting Mingus recordings after that meeting.) A jam session wrapped up the afternoon. I thoroughly enjoyed participating in this session, at which point I was observing from behind Pullen as he was tearing up the piano with his fiery brand of cluster rolls and percussive play.

While Pullen was very friendly and open for conversation, I found Guilherme Franco less interested in engaging directly with the local musicians. Perhaps it was his lack of English that caused him to shy away, but by that time Guilherme, born in 1946, was a veteran jazz percussionist, having collaborated with noted artists since the early 1970s, including McCoy Tyner, Keith Jarrett and Lonnie Liston Smith. However, I was young and excited to meet a professional *berimbau* player, so I pursued Guilherme

a bit, and in the end his only comment was my *berimbau* wire needed to be more tightly bowed. The opening track on the debut recording by Pullen's African-Brazilian Connection starts with a *berimbau* solo to introduce Franco's compositional credit, "Capoeira," which seems to be a reworking of the *bossa nova* jazz standard, "Berimbau."

Capoeira

It is interesting that my introduction and initial pursuit in studying *berimbau* was removed from its folkloric roots as the principal musical instrument supporting the Afro-Brazilian martial art of *capoeira*. Fortunately, a colleague at the Painted Bride Art Center had previously studied *capoeira*. After seeing Loremil Machado perform with Sun Ra and his Intergalactic Space Orchestra, Aaren Perry approached him with the idea of starting a class in Philadelphia. Having arrived in New York City in 1975, Loremil Machado, along with Jelon Vieira, are credited with establishing Capoeira Regional in New York City. A Philadelphia Inquirer article from November 16, 1991 by Kevin L. Carter, titled, "Freedom of Movement Capoeira – A Collage of African Fighting Moves and Dance Forms Rooted in Brazil's Slave Past – Is Whirling Onto The Philadelphia Cultural Scene," provides an overview of the small *capoeira* group we established with Loremil as our instructor. The article begins, "It's nighttime in an Old City performance space, and a multiracial, multi-aged group of men and women in workout clothes is gathered in a circle, ready to do battle. A small, muscular man picks up a metal-stringed bow attached to a gourd. He begins to extract a haunting, otherworldly music from the instrument. Then he starts to sing. In Portuguese." The article continues, "The group gathers behind Loremil Machado, the singer, the master, who stands straight and thrusts his right fist into the air. "Salve Capoeira!" he says. "Salve Capoeira!" say his students."

In a following paragraph, the article states, "Although *capoeira* has been practiced in cities such as New York for more than a decade, relatively few Philadelphians were involved in the art until this year. Local *capoeiristas* estimate that as many as 200 people have participated and that the number is growing slowly but steadily. The best-known group is one led by Machado at the Painted Bride Art Center every Monday and Thursday. This summer, informal groups gathered in Fairmount Park." (Carter 1991)

Unfortunately the *capoeira* community would soon lose Loremil Machado, who died of AIDS in 1994 at the age of 40. At a memorial program held for Machado at S.O.B.'s in New York City on March 13, 1994, I recall an amazing moment watching Nana Vasconcelos perform. In the midst of playing his stand up "drum kit," Nana called down from the stage, gesturing for a bottle to be handed up to him. Without missing a beat, Nana received the bottle and started sounding it with added vocalizations, providing a new melodic rhythm in the music.

The Philadelphia Inquirer article by Carter also references the leading practitioner of Capoeira Angola, "And early last month, venerated *capoeira* masters Joao Oliveira dos Santos (more commonly known as João Grande or "Big John") and Jose Sena (known as Negro Gato or "Black Cat"), who live in New York but are from Salvador,

Brazil, *capoeira*'s spiritual home, spent two weeks in residence at the Yellow Springs Institute in Chester County. At Yellow Springs, an arts colony, the *capoeiristas* helped with Nzinga the Queen King, a multidisciplinary presentation that honored Nzinga, precolonial Angola's last ruler, who used *capoeira* warriors to lead a 40-year war on Portuguese invaders. In Brazil, slaves of Angolan descent also used *capoeira* to resist slavery and to help defend colonies of escaped Africans. In describing *capoeira*, its artists often lean toward the metaphysical. "Capoeira is what the mouth eats," says João Grande, who at 57 has been a *capoeirista* for 41 years. He is a grand master of *capoeira angola*, the original form of the art that developed among Brazil's black population during slavery in the 1500s." (Carter 1991)

In October 1991 our *capoeira* group was invited to participate in the Yellow Springs development residency for Nzinga the Queen King by Pauline Oliveros and Carole Ione. For me this was another life altering event, not only was I meeting *capoeira* Mestres João Grande and Negro Gato, but also American music icon, Pauline Oliveros. At the residency I spoke to her about the improvised music I was making with Philadelphia-based electronic musician, Charles Cohen, who performs on an analog synthesizer from the early 1970's known as the Buchla Music Easel. Pauline's immediate response was, "I was there when he invented it," which left me at a loss for words. I would soon learn that Pauline was a pioneer in electronic music and improvisation, and created the music practice of Deep Listening. Interestingly, Pauline would be the third person to recommend I look into the new jazz program at SUNY New Paltz, in Ulster County, NY, near where they were based in Kingston, NY. If I attended college there, I could be involved with activities of the Pauline Oliveros Foundation. I soon visited the area and the school, and decided to leave Philadelphia in the summer of 1992. In settling in Ulster County, I started counting Pauline as one of my mentors. There, my career as a student and artist started to expand in different ways, but before I recount those experiences, I would like to return my focus towards the influence of *capoeira*.

It would be with the group in Philadelphia that I would first hear *capoeira* music recordings and learn traditional rhythms, one of which was *Iuna*. At some point I must have heard the Mestre Saussuna and Dirceu recording of "Iuna" from 1975, because I started performing my interpretation of the melody in the early 1990s. I would reconnect with the original recording much later in my life. Recruited in 2003 by students passionately training in *capoeira* without a local instructor and hired by the University of Illinois Department of Dance in 2004, Denis Chiamonte arrived as a young, soon-to-be *contra-mestre* from *Cordão de Ouru*, Mestre Saussuna's school in São Paulo. At the annual *batizados* organized by Denis, I would soon meet Mestre Saussuna and pick up the "Capoeira *Cordão de Ouru*" compact disc, perhaps one of the best-known recordings of *capoeira* music. In a recent conversation, Denis stated when he hears that recording he is immediately transported back to his childhood in São Paulo, where he would listen to the music outside the doors of Saussuna's school. (J. Finkelman pers. comm. Feb. 2016) Interestingly, Denis Chiamonte would leave *Cordão de Ouru*, and in 2013 be invited to establish Capoeira Angola Center of Mestre João Grande, and

on the weekend we convened at the first international bow music conference, Mestre João Grande at age 83 returned to Urbana, Illinois to visit his affiliated academy.

New Paltz, NY

The aforementioned mix tape begins with Paulinho Da Costa's "Berimbau Variations", which I first heard when I returned to college in 1992. In looking back, I would move in with another percussionist who introduced me to the Paulinho Da Costa's recording, "Agora", from 1976 (reissued in 1991), which featured in "Berimbau Variations" an early, melodic use of four *berimbau* tuned together to form a chord structure anchoring the composition. This recording is also noted for employing a ring modular to effect one of the instruments.

The skills I acquired at the Painted Bride, led me to become a student organizer. By 1994 I produced my first concert featuring Nana Vasconcelos and Cyro Baptista, who at that time had never performed together as a duo.

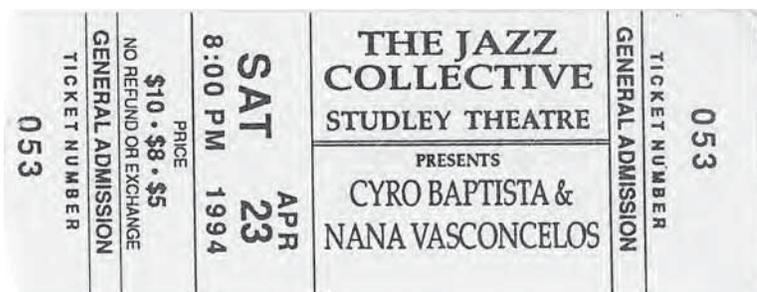


Figure 3. Ticket Stub. Photo by author.

In Ulster County, I would also start meeting and performing with artists connected to the Creative Music Studio, most significantly *bansuri* flautist Steve Gorn, who was a leader of another pioneering "world music" release recorded in 1988 titled "Asian Journal", featuring Nana Vasconcelos, percussionist Badal Roy and bassist Mike Richmond. On the track, "Sadhu," Vasconcelos displays his signature sound of rubbing the *baqueta* against the wooden bow. In my continued interest in tracking the history of cross-cultural world music, I later learned of a recording called "Kundalini", which predates "Asian Journal" by 10 years. Kundalini features three tracks of improvised music by clarinetist Perry Robinson and Badal Roy, one of which includes Nana Vasconcelos as a special guest.

Perhaps the greatest gift of earning a degree in jazz studies performance at SUNY New Paltz was meeting guitarist Geoff Gersh, with whom I had started collaborating in 1993. The collaboration led to forming the trio Straylight with Charles Cohen. In finding common ground, Geoff and I would work with structuring strategies and compositions, one of which was *Iuna*. By the time we started performing as the trio, Straylight, our musical relationship developed into a unified ambient, *avant* world sound created together as improvisers. On our eponymous debut release on Deep Listening (2000), an unedited live performance at the Knitting Factory from February 11, 2008 features two

berimbau sections, the first of which floats above an ambient drone, while the second initiates a driving rhythm that establishes the last section of the concert.

Musical Bows In Cross-Cultural Music — Moving Forward

In carrying traditions such as the use of musical bows in cross-cultural music forward, exciting examples I have encountered in the past ten years or so include a cut from jazz pianist Michael Wolff who had an exceptional *berimbau* performance by Frank Colon on the song “Eritrea”, released on the CD, “Impure Thoughts”, in 2000.

Another cross-cultural artist with brilliant musical bow recordings is Okay Temiz from Turkey, who performed and recorded with Don Cherry. Born on February 11, 1939, 77 year-old Temiz often blends traditional Turkish music in avant-jazz settings, is noted for using an electric *berimbau*, and playing with a unique slide technique.

Another recent inspiration was meeting Steven Sogo (born 1983), a multi-instrumentalist and vocalist from Burundi who plays *umaduli*, *ikembe*, guitar and bass. He was a member of the Pan-African music ensemble featured in the Nile Project, a project promoting ecological awareness of the Nile River and the rich cultural arts found along its shores. Steven and I had a brief opportunity to meet musically, bringing *umaduli* and *berimbau* together, a first for us both.

However, the most exceptional examples of *berimbau* performance I would hear in the last five to ten years center around the work of the late Ramiro Musotto and Greg Beyer, who presented his music at the conference.

Ramiro Musotto offered something completely new to the field by deftly crafting a blend of *berimbau* and percussion centered music focused on multi-ethnic music traditions from *capoeira*, to *candomblé*, to Shona *mbira*, infused with subtle influences from electronica and audio samples. In my opinion, he may have been the most exciting *berimbau* player to emerge since Nana Vasconcelos revolutionized the instrument in the 1970s and 1980s. Musotto was an Argentine born percussionist who moved to Brazil at the age of 19. Ramiro Musotto’s debut release was “Sudaka” in 2003, but it was “Civilizacao & Barbarye” in 2007 that I feel was a fully realized artistic and musical statement. Unfortunately, Musotto’s career was cut short when he died at the age of 45 of pancreas cancer in September 2009. Released in 2013 on Tensionrod Records, “Círculos” offers more insight into how Musotto was continually transferring global music traditions to the *berimbau*. Stripped of the added electronica, one can hear acoustic arrangements of new material, as well as fundamental recordings of compositions that appeared on his release of 2007.

By initiating the creation of contemporary music for chamber *berimbau* ensembles to perform on the concert stage, Greg Beyer is innovating *berimbau* music in a completely different way. After seeing his Projeto Arcomusical ensemble perform live at Northern Illinois University (NIU), I was impressed by his and his co-composer Alexis Lamb’s success in broadening the use of extended techniques first utilized by Nana Vasconcelos, and in developing new music and tunings for the *berimbau*. A notable aspect of this performance was the use of a special set of custom instruments

constructed with laminated wood, tuning pegs, piano wire and gourds that can be placed in several positions along the length of the bow. At the bow music conference, Beyer presented an ensemble of Brazilian musicians deftly performing composed works I first heard performed by the NIU student ensemble, who displayed a highly successful transfer of this unique approach to composed chamber music for the *berimbau*.

At the conference I met and returned home inspired by the music of Cara Stacey, a young artist and scholar from South Africa, who is based in Cape Town. A multi-instrumentalist who performs on several musical bows (*umrhubhe, uhadi, makhoyane*), Stacey's music focuses on improvisation that embraces elements of jazz, new music, and ambient electronics, but cannot be categorized in any one of those areas. Her debut release of 2015, "Things That Grow", on Kit Records, offers a refreshing, original sound rooted by her musical bow playing, enhanced by the laid back grooves and sonic ambience created collectively by her ensemble.

In conclusion, this paper illustrates a rich lineage and wide variety of *berimbau* and musical bow performance operating outside folkloric traditions that deserve closer examination. These musicians all demonstrate that a balance of playing technique and respect for the tradition is required to successfully perform on musical bows in jazz, improvised and cross-cultural music settings, and I view the best of these artists as having created a unique tradition in and among itself.

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 2000 *Rhythm Legend Airto: Then & Now* <http://www.nscottrobinson.com/airto.php>

Discography on CD below provides place where recordings were published and names of producers

Derek Bailey and Cyro Baptista

- 1988 *Cyro: Guitar & Percussion*, Quanto Tempo: INCUS CD01.

Don Cherry, Naná Vasconcelos, Collin Walcott

- 2008 *The Codona Trilogy, Hey Da Ba Doom*: ECM 2033-35.

Paulinho Da Costa

- 1991 *Agora, Berimbau Variations*: OJCCD-630-2 (2310-785).

Steve Gorn, Mike Richmond, Nana Vasconcelos, and Badal Roy

- 1994 *Asian Journal*, Sadhu: NMD 50303.

Airto Moreira

- 1971 *Seeds on the Ground: The Natural Sounds of Airto, Andei* (I Walked): OW 30006 (BDS 5085).
 1989 *Struck by Lightning*, Berimbau First Cry: VJD-32251.
 1992 *The Other Side of This*, Dom Um (A Good Friend) RCD 10207.

Ramiro Musotto

- 2003 *Sudaka*, Caminho FH005.
 2007 *Civilizacao & Barbarye*, Ochossi, Majno Ma Bi: CIM7027.

Ramiro Musotto and Sebastian Notini

- 2013 *Círculos*, Majno Ma Bi: TR-1170.

Papete

- 1993/1975 *Berimbau E Percussão*, Berimba: Discos Marcus Pereira 10035.

Hermeto Pascoal

- 1990/1973 *The Free Music of Hermeto Paschoal*, Gaio Da Roseira: 824 621-2

Don Pullen

1992 *Kele Mou Bana*, Capoeira: CDP 7 98166 2.

Perry Robinson, Badal Roy, Nana Vasconcelos

1978 *Kundalini*, Always Backwards: IAI 37.38.56.

Virginia Rodrigues

1997 *Sol Negro*, Noite De Temporal: HNCD 1425.

Straylight

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Berimbau Musical Bow in Brazil: Some Historical and Analytical Considerations

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Abstract: The *berimbau* musical bow in Brazil has become a major icon of Brazil's traditional and popular culture. Derived from African musical bows from the Angola/Congo area, the instrument is known also for its own and very specific cultural context, the *capoeira* combative game. Whereas much has been said and laid down in research about the development of the instrument in Brazil and about its musical repertory related to *capoeira*, less is known about the production of its patterns and the musical grammar that generates this music. *Berimbau* patterns go beyond music, functioning also as the sonic signs that prescript the sequence of *capoeira* body movement. Furthermore, almost no reference is made in Brazilian musical scholarship about the overtone spectrum of *berimbau* sound as integral to the intonation of the *capoeira ladainha* songs. Although the lack of some traits common to African musical bows — such as specific scales derived from the sequential production of overtones — seems to indicate the loss of the original (African) harmonic-melodic element in the *berimbau* repertory, analyzing the interplay between bow-music and singing in *capoeira* opens new paths for understanding transcultural musical processes on both sides of the Atlantic. The presentation intends to propose collaborative research and the exchange of information in the field of music and its conceptualization across the Southern Atlantic.

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A glimpse on history

The *berimbau* musical bow is an icon of Brazil's historical connection to Central Africa, mainly to Angola. From 1530 to the end of the nineteenth century, there is an estimated number of 4 to 6 million enslaved Africans who were brought across the southern Atlantic to Brazil. The southern Atlantic was an important transaction zone between two closely related cultural areas, that is, Brazil and Angola, the two main Portuguese colonies on both sides of this ocean. Until the 19th Century, Angola was closer connected to Brazil in historical and cultural terms than the Amazonian region, which remained apart from the country for a long time, even belonging to Brazil since the sixteenth century.

Musical structures found today in Brazil denote precise areas of origin in Africa. Besides the Bantu linguistic area of Central and eastern Africa, the western part of the continent became important for the slave trade to Brazil from the eighteenth century on. Mainly Fon (Ewe and Yoruba) speakers were among the people deported from this area. Studying music in Brazil nowadays complements linguistic evidence and gives music an enormous importance in the cultural understanding of Brazil's multi-layered history.

Music changed on both sides of the Atlantic during colonization and the time after the independence of Brazil in 1822. To compare today's musical elements in Brazil with those in Africa must take into account different geographical areas, historical processes and interdisciplinary methodological approaches.

Questions

Discussing *berimbau* musical bow and its repertory brings some general questions into consideration:

- How should different types of historical sources of African people and their descendants in Brazil be related to one another?
- How can musical structures, rhythmical patterns, musical behavior, the music-dance relation, musical instruments, concepts of collective music making, music and religious rituals, the body's response and interaction to music, occurring in Brazil, be understood as derived from different African concepts of music and performance?
- How can African musicological approaches be used in discussing Brazilian musical issues?

The *berimbau* musical bow

The *berimbau* is the main instrument in the capoeira music ensemble. Its traditional repertory, based on specific patterns (*toques*), is closely associated to the dancers' movements. Judging from the number of *berimbaus* produced in Salvador and in other Brazilian urban centers, this musical instrument has become one of the most popular in the country.

Even though we know that there were musical bows among pre-Colombian ethnic groups, cultural history clearly points to the central African origin of the *berimbau*

(Kubik 1979, 1986). Regarding both, organological factors as well as performing skills used in the instrument's execution, the Brazilian *berimbau* is connected to the traditions of two distinct Angolan musical bows: that of the *mbulumbumba* from the province of Wila in the southeast of Angola (Kubik 1975/76) and that of the *hungu* from the regions of the Kimbundu language around Luanda (Kubik 1987). The *hungu* is quite similar to the Brazilian *berimbau* and their connections can be recognized in the details of their construction and in the way they are played.

The *berimbau* is a mono-heterochordal musical bow, that is, the material used for its only string (wire) is different from that of the bow (wood). Its sound resonator is generally made of an open gourd that is tied to the bow with twine after it has been passed around the string. This mode of fixing the gourd enables the musician to change the pitch of the instrument. The open and basic pitch (fundamental) is determined by the point where the gourd is tied to the bow. By moving the twine attached to the resonator up or down alongside the string, the player can change the pitch of the fundamental tone. This is the way he chooses the point at which the ground resonates best (in general, the string is divided in a 1:6 relation). The long segment of the string is struck with a wooden beater that is about 30 cm long. With a *dobrão*, an old copper coin, or a round piece of stone, which is held between the thumb and the index finger of the left hand, the musician interrupts the string to obtain a higher pitch. Usually this pitch is about a major second above the fundamental. The *caxixi* basket rattle is also part of the instrument. Both the beating stick and the *caxixi* are held in the right hand, each beat being accompanied by the sound of the rattle.

Capoeira

Capoeira, the Brazilian martial art (*jogo guerreiro*), is certainly one of the most evident and well-known phenomena of Brazilian culture. After being developed in the plantation areas of Bahia, *capoeira* is now practiced in the whole country and it has even made its way to Europe and to North America, and later to the rest of the world.

The *jogo* (game) consists of a simulated fight between two *capoeiristas* (performers) who perform their *ginga* (rhythmic movements) to the accompaniment of one to three *berimbau* musical bows and other percussion instruments. *Ginga* is a constant movement in the performance, a motional layer from which the *capoeirista* shoots fast and strong hits against the opponent with his legs (*golpe*). Even though *berimbau* has become an instrument played in different musical genres, its historical context is *capoeira* Angola (or de Angola), much older than the style of *capoeira* now practiced as a sport in specialized academies throughout the country and known as *capoeira* regional. In Salvador and in other parts of the country, some *capoeira* masters keep the old tradition alive by teaching and practicing *capoeira* Angola.

In *capoeira* Angola the relationship between the musical patterns (*toques*) of the *berimbau* and the movements of the *capoeiristas* are close and most functional during the game. Even with all the changes that have occurred in *capoeira*, most of the music performed on the instrument is still based on this traditional Angola repertoire,

whether the players are masters of *capoeira* regional or even composers of Brazilian popular music.

Music in *capoeira*

For a long time, the musical function of the *berimbau* was regarded as that of a percussion instrument (Rego 1968). On its single string, a *berimbau* master musician can realize unexpected effects and play fascinating musical pieces¹. *Capoeira* masters are always skilled musicians and many times virtuoso *berimbau* players. Their playing, though, obey the rules of the repertory of the patterns used in “Capoeira Angola”, the *toques*, in order to discipline and to guide the movements of the combatants.

Toques

Aspects of musical conception and the game can be best comprehended in the two types of pieces where the *berimbau* patterns of the beginning (*toques*) are performed in certain calm tempos, the so-called “Toque de Angola”. The pattern called “São Bento Grande”, which is opposite to “Angola”, for example, is always faster, and this can be verified in the Recôncavo Baiano region of Bahia, in Salvador, as well as in other parts of the country. The tempo of the musical performance is so important because the different *toques* are associated with different types of games and these, in turn, can acquire their own dynamics, even though they depend on a musical incentive. “Angola” is the slow *toque* used to begin a game and it also accompanies the chanting of the *ladainhas* (litanies). “São Bento Grande” is more appropriate for a faster and freer *capoeira*.

Musicians and *capoeiristas* have very precise conceptions about the character of a *toque* and about its structure. They speak in terms of dichotomies such as tied/freer (*amarrado/solto*) or hammered/doubled (*martelado/dobrado*), and these are essential to the way they describe the *toques* and the game. A tied (slow) “Angola” makes the game tied, and it is the *berimbau* player who frees the game by introducing a “São Bento Grande”. Thus, a good part of the development of a *capoeira* game depends on the musicians. Terms like doubled, tied and hammered, refer to the internal structure of the *toque* and not to the tempo or to any kind of dynamics.

Besides these aspects of musical conception, frequently there is a type of communicative relationship between the *capoeira* and the *berimbau* player when both are in action. First of all, they give each other mutual incentive. A good player stimulates the performance of the *capoeiristas* and the other way round, and this phenomenon is a fundamental aspect of the game. It would be impossible to conceive of music only in terms of a means to some other end, such as for dancing. On the contrary, music and movement, both viewed in a broad sense, are so closely associated with one another that it seems difficult to consider them separately. In the performance of music and dance there is a constant exchange of stimuli. Through sound the musicians stimulate the dancers, who in turn provide visual incentive for the players. In *capoeira* circles it

¹ Listen for example to recordings of Dinho Nascimento, Ayrton Moreira, Nana Vasconcelos among many others

is not uncommon for one of the two *capoeiristas* to direct a message to the leader of the musical ensemble – always a *berimbau* player – right within the act of *vadições* (playing). This kind of communication was frequent in many specific *capoeira* games that became famous among *capoeiristas* and their audiences, who would talk about them among themselves, relating every minor detail.

Transcriptions

Sound production on the musical bow is always the result of specific movement patterns produced by the bow player, according to the respective musical system. This is why previous research on this topic (Oliveira Pinto 1991) has stressed these movement patterns as well. The transcription of one of the main *berimbau* patterns, the Angola, is presented in Figure 1 in the version of two different players. Although the pattern (*toque*) remains clearly the same, the movement sequence of both performers may differ. The transcribed playing movement patterns must be considered within their formal cycles of 8 elementary pulses. Sound production will always be the result of these patterns of performance action units.

The most important pattern of *capoeira* repertory, the “Angola”, is subdivided in different parts. In the transcription they are marked as A, a1, and a2. The other main *toque*, called São Bento Grande, is characterized by a single configuration within the cycle or time-frame of 8 elementary pulses.

The Role of Overtones

The investigation of the use of overtones in the playing of *berimbau* musical bow and its relation to singing in *capoeira* and in *samba de roda* is a brand new subject in Brazilian musicology on *berimbau* and *capoeira*. Never before has this concern been a subject in the investigation of *berimbau*, especially not in its connection to musical concepts regarding the use of African mouth resonated musical bows. Interesting enough, though, in the early 1990s Tiago de Oliveira Pinto discussed this topic with Veit Erlmann, who heard the field recordings from the Reconcavo in Bahia (Oliveira Pinto 1990). During that occasion Erlmann suggested that it may be worth looking deeper into overtone sequences in *berimbau* playing and to check their relation to the vocal parts sung to the sound of the bow. Returning to this issue, we propose here to benefit from African musicology as a feasible methodological pathway to understand the role of overtones in *berimbau/capoeira* musical performances.

The basic questions here are:

1. Does an overtone sequence of *berimbau* performance determine certain melodic shapes of the songs sung to the *toques* of the Brazilian bow?
2. How can this phenomenon, if true, bring new evidence for the transatlantic music history of Brazil and Angola?
3. Is there a closer link between specific musical bows in central Africa and the Brazilian *berimbau* grounded on overtone characteristics, besides pure organological features?

Angola (Spieler: V. de Jesus)

2 EP. = 120 MM

The first system consists of three measures labeled A, A, and a1. The rH grid shows 'x' in the first measure, and '*' in the second and third measures. The lH grid shows 'o' in the first measure, and '>' and '<' in the second and third measures. The musical staff shows notes and rests corresponding to these actions.

The second system consists of four measures labeled A, a2, a2, and A. The rH grid shows '*' in the first measure, 'x' in the second, and '*' in the third and fourth measures. The lH grid shows 'o' in the first measure, and '>' and '<' in the second and third measures. The musical staff shows notes and rests corresponding to these actions.

Angola (Spieler: E. Andrade)

2 EP. = 90 MM

The first system consists of three measures labeled A, A, and a1. The rH grid shows '*' in the first and second measures, and '*' in the third measure. The lH grid shows 'o' in the first measure, '>' and '<' in the second measure, and '>' and '<' in the third measure. The musical staff shows notes and rests corresponding to these actions.

The second system consists of four measures labeled a1, A, a2, and A. The rH grid shows '*' in the first, second, and fourth measures, and '*' in the third measure. The lH grid shows 'o' in the first measure, '>' and '<' in the second measure, '>' and '<' in the third measure, and '>' and '<' in the fourth measure. The musical staff shows notes and rests corresponding to these actions.

Figure 1: Sound and movement transcriptions of two performances of the pattern (toque) "Angola".
Oliveira Pinto 1991.

Transcription symbols used in Figure 1

- rH: right hand lH: left hand o: open string /: hit with the stick on the string
 x: rattle (caxixi) *: special effect with the rattle
 <: opening the resonating gourd (by pushing it from the belly) >: closing the resonator

4. Why has the harmonic element of musical bow music never been a real subject in Brazilian musicology, in contrast to the prominence of rhythmical and organological issues, which had always been extensively discussed elsewhere?

One essential problem when comparing the use of overtones in *berimbau* music with African musical bows, is the diversity of bows and research on them in African musicology – notably for instance in the research conducted by Dave Dargie on Xhosa music². Furthermore, the study of the tonal configuration in the music of *berimbau*, that is, the significance of modeling pitch sequences, intervals, scale patterns and harmonies as part of the interplay between bow and singing, requires further analytical research. As a result, understanding *capoeira* repertory means recognizing it basically as bow music, since the bow, its sound and, consequently, its production of overtones, are of utmost importance for the repertory as such. Our aim is to dig into this subject from the perspective of African musicology, an approach that, as far as we know, has never been seriously implemented in Brazilian music research until now.

Departing from these basic questions the following transcriptions and analyses intend to display and to understand the tonal settings of some examples of *berimbau* music. The new approach here, also from an African perspective, is the combined use of mechanical transcriptions and software based spectrograms and their analysis. It is important to note, that the interplay between instrumental and vocal parts take into account the meaning of these elements within the overtone spectrum of the musical bow in selected pieces. The use of spectrograms³ as a computer-based enhancement of the transcriptions done by hearing, gave the understanding and transcription of overtones a much larger analytical amplitude.

The recordings used in the following analysis were obtained during fieldwork in Bahia in the 1980s (Oliveira Pinto 1990), more precisely in the Reconcavo area, the hinterland behind Salvador. This is one of the main historical areas where *capoeira* and *samba de roda* had been practiced with a large and especially vivid context of local, Afro-Bahian intangible cultural heritage. The recorded musicians, all *capoeira* masters, were among those who considered themselves as performers of the old Angola tradition. It seems important to analyze this specific kind of material, since one can expect a closer historical and conceptual affinity between this repertory from the Reconcavo, and musical practices of musical bows in Africa.

Ladainha

In the *ladainha* (litany) “Eu sou brasileiro” (Port. “I am Brazilian”), the *berimbau*, played by Mestre Vavá (Valfrido Vieira de Jesus), who also sings the solo part, performs the fundamentals E flat and F in the pattern of the “Toque Angola”. The tonal relation between singing and bow parts can be observed in the first note of the melody sung by

² See article by Dave Dargie in this volume.

³ All spectrograms used in the present paper were produced with the free application Sonic Visualizer. Available at <www.sonicvisualizer.org>

the choir, a slight glissando reaching the e flat, one octave above the best perceivable overtone of the *berimbau*.

(22,8 s)

Choir Solo Choir Solo

Berimbau

Figure 2. “Eu sou brasileiro”, partial transcription of the bow fundamentals and vocal lines.

The tonal structure of the vocal melody can be described as being in the key of A major, being closely related to the overtone spectrum of the fundamentals E flat and F played by the bow, as showed in Figure 3.

Solo/choir

Berimbau

- clearly hearable pitches
- related overtones (transposed representation)

Figure 3. Schematic representation of the tonal material of “Eu Sou Brasileiro”.

The note of A flat, sung mostly over the second fundamental F of the *berimbau*, does not belong to its overtone spectrum, but builds the tonal center or the finalis of the vocal melody. Two interpretations for this occurrence seem plausible: first, the ambiguity A/ A flat as related to the second fundamental F could be a hint at neutral thirds, which are largely found in the music of the Brazilian northeast. Another explanation that seems even more relevant in the context of this particular piece, is the second fundamental that could be understood as an element of tonal tension closely related to the rhythmic tension as occurring through the asymmetrical shape of the “Toque Angola” itself.

To sum up, considering the fifth relationship between the initial E flat and the main

A flat of the melody, one can argue that the sung melody is constructed based on the first fundamental E flat, starting one octave and ending one fourth above it. Although some of its overtones are indeed present in the melody, the second fundamental F appears mainly as a form of tension, both tonal and rhythmic, a feature inherent to the “Toque Angola” played on the bow.

Similar fifth relationships are found in the next example. The recording of the song, “O sim sim sim”, displayed in Figure 9 is opened by the bow, in a short but full-sounding introduction consisting of a fast ostinato on the tone D with a very rich overtone spectrum. This can be clearly seen in the following spectrogram. The variation of the “Toque São Bento Grande” played on the bow stresses the second fundamental E placing it on the main beats of the rhythmic-melodic pattern.

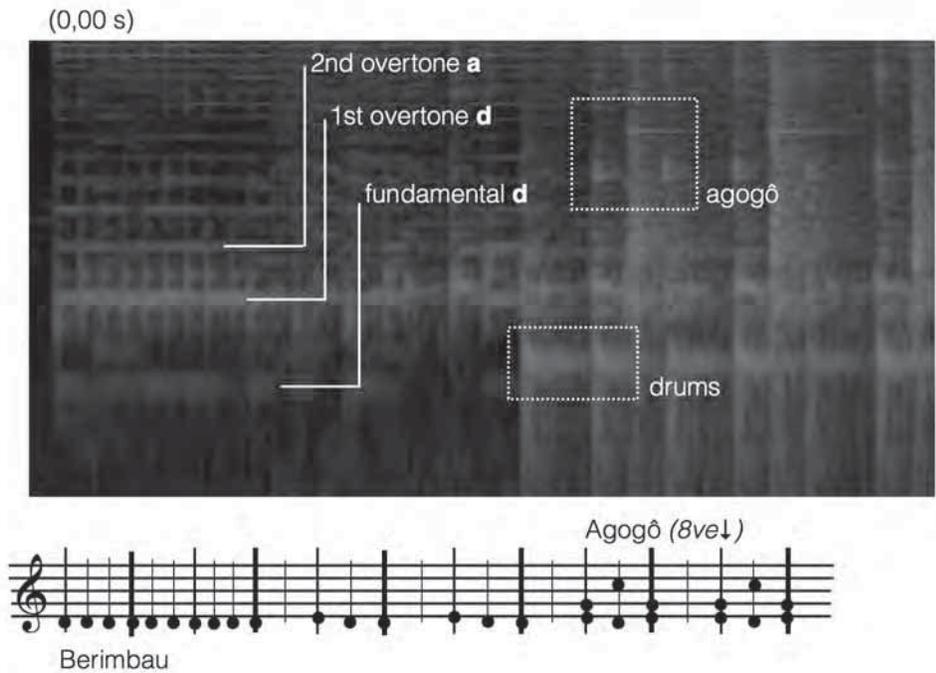


Figure 4. Chula “O sim sim sim” played by Mestre Vavá (berimbau and lead voice).

The vocal melody, first sung by the soloist and then repeated by the choir, starts on the tone D and establishes its tonal center on the tone G. The use of the tone F at approximately two thirds of the total phrase length indicates the use of a G modus (mixolydian) as the mode of the piece, therefore in an octave and fifth relationship to the first fundamental D of the bow.

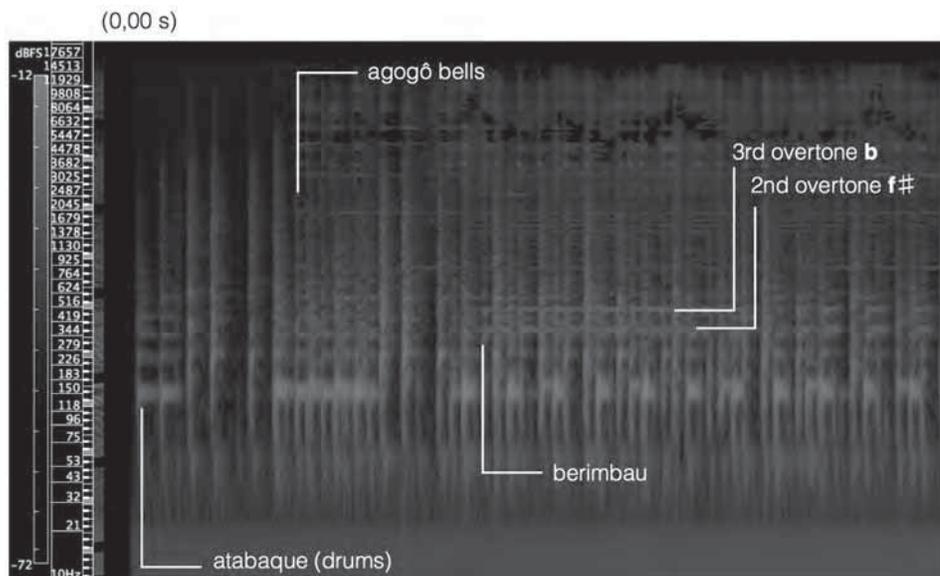


Figure 5. Extract of the melody of “Oh sim sim sim” and *berimbau* pattern (*toque* São Bento Grande).

Although the second fundamental E of the bow is also present on the G mode, its placement on the strong beats of the pattern seem to mean more tension than relaxation if perceived as a counterpoint to the sung melody.

Among the recordings selected for the present paper, the one that displays the closest tonal relationship between the bow and singing parts does not belong directly to the repertoire of capoeira, but to the related genre, *samba de roda*. In this example, the *berimbau* seems to replace the harmonically and rhythmically leading part of the *machete* guitar that in the 1980s was still found in the Recôncavo Baiano as the main string instrument of the *samba de roda*.

In this piece, the *berimbau* part consists of one single fundamental B, with its second and third overtones (F sharp and B respectively) most prominently audible in its overtone spectrum. While the fundamental itself and its first overtone (one octave above) cannot be clearly visualized in the spectrogram, the second and third overtones can be heard simultaneously and with outstanding clearness throughout the recording. An interval of a fourth is built, which can be detected in the following spectrogram in form of two parallel lines.

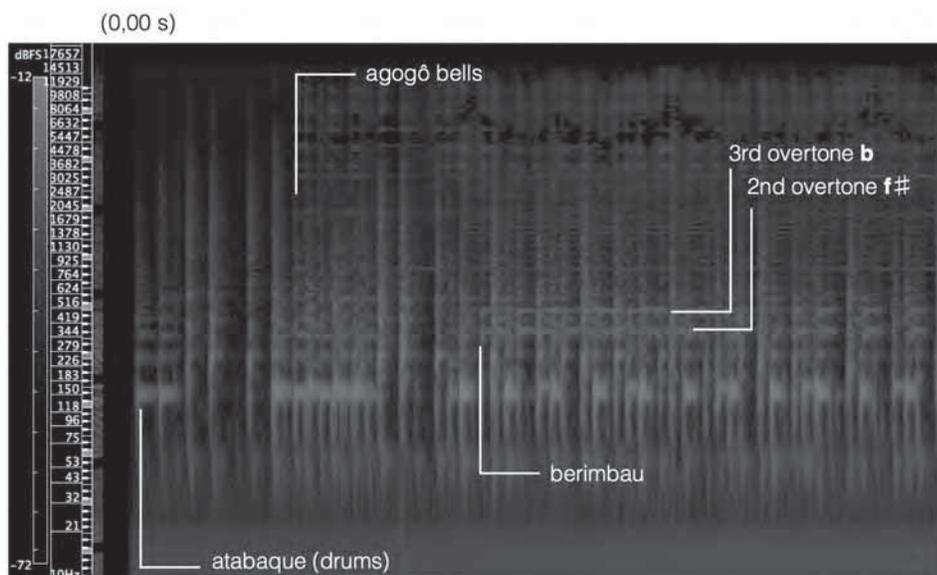


Figure 6. Spectrogram of the *samba de roda* recording by Mestre Vavá (*berimbau*) and Primero (Rogaciano Augusto), lead voice.

„no caminho da maré“ (16,6 s)

„no caminho da maré“ (58,3 s)

„lembaê, lembá“ (1 m 46 s)

Figure 7 displays three staves of musical notation in treble clef, showing the melody of a *samba de roda* recording. The first staff is labeled „no caminho da maré“ (16,6 s) and shows a sequence of notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4. The second staff is labeled „no caminho da maré“ (58,3 s) and shows a sequence of notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4. The third staff is labeled „lembaê, lembá“ (1 m 46 s) and shows a sequence of notes: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4.

Figure 7. Extract of melodies sung by Primero (Rogaciano Augusto) on the *samba de roda* recording.

All analyzed melodies carry a similar tonal structure based mainly on the tones B, D sharp and F sharp, the major triad over B, showing an evident tonal relationship to the most prominent overtones of the berimbau B and F sharp.

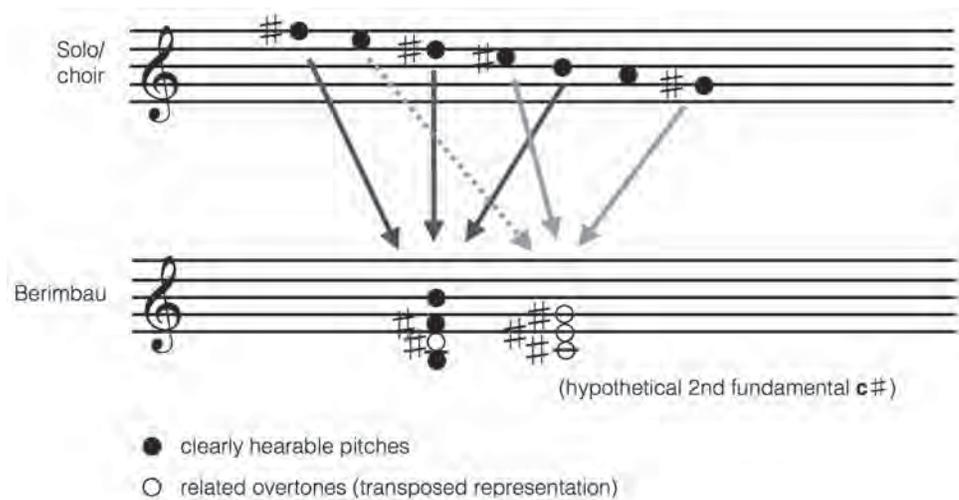


Figure 8. Schematic representation of the tonal material of the *samba de roda* recording.

Furthermore, if considering the notes of a second hypothetical fundamental, C sharp, which could appear for example by stopping the string in the usual manner after the stroke (which would produce a sound hardly perceived on the recording), an even closer relationship between bow playing and singing could be observed. Similar to the relations found on the tonal material of “Eu sou brasileiro” (see Figure 6), both the fundamental and the fifth above (C sharp and G sharp) are shared by both parts, instrumental and vocal, and, again, the discrepancy regarding the third of the (hypothetical) second fundamental can be clearly perceived.

It can be argued that the analytical remarks confirm consistent tonal relationships between bow playing and singing in the music of the *berimbau*, which go beyond common notes and simple affinities, such as fifth or octaves, involving instead also complex relations between overtone spectra and the tonal material of sung melodies. The analysis of *berimbau* music based on overtones reveals itself as an important approach in the context of the research on African and Afro-Brazilian musical bows. *Berimbau* music can be regarded not only as the music of *capoeira*, but – closer to its African connections – as bow music, i.e. as a music that is not only made with, but rather from the musical bow.

Concluding remarks

The *berimbau* musical bow is of Angolan origin. It took centuries for this African musical instrument to find a new performance context, the *capoeira*, most likely in the

middle of the nineteenth century. The success of this Brazilian performance tradition practice is responsible for the large profusion and popularity of *berimbau* nowadays. In its repertory, *berimbau* evinces an African pattern and a movement based concept of playing. To better understand this musical system we have argued that musical analysis follow an approach of three steps:

1. The playing movement patterns must be considered within their formal cycles of 8 elementary pulses. Sound production will always be the result of these patterns of performance action units.
2. The analysis of the main *toques* exemplify the way in which music and musical creativity in *berimbau* performance are shaped, accomplished and compiled one to the other, evincing a principle of formal construction that assembles each of the musical pieces.
3. The inclusion of sound analysis made by software generated spectrograms introduces a new way to comprehend *berimbau* music in relation to its sung repertory. This method follows an African perceived understanding of instrumental based vocal music, in which overtone spectra derived from bow playing are responsible for specific forms of vocal polyphony.

A more thoroughgoing comparative analysis of different musical bows in Central, Eastern and Southern Africa with *berimbau*, evince the lack of some basic African traits in Brazil, where the loss of original (African) harmonic-melodic elements have probably occurred. This is due especially to patterns of direct parallel singing with overtones produced by the mouth. Also the typical bow derived hexatonic scale – in Xhosa music for instance – is lacking in Brazil. Nevertheless, the analysis of *berimbau* music in *capoeira* has proven that there is a clear interplay between the overtones of bow-playing and the contour of singing patterns and melodic motives. Finally, this approach opens new paths for understanding transcultural musical processes on both sides of the Atlantic by enabling us to recognize *berimbau* music within the scheme of an overtone production that determine singing in a clear African manner, achieved though in an almost unique Bahian way. Never before has this Afro-Brazilian duality been analytically perceived with such prominence. This could not happen so far, simply because music research in Brazil, especially mainstream ethnomusicology, almost tends to keep a one-sided focus on rhythmical features when dealing with African extensions across the southern Atlantic, while stressing functional harmonic evidences of European shape, when analyzing sung repertoires of Portuguese origin.

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Music Bows from the South and Centre of Mozambique

LUKA MUKHAVELE*

Abstract: This is a presentation of some musical bows, from the provinces of Gaza, Maputo and Inhambane, from the south, and Tete, from the centre of Mozambique, to be carried out by Luka Mukhavele, a music scholar/researcher lecture and performer at the Eduardo Mondlane University; Ernest Mathusi and Maneto Tefula, are instrument makers, players, and teacher, whose biographies are attached to this paper. When we say — from Maputo, Gaza, Inhambane, and Tete — we actually refer to the specific versions we are presenting, as the families where the instruments belong are not restricted to these areas — geographical, political and administrative factors influence culture, but the underlying matrix of culture is ethnicity. Thus, administrative regions do not necessarily match cultural regions, e.g. culture is not confined within the political, administrative, and geographical borders, but rather in the ethno-linguistic spaces. In a nutshell, these instruments occur in neighbouring provinces and countries, sometimes, with the same names, physical features, social functions and social functions. From the south of Mozambique, we will present xizambi, xipendani, and xitende, and from the centre, kankubwe, showing their physical features, history, usage, and potentials, which for many, will be familiar, as music bows are a long tradition disseminated through the whole of sub-Saharan Africa in different sizes, shapes, styles, materials, but still retaining enough common characteristics. Their history, genealogy, and usage are an unquestionable evidence of a common heritage revealing common ancestry, and facilitating the reconstruction of regional history. One serious concern regarding these instruments is their fast and, apparently, irreversible loss of popularity, which urges for intervention. Thus, we have been mobilizing all available resources to revitalize this culture, and change the evolution course of these instruments.

**Luka Xikhapani Mukhavele musicianship has been shaped since his childhood along the Limpopo valley, Gaza province in the south of Mozambique where he was exposed to all forms of local and regional musical traditions and instruments. He studied at the Zimbabwe College of Ethnomusicology Trust, graduated an MA in World music studies at The University of Sheffield and is working towards his PhD in Ethno-organology. At present he lectures Acoustics and Organology Study of Mozambican Traditional Musical Instruments and Construction of Mozambican Traditional Musical Instruments at the Eduardo Mondlane University, in Maputo. He also teaches music education at the Maputo International School, researches and builds musical instruments as well as perform under his own Mukhambira Ethnomusical Project.*

This is a presentation of some musical bows from the provinces of Maputo, Gaza, and Inhambane, from the south, and Manica and Tete, from the centre of Mozambique, which I extracted from my PhD project and adapted for the Bow Conference. The *xizambi* is presented through a paper, demonstration, and performance, whereas, the rest of the bows/instruments are only presented orally, and through demonstrations.

When I say — from Maputo, Gaza, Inhambane, Manica and Tete —I actually refer to the specific instruments/versions that I am presenting in this event, as the families of these bows are not confined to those geographical spaces, but rather, to the ethno-linguistic groups that inhabit those and neighbouring areas. In a nutshell, these instruments occur in neighbouring provinces and countries, especially where ethnicities spill over, sometimes, with the same names, physical features, and/or social functions. From the south of Mozambique, I together with Ernesto Mathusi am presenting *xizambi*, *xipendani*, and *xitende*, and from the centre, with Maneto Tefula, I present *kankubwe* and *nyakatangali*, and, as an extra, I am demonstrating on the *nyampikid'ongo*, from the north. The presentation is focused on their physical features, history, usage, and musical potentials.

For many participants, some of these bows are familiar and similar to those from their home areas, as they are a long tradition disseminated through the whole of Southern Africa in different sizes, shapes, styles, materials, but with the common essential features. Their history, genealogy, and usage are an unquestionable evidence of a common heritage, revealing common ancestry, and bridging the otherwise lost ethnic bonds and history in the region. Unfortunately, lately, they have been losing popularity at an alarmingly fast rate, in an apparently irreversible manner, thus, urging for intervention.

Thus, this presentation and the research behind it, extracted from my PhD project: *Challenges and Potentials of Traditional Musical Instruments in Present-Day Contexts: Xizambi, Xibavhani Ximbvokombvoko and Mbira*, are an effort for the integration and revitalization of traditional musical instruments.

Organological study of the *xizambi*

The *xizambi* (see Figure 1) is among the smallest in the family of the southern and central Mozambican musical bows, which comprises the *xitende*, *xipendani*, *kankubwe*, *nyakatangali*, *muqhangala* and others. As a common heritage disseminated through the various Southern African ethnicities, it is an important icon for the understanding and reconstruction of the (music) history of this region. Thus, throughout the essay I discuss organological aspects: origins, history and geographical distribution, playing methods (sound producing and controlling mechanisms/techniques; sociological aspects; nomenclature; and its musicality/musical possibilities, to draw its potential role in the development of music to present day contexts.

Origins

In discussing the origin of (European/western) musical instruments, Jeremy Montagu (2003), in his paper titled *Why Ethno-organology?* reveals that “the origins of most

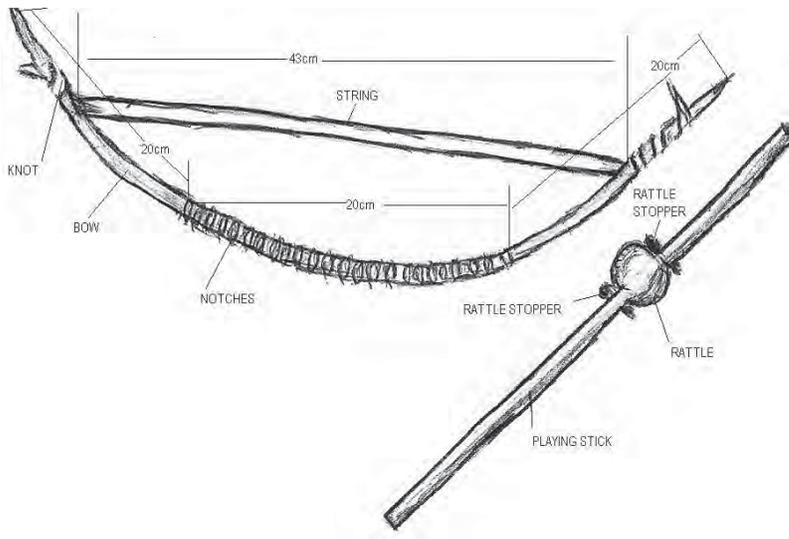


Figure 1. The *xizambi* from the Shangana people in the south of Mozambique.
Drawing by Luka Mukhavele.

musical instruments (excluding the *Theremin* and the synthesizer) were lost in the mist of antiquity, though occasionally we can spot a place, even a name.” Such is the case with the *xizambi*, and many other African musical instruments, which, due to unrecorded history and non-graphic tradition, and multiple migratory movements, cannot easily be tracked back to their origins, if not by conjecture. Ernesto Mathusi, a maker and performer of musical bows from Gaza province, settled in Maputo city, resorts to a rather mythological/fairy-tale approach, in discussing the origins of the *xizambi*, describing it as “the first guitar of the African people”, to emphasize its antiquity; and ascribing its invention to the hunters, claiming “it was used to hypnotize the animals with its sound for easy hunting”.

In a nutshell, the precise origins of the *xizambi* are not known. It is, nevertheless, obvious that there is a connection between Southern African hunting bows and musical bows, “preserved today in south-eastern Angola and parts of Namibia, where hunting bows are instantly transformed into musical bows by attaching a tuning noose, using either the mouth as a resonator or a fruit shell (Kubik 1970 and 1987). Fernando Ortiz (1955:18) cites Dorothea Bleek describing how in some Angolan ethnic groups hunting bows are temporarily converted into musical bows; and, in the Gaza province, south of Mozambique, the same materials are used for musical bows and hunting bows; In the site: <<http://www.britannica.com/EBchecked/topic/719112/African-music/57074/Musical-bows> 20/8/2014> it reads: “the San of the Kalahari often convert their hunting bows to musical use”.

The above facts provide compelling evidence of the relationship between the two types of bows (musical and hunting), which apart from their resemblance, is overt in their common source material, common ethno-geographical distribution, and the affinity of their socio-cultural functions.

The features and the playing posture of the instrument described by Bleek, as cited by Ortiz, resemble the *xitende*, of the Tsonga-Shangana people, thus suggesting a theory that the *xitende* was invented accidentally from the hunting bow, and, subsequently, optimized as a musical instrument in appropriate circumstances, although we cannot yet tell from when the conversion of hunting to musical bows has been practiced. Some further support to the theory was provided during my fieldwork in the province of Gaza, in 1992, where musical and hunting bows are made from the same woods, extracted from the *mutshumbi* and *ntsanye* trees, among the Shangana people; both used *lisinga*, (a twisted cow skin strap) as the sound producing device and bow tensioner, respectively; share the geographical region of occurrence, and, both are made by the same people. Nowadays, their relationship is extended to the markets, where they are displayed in the same stands for sale, with actually, the same sizes, finish and decorative iconographic features — as same category, or closely related objects.

In 1993, Felisberto Wukheyu, a Shangana *xitende* player from Ximbhutsu, who claimed, by then, to be 84 years old, declared that in his childhood and adolescence, which could be estimated to be between 1915 and 1929, the term *xitende* (name of the most popular Shangana musical bow) did not exist in his area. The closest relative, which he claims to be the prototype of the *xitende* was called *qhaqha*, and had a *lisinga* as the sound producing device, before the metal string in common use today. It is therefore quite likely that the metal string, today used on *xitende* and other musical bows was a later innovation, at least in that region.

The above discussion connects to the musical bow family as a whole, however, without a specific address to the *xizambi*. The *xizambi* does not seem to have an obvious predecessor, or extra-musical application. Thus, it can be assumed to be an intentional invention, as opposed to the possible accidental invention of the *xitende*. That means — theorized, designed, constructed, experimented on, and then “perfected” to its present stage of evolution, however, with ideas borrowed from other instruments, as for example, the *xipendani*, or the *nyakatangali*, which are also mouth resonated bows from the same region.

As demonstrated under playing technique, the *xizambi* is the only musical bow using a palm leaf as a sound producing device, and, has a rather intricate/elaborated playing technique, combining various principles. From these facts it could be inferred that the *xizambi* was invented in a later age, or evolutionary stage of musical bows, when basic principles of acoustics, more specifically, the principle of harmonic activation through the mouth, was already understood and explored. The *xizambi*, requiring more commitment in the learning process, as compared to the other bows, is seen as a difficult instrument to learn/master, which, subsequently, challenges its survival, as many people give-up on it. For example, in Ernesto Mathusi’s home-music school, there are relatively few children learning the *xizambi* — the majority of the kids prefer the *xitende*. In my whole area of study there are adults and old people, and, hardly any young people playing the *xizambi*.

Physical features and raw materials

The *xizambi* (Figure 1) has a stave made from a roughly 60cm length of high resilience woods, [that stands flexion?]. Shangana *xizambi* builders prefer the *musiphani* and *ndzhengha* plants, which have the desired qualities, and are available in their region. As shown in the picture, the string of the *xizambi* is actually a strap, traditionally, made from a palm leaf about 1,5cm wide, which is tensioned and tied near the two ends of the stick to turn it into a bow; separately, there is a playing stick with a little rattle in the middle of its length, either made from a round, wild fruit shell, called *thongwana*, in the Shangana language, or woven with palm leaves, as a small box. Nowadays, many builders and players prefer nylon packaging straps to palm leaf strings, because of their durability, but also, their accessibility. I have not yet compared the sonorities of the two types of “strings”, because palm leaf *svizambi* (plural of *xizambi*) have lately become rare, which suggests an abandonment of the palm leaf for this purpose, most probably, due to its fragility, but also, because of the discovery of the “better/new” material (the nylon strap). Sizes of *svizambi* can vary, from builder to builder, as they are not standardized. Below is one sample in a common size.

Contextualization of the *xizambi*

During my fieldwork in the southern Mozambican provinces of Maputo, Gaza and Inhambane, and Manica, Sofala and Tete in the centre, I interviewed and recorded Vasco Sithoye and Boavida Zumba (in Figure 1), Francisco Xigulani, Zacarias Mawhayi, Alberto Muthetho and Sifazonke, who are *xizambi* players from the Shangana-Ndawu ethnic groups from the centre and south of Mozambique. Later on, through bibliographic research, I learned about similar musical bows occurring in Namibia, Angola, South Africa, Lesotho, Botswana and Zimbabwe, whose resemblance reveal a genealogical relationship and/or common prototype, as for example, the different versions that I found in Minette Mans’s “Ongoma: Musical Instruments of Namibia” (1977); Dias’s *Instrumentos Musicais de Moçambique* (1986), and the real instruments I collected into ARPAC (cultural heritage archives) during my fieldwork look similar to (see Figure 1), and, in Mozambique, all versions are used in the folkloric music genre, in leisure time for entertainment and socialization.

Playing Technique

Figure 2 shows the typical playing posture for *xizambi*: The player, usually male, in the Tsonga-Shangana ethnicity, sitting on a stool, preferably, a low one, with about 30 to 40cm of height, secures the stave from its left end with his left hand, and rests its right end on his chin, allowing the string to pass between or in front of his lips, so its vibration can excite the air in his mouth, which functions as a resonator, as shown in Figures 2 and 3.



Figure 2. Playing position. Vasco Sithoye (left) and Boavida Zumba (right). Photo by Luis.



Figure 3. Finger position. Photo by Elia Mukhavele.

Sitting on a low stool, the player holds the stave on his left palm and the playing stick with the right hand. The little, ring and middle fingers of the left hand are positioned as shown below, to stop the string at different lengths and subsequently, vary the fundamental frequency (See Figure 3). The string passes between the lips, to transmit the vibrations to the air in the mouth of the player (See Figure 4). With his right hand, the player holds the playing stick upwards, resting it on the notches of the bow. (Figure 5)

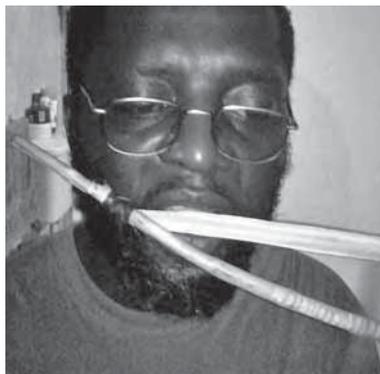


Figure 4. Position of string and the right end of the bow. Photo by Elia Mukhavele.



Figure 5. Stick position. Photo by Elia Mukhavele.

Sound production and control

The sound production and control mechanisms are indispensable for an object to be considered a musical instrument, because, as John Blacking (1973) asserts, sound is music when it is humanly organized (produced, controlled and manipulated) or perceived as such. The *xizambi* is a polyphonic instrument, exploring three simultaneous sounds, which are produced in three different, “chain reacting”/interconnected processes as described below.

The first process produces an unpitched frictional sound, by rubbing the playing stick against the notches carved on the bow (see Figure 5), in a left-and-right seesaw movement, which, at the same time, shakes the rattle on the stick; The shaking rattle produces the pulse, and the friction on the grooves produces a frog or *reco-reco*-like sound; still in the second process, the *reco-reco*-like sound is propagated through the stave to the string, exciting it; the excited string, then, produces the fundamental pitch of the music; to vary the fundamental, the player stops the string at different lengths with his/her little, ring and middle fingers of the left hand (in a similar way as on a guitar); in the third process, the vibrating string excites the air contained in the mouth of the player, which acts as a resonator, similar to a Helmholtz resonator¹, where different pitches are produced by activating different harmonics of the fundamental, in a similar manner as in diaphonic singing (Stock 1996: 20). To produce low pitches the player reduces the aperture of the mouth; and pushes the tongue back and downwards; and the lower jaw and throat muscles downwards, to expand the size of the mouth/resonating cavity; for high pitches the mouth aperture is widened; the tongue pushed up and forward; and the mouth/resonating cavity is narrowed.

Classification

Among the many classification systems for musical instruments, the Hornbostel-Sachs, is the most commonly used in music scholarship. This system groups instruments, according to their sound producing devices as idiophones (whose sound is produced by solid parts of the instruments body, not needing air column, tensioned string or membrane); membranophones (by a tensioned membrane); chordophones (by a tensioned string); aerophones (by air), and with a later addition of electrophones (by electronic circuit); and sub grouping them according to the sound producing method as friction, percussion/struck, plucked, blown. According to this system the *xizambi* is a friction chordophone, because its string, which is actually a strap, is caused to vibrate through friction. But, unlike most of the friction instruments, whose bow excites the string directly, on the *xizambi* the friction is applied on the grooves cut on the stave; it is a simple chordophone, because it does not have a resonator as part of its body — its sound is amplified by the mouth of the player.

Geographical distribution and nomenclature

As previously mentioned, the *xizambi* is widespread through the southern African region, stretching from the Indian Ocean coast in Mozambique to the Atlantic coast in Namibia and Angola, and covering over 1300km, northwards, from the southern border to the centre within Mozambique. As cited by Margot Dias (1986: 157), Kirby found 11 (eleven) types of musical bows in South Africa.

The study of the nomenclature of the *xizambi* reveals the exchange of its names

¹ A Helmholtz resonator in an air vibrator system consisting of an air mass in container, and a neck, whereby the container behaves like an air spring, and the neck, as a piston, which compresses and releases the air contained in the larger container. For further reading see Rossing Moore and Wheeler. 2002. *The Science of Sound*.

between different languages, as for example, according to Dias (1986: 57) citing Hugh Tracey, a Zimbabwean Ndawu musician uses the name *xitende* for the *xizambi*; similar names for the same instrument in different languages, as for example, *xizambi* in Shangana and *xizambiza* in the Citshwa language from the Inhambane province, in the south of Mozambique.

***Xizambi* in Mozambique**

In Mozambique the *xizambi* occurs in the centre provinces of Sofala and Manica, where it is called *ximazambi*, *nyakazambi*, *nyakajambi*, or *nyakazeze*, but it is more popular in the south being known as *xizambi*, in Maputo, Gaza provinces; and *xizambi xizambiza* and *xivelani* in Inhambane province. Although the *xizambi* spills over to Zimbabwe and South Africa from the provinces of Gaza and Manica, in those countries it is not as popular as in Mozambique. In Zimbabwe it occurs among ethnic groups overlapping the border with Mozambique, as Shangana, Ndawu, which suggests it to have been split by the border into the two countries. In each of its versions in Mozambique, the *xizambi* is adapted to the local music sung in local languages, with a distinct accent, intonation, and repertoire, such that experienced listeners can tell the ethnicity of each player just by listening to the music.

***Xizambi* “relatives” in Namibia**

In Namibia relatives of the *xizambi* occur in use among the linguistic ethnic groups listed below, with the respective names on the right side. (Mans 1977: 27). According to the description and pictures from the source, the instruments are almost identical to the Mozambican ones, just having different names in the different languages. Minor variations are observable, but could not be considered regional variations, as they also occur among different makers from the same ethnic group, even in Mozambique.

Ethnic group/language	Name
Silози	<i>Kaholoholo</i>
Oshikwanyama	<i>Okayaya</i>
Thimbukutshu	<i>Kagrorongongo</i>
Otjizemba	<i>Elumba</i>
Sisambyu	<i>Kagrorongongo</i>
Rukwangali	<i>Kaorongongo</i>
Kxo	<i>Rxonxoro</i>

***Xizambi* “relatives” in Angola**

Relatives of the *xizambi* in Angola occur in five language/ethnic groups :

Ethnic group/language	Name
Bangala	<i>Lukungu</i>
Lunda	<i>Lukungu</i>
Quioco	<i>Lukungu</i>
Gangela	<i>Kawayawaya</i>
Ambuela	<i>Kawayawaya</i>

The similarities herein observed provide and confirm a compelling evidence of the *xizambi* as a common heritage, in the studied ethnic groups, as for example Shangana, Chopi, Citshwa and Ndawu from the south and centre of Mozambique are genealogically related. So, the similarities in case are rooted in their common ancestry, giving evidence of the instrument's antiquity.

Unlike the *xitende*, known as *berimbau* in Brazil; the *marimbula*, a Cuban descendant of mbira and other instruments that have been carried to America by African slaves, and the Malunga, the musical bow taken to India by Africans, I could not find any references of *xizambi*-like instruments in those or other countries. The different names of the *xizambi* in the different languages are onomatopoeic, however, being determined by the speaker's/hearer's own perception of its sound. For example, in the Mozambican languages there is the recurrence of the letters "z" and "j" in the middle of its name, whereas the "xi" syllable tends to dominate as the first syllable. The letters "z" and "j" are alternated in these languages (some languages from the centre replace "z" with "j"). When people reproduce the *xizambi* sound vocally, as in the process of teaching a tune on it, they use these letters in combination with different vowels, making different syllables around them, in a way similar to the oral notation system used for the teaching and playing of the tabla in India.

In the *Dicionário Changana-Português* the syllable "xi" pronounced [shi], is shown to have multiple grammatical functions. As the first syllable of a word, for example, in the case of the term *xizambi*, it suggests the following: 1. Allusion to the small size of the instrument ("xi" as a prefix is a diminutive morpheme). For example *nhwanyana* = girl and *xinhwanyatana* = little girl; 2. "xi" as a prefix is also equivalent to the suffix "er" in English verbs, as in work-worker. For example, (xi = object for) (*tirha* = to work), *xitirho* = working tool; 3. And, "xi" describing the sound of the rattle. So, the words *xizambi/xivelani* theoretically came to mean the object that makes the "zzzzzzz..." and/or the "vvvvvv..." sounds respectively. The "za" describing the seesaw/smooth movement of the hand, as in cutting a piece of wood with a hand saw, describes the right hand movement in the playing technique of the *xizambi*. This "za" syllable is also chanted to build up to the climax of the performance, and to synchronize the dance movement with the right hand of the *xizambi* player. (Observed in a live performance in Ximbhutsu in 2006)

In the case of Namibia the root "orongongo" occurs in two languages: Sisambyu and Thimbukutsu in *kagrorongongo* and in *kaorongongo* respectively. Analyzing these words requires knowledge of the respective languages, which I do not have. Comparative analyses do not help either, as the syllable "ngon" in Tsonga and Ndawu languages from the region I studied describe sounds produced by knocking/beating on metal objects, as a metal gong, metal drum, metal bells, containers, etc., not related to the *xizambi*.

The musician and his instrument

In African traditions instruments are personalized and personified, and they are addressed in the languages of their owners. For example, Antonio Marcus, an older

generation musician, from Gaza, has a song in the Shangana language titled: “A *whiyola ya mina yavulavula*”, meaning: my guitar is speaking; and Xidiminguana actually performs dialogues between himself and his personified guitar telling different stories. The same is true with the *xizambi*, as played/ listened to in Shangana communities, where, even without a verbal calling voice, the audience will respond to the instrumental melody with a text, as they will “understand” the surrogated or implicit words.

Traditionally, musical instruments are usually made for self-use. An accomplished instrumentalist is one who can make his/her own instrument. And, because instruments are made by hand, each one is unique, having its particularities and identity. The builder spends much time on each instrument, thus developing an intimacy with it. When an instrument is ordered, the builder will consider the size of the client’s hand, or the client himself, will give specification regarding the size, the tuning and the tonality, if applicable, so the instrument is customized to him/her (its owner). Thus, the owner/client participates in the construction process, which makes the instrument personal. Then, depending on the beliefs, as the instrument is taken home for the first time, it is formally or informally presented to its new home, through a ritual, or, simply, a performance.

Although the *xizambi* is not usually part of spiritual, religious or sacred music, it is still associated with spirituality, because of its personalization: it belongs to one person, and when that person dies, his soul preserves the ownership of the instrument. For example, when my maternal uncle, who was a *xizambi* player, died his instrument was kept in his house, and according to his son, “as a way to keep his (father’s) soul in the house”. And, because he was some sort of a “social deviant”, my mother denied me to use his instrument as, according to belief, I would inherit his “undesirable qualities”.

The actual status of the *xizambi*

As with many traditional instruments, the integration of the *xizambi* in present day contexts is critical for its survival, for the survival of the musical legacy it conveys, and for a balanced evolution of local musical traditions. However, the *xizambi* is at risk of extinction, as indicated by the decline of the number of its makers, players, and its marginalization in present-day contexts. Furthermore, the dissolution of its social function/role and performance contexts such as evening story telling sessions, and family/social occasions where it is traditionally played and taught to younger generations, due to the irrationally fast growing popularity of video games and TV culture, and other modern forms of entertainment, initially in urban, but lately, also in rural areas, make the *xizambi* less noticeable or appreciated. For example, I witnessed the use of sampled *xizambi* sound, played from midi keyboards, by musicians who had no clue of the actual instrument, thus, being unable to handle that sound with confidence.

Through the long tradition of migration to work in South African mines in the south and centre of Mozambique, many modern technology products such as gramophones, radios, record players, and European conventional musical instruments such as accordions, guitars, and harmonicas, and their respective musical cultures and repertoires have

been steadily imported, and replacing local musical traditions at an alarmingly fast and irrational rate. The culture of building musical instruments is dying away. For example, during my fieldwork in 2009, I observed that in the districts of Chókwe and Ximbhutsu, in the Gaza province, a traditional home of the *xizambi*, many people, including adult musicians, didn't know the *xizambi*. Instead, I found many local musicians playing on ragged harmonicas and guitars, and their repertoire, mainly, consisted of South African popular hits, which sounded out of context. Hypothetically the use of the *xizambi* in present-day musical styles and contexts is challenged, due to its low sound pressure, and complex playing technique, but also lack of knowledge of this instrument.

Social integration and role of the *xizambi*

In the previously mentioned interview with Ernesto Mathusi, where he described the *xizambi* as “the first guitar of the African people”, and its role as a hunting aid instrument, as “its music/sound was used to hypnotize animals for easy hunting”, Mathusi emphasized the role of the *xizambi* as a prototype to other musical instruments, and as an agent in one of the most important activities for the survival of the Shangana people –the hunting.

Thus, the *xizambi* is part of a functioning whole, playing an important role in the everyday life of the Tsonga-Shangana people and other ethnicities sharing this culture; its lyrics and rhythms depicting various passages/scenes of spiritual, individual and collective, social, and professional life of the communities; the lyrics and rhythms performed on the *xizambi* are a direct complement of daily activities, critical for the survival of old traditions, through the process of transmission of relevant knowledge and skills from older to younger generations, and the continuity of old traditions into the present-day culture. For example, the beat on the *xizambi*, usually performed with the dancer's foot stamping on the ground, has been transposed to the bass drum in one of the most popular urban musical styles developed in Maputo city, the capital of Mozambique — *marrabenta*.

In the traditional contexts, the *xizambi* is part of food processing music/activities, sustaining the rhythmic pounding of cereals in a mortar, with the foot stamping; and the rhythmic rubbing of the stick on the notches of the stave giving the *kulhele* (sieving) rhythm — which is actually the separation of husks and grains with a round basket.

As I repeatedly observed in Xilembeni, Ximbhutsu and Magudu in the South of Mozambique, the performance of the *xizambi* is a contingent moment, when relevant skills and knowledge are passed to the younger generations in the form of song, dance, acting and miming; for news propagation, social commentary, sharing of experiences etc. According to previous descriptions/examples, the music played on the *xizambi* is a summary and source of samples for modern music. Its performance context involves people of all ages and sexes. In the Tsonga-Shangana communities, where, by tradition, women don't play the instrument, they are involved in several ways, such as singing and dancing, and as performers in the demonstration of women's social roles/activities to young girls – observed in fieldwork.

Text and speech manipulation

As Bob Marley says “One thing about music...you feel no pain... hit me with music...” Musicians have a privilege in society — they enjoy a relative freedom of speech, through which they express their and the society’s problems “without hurting”, or “they can hurt without consequences”.

Since the resonator for the *xizambi* is the mouth of the player, during the performance many words are mumbled, which gives room for intentional speech distortions, manipulation, and subsequently, ambiguous perception/interpretation: Plosives, fricatives, (bi) labial phonemes cannot be properly pronounced. Thus, sometimes, *xizambi* players sing social taboos, or attack authorities with (mumbled) words without much/direct consequences, probably, as long as they play “good” music. For example during his *xizambi* performance, Vasco Sithoye adapted a folkloric song about a woman who cannot cook well to criticize the government for its inability to stop the civil war, in a satirical style, in a time when such speeches were labelled as violence incitation/anti-revolutionary, and therefore, intolerable. (Observed in Ximbhutsu in 1991). Likewise, Alberto Muthethu, satirically, criticized the government’s failure to provide for the people, singing: “*whonitsona ni zuka Samora*” which translates *more or less* as “How can you deny me five cents, Samora” (the former president of Mozambique)! (Observed in Xilembeni in 1978)

Character of the *xizambi* music

The gentleness in the playing technique of the *xizambi*, its low sound pressure and the subsequent smoothness of the dance movements have a lot of influence in the performer-audience rapport, and in disciplining the musician and the audience, especially regarding dynamics: the *xizambi* brings the audience closer to the performer, creating a cosy ambience, calling for silence and focus, and subsequently, influencing the musicians to sing softly and in a deep voice, but sometimes in falsettos for higher pitched passages. Thus, the *xizambi* provides an occasion for intelligent listening.

Whereas in the same society, most musical instruments accompany harvesting, soil tilling, military training, or religious music, the *xizambi* does not seem to, most likely, because of its sound character. Traditionally, the *xizambi* is played by young men, to wind up time, as they watch grazing cattle. They, usually, learn it from their elder folks, or fellow shepherds as entertainment during cattle grazing. (Vasco Sithoye, 1993) But as they grow into adolescence they use the *xizambi* to express/communicate their loneliness, and desire and/or promptness to get married to their parents or close relatives, who should then help them find a girlfriend. Hence, the role and repertoire of the *xizambi* change at adolescence, and again at adulthood. For example, Vasco Sithoye and Boavida Zumba, peers from childhood, played together as the entertainers of their village as adults, adapting old lyrics and introducing new ones; building new repertoires, which became “the *xizambi* classics”. The following lyrics: “*He maseve kunjhani, svakala lesvi unganitirhela...*” thanking the parents of the daughter-in-law..., were adapted as: “*Viva ferelimo Xisanu, svakala lesvi unganitirhela...*” to mean: “Long live Frelimo (the

ruling party) and Xisanu! (the then president of Mozambique), for stopping the civil war and bringing peace (...). By so doing, they contributed to the integration of the *xizambi* in present-day contexts.

The matrix for traditional music is traditional culture, which is acquired through socialization. Thus, older musicians have broader repertoires and finer skills, built through the accumulated practice and experiences. Hence they become the models in their communities. For example, just before his death, Vasco Sithoye performed in the National Festival of Traditional Dance and Song organized by the Ministry of Culture, and was given a status of a dignitary, sharing the VIP table; his image together with his colleague (Figure 2) taken during fieldwork in their home village, was used repeatedly to introduce the TVM (Mozambican Television Station) traditional music program, and as the cover of the first CD of traditional music, titles *Arcos e Cordas do Sul de Moçambique*, recorded in 1992.

Potentials (musical possibilities on the *xizambi*)

As discussed in the playing technique section, the *xizambi* has multiple sound producing and controlling mechanisms and techniques: Because it is a non-tempered instrument it can produce “an infinity” of pitches within its range. With the string it produces fundamental melodies, sometimes drones, which are harmonized with the mouth activated harmonics. The mouth controlled sounds can produce verbal-like tones and speech-like melodies; and the rubbing of the stick and the shaking of the rattle produce the pulse, and rhythmic patterns. (See playing technique). It is also very typical/common among *xizambi* players, to combine the voice with the instrument’s sound; to surrogate the voice with the *xizambi*; alternate the *xizambi* with the voice, simulating a dialogue with it, or shift the focus through the different elements of the music (rhythm, melody, harmony, text). It is actually rich in that it plays the pulse, the rhythm, and two melodies.

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How to Tune Modernised Versions of a Traditional Musical Bow, the *Umrhubhe*, from the Eastern Cape

BERNHARD BLEIBINGER*

Abstract: The *umrhubhe* of the Xhosa people in the Eastern Cape belongs to the mouth-resonated friction bows which are bowed with a twig or reed. According to Dave Dargie the string was made of bangle wire (Dargie 1982:48). Percival Kirby also mentions another type of *umrhubhe* which consists of two sticks (one inserted into another). The results, with reference to the sound, are similar. *Umrhubhe* players amplify overtones with their mouth cavity. Through the amplification of tone 4, 5 and 6 and a shift of one full tone, players are able to produce a hexatonic scale, and therefore, to a certain extent, melodies. The instrument was usually played alone, but there are also descriptions of *umrhubhe* duets, in which one instrument played the leader and the other the follower part. It was therefore useful to make the instrument in a way that it could be tuned. Today the use of the instrument in new performance situations and ensembles may require additional modifications which make provision for a more precise fine tuning, and which also pay attention to dynamics, timbre and response. In my proposed paper I will look at some of these modifications, and on the basis of examples, I will explain how this instrument was modified to fit within new performance contexts.

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It was Dave Dargie's idea to have me attend the musical bow conference in Durban. He was of the opinion that I should talk about how I modified my own musical bows. For that reason the following presentation will be on modifications or improvements of musical bows, specifically the *umrhubhe*, which we know from the Eastern Cape. The presentation will be a reflection based on my practical experiences in music instrument making in Germany, Tanzania and South Africa.¹

One might, of course, ask why a traditional instrument should be modified at all. Should it not be left as it is, for it is "traditional"? I would say one can leave it as it is, but also improve it, because as time goes by a lot of things change, for instance: performance contexts, materials for instrument making, expectations of listeners and players, and so on. The modification of instruments appear world-wide. Old eighteenth and nineteenth century hurdy-gurdys, as one can find them in German and Austrian museums, for instance, were made for playing simple diatonic melodies, but modern version of this instrument — after its revival 30 years ago - are equipped with chromatic keyboards, sympathetic strings, and even plugs for electric amplification. Western instruments, that is, all strings, woodwinds and brass, have been improved drastically over the last two hundred years. In most cases, new developments are aimed at refining the timbre, at improving the tuning, at increasing the dynamics, at widening the range and at making instruments easier to play. These improvements responded to changing expectations and demands of listeners and players. Another factor to be considered is the availability or unavailability of materials, which leads to new instruments or modifications of existing instruments. Very nice South African examples to be mentioned in this connection are the *ikatari* which would be unthinkable without a 5-liter oil can² or Dave Dargie's *uhadi* with a resonator made of a "Sauerkraut" tin instead of a calabash. The first instrument exists because of the availability of oil cans, the second one, because calabashes were not available in Munich, where Dave Dargie lives at the moment. Performance contexts and situations may also lead to the modifications of instruments. In the old days and under normal circumstances one could hardly expect to find musical bows, such as the *umrhubhe*, being played in groups.³ For that reason fine tuning was not required, although it was useful to build the instrument in a way that provided a comfortable pitch. Yet the use of this instrument in modern performance situations and ensembles led to modifications which had an impact on the tuning, the dynamics and the timbre of the instrument. In my paper I will look at modifications which specifically refer to tuning, dynamics and timbre. Starting with historical descriptions of the *umrhubhe*, I will explain how this instrument — in the recent decade — changed in new performance contexts.

¹ In 1990 I made my first instrument, a Bavarian hurdy-gurdy, in Karl Riedl's workshop in Tittmoning (Bavaria) and after that I experimented with different kinds of *shawms*. In 1998 I learned how to make Tanzanian drums (*ngoma*, *boi*, *mdundo*) and *marimbas* in Bagamoyo, and in 2007 I was taught how to make musical bows (*umrhubhe* and *uhadi*) from the Eastern Cape.

² We had problems to build this instrument, when oil tins were all of a sudden made of plastic. Fortunately some owners of restaurants provided us with olive oil tins (Bleibinger 2014: 218).

³ As I will show later, Dargie once recorded an *umrhubhe* duet.

General remarks

As Dave Dargie states,

“*Umrhubhe* is a mouth-resonated friction bow. The stick (a. *intonga*) is of *ulizi* wood, the string (b. *ijijo*) is of bangle wire, and may be about 55 cm long when taut. It is bowed with a scraped twig, reed or marigold stalk (c. *umcinga*). There is another method of constructing the *umrhubhe* described by Kirby. In this form, a short bent stick is inserted into a hole in one end of a thicker, straight stick and the string is attached from the end of the straight stick to the end of the bent stick. Both instruments produced musically identical results. Kirby calls the Lumko form *umqunge*, and regards it as ‘undoubtedly’ the ‘earlier form’ of the instrument.” (Dargie, 1988: 48)

Kirby writes about the *umrhubhe*:

“This instrument consists of a curved arc of stiff wood from the tips of which a string of wire, fibre, or rush is strained. Alternatively it is made from a length of hollow river-reed, or hollow piece of *umsenge* wood (*Cussonia spicata*), into one end of which a short piece of a thin pliable rod is inserted. A string of vegetable fibre or twisted rush is fixed to the lower end of the reed, and to the tip of the thin rod, which is thereby made to curve. The string, after being rubbed with the juice of a leaf, is ‘bowed’ by a piece of thin mealie stalk held beneath it. The mouth acts as a resonator, and the string is stopped by the fist finger of the left hand. Specimens are shown on Plate 68A. The first of these varieties is now found only among the Pondo. It undoubtedly represents the earlier form. The more elaborate type is made and played by Xhosa, Zulu, and Swazi. The Pondo call their instrument *umqunge*, and the Xhosa and Zulu name theirs *umrube* [sic]. (...) As in the case of the two instruments previously described, the pitch of the fundamental is altered by stopping with the fingers, while the mouth resonates selected harmonics.” (Kirby 1965:239)

According to Percival Kirby (1968: 193), the origin of the mouth bow, is to be found in the bow used by the San hunters. After a kill the hunter would, while waiting for his companions, tap the string of his bow to produce sounds. With reference to the Xhosa *umrhubhe*, Dave Dargie (2011: 34-37; 51) mentions different performance contexts and practices. These are important to notice, because, contexts and practices often have, as mentioned earlier, an impact on the construction of instruments. Performance contexts and practices, according to Dave Dargie (2011: 34-37; 51), could be summarized as follows:

A. As a solo instrument (in a “traditional” context often played by girls, but also women).

B. For accompanying singers:

“Seeing the instrument, the outsider was not likely to expect much from it. Nevertheless it was successful both with and without the whistling, as a solo instrument and for accompanying singers, even a fairly large number” (Dargie 2011: 34). “In my early years at Lumko I recorded a number of different girls of both villages, occasionally playing solo but usually accompanying group singing” (ibid. 37).

C. Two *imirhubhe* in duet accompanying singers:

“Among the rare *umrhubhe* techniques which I found among Ngqoko musicians is the playing of two *imirhubhe* in duet. Nogcinile Yekani taught a number of other women in the Ngqoko group to play *umrhubhe nomlozi* (whistling technique). The final example of her style (Figure 13) is a transcription (here using staff notation) of her and one of her pupils, Nopasile Mvotyo, playing an *umrhubhe* whistling duet, accompanying the singing of the other group members” (Dargie 2011: 51).

D. As ensemble instrument: Here he refers to Luvuyo Dontsa of Walter Sisulu University who teaches ensemble playing (Dargie 2011: 36). Also at the University of Fort Hare *imirhubhe* were occasionally played in duets and in ensembles.

Whereas in the first two practices perfect tuning of the instrument is not required, because one instrument either plays a solo tune or it defines the pitch on which a vocal ensemble has to sing, relative or perfect tuning becomes important in the other two performance contexts, that is, when the instrument is played in duet or instrumental ensemble.

1. Simple *umrhubhe* type

This type of bow does not have a tuning device. The string is simply fixed to both ends of the *umrhubhe* — like a hunting bow. Today the material used for strings is usually brass wire. The instrument can be used as solo instrument, but also to accompany a group of singers, because sophisticated tuning is not required. If necessary, the instrument can — to a certain extent — be tuned by shortening the brass wire. Pliers might be useful to do that.

Strength

- Buzzing sound
- Soft overtones
- Instrument is comparatively easy to make
- Materials available and cheap

Weakness

- A lot of practice is required to produce the desired sound(s)
- Response of the brass wire
- Fine tuning may be complicated



Figure1. Simple *umrhubhe* type without tuning device. Mkonjana, 2013.
Photo by Bernhard Bleibinger.

1.1 *Umrhubhe with simple tuning device*

This instrument we know from Dargie's descriptions. The stick, which is preferably taken from a hazelnut tree, is about 60 cm long and the string is normally of brass wire and bowed or beaten by another thin hazelnut stick or twig. The string is attached to the musical bow by means of a cotton thread, which, bound around the ends of the musical bow, enables the player to regulate the tension of the string. The way of binding the strings to the musical bow allows not a sophisticated, but very effective tuning. The weakness of this instrument is — as before — the response of the string which requires practice.

Strength

- Buzzing sound
- Soft overtones
- Instrument can be made easily
- Materials available and cheap
- Instrument can be tuned
- Can be used as ensemble instrument and in duets

Weakness

- Practice required to produce the desired sound(s)
- Response of the string

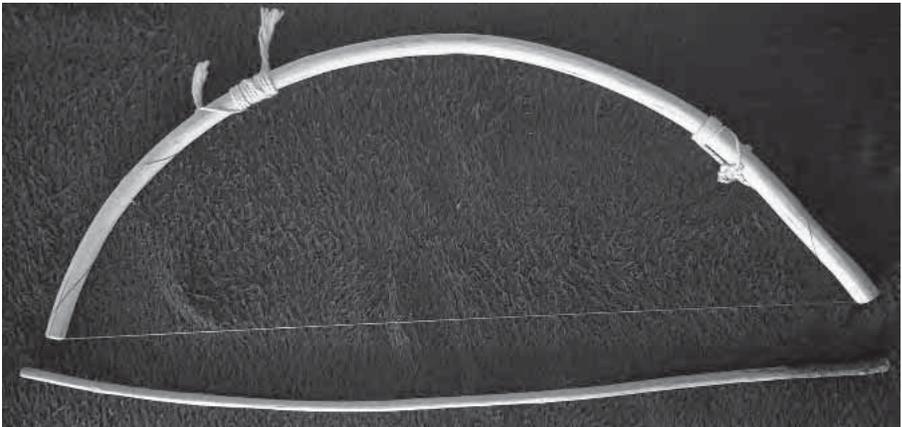


Figure 2. *Umrhubhe* with simple tuning device and stick for bowing. Photo by Bernhard Bleibinger.

1.2 *Umrhubhe with tuning peg and bow*

This instrument was made by AMI/African Music Instruments in Grahamstown — as explained to me by colleagues when I started working at the University of Fort Hare in 2007. It has a tuning peg, the string is made of brass wire and it is bowed by a little bow with horse tail hair. According to a colleague of mine who used to play it for a while, the instrument produces a very nice sound and clear overtones, but the handling is unusual, because the tuning peg is in the way. Also the use of a bow with horse tail hair feels unusual, “almost like playing a violin”. I also noticed that cracks can appear around the hole for the tuning peg which means that the material of the musical bow does not bear the tension produced by the string around the hole of the tuning peg. In order to improve the handling the tuning peg has been moved to the centre of the instrument.

Strength

- Good sound
- Buzzing sound
- Clear overtones
- Fine tuning is possible
- Can be used as ensemble instrument and in duets

Weakness

- Handling (tuning peg is in the way; later the tuning peg was moved to the centre)
- Unusual bowing (“like a violin”)
- Cracks around the hole for the tuning peg

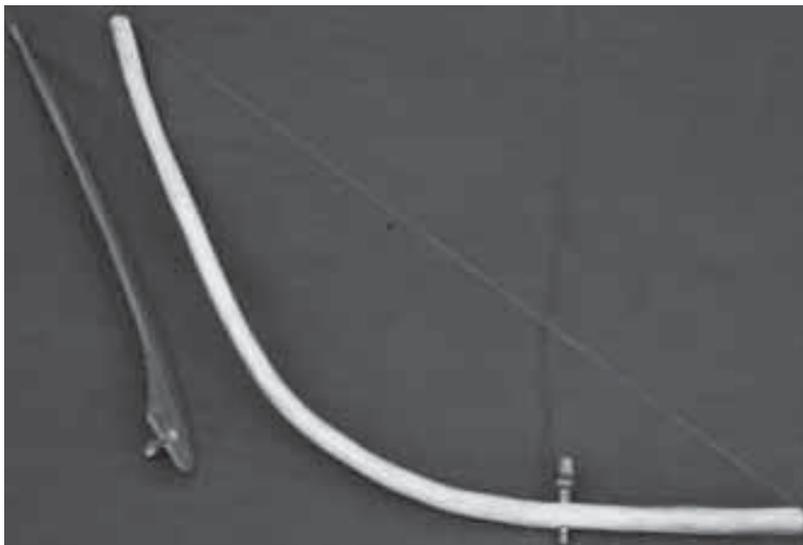


Figure 3. *Umrhubhe* with brass wire, tuning peg and bow with hair from horse tail. Photo by AMI.

2. *Umrhubhe* with modern strings and simple tuning device

In order to improve the response of the instrument I modified it by using modern strings from a cello and viola. The strings are fixed to the ends of the musical bow in the way described before, that is, by knotting them to cotton threads which are bound to each end of the instrument. The instrument can be tuned. Furthermore, I used sticks which I treated with resin to bow the strings. The weak and strong characteristics of this instrument are outlined below. The instrument is good for modern ensembles (due to the tuning possibilities, the response of the string and the dynamic possibilities).

Strength

- Extremely good response
- Clear overtones
- Dynamics (through use of modern strings and a stick, which allows to put more pressure on the strings)
- Tuning possible
- Can be used in ensembles and duets

Weakness

- The typical buzzing sound gets lost
- The fundamental tone can be too loud
- Modern strings are not cheap and not available in villages

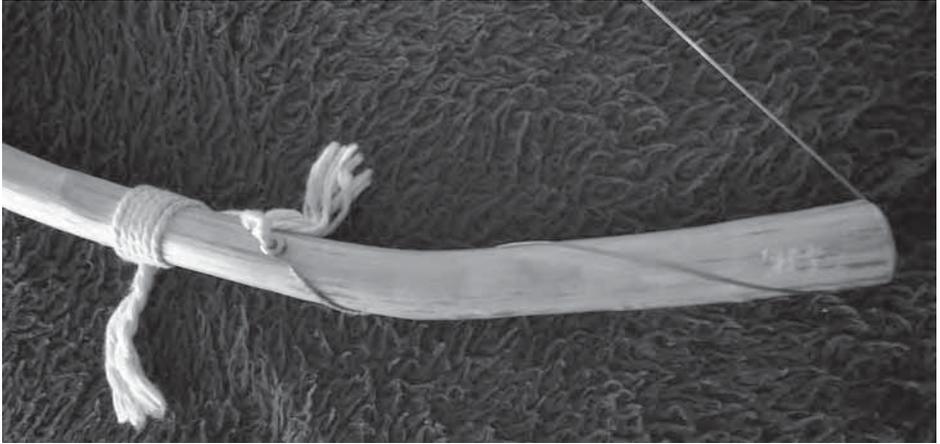


Figure 4. *Umrhubhe* with simple tuning device and modern string. Photo by Bernhard Bleibinger.

3. *Umrhubhe* with modern tuning device from a guitar, modern string and stick

This instrument is mostly like the one before. The only difference is that, on one side of the bow, the string is fixed to a tuning device from a guitar. This improves the possibilities for fine tuning. When attaching the tuning device, one must be careful, i.e. holes must be drilled before screws can be used to attach the device and the string should not be “bent” or pulled over wooden edges (because of the additional friction and tension which can be built up). A soft metal piece should be inserted between the end of the musical bow and the string. As before, the weakest point of this instrument appears to be the very loud fundamental tone. Yet in performances within modern ensembles which use amplifier systems, this type of musical bow is ideal, for one has more dynamic possibilities, the response of the string is adequate and the timbre can even remind one of electronic sounds.

Strength

- Extremely good response
- Clear overtones
- Dynamics (through use of modern strings and a stick, which allows to put more pressure on the strings)
- Tuning possible (even fine tuning)
- Can be used in ensembles and duets

Weakness

- The typical buzzing sound gets lost
- Loud fundamental tone
- Modern strings are not cheap and not available in villages
- Parts from guitars for fine tuning are not available in villages and they must be carefully attached to the instrument



Figure 5. *Umrhubhe* with tuning device from guitar and modern string.
Photo by Bernhard Bleibinger.

Conclusion

The instrument maker has to decide how close his instrument should be to the traditional type, but one must keep in mind that even the traditional type is not entirely traditional, because industrially made brass wires, which today can be bought in hard ware shops, did not exist before. The instrument has been modified over the last decades in different ways. Some aspects or characteristics of the instrument could be improved, but others were not changed. Some improvements even had unwanted side-effects; for example, modern strings which produce clear overtones and respond perfectly, also lead to a very loud fundamental tone. There are no ideal types of *imirhubhe*, but rather types which suit certain performance situations and practices better.

Postscript

The loud fundamental tone caused by the use of modern strings was part of the discussion after the presentation of this paper in Durban. It was mentioned by one participant at the conference that strings made of catgut are used in some regions in the Eastern Cape and that this might be a solution to the problem. Meanwhile I tested synthetic strings and the results are acceptable.

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**Mabimbi Ehurukuro Dzangu Navaridzi Vechipendani
Vanonzi Sekuru Tute Wincil Chigamba Nasekuru
Compound Muradzikwa**
*Excerpts from Interviews with Chipendani Players,
Sekuru Tute Wincil Chigamba and
Sekuru Compound Muradzikwa*

JENNIFER KYKER*

Abstract: The Shona *chipendani* (pl. *zvipendani*) is one among dozens of musical bows found throughout Southern Africa, in a wide arc stretching from the equatorial region of the Congo down to South Africa. Described by Robert Kauffman as “probably the most widespread” of all Zimbabwean musical bows, the *chipendani* features a single, divided string (1971: 36). In comparison to rigorous scholarly treatment of the *chipendani*’s mathematical complexity (Brenner 2005), our understanding of the instrument’s larger place in Zimbabwean musical and social life is markedly thin, with the *chipendani* nearly universally portrayed as the exclusive domain of Shona herdboys. In this paper, I seek to expand our understanding of the *chipendani* beyond its conventional portrayal as a herdboy instrument. I contend that herdboys are among many groups of people who have actively performed on the instrument, including female as well as male musicians, and elderly players in addition to the young. Along the same lines, I maintain that the *chipendani*’s social role extends beyond providing accompaniment for the singular activity of cattle herding. Rather, it participates in contexts ranging from courtship to the ritual sphere of spirit possession rituals such as the *bira*. My analysis is based in over ten years of ethnographic fieldwork with two elderly *chipendani* players, Compound Muradzikwa and Tute Chigamba. Similar to Angela Impey’s recent work on women’s *is’tweletwele* (jaws harp) and *umqangala* musical bow playing in the Maputaland border region of South Africa, my approach highlights “music’s capacity to operate as both historical text and oral testimony,” conveying critical information about the negotiation of individual and social identities, both historically and in the present (2008: 33). In particular, I locate the *chipendani* at the center of social negotiations over relations between men and women, bringing gender, courtship, marriage, cattle, and agricultural labor together within a single performance practice.

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Ndinovimbisa kuti titangire patsva nedzidzo, tichiunganidza nekunyora pasi mavambo emuAfrika eruzivo, hungwaru, nhorooondo, uye nengano, tichiita kuti zvitambarare, zvichiwanikwa mumitauro yedu. Imomo mumavambo emuAfrika akaita senhorooondo, ngano, chitendero, nhetembo netsumo, ndopatinowana hupfumi hweruzivo rweAfrika rwakamirira kuremekedzwa nesu tose. — Mandivamba Rukuni, Being African¹

Musumo

Chinyorwa chino chinoburitsa mamwe mabimbi ehurokuro dzangu navaridzi vaviri vechipendani, vanonzi Sekuru Tute Wincil Chigamba naSekuru Compound Muradzikwa. Hurukuro idzi ndakadzinyora pasi neShona, pamwechete nekudziturikira neChirungu. Ndakatanga kufunga kuti dai ndadzinyora pasi ndiri kumusangano kuUniversity of Rochester namuyori wekuKenya anonzi Ngugi wa Thiong’o. Pavakapedza tauro yavo yainzi “Mitauro senzvimbo yehondo,” vamwe vazvinafundo veFrederick Douglass Institute, chironywa chionoongorora magariro evanhu vatema vemuAfrica nekuAmerica, vakaenda kunodya navawa Thiong’o. Tichikurukura nenyaya yemitauro yemuAfrica, ndobva ndafunga kuti hurukuro dzangu navanhu vakuru vanoridza mimhanzi yakasiyana-siyana kuZimbabwe dzinogona kukosheswawo navazvinafundo vane chinangwa chekuita tsvagarudzo pamusoro pemutauro weShona, kana kuti vamwe vazvinafundo vanoshandira mumamwe mapazi ezvidzidzo.

Kupera kwemwedzi mishoma, ndakakwanisa kukurukura zvakare navamwe vazvinafundo vekeFive College African Studies Colloquium. Ikoko, takabvumirana kuti zviito zvedu zvinotopamidzira dambudzo rekushorwa nekurasiswa kwemitauro yemuAfrica, nokuti kazhinji tinongoburitsa zvidzidzo zvedu muChirungu chete, kunyangwe takawana ruzivo rwacho tichitaura navanhu neChiShona. Basa rakatimirira iye zvino nderekunyora nekuburitsa zvidzidzo nemitauro yemuAfrica. Basa irori ibasa guru, uye rakakosha; harina kungotarisa nyaya yetsvagarudzo chete, asi rinotarisa nyaya yehunhu hwedu sevazvinafundo. Pamwechete nemusumo uyu, chido changu chekunyora pasi hurukuro dzangu idzi mubhuku rino reMusangano Wekutanga Wezviridzwa Zvemawaya chinoratidza shungu dzangu dzekuita zvidikidiki zvandigona kuita kuti tiendere mberi nechinangwa ichi.

Pamusoro pekujekesa nepapfupi mubvunzo wemutauro watinonyora nawo, hurukuro dzino dzinojekesawo mubvunzo unowanotambudzika vaongorori vanoita tsvagarudzo pamusoro pemagariro evanhu. Mubvunzo uyu wakabva mukunetseka kwakaita vaongorori vachiona kuti zvinyorwa zvavo zvaitadza kunyatsoburitsa hukama hwavo navanhu vavaishanda navo vachiita tsvagarudzo. Pakati pevaongorori vaya, pane vamwe vakati tinofanira kunyora pasi hurokuro dzedu navanhu vatinoshanda navo, kuitire kuti tiratidze kuti “ane masimba ndiani pakureva nhorooondo, pakutsikisa, nepakuturikira” (Clark, 2010; muturikiri ndini). Semuenzaniso, zvinogona kuratidza kuti ndiani atanga kana kunzvenga nyaya mukati muhurokuro. Pavaongorori vemumhanzi wechivanhu, Jeff Todd Titon akataura kuti hurukuro dzedu “dzinofanira kuburitswa sezvadziri,” kuitira kuti nesu vazvinafundo tinyatsobude pachena muzvinyorwa zvedu (1980: 283; muturikiri ndini).

Kwozouya vamwe vazvinafundo vanoramba, vachiti hapana chinyorwa chinokwanisa kuenzanisa vanhu vane masimba akasiyana, kana kunyatsoburitsa pachena zvinhu zvese

zvinoitika mukati muhurukuro. Semuenzaniso, mudzidzisi wekuGhana anonzi Kofi Agawu akataura kuti kunyangwe tichiburitsa mabimbi akareba ehurukuro, “hazvina kumbojekesa kuti kuburitsa mazwi evanhu kunoripa zvitadzo zvaitwa nevazvinafundo vekare” (2003: 166; muturikiri ndini). VaAgawu vanotaurawo zvakanwanda pamusoro penyaya dzemitauro nekuturikira, vachiti, “kushandirana pamwechete kunofamba nekuturikira, asi... kuturikira kwacho kunogona kuitisa kuti zvinhu zvipi nezvipi zvinogona kupinzwa mukati muchinyorwa chinotarisa pfungwa kana chitendero cheChivanhu” (ibid.).

Pamabimbi aya ehurukuro dzangu pane zvinoburitswa pachena, uye pane zvinogara zvakanwanda, semuzvinyorwa zvese zvinotarisa magariro nemaitiro evanhu. Ndinoburitsa mabimbi aya ndichitevedzera mashoko aVaAgawu, kuti mitauro yedu nekuturikira kwedu ane basa guru rokuita netsvagarudzo yedu. Kunyanya-nyanya kana hurukuro idzi dzichiverengwa pamwechete nechimwe chinyorwa changu chinoongorora kuti chipendani chairidzwa nani uye nekupi (Kyker 2016), tinoona kuti hurokuro dzinobatsira kujekesa nzwiziso dzedu dzechipendani, uye nenzwiziso yedu pamusoro pekufambiswa kwetsvagarudzo dzemimhanzi wechivanhu. Kekupedzisera, ndinovimba kuti tese tichafungisisa nyaya yekukosheswa kana kushorwa kwemitauro yemuAfrica muzvinyorwa zvedu savazvinafundo. Ndinovimba kuti hurukuro idzi dzichaverengwa nekushandiswa nevanhu vazhinji, uye vanoita tsvagarudzo dzakasiyana-siyana.¹

I would like to suggest that we rediscover the first level of learning by gathering and writing up Afrikan sources of knowledge, wisdom and stories, as well as folklore, and have these available in local languages. It is in Afrikan sources like stories, folklore, mythology, praise poetry and proverbs that we find a wealth of Afrikan wisdom just waiting to be tapped by all of us. — Mandivamba Rukuni, *Being Afrikan*²

Preface

My contribution to the proceedings of the first Musical Bow Conference consists of excerpts from my interviews with two *chipendani* players, Sekuru Tute Wincil Chigamba and Sekuru Compound Muradzikwa, which are transcribed in Shona, and accompanied by a translation in English. The impetus for this contribution was an encounter with the Kenyan author Ngũgĩ wa Thiong’o, following his 2013 lecture, “Language as Battlefield”, at the University of Rochester. Over a dinner-time conversation with wa Thiong’o and other members of the university’s Frederick Douglass Institute for African and African-American Studies, I began to question how my recordings of conversations with senior Zimbabwean musicians might be valuable for other scholars, whether those working directly on questions of Shona language and linguistics, or for Shona-speaking scholars in other disciplines such as history, religion, anthropology, or folklore.

A few months later, I had another opportunity to discuss the question of making Shona-language ethnographic materials publically available with members of the Five

¹ In the interests of furthering a more open scholarly conversation, I offer both my preface and my interview excerpts in dual language versions.

College African Studies Colloquium. The most salient consensus to emerge from this conversation was that we participate in the marginalization of African languages by conforming to expectations that our scholarly conclusions will be published solely in English, even when our arguments are based upon sources in African languages.

The obligation to push the limits of what is accepted as scholarly publication, primarily by publishing in African languages, is thus a moral imperative, as well as a scholarly one. Together with this preface, the interview excerpts I offer here represent my initial attempt to speak to this imperative.

In addition to calling attention to questions of language, the publication of interview transcriptions speaks to ethnomusicology's enduring interest in reflexivity and dialogism, which dates back to the anthropological "crisis of representation." For anthropologists interested in making the dialogic nature of ethnography more readily apparent, the publication of full interview transcripts has offered an important way to make explicit the "power dynamics of narration, recording, and translation" (Clark 2010: 19), partly by making visible how different parties introduce, evade, or control certain topics. In the field of ethnomusicology, Jeff Todd Titon has argued that dialogue between ethnomusicologists and their interlocutors "should ideally be printed verbatim," lest ethnographers turn into ghostlike absences in the text (1980: 283).

Even as some scholars have theorized interview transcripts as a form of radical ethnographic disclosure, others have observed that no text can entirely erase differentials of power, or precisely reproduce the conditions of conversation between people. The Ghanaian scholar Kofi Agawu, for example, has pointed to the limitations of using extended quotations from interviews, for "it is not immediately clear that the more explicit presentation of native voices finally overcomes the shortcomings of the implicit procedures of previous scholars" (2003: 166). An important part of Agawu's critique hinges on questions of language and translation, for even though "collaboration depends on translation... translation virtually guarantees that any and all things attributed to informants can be incorporated into an ethnotheory" (*ibid.*).

Like all ethnographic work, my interview excerpts are the product of strategic compromise, making them both partial and contingent. Yet, following Agawu's critique, I see their publication in Shona, with facing translations in English, as filling a particular scholarly void. Particularly in conjunction with an article in which I reassess the *chipendani's* historic social role (Kyker 2016), their availability serves to further open up a number of silences, adding nuance and complexity to our understanding of the *chipendani* itself, as well as to our understanding of the ethnographic process. Finally, my commitment to making these materials available in Shona is meant to call attention to questions of the relative valuations of African and European languages in scholarly publication. I hope they will serve a wide variety of readers in various fields.

Excerpt #1/Bimbi Rekutanga

Sekuru Tute Wincil Chigamba, with Jennifer Kyker, 4 March 2003.

Kyker: Which grandmother was that that played *chipendani*?

Chigamba: The grandmother was playing *chipendani* was – my grandfather, the father to my mother, had two wives. And his brother had four wives. One of the four wives was playing *chipendani*.

Kyker: So did she used to play it for you guys, her grandchildren?

Chigamba: Yeah, she used to play at night. And she was not telling stories, she was playing *chipendani*. And we had to go there, and all gathered, sitting, listening to her playing *chipendani*. So, I said, “No, this, I can play it.” And then I did. And my uncle, the brother to my mother, he plays also *chipendani*.

Kyker: So, when she played *chipendani*, did she sing while she was playing, or just playing the instrument?

Chigamba: No, *chipendani* - you know, singing for *chipendani*, that's very, very few people who sing for *chipendani*. But what we know is, *chipendani*, we don't sing. Yeah, *chipendani* can sing. You know, you use your mouth and sing with *chipendani*. See, what they want to listen is, the sound which sings like ten, twelve people singing. So, that's what they want to hear. So, if you sing, you are disturbing those sounds, you know, come from your mouth.

Kyker: Can you tell me a little more about that instrument? Like, the history of that instrument, how do you play that instrument, who plays that instrument?

Chigamba: Well, can I say it in Shona?

Kyker: Yeah, go ahead.

Chipendani chaive chenye.

Nyengo, kureva kuti munhu anenge achitsvaga musikana wekuroora.

Saka, unofamba.

Taive nedzimba dzakaita rundaza – rundaza, “a line.”

So people in the village, they built their houses, you know, straight.

Saka kana uchifamba zviya zviya, unofamba, wotora chipendani.

“Paye paye, ndakaona musikana, paye paye.

Musikana haabvumirwe kubuda panze nevabereki vake.

Saka ndingamuone sei?”

Wotora chipendani, woenda uchiridza zvako chipendani, uchiridza, uchiridza.

Haufambise, unenge uchifamba zvako zvishoma, zvishoma, zvishoma, ukasvika kwamusikana uya uya akanoti hapana anobuda.

Anoda kuona chauri kuridza ichi.

“Ko, chiko ichochi?”

Kuti, “Ah, chinonzi chipendani.”

“Chinoridzwa sei?”

Womuridzira.

Saka, wamuridzira, wopedza. Woti, “Ko, iwe, ndenge ndichida kukuona, zvino ndokuona sei?”

Chipendani was for courtship.

Courtship, meaning someone would be looking for a girl to marry.

So, you walk.

We had houses arranged in *rundaza – rundaza*, “a line.”

So people in the village, they built their houses, you know, straight.

So when you are walking like that, you walk, and you take the *chipendani*.

“Over there, I saw a girl, over there.

That girl isn't allowed to go outside by her parents.

So how shall I see her?”

You take the chipendani, you go playing your chipendani, playing, playing.

You don't walk too fast, you will be walking slowly, slowly, slowly, and you get to that girl's place, who has been told not to go out.

She wants to see what you are playing.

“So, what is that thing?”

You say, “Oh, it's called chipendani.”

“How is it played?”

You play for her.

So, after you've played for her, you finish. You say, “So, you, I would like to see you, now, how can I see you?”

Anokuudza kuti, “Kana uchida kundiona unouya zvakati, zvakati, zvakati.”

Saka ipapo, panozoda kuti, kana wamuona, ukataura naye, akakuda, manga musingaoneke nevabereki kana kuti nevamwe vanhu.

Akakuda, iwe kana wakuzoda manje kuti uchienda kunomuwana, unosvika zuva rakadai so, kusvikira kudare, kunevabereki.

Wosvika kuya, wogara pasi, woombera. Saka, wagara pasi, waombera, vanokubvunza kuti,

“Ko, uri kudei panapa, pane waunoziva here?”

Kuti, “Ah, semunhu wechikomana, ndangoti ndisvike pano.”

Ivo vanozviziva. Vobva vataurira, vanobva vakunongedzera kana kutora mumwe munhu.

Voti, “Muendesa kumba kwavate vemusikana.”

Woenda ikoko.

Iwe kana wasvika kumba kwavate vamusikana, vate vachabvunza kuti “Wauri kuda ndoupi?”

Vanodaidzwa vasikana vese.

Ivo vanenge vachiziva kuti musikana akuda kuroorwa ndouyu.

Asi havakuudze kuti akuda kuroorwa ndeuyu.

Iwe ndiwe uchasarudza.

Pamwe unobva wangosarudza iye akuda kuroorwa, uchiti, “Ndiye wandavinga.”

Zvanzi, “Ah, zvakanaka.”

Saka, vanenge vakuda kuchiziva kuti ndiwe chete wakuoneka pamusha ipapo.

Hakuna mumwe achazouya.

Nokuti mumwe akazouya, akaoneka, anorohwa. Anorohwa chaizvo.

Saka, musikana uyu, kana wakuuya, musikana anozviziva kuti musi wakati. “Mukomana wangu ari kuuya nguva yakati, masikati.”

Iwe vanatezvara vakakuona, iwe unongonhanga kumba kwavate.

Hauende kumba kwamusikana, unoenda kwavate.

Musikana anobva kumba kwake achienda kwavate.

She tells you, “If you want to see me you can come like this, like this, like this.”

So there, what is needed is that, when you see her, if you speak with her, if she loves you, you couldn't be seen by her parents or by anyone else.

If she loves you, you, when you want to go and marry her, you go when the sun is like this, going to the *dare*,³ where her parents are.

You arrive there, you sit down, you clap. So, once you've sat, and you've clapped, they ask you,

“So, what do you want here, is there anyone you know here?”

You say, “Oh, as a young man, I just said, let me arrive here.”

They realize. Then they say, then they point out to you, or select someone.

They say, “Take him to the home of the girl's paternal aunt.”

You go there.

When you arrive at the home of the girl's aunt, the aunt will ask, “Which is the one that you love?”

They are called, all the girls.

They already know that this girl is the one ready to be married.

But they don't tell you that the one ready to be married is this one.

You are the one who will indicate.

Maybe you do choose that one who is ready to be married, saying, “She is the one for whom I have come.”

They say, “Oh, this is fine.”

So, then they will want to ensure that it is only you who is seen at that home.

There is no other who shall come.

Because if another comes, and is seen, he will be beaten. He will be beaten soundly.

So, that girl, when you come, the girl is anticipating which day.

“My boyfriend is coming at this time, in the afternoon.”

You, even if your father-in-law sees you, you just go directly to her aunt's house.

You don't go to the girl's house, you go to her aunt's.

The girl will emerge from her house going to her aunt's.

Munotaurirana zvamunotaurirana ikoko.
 Saka munozopanana nhumbi.
 Nhumbi, unodziziva?
 Kyker: Ha-ah.
 Chigamba: Nhumbi, iwe unondipa dhirezi, ini ndinokupa shati. Ehe.
 Kuratidza kuti – ndozvakafanana nering riya riya, engagement ring.
 Saka, izvozvo manje, kana wandipa nhumbi, ndikakupa nhumbi, handichapiwa nhumbi namumwe musikana futi.
 Iye musikana haachapiwa nhumbi namumwe mukomana.
 Zvakumirira inini.
 Saka, tikagara, inini ndikaona kuti “Ah, musikana handichadi,” ndodii?
 Ndoenda kunodzorerera nhumbi. “Shamwari, handichakuda.”
 Iwe woti, “Ah, zvakanaka, inini handikudzorerere.
 Ndoda kutanga ndamboona pfungwa dzako.”
 Saka anombogara.
 Akaona kuti, “Ah, zvechokwadi, mukomana uyu haana kudzoka futi,” omudzorerera nhumbi dzake.
 Zvapera. Wotsvaga mumwe mukomana. Saka, kana wadaro izvo, kana masvika pakuti muroorane, zvinотора nguva chaizvo.
 Kuroorana, zvinотора nguva.
 Unotombogara, wotsvaga mari.
 Wotsvaga mari, wosvikobhadhara mari.
 Wabhadhara mari - apo, musikana, haumbogumana naye.
 No sex. Haugumane naye kusvikira waroora.
 Saka kana wakutsvaga mari, ukaroora, kubhadhara mari yacho, kune imwe mari inosara.
 Woenda kunotsvaga imwe.
 Wozouya wodii?
 Wovapa mari.
 Saka kana wavapa mari iya iya yavanenge vachida, wabvumirwa kupinda mumusha, vanoti mouya mumusha.
 Wobvumirwa kupinda mumusha.
 Iwe kana wakuda mukadzi wako, wotaura namukadzi wako kuti, “Iwe, inini, panapa ndiri kuuya kuzokutora musi wakati.”

You say whatever you say to each other there.
 So, you give each other *nhumbi*.
 Nhumbi, do you know them?
 Kyker: Huh-uh.
 Chigamba: Nhumbi, you give me a dress, I give you a shirt. Yes.
 In order to show that – that is the equivalent of that ring, engagement ring.
 So, like that, now, when you’ve given me *nhumbi*, and I’ve given you *nhumbi*, I won’t be given *nhumbi* by any other girl.
 That girl won’t be given *nhumbi* by any other boy.
 She’ll be waiting for me.
 So, after spending time together, if I see that “Oh, I no longer love this girl,” what do I do?
 I go to return that *nhumbi*.
 “My friend, I no longer love you.”
 You say, “Oh, that is fine, yet I’m not returning yours.
 First, I want to just see your thoughts.”
 So, she stays like that for some time.
 If she sees, “Oh, truly, this boy has not come back again,” she will return his *nhumbi* to him.
 It is over. You’ll look for another boy. So, if you’ve done that, if you’ve come to the stage of marrying, it takes a long time.
 Marrying, it takes time.
 You spend time, seeking money.
 Once you’ve sought money, you arrive and pay that money.
 Once you’ve paid that money - here, the girl, you don’t touch her.
 No sex. You don’t touch her until you have married.
 So when you’ve sought out the money, and married, you’ve paid that money, there is still some money that is left.
 You’ll go and look for the rest.
 You come and what do you do?
 You give them the money.
 So once you give them that money that they want, you are allowed to enter their home, they tell you to come to their home.
 You are allowed to enter their home.
 You, when you want your wife, you tell your wife, “You, myself, here, I want to come to take you on this day.”

Mukadzi anotora mbatya, oenda kutsime, oita semunhu arikuenda kunowacha.

*Osvikosunga mbatya dzake idzodzo.
Mukoma waaenda nawo kutsime anosiya patsime ipapo.*

Oenda. Aenda kumukomana wake.

Saka ndokunonzi kutiza, kutiziswa.

Yeah, atiziswa, aenda.

*Saka, vabereki manje, vachatarisa kuona kuti
“Mwana uya uya, akaenda kupi?”*

*Ivo manje, kuno uku, manje, kumukomana,
vanotuma – kunotumwa munyai, anoenda nemari.*

Asvika nemari – nokuti, vanorova futi.

Ikoko, vanokurova futi.

Saka iwewe unosvika nemari, wosvikokanda pamusuwo, wodzoka.

Unokwira mumuti, wodaidzira kuti “Mwana wenyu, ari kumusha kwanhingi, ndokwaari.

Saka tauya kuzokuzidzira kuti mwana wenyu ari kuno.”

Saka vaye ivavo vozvinzwa, iwewe wobva wokurumidza

Your wife takes her clothes, she'll go to the well, she'll act like someone who is going to do the laundry.

She'll arrive there and tie her clothes up.

The older sister with whom she went to the well, she'll leave there at the well.

She'll go. She's gone to her boyfriend's.

So that is what is called *kutiza*, *kutisizwa*.

Yeah, she's been made to run away, she's left.

So, her parents now, they'll be watching to see, “That child, where has she gone?”

Those, now, here, now, at the boy's place, they send – a *munyai* is sent, he goes with money.⁴

When he arrives with the money – because, they also beat.

There, they also beat you.

So you arrive with the money, and upon arriving, you throw it through the door, and retreat.

You climb up a tree, you call out, “Your child, she is at so-and-so's, that's where she is.

So we've come to tell you that your child is here.”

So they hear that, and then you hurry

Excerpt #2/Bimbi Rechipiri:

Compound Muradzikwa, with Jennifer Kyker and Sydney Maratu, 12 October 2003.

Kyker: *Makatanga kuridza chipendani muna gore ripi?*

Muradzikwa: 1955. *Ndatatanga '55.*

Maratu: *Muchifudza mombe?*

Muradzikwa: *Ndichifudza mombe, shuwa.*

Kyker: *Saka makadzidziswa here namumwe munhu?*

Muradzikwa: *Ah, sekuru vaingoridza manje, vasingadi kundidzidzisa manje. Ndaiti ndikaenda kumombe, ndosvura makavi ndichigadzira ndega, ndichigadzira, zvisingarire, ndichingodai, ndichingodai. Sekuru kana vakaenda kumunda manje, ndikapinda mumba, ndoba chipendani chavo ichi, ndega ndoridza, ndichiridza, ndichiridza. Manje, vakazviona manje, vakati.*

Kyker: You started playing *chipendani* during which year?

Muradzikwa: 1955. I began in '55.

Maratu: While you were herding cattle?

Muradzikwa: While I was herding cattle, sure.

Kyker: So were you taught by somebody?

Muradzikwa: Oh, my grandfather used to just play; now, he didn't want to teach me, now. What I did, when I went with the cattle, I would twist the inner bark of a tree, making it all by myself, making it, although it wasn't sounding, just doing that, just doing that. Grandfather, when he went to the field, now, when I entered his house, I would steal that *chipendani* of his, by myself I would play, playing, playing. Now, when he saw that, he said, “No, *uya kuno ndikudzidzise.*” “No, come here, I will teach you.”

Vakandidzidzisa six months, vachibva varwara, ndobva vafa manje. Manje ndikasara ndakangoita catch up, ndichingodii, ndichingoridza so. Ehe. Saka kana tiri kuBuhera uko so, vanonidaidza weekend kuenda kunoridza kuti, “Kune mumwe musha so kune doru, bira so,” ndichirida, ndichiridza, ndichiridza. Manje kuseni manje, ndikati, “Ah, ndava kuenda, ndava kuenda,” vanondibhadhara manje mari manje. Vondibhadhara mari kuti, “Ah, thank you, tatenda, tatenda so.” Ndikavika pamusha ndikarara so, mangwana mumwe auya futi achinditora. He! Achiita so.

Kyker: Saka mudzimu unotobuda here muchiridza chipendani?

Muradzikwa: Kana ndiri kumushaka?

Kyker: Ehe.

Muradzikwa: Ah, ndinongochema bedzi ndichiridza.

Kyker: Asi, midzimu yavamwe vanhu so. Vanosvikirwa?

Muradzikwa: Mudzimu yavamwe vanhu, vanosvikirwa, ehe. Vanoita, vanoita tsitsi, ehe.

Fanika mbira idzi, dzamunoridza idzi.

Ndikatora hosho dziya ndichiridza, muchiridza sterik, muchiridza so, tichinwa doru muchiridza so, munoona ndaisa hosho dziya pasi ndava kutanga kutamba manje.

Ndotanga kutamba manje, moona dikita isingaperi, mvura kubuda so, ndava kutosvikirwa manje, maona manje?

Manje hapana anozokutaurirai manje kuti auya kwandiri ndiani manje.

Nokuti ndinenge ndisina mumwe wangu. Maona?

Kana ndine mumwe wechiShona, unonzwa kuti, “Asvika uyu, anoda kudai, anoda kudai so,” ndogadzirwa manje.

Ehe. Maona?

Zvinhu izvi, zvipo so. Chipa chaunopiwa naMwari usarambe, yeah.

Maratu: Saka, pamunenge maridza, zvamuri kubvunzwa apa, kuti pamunoridza, kune vamwe vanhu vanopoterwa here kana maridza ichi? Vanoti kana muchiridza vobva vasvikirwa?

Muradzikwa: Sepanapa, ah, hapana anosvikirwa.

Maratu: Ko, vekumusha ikoko?

He taught me for six months, then he fell ill, then he died, now. Now, I was left just doing catch up, doing what I could, just playing like that. Yes. So when we are in Buhera there, like that, they call me on the weekend to go and play, “At another home there is beer, a bira,” and I’ll be playing, playing,⁵ playing. Now, in the morning, now, if I say, “Oh, now I am going, now I am going,” they pay me, now, money, now. They pay me money, to say, “Oh, thank you, we thank you, we thank you.” When I arrive home, when I sleep, tomorrow another comes again, taking me. He! Doing it just like that.

Kyker: So does the *mudzimu* come out⁶ as you are playing *chipendani*?

Muradzikwa: When I am in the village?

Kyker: Yes.

Muradzikwa: Oh, I only cry, that’s all, as I am playing.

Kyker: But, the *midzimu* of other people. Do they get possessed?

Muradzikwa: The *mudzimu* of other people, they get possessed, yes. They feel, they feel empathy, yes.

Like these *mbira*, that you play.

If I take those *hosho*, playing them, and you are playing hard, playing, and we are drinking beer as you play, you’ll see I’ve put those *hosho* down, and I’ve started to dance, now.

I start to dance, now, you see sweat without end, moisture coming out, I’m now getting possessed, now, you see, now?

Now, no one will tell you, now, whom the one who has come to me is.

Because I will be without any person of my own. You see?

If I have a Shona person with me, you will hear, “The one who has come, he wants this, he wants this,” and then I will be settled, now.

Yes. You see?

These things, they are gifts. A gift that you are given by God, you do not refuse, yeah.

Maratu: So, when you are playing, what you are being asked here is, when you are playing, are there people who get possessed when you play this? That they, as you are playing, then they get possessed?

Muradzikwa: Like, here, oh, no one gets possessed.

Maratu: What about those in the village, there?

Muradzikwa: *Kumusha, ehe.*
 Maratu: *Muchiridza ichi?*
 Muradzikwa: *Mubiraka?*
 Maratu: *Ehe.*
 Muradzikwa: *Ehe.*
 Maratu: *Munotomboridza mubira?*
 Muradzikwa: *Ah, ah ah! Ndoridza!*
 Maratu: *Midzimu inotobuda?*
 Muradzikwa: *Chinobuda, ehe.*
 Maratu: This is something new for me. I've never heard that.

Muradzikwa: In the village, yes.
 Maratu: As you are playing this?
 Muradzikwa: In a *bira*, you mean?
 Maratu: Yes.
 Muradzikwa: Yes.
 Maratu: You play even in the *bira*?
 Muradzikwa: Oh, oh, oh! I play!
 Maratu: And the *midzimu* come out?
 Muradzikwa: It comes out, yes.
 Maratu: This is something new for me. I've never heard that.

Excerpts #3/Bimbi Rechitatu

Compound Muradzikwa, with Jennifer Kyker and Tute Chigamba, 29 July 2006.

Kyker: *Ko, Sekuru, makadzidzira kupi kuridza chipendani?*
 Muradzikwa: *Ndakadzidzira kumusha uko.*
 Kyker: *Makadzidziswa nani?*
 Muradzikwa: *Ndakadzidziswa nasekuru.*
Sekuru ndobva vafa manje.
Ndakasara ndichigona one song chete.
Saka, ndazosara ndichiridza, ndichiridza.
Ndobva ndakapinda kuchikoro manje. Ndaenda kuchikoro, ndaenda kuchikoro, baba namai ndobva vabheukwa vese nebhasi ndobva vafa one time vari two. Ehe.
 Kyker: *Mune makore mangani?*
 Muradzikwa: *1962, ndoyakafa baba naamai. Ehe.*
Saka ndakagara, ndikaona kuti kuchikoro, ah, zvinondinetsa. Kuita sei? Kudii, dii. Ndaiti ndikatora chipendani ichochi, ndikaenda kana vana vava kuvhara zvikoro so, ndikaenda ndichinoridza kuchikoro so, ndaipwiwa mari namateacher so, yekutenga mabhuku, ndokuti ndidzidze kuchikoro manje.
Ndobva ndakazoona kuti zvinoramba zvichinetsa manje. Pandakaona mukadzi manje, zvikanzi, baba vemukadzi vakanzi, "Tinoda kuti utiroorire mari manje."
Ndoona kuti, "Ah ndoita sei, handina mukoma, handina ani."
Manje, hanzvadzi dzangu dzainditevera ithree. Vasikana vese. Ini ndini mukomana manje, ndikatambudzika zvikuru.

Kyker: So, Sekuru, where did you learn to play *chipendani*?
 Muradzikwa: I learned it in the village, there.
 Kyker: By whom were you taught?
 Muradzikwa: I was taught by my grandfather. My grandfather, then he died, now. I was left able to play one song only. So, I was left playing, playing, playing. Then I entered school, now. I went to school, I went to school, my father and mother, then they were both hit by a bus then they died at the same time, the two of them. Yes.
 Kyker: How old were you?
 Muradzikwa: 1962, that's when my father and mother died. Yes.
 So I stayed, I saw that at school, oh, things were troubling me. What to do? Like this, like this. I would, if I took that *chipendani*, if I went when the children were getting out of school, if I went playing there, at the school, I would be given money by the teachers, to buy books, for me to study at school, now. Then I saw that, things are still difficult, now. When I met a woman, now, they said, the woman's father said, "We want you to pay us *roora*, now."⁷⁷
 I saw that, "Oh, what shall I do, I have no older brother, I have no one."
 Now, my sisters who followed me were three. All girls. I am the boy, now, and I suffered greatly.

So I eventually went looking for work. I entered into employment. I just worked in Harare.

So, then I saw, now, that to pay for a house, receiving my wages, to pay for electricity, to go and pay in the village there, for school, for those sisters, I was able to put through school one only, yes.

Saka mumwe akazodzidza, vakangogona kuziva Chirungu nokunyora chete, havana kudzidza zvakananyanya.

Nokuti handisisina baba manje.

Manje pandauya panapa ndichisevenza, 1992, ini ndanzi naJohn, "Chichengeta kuno uku," farm security, ndiri guard kuno uku so.

Pandakauya kuno kuma5, imba ndobva yatsva manje.

Yakatsva property yese, majacket andaipiwa navarungu so, ndichiridza so, ah, zvakatsva zvese.

Mukomana akauya kuno uku nebhasikoro so.

Ndakachema ndiri paguard room apa.

Zvikanzi, "Ah, chiregerai kuchema."

Ndikati, "Chabuda chii?"

Zvikanzi, "Hapana chambobuda kana."

Kutsva kwakaita imba vanhu vakatozoona ndobva vamhanya, ah, yava kutowira mukati.

Ndopaakatanga manje John kuisa dzimba dzamarata, asingadi dzeuswa manje.

Maona? Iye zvino izvi murungu aita handover kuna John, John ati, "Ndombozorora."

Saka, atanga kuvhaka futi dzimba ten dzemapango neuswa futi.

Zvikanzi, "Ah, tinongovhaka nguva dikidiki, tichachinja, toisa dzemarata."

Zvikanzi, "Vanonotsvirwa neimba."

Mukadzi waJohn akandipa jean yandaipfeka so.

Achindipa mukadzi waJohn.

Ndikaona kuti hapana chokuita.

Ndikatambudzika.

Ipapapa, pa1992, 93, 94, makore aya ari three, ndakambofunga moyo wekuti ndibe so, ndikaona ndikaramba.

Ndikati, "Ah, kubva ndife, handifunge kuti ndichaba futi."

Ndatambudzika, ndoona kuti "Ndoita sei?" Maona? Ehe.

Sisi wangu, hanzvadzi yangu, kuti ukaenda kumusha uko, kuBuhera uko, unosvika, aine hembe so, mazamu aya ari pachena so, apa. Kubvaruka so. Ndikafunga so, ndadai, ndochema manje.

Saka ndakazotsvaga basa kuno. Ndapinda basa manje. Ndakangosevenza muHarare.

Saka, ndobva ndaona manje kuti kubhadhara imba, ndichitambira mari, kubhadhara magetsi, kuti ndiende kunobhadhara kumusha uko kuchikoro, hanzvadzi dziya idzi, ndakagona kufundisa one chete, ehe.

So one eventually learned, they only were able to learn English, and to write, only, they didn't learn much.

Because I no longer had a father, now.

Now, when I came here to work 1992, I was told by John "Take care of this place", farm security, As a guard here.

When I came here at 5pm my house burned down, now.

All the property burned, the jackets I was given by whites for playing, oh, it all burned.

A boy came here on his bicycle.

I cried here, in the guard room.

They said, "Oh, don't cry."

I said, "What escaped?"

They said, "Nothing at all escaped."

The way the house burned, people saw it and they ran, oh, it was already falling in.

That is when he began now, John, to put up metal roofs, he no longer favored thatched ones, now.

You see? Now, at the present, the boss handed things over to John, John said, "Let me just relax."

So, he started building, again, ten houses of poles and thatch, again.

He said, "Oh, let's just build them, after a short time, we'll change, we'll put up metal sheets."

He said, "Their houses will burn down on them."

John's wife gave me jeans that I wore.

Giving me, John's wife.

I saw that there was nothing I could do.

I suffered.

Then, in 1992, '93, '94, those three years, I even thought about stealing, then I saw that I couldn't.

I said, "Oh, until I die, I don't think that I shall steal at all."

I suffered, I saw that, "What shall I do?"

You see? Yes.

My sister, my sister, if you go to the village, there, in Buhera, there, you arrive, and she has clothes like this, her breasts are exposed, here. They are so torn. If I think about it, like this, I cry, now. But when I started working,

Asi pandakatanga kusevenza ndakataura namisses, akandipa madress four, ndikanovapa so. Yeah. Kusvikira iye zvino so, ndagara mushe. Ehe.

Kyker: *Ko, makazvarwa gore ripi?*

Muradzikwa: 1943.

Kyker: *So, sekuru vakakudzidzisa, baba vababa here kana kuti baba vaamai?*

Muradzikwa: *Baba vababa.*

Kyker: *Maigara navo?*

Muradzikwa: *Futi iye zvino, ndakatovakanganwa nokuti vakafa ndamboti kure mbijana. Ndikavafungidzira ndinovakanganwa manje. Ndobaba vababa manje. Ndosekuru ivavo. Ehe, vakandidzidzisa chaizvo, vakati, “Kana uchida kurarama zvakanaka so, ita rudo navanhu vese. Uite rudo, rudo chinhu chakanaka. Ukarwa navanhu, haurarame zvakanaka.*

Unosungwa uchienda kujeri, vamwe vako vanenge vachisevenza, vachigara zvakanaka, iwe uri kujeri, hauna chaunoona.

Saka ndobva ndasiya manje, ndikati, “Ah, no.”

Kyker: *Ah, vakataura chokwadi.*

Muradzikwa: *Vakataura chokwadi! Ehe.*

Zvino ndiri kutevera mashoko avo, ndichiona kuti, “Ah, zvinhu zviriri right.”

Zvikanzi “Ukadzidza chinhu, ukachigona so, unoridzira vanhu so, uchienda kunasabhuku. Woridza, vachikupa huku, pamwe vakupa chii, so. Kuzobva ipapo ukaenda mutaundi, unowana mari sterik necho ichi.

Zvino ndiri kuzviona manje zviriri kuuya mbijana mbijana, but vanhu vari kuita majerasi manje. Ehe.

Kyker: *Ko, zvakamboitika here kuti – makambopiwa here huku?*

Muradzikwa: *Kumushaka? Ehe, kumaruzevha. Ehe, ndovanondipa, ehe.*

Saka ukandinzwa, anzi ndauya, zvanzi “Uya nechipendani, uridze kuno.”

Tichiridza padoro so, tichinwa doro tichiridza. Vachitamba umo.

Ehe, vachitamba sterik.

But muno umu manje kushanda kwatinoita, ukangowana basa mutaundi, muHarare muya, muHarare umu, hamuna jerasi maningi.

Muno mumapurazi muno umu?

I spoke to the missus, she gave me four dress, and I gave them to her. Yeah. Until now, I am living well. Yes.

Kyker: And, what year were you born?

Muradzikwa: 1943.

Kyker: So, the grandfather who taught you, was he your father's father, or your mother's father?

Muradzikwa: My father's father.

Kyker: Did you live with him?

Muradzikwa: Again, now, I've even forgotten him because he died when I was only slightly grown. If I think back to him, I forget him, now. That was my father's father, now. That was my grandfather. Yes, he taught me quite a bit, he said, “If you wish to live long and well, have love for all people. Have love; love is a good thing. If you fight with people, you won't live long and well.

You will be arrested and go to jail, and your own people will be working, living well, while you are in jail; you won't see anything.”

So, then, I desisted, now, I said, “Oh, no.”

Kyker: Oh, he spoke the truth.

Muradzikwa: He spoke the truth! Yes.

Now I am following his words, and seeing, “Oh, things are alright.”

He said, “If you learn something, and become good at it, you will play for people, going to the headman's place. You will play, and they give you a chicken, maybe they give you something. Eventually, moving from there, if you go to town, you will make lots of money with it, this thing.”

Now, I am seeing this, now, things are coming, slowly, slowly, but people are jealous, now. Yes.

Kyker: Well, has it ever happened that – have you ever been given a chicken?

Muradzikwa: In the village? Yes, on the reserve. Yes, they give me, yes. So if you hear of me, that I've come, they say, “Come with your chipendani, play.”

We'll be playing in a ceremony, drinking beer and playing. While people are dancing in there. Yes, they'll be dancing hard.

But here, now, the work that we do, if you find work in town, in Harare, there, in Harare there, there's isn't too much jealousy.

Here on the farms?

Kana vanhu, kusadzidza kuchikoro, ah, vanonetsa sterik.

Kyker: *But Harare, ine majerasi futi!*

Muradzikwa: *Ah, majerasi muHarare-pamafarm, angangoite kuvakuru vakuru so, vava mamangers namaforomani acho so. Yeah, maona? Jerasi is everywhere. But ukasangana navanhu vakanaka, unogara zvakanaka. Yeah. Mumwe munhu anobva kuno, achigara kuBulawayo.*

Anobva kuno kuenda kuBuhera uko, kuna shamwari yake, pamaholidays. Yeah, vachionana so, kuruzevha so, maona? Iye zvino ndinotenda fani kuti, eh, handizive manje kuti ini ndakawirirana naJeni seiko? Zvakauya seiko? Asi vadzimu naMwari vanoita zvinhu kuti zvizambe. Iye zvino zvaunoita so uchidai, uchidai, mangwana ndichazotenda zvikuru, ndichiona wava kundipa mari, wava kuita sei, wava kudii dii. Maona manje? Ehe.

Kyker: *Ko Sekuru, saka mamwe masongs amakazodzidzira kuridza, makaadzidzira sei? Sekuru pavakashaya, makadzidziswa nani manje? Because mune masongs akawanda chaizvo.*

Muradzikwa: *Ndine masongs akawanda. Saka zvandinoitaka, ukagona kuridza ichi soka, kana muchiridza mega, uchiridza, uchiridza, unongoona wafunga song yawava kutoiridza. Ehe.*

Chigamba: *Zvinouya zvega.*

Muradzikwa: *Zvinongouya zvega so uchiridza so. Ehe.*

Ukagara uchiridza so, uchiridza, “Tsoko tsoko tsoko,” uchigona rwiyo urwu bedzi unotopedzisira wava kuridza rumwe, pamwe wava kuridza rumwe so.

Ehe. Ini ndakatarisa mahachi kumhanya uko, achimhanya so. Ndobva ndatevedzera ini manje. Manje pakuridza kwangu so, ndichinzwa manje kuti ndiri kuridza so, ndotoona kuti, ndorinoita hachi kana richimhanya. Maona? Ehe.

Ndakamboenda kubanya kwaAmbuya kumasango uku, eh, kuine doro so, remasvikiro so. Eh, ndakaridza chipendani, mbira dzikambomira.

If people haven't studied in school, oh, they are very troublesome.

Kyker: But Harare, it also has jealousy!

Muradzikwa: Oh, the jealousy in Harare – on the farm, it happens to those higher-ups, who have become managers and foremen. Yeah, you see? Jealousy is everywhere. But, if you encounter good people, you will live well. Yeah. Another person leaves from here, living in Bulawayo.

He leaves here to go to Buhera there, at his friend's place, for the holidays. Yeah, they're seeing each other, on the reserves, you see? Now, I am thankful that, oh, I don't know, now, how did I become friend with Jenny? How did this happen? But the ancestors and God make it so that things move forward. Now, what you are doing, this and that, tomorrow I shall be very thankful, seeing that you are giving me money, or doing whatever you do. You see, now? Yes.

Kyker: So, Sekuru, so the other songs that you learned to play, how did you learn them? When your grandfather died, by whom were you taught, now? Because you have a lot of songs, really.

Muradzikwa: I have a lot of songs. So, what I do is, if you are able to play this, if you are playing by yourself, playing and playing, you simply see that you think of a song and then you're already playing it. Yes.

Chigamba: They come on their own.

Muradzikwa: They come on their own, as you are playing. Yes.

If you sit while you are playing, as you are playing, “*Tsoko, tsoko, tsoko,*” and you are capable of just that one song you end up playing another one, maybe then you play yet another one.

Yes. I watched the horses running, there, running. Then I followed along, myself, now. Now, in my playing, as I am hearing now how I am playing, I even see that, this is what the horse does when it is running. You see? Yes.

I went to Ambuya's *banya*,⁸ in the forest there, oh, when there was a ceremony, for the spirit mediums. I played chipendani, and the *mbira* just waited.⁹

Agотора mvura so, nomuswe, achiti kuchati
kuchati, ichitonhora zvokuti ehe! Asi kwaipisa.
Ikamwaywa kudai, unovhunduka kudai o.
Ndakachiridza ichi, svikiro rikaita misodzi
kudai zvokuchema ndichiridza. Ah, ndikati,
“Zvino zvinhu zvinomboita seiko izvi?”

Chigamba: Eh, zvine, zvine mashavi azvo.

Muradzikwa: Aiwa, ah, dai zvaramba zvakadaro
so. Shuwa

She just took the water, with a tail whisk, flicking
it, and it was so very cold! But the weather
was hot. When it is sprinkled like that, you
get startled, like this. I played it, this thing, the
spirit medium had tears, like so, crying as I
played. Oh, I said, “These things, how do they
come to happen?”

Chigamba: Oh, they have, they have their
mashave.¹⁰

Muradzikwa, No, oh, if only things carried on
like this. Sure.

Notes

1. Penguin Books Ltd. Kindle Edition. Kindle Locations 907–910. Translated into Shona by Jennifer Kyker.
2. Penguin Books Ltd. Kindle Edition. Kindle Locations 907–910.
3. The *dare* is a meeting place for the men of a particular home or village.
4. The *munyai* is an intermediary in marriage negotiations.
5. For a detailed description of music at *bira* possession ceremonies, with special focus on the role of the *mbira dzavadzimu*. See Berliner 1993.
6. Ancestral spirit, pl. *midzimu* or *vadzimu*.
7. Sometimes referred to as “brideprice,” *roora* is an exchange of valuables, often partly comprised of cattle, that compensates a family for the reproductive potential of the bride.
8. A round, thatched building reserved for ritual purposes.
9. An instrument commonly played at spirit possession ceremonies. See Berliner 1993.
10. A type of non-ancestral spirit that may grant certain skills or abilities, such as playing music, healing, or divination.

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***Chipendani* (Mouth Bow) — The Origin of the Shona Mbira Harmonic System and of Andrew Tracey’s ‘Basic *Kalimba* Core’**

KLAUS-PETER BRENNER*

Abstract: In my largely analytical paper I am going to present a condensed outline of my findings on the Shona mouth bow *chipendani* based on my 1993 field research in Zimbabwe as well as on Hugh Tracey’s 1949 and 1951 *chipendani* recordings, and drawing on my earlier and more comprehensive German publications on this topic (Brenner 1997 and 2004). A systemic analysis of the *chipendani*’s organologic construction, its unique acoustical properties, and the specific musical exploitation of the latter by means of its peculiar playing technique brings to light a highly sophisticated and outstandingly ingenious organo-musical system of admirable complexity and structural coherence. A crucial role in the physical construction and acoustic behaviour of this mouth bow plays its one-dimensional string divider or tuning thread (as opposed to a two-dimensional string divider or tuning loop). The hallmark (and fingerprint) of *chipendani* music is its characteristic tonal-harmonic system which is based on the four — due to the one-dimensional string-divider acoustically interdependent (!) — fundamentals F, A, C and D, and the fifth dyads FC, AE, CG, and DA, selectively mouth-filtered from their respective columns of partials. How then is this tone material organized in space and time? In spacial respect, the *chipendani* polyphony combines a tetratonic lower voice on the fundamental tone scale F A C D, and an hexatonic upper voice on the partial tone scale C D E F G A (with multiple octave extension). In temporal respect, this two-voice polyphony follows characteristic harmonic progressions the most elementary and typical variety of which is the six-step ‘standard’ sequence FC > AE > DA > FC > AE > CG > (first described by A. Tracey 1961 for Shona *kalimba* music). Comparison with the system of harmonic patterning underlying Shona *mbira* (except *mbira dzaVaNdau*) music (A. Tracey 1989; Benner 1997; 2013; 2015; Grupe 1998; 2004) brings to light a surprisingly close structural affinity: In fact, the *chipendani* harmonic system turns out to be, in synchronic perspective, the structural core of the Shona *mbira* harmonic system. This prompts the conclusion that it is, in diachronic perspective, its embryonic prototype as well as the origin of the hypothetic embryonic prototype of all present-day Shona tuning plans, i.e. Andrew Tracey’s ‘basic *mbira kalimba* core’ (A. Tracey 1972; 1974; 2013).

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In my paper, I am going to present an outline of my analytical findings on the Shona mouth bow, the *chipendani*, based on my 1993 field research in Zimbabwe as well as on Hugh Tracey's 1949 and 1951 *chipendani* recordings. I shall moreover draw from my earlier and more comprehensive German publications on this topic (Brenner 1997, 2004, cf H. Tracey 1991, Kauffman 1970, Dias 1986, Kubik 1988a, Rutsate 2007, Kyker 2007, 2015, 2016a, 2016b). My main informants and teachers were the late Mr. Sydney Musarurwa Nyandoro (1949–2000, from Zezuru dialect area, Mheremavende village, Mashayamombe chiefdom, Mhondoro Communal Land, Chegutu District, Mashonaland West Province, Zimbabwe. See Figure 1) and the late Mr. Green Tamanikwa Mususa (1936–1995, from Korekore dialect area, Mususa village, Dandawa chiefdom, Hurungwe District, Mashonaland West Province, Zimbabwe).

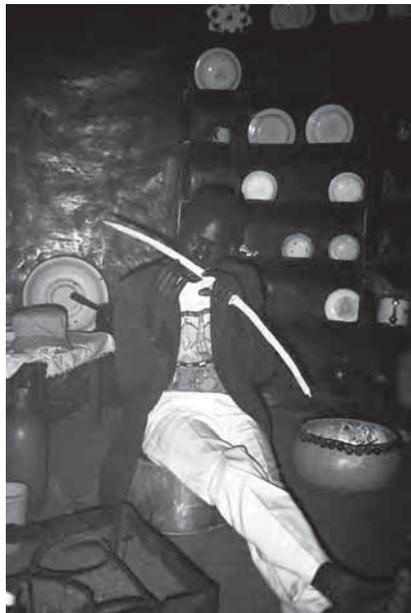


Figure 1. Sydney Musarurwa Nyandoro playing *chipendani* at the evening kitchen fire in his house in Mhondoro in 1993. Photo by author.

Other *chipendani* players whom I had the privilege to meet and record during a concert tour in Cologne/Germany in 1994 were the late Mr. Mondrek Muchena Hwata (1939–1995, Zezuru dialect area, Harare/New Canaan township and Nyamweda chiefdom, Chegutu District, Mashonaland West Province, Zimbabwe) and Mr. Chaka Chawasarira (b. 1941, biographically rooted in both Zezuru and Korekore dialect areas, Zimbabwe), and, at the University of KwaZulu-Natal's 1st Bow Music Conference in Durban in 2016, Mr. Compound Muradzikwa (b. 1943, from Zezuru/Manyika dialect area, Buhera District, Manicaland Province, Zimbabwe) (cf again Kyker 2007, 2015, 2016a, 2016b) whose trip to South Africa had kindly been organized by Jennifer Kyker.

Organologically, the *chipendani* consists of a flattened bow stave made of *mubedu*

wood (bot. *ozoroa reticulata*), with a carved-out cylindrical handle in the middle and small lugs at the ends to which a thin wire string is attached (Figure 2).

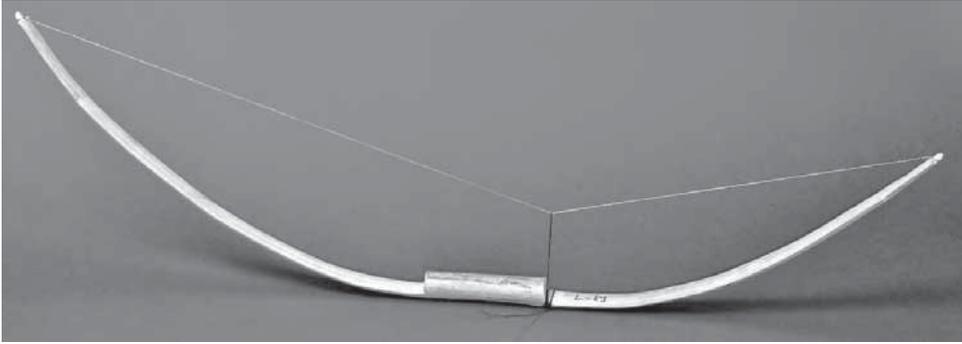


Figure 2. *Chipendani* made by John Hakurotwi Mude, Highfield, Harare, Zimbabwe, before 1995 (now: Georg-August-Universität Göttingen, Collection of Musical Instruments, inventory number L-89). Photo by Stephan Eckardt. Courtesy Stephan Eckardt.

A tuning thread is knotted onto the string and draws it towards the stave to the right of the handle where its loose end is temporarily coiled around the stave, thereby bending the string in an obtuse angle and dividing it into a shorter segment to the right, and a longer one to the left (Figure 3). The string tension is moderate. The player holds the stave with the left hand in a horizontal or slightly inclined position with the string pointing outward. The string is plucked by the left index finger, and either plucked or stopped by the right index or middle finger and thumb. By using his mouth cavity as an adjustable resonator, the player selectively amplifies harmonic partials at the convex back of the stave, somewhat to the right of the handle. Sometimes he proceeds to whistling from the side of his mouth. Occasionally, a secondary rattle made of bottle tops loosely attached to a piece of sheet metal and called *chijaka* (Figure 21) is bound to the left end of the stave.

These are my main points:

1. An analysis of the organology, acoustics, playing technique and music of the *chipendani* (Brenner 1997, 2004) brings to light an ingenious organo-musical system of admirable complexity and structural coherence. Its hallmark and fingerprint, as we shall see, is its unique and style-molding tonal-harmonic system.
2. A comparison of the latter with the system of harmonic patterning underlying Shona *mbira* (except *mbira dzaVaNdau*) music (A. Tracey 1961, 1970, 1989, Kauffman 1970, Kaemmer 1973, 1975, Kubik 1987, 1988b, Brenner 1997, 2013, 2015, Grupe 1998, 2004) uncovers a surprisingly close structural affinity: In fact, the *chipendani* harmonic system turns out to be, in synchronic perspective, the structural core of the Shona *mbira* harmonic system.

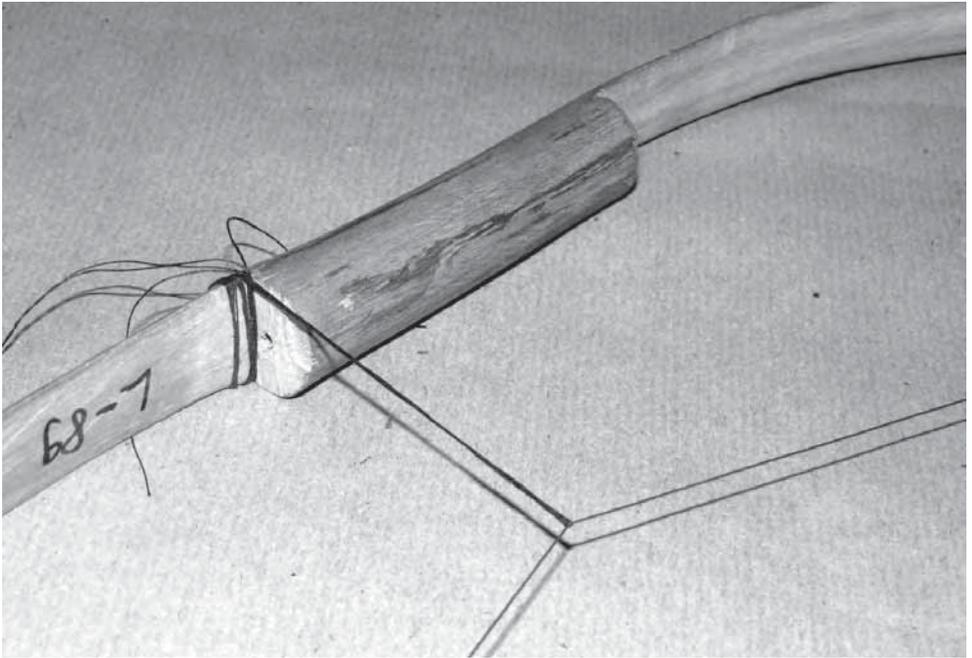


Figure 3. *Chipendani*: Closeup of middle section with cylindrical handle and one-dimensional string-divider. Photo by Klaus-Peter Brenner.

3. This prompts the conclusion that the *chipendani* system is, in diachronic perspective, the embryonic prototype of the *mbira* system¹, as well as
4. the origin of the hypothetic embryonic prototype of all present-day Shona *mbira* tuning plans, i.e. Andrew Tracey's 'basic *kalimba* core' (A. Tracey 1972, 1974, 2013, cf Kubik 1998, 2002, Kubik et al. 2014).

In the following I am going to present some evidence for this theory.

There are four physical laws that are exploited in the *chipendani* type of mouth bow. While the first three of these are shared with most other African musical bows, the fourth one is specific to the *chipendani* type of mouth bow (including its relatives such as the Venda *tshihwana*, the Zulu *isiqomqomana*, the Mbuti *kabarome*, and others).

1. The vibrational modes of an ideal string produce a column of harmonic partials whose frequencies are integer multiples of the fundamental.
2. A bulb-shaped cavity or Helmholtz resonator is able to selectively amplify a specific frequency from a complex sound.

¹ As predicted by himself, the tentative three-bow merger model suggested by Gerhard Kubik in his San substratum theory (Kubik 1987, 1988, cf A. Tracey 1989, Brenner 1997) proved to be an expedient heuristic means on the way to this finding. Thus having fulfilled its purpose, it must now be considered obsolete.

3. A given ratio of vibrating string lengths corresponds to the reciprocal ratio of frequencies, hence to a specific interval.
4. A string which is bent by a one-dimensional string-divider can vibrate in each of its two segments separately as well as a whole. In this case, the third law applies to the ratio of all three involved string lengths and produces three acoustically interdependent fundamentals and their respective columns of harmonic partials (Brenner 1997, 2004).

A **two-dimensional string-divider** or **tuning loop** (Figure 4) fixes — relative to the bow stave — the string-dividing point in **all** directions. For that reason, it allows the string to vibrate only separately in its two segments.

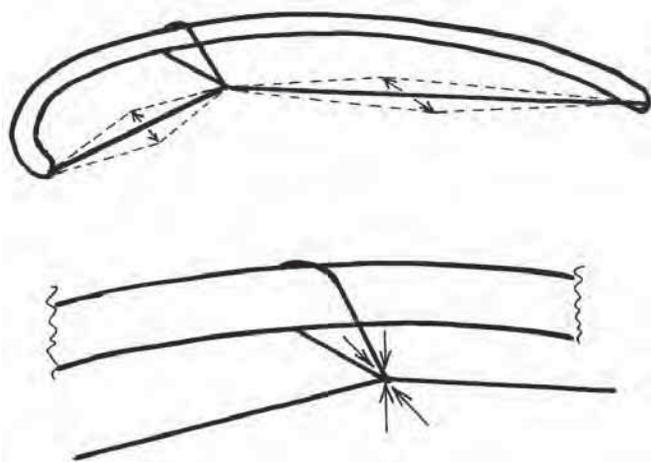


Figure 4. Two-dimensional string-divider (tuning loop). String segments vibrating separately. Illustrations by Klaus-Peter Brenner.

As opposed to this, a **one-dimensional string-divider** or **tuning thread** (Figure 5) additionally allows the bent string to vibrate as a whole, at least in an up and downward movement. It still behaves that way when one of the segments is stopped by the player in order to shorten the vibrating length of the bent whole string.

How is this inconspicuous, but tricky device utilized in the Shona *chipendani* tradition?

The string is divided in such a way that the interval between the two segments is a pure fifth, which means that the second harmonic partial (and its octave equivalents) of the short segment coincides with the third harmonic partial (and its octave equivalents) of the long segment. In other words: The whole string is divided by 5, and the string length ratio 2 : 3 : 5 is established (Figure 6, top).

Furthermore, the string is temporarily stopped at the short segment in such a way that another pure fifth is produced on top of the resulting whole string pitch, which means that the second harmonic partial (and its octave equivalents) of the **stopped** bent string coincides with the third harmonic partial (and its octave equivalents) of the

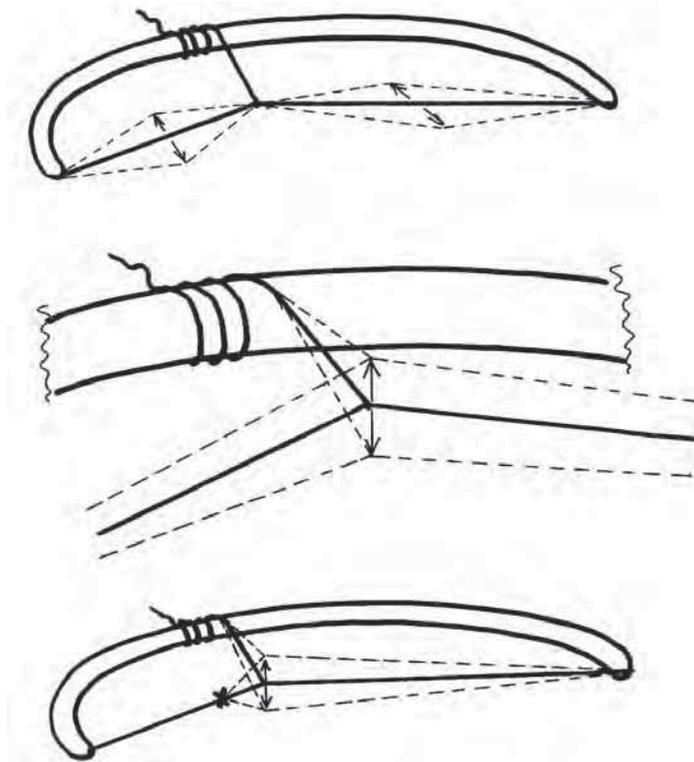


Figure 5. One-dimensional string-divider (tuning thread). String segments vibrating separately (top), bent string vibrating as a whole (center), stopped bent string vibrating as a whole (bottom). Illustrations by Klaus-Peter Brenner.

whole bent string. In other words: The whole string is divided by 3, and the ratio 1 : 2 : 3 is established (Figure 6, center).

The superposition of these two conflicting divisions can be expressed as one set by expanding both ratios to their smallest common denominator 15 (Figure 6, bottom):

$$2 : 3 : 5 = 6 : 9 : 15$$

$$1 : 2 : 3 = 5 : 10 : 15$$

Among these the four musically utilized string lengths are:

$$15 : 6 : 10 : 9 \text{ (but not 5)}$$

From this set of string length ratios, we calculate the corresponding frequency ratios and hence the intervals between the four fundamentals (Figure 7) [DVD, Audio 1]. Expressed in relative pitch, these are:

$$F : a : c : d$$

Henceforth we also address them as:

$$\text{Root I : II : III : IV.}$$

→ DVD, Audio 1. *Chipendani*: Fundamentals F, a, c, d. Demonstration played by author.

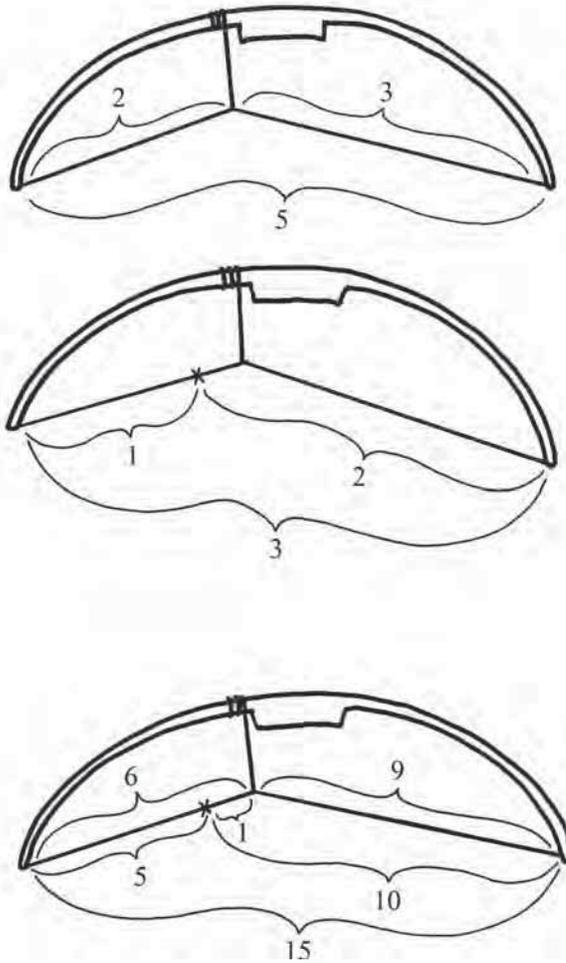


Figure 6. *Chipendani*: Ratios of vibrating string lengths. Division of whole string by 5 (top). Division of whole string by 3 (center). Superposition of these conflicting divisions by expanding both ratios to their smallest common denominator (bottom). Illustration by Klaus-Peter Brenner.

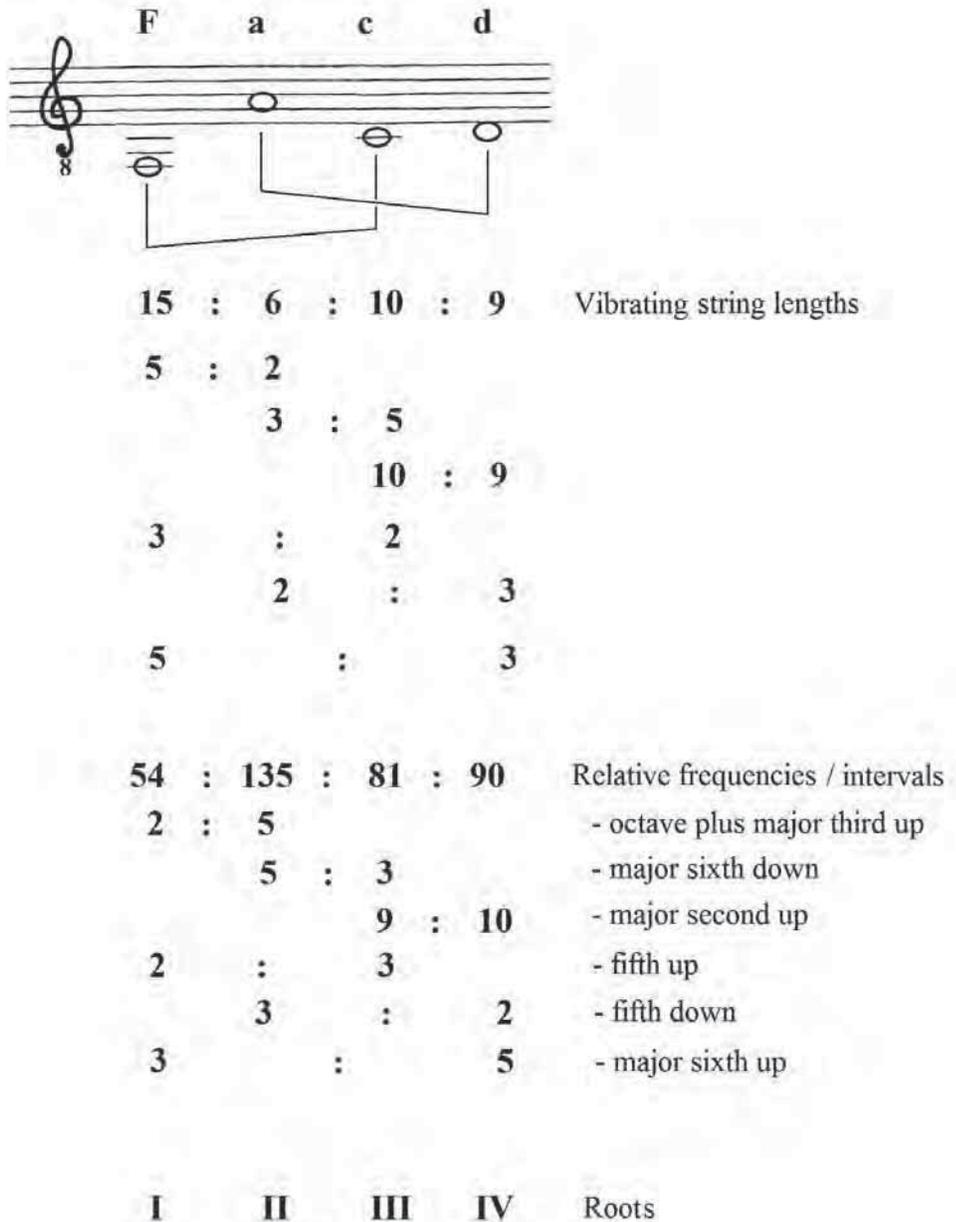


Figure 7. *Chipendani*: Intervals between fundamentals.

Let us now turn to the playing technique. How are these four roots executed by the player?

Root I (Figures 8–10): The left index finger plucks the whole string close to the bending point in a downward movement. The relative string length 15 vibrates and produces the relative pitch F.

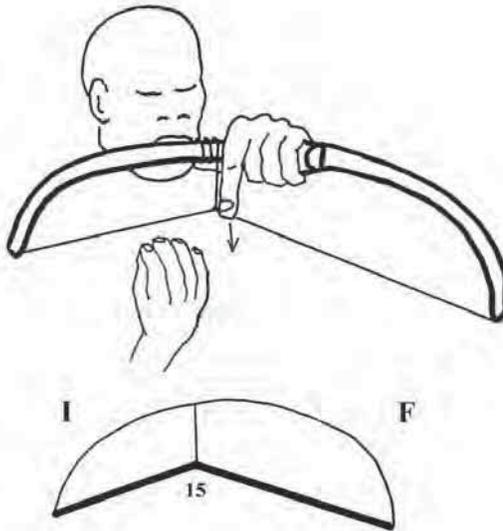


Figure 8. *Chipendani* playing technique. Root I: Left index finger plucks whole string close to the bending point in a downward movement. Illustration by Klaus-Peter Brenner.

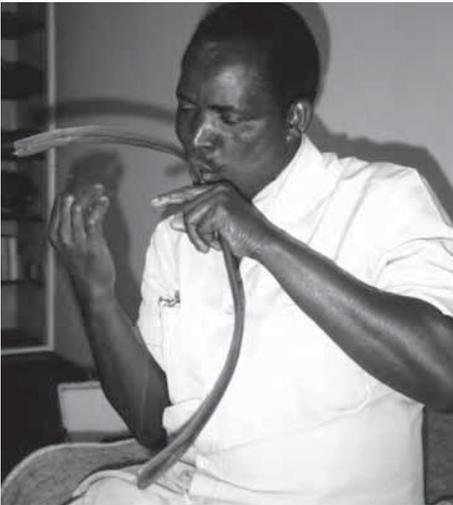


Figure 9. Green Tamanikwa Mususa 1993, playing root I. Photo by Klaus-Peter Brenner.



Figure 10. Sydney Musarurwa Nyandoro 1993, playing root I. Photo by Klaus-Peter Brenner.

Root II (Figures 11–13): The right hand plucks the short segment in an outward movement by pinching and releasing it with either index finger and thumb, or middle finger and thumb. The relative string length 6 vibrates and produces the relative pitch a.

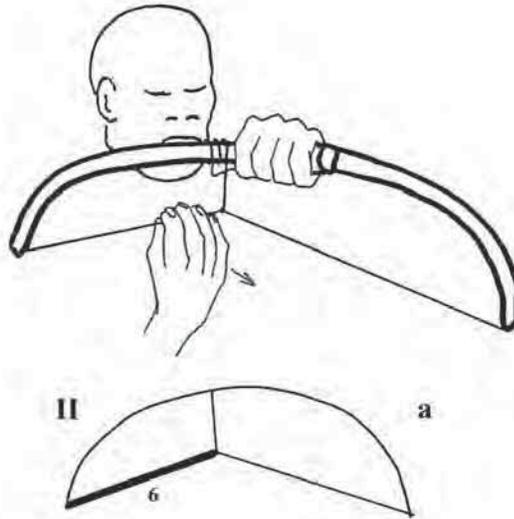


Figure 11. *Chipendani* playing technique. Root II: Right hand plucks short segment in an outward movement by pinching and releasing it with either index finger and thumb, or middle finger and thumb. Illustration by Klaus-Peter Brenner.



Figure 12. Green Tamanikwa Mususa 1993, playing root II (first perspective). Photo by Klaus-Peter Brenner.



Figure 13. Sydney Musarurwa Nyandoro 1993, playing root II. Photo by Klaus-Peter Brenner.

Root III (Figures 15–17): The left index finger plucks the long segment close to the bending point in a downward movement, while the right hand stops the short segment by pinching it with either index finger and thumb, or middle finger and thumb. The relative string length 10 vibrates and produces the relative pitch c.

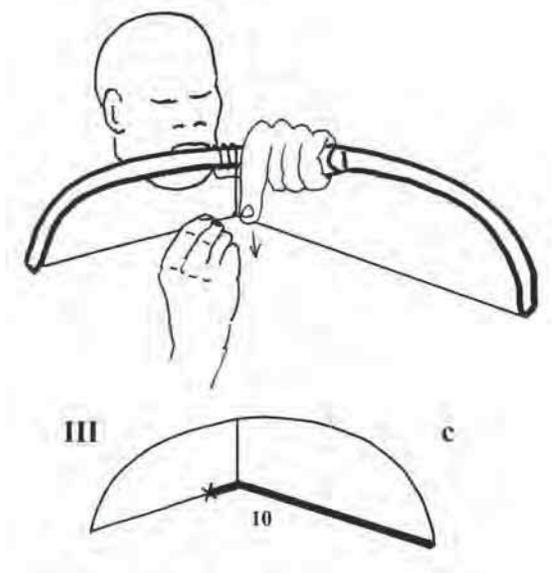


Figure 15. *Chipendani* playing technique. – Root III: Left index finger plucks long segment close to the bending point in a downward movement, while right hand stops short segment by pinching it with either index finger and thumb, or middle finger and thumb. Illustration by Klaus-Peter Brenner.



Figure 16. Green Tamanikwa Mususa 1993, playing root III. Photo by Klaus-Peter Brenner.



Figure 17. Sydney Musarurwa Nyandoro 1993, playing root III. Photo by Klaus-Peter Brenner.

Root IV (Figures 18–21): The right hand plucks the long segment in an outward movement by pinching and releasing it with either index finger and thumb, or middle finger and thumb. The relative string length 9 vibrates and produces the relative pitch d.

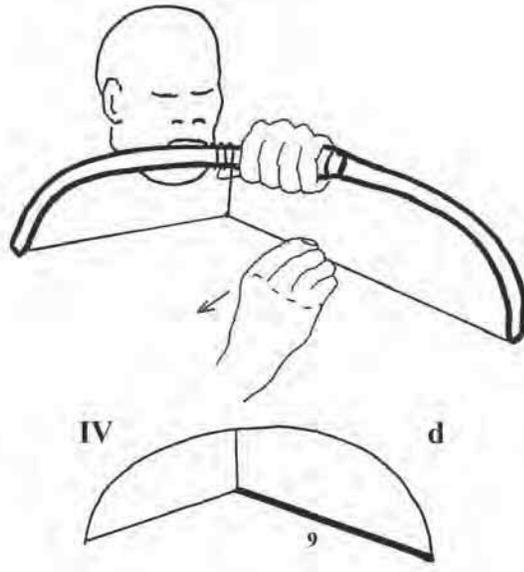


Figure 18. *Chipendani* playing technique. – Root IV: Right hand plucks long segment in an outward movement by pinching and releasing it with either index finger and thumb, or middle finger and thumb. Illustration by Klaus-Peter Brenner.



Figure 19. Green Tamanikwa Mususa 1993, playing root IV. Photo by Klaus-Peter Brenner.



Figure 20. Sydney Musarurwa Nyandoro 1993, playing root IV (first perspective). Photo by Klaus-Peter Brenner.



Figure 21. Sydney Musarurwa Nyandoro 1993, playing root IV (second perspective). Note the secondary rattle *chijaka* temporarily attached to the bow in this case. Photo by Klaus-Peter Brenner.

Here is the synopsis of the hand positions and movements required to produce those four roots (Figure 22) [DVD, Audio 1].

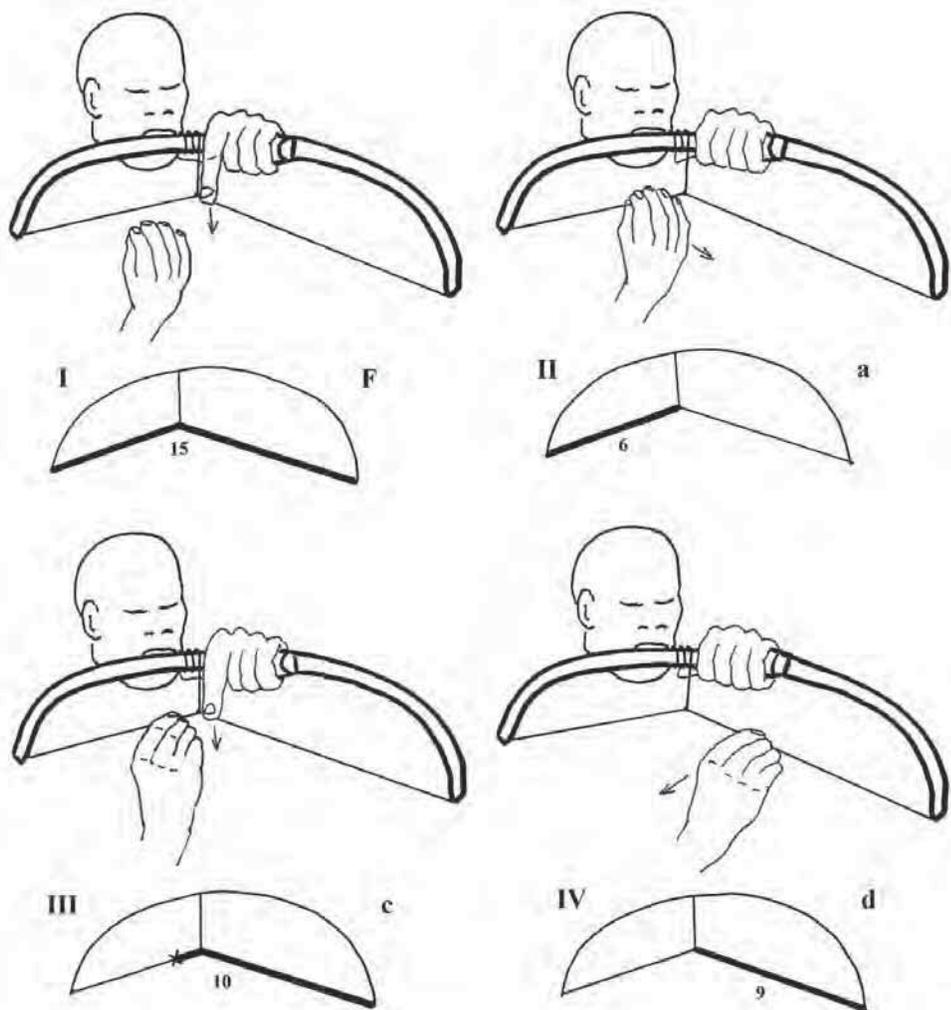


Figure 22. *Chipendani* playing technique — Synopsis of the four roots.
Illustration by Klaus-Peter Brenner.

→ DVD, Audio 1 (second listening). *Chipendani*: Fundamentals F, a, c, d.
Demonstration played by author.

The characteristic tonal-harmonic system of *chipendani* music is based on the four – due to the one-dimensional string-divider acoustically interdependent (!) – fundamentals F, A, C and D, and the fifth dyads FC, AE, CG, and DA, which are erected upon them by selectively mouth-filtering them from their respective columns of partials.

The **columnar** representation of this tone material (Figure 23) [DVD, Audio 2] shows that only **those** harmonic partials are selected which are octave equivalents of the first to third partials, i.e. of the fundamentals and their respective fifths. That's how the four dyads FC, AE, CG, and DA come about.

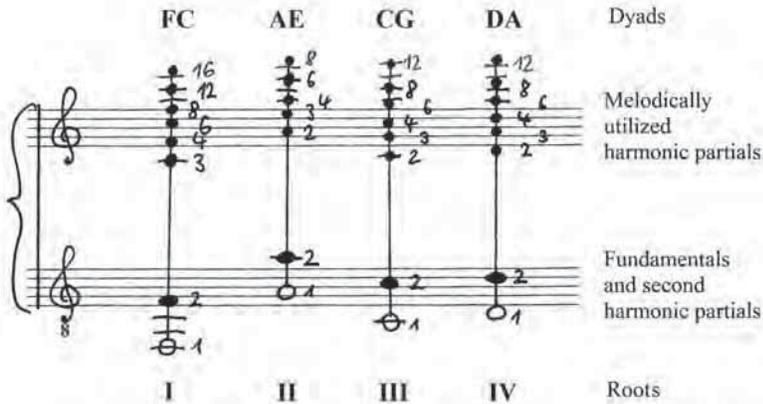


Figure 23. *Chipendani*: Selection of mouth-filtered harmonic partials, columnwise. Note the cross-stabilizing commonalities between the columns of roots I and III, and between those of roots IV and III. Illustration by Klaus-Peter Brenner.

→ DVD, Audio 2. *Chipendani*: Selection of mouth-filtered harmonic partials, in columns. The played sequence is:

$I_4 - 6 - 8 - 12 - 16 - 12 - 8 - 6 - 4$ $II_2 - 3 - 4 - 6 - 8 - 6 - 4 - 3 - 2$ $III_3 - 4 - 6 - 8 - 12 - 8 - 6 - 4$
 $IV_2 - 3 - 4 - 6 - 8 - 12 - 8 - 6 - 4 - 3 - 2$. (Demonstration played by author)

The **descending scalewise** representation of that selection of mouth-filtered harmonic partials shows the hexatonic structure C D E F G A (Figure 24) [DVD, Audio 3].

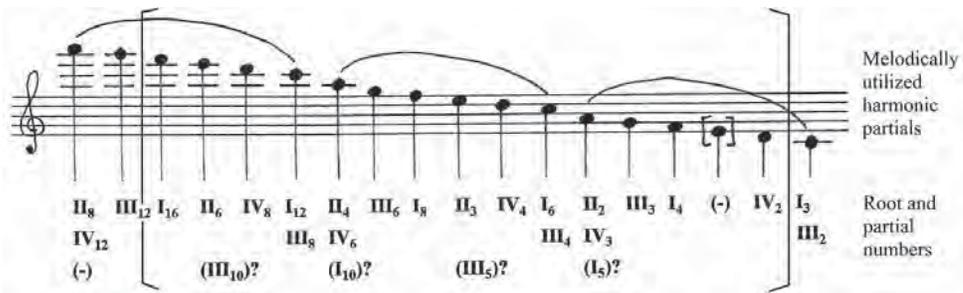


Figure 24. *Chipendani*: Selection of mouth-filtered harmonic partials, arranged as descending scale. Brackets refer to the ambitus represented in Audio 3. Illustration by Klaus-Peter Brenner.

→ DVD, Audio 3. *Chipendani*: Selection of mouth-filtered harmonic partials, arranged as descending scale. The played sequence is:

I_{16} II_6 IV_8
 I_{12} II_4 III_6 I_8 II_3 IV_4
 I_6 II_2 $III_{(3)}$ I_4 $II_{(-)}$ IV_2 .

Focus attention on the **partials!** – Demonstration played by author. And, as we can see, its production depends technically on a specific sequential occurrence of the four roots on which they are based. This cyclical sequence is, in its basic manifestation, either: [I → II → III → I → II → IV →], or: [I → II → IV → I → II → III →], depending on the chosen starting point. Other temporal permutations as e.g.: [II → IV → I → II → III → I →] (fifth permutation), do also occur, though.

This corresponds very well with two further observations (Figure 25), [Audio 3]:

1. A systematic examination of the technical availability of immediate progressions from one root to another yields a significant result: Among the six theoretically existent one-step progressions five are indeed executable, and equally so in both directions. But the sixth one, connecting roots III and IV, turns out to be technically inexecutable, also in both directions. The reason for this technical restriction is that in order to execute this progression the player would have to switch with his right hand from stopping the short segment to plucking the long one, or the other way round. This simply does not work without disturbing the motional and sonic flow and is therefore consequently avoided.
2. In the previously described six-step progression, the five technically available one-step progressions are represented in one direction each, while roots III and IV, though inexecutable as an immediate progression, are most prominently structuring the harmonic cycle by establishing the difference between its two corresponding halves.

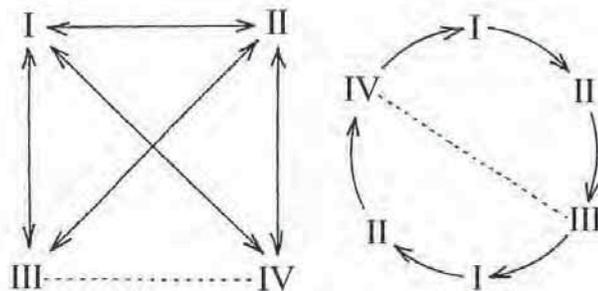


Figure 25. *Chipendani*: (a) Technically possible (straight lines) vs. impossible (dotted line) root progressions. (b) The 6-step 'standard' root progression. Illustration by Klaus-Peter Brenner.

→ DVD, Audio 3 (second listening). Description as above. – This time, focus attention on the **fundamentals** forming the 6-step 'standard' root progression! How then does this distinctively structured tone material show through when it comes to actual *chipendani* music? How does it shape it in space and time?

With respect to the dimension of tonal space and register, the *chipendani* polyphony typically combines a tetratonic lower voice on the scale, F A C D, provided by fundamentals and/or second harmonic partials, with a hexatonic upper voice on the partial tone scale, C D E F G A, with multiple octave extension.

With respect to its temporal dimension, this two-voice polyphony emerges from

a stock of distinctively structured and closely interrelated root progressions, the most elementary and typical variety of which is the six-step ‘standard’ progression [FC → AE → DA → FC → AE → CG →] (first described by A. Tracey 1961 for Shona *kalimba* music).

The afore-mentioned bundle of traits manifests in an ideal-typical way in the following music example, the *chipendani* piece, “Kwa ambuya asina keriya” (“You must bring your mother-in-law a present on your bicycle carrier when you go to see her, or she will be angry”), as played by Mr. Muchabaiwa in the Marondera District of Zimbabwe (then Marandellas, South Rhodesia) and recorded by Hugh Tracey in 1951 (H. Tracey 1955-1970 and 1973: TR-174 (A-6), cf Kyker 2016b). My condensed transcription (Figure 26) provides a synopsis of the sonic and the motional aspects of this piece. It shows, in correlation to the grid of 24 elementary pulses and 8 reference beats,

1. two varieties of the hexatonic upper voice,
2. the tetratonic lower voice,
3. the root progression *in abstracto*, and
4. the underlying motional pattern.

I elementary pulse = M. M. 504

Form number: (24)

Partial tone melody:
- Variety 1

- Variety 2

Fundamentals and second partials:

Roots:

Dyads:

Motional Pattern:
- right hand plucks short segment
- right hand stops string at short segment
- right hand plucks long segment
- left hand plucks whole string vertically

Reference beat:

Figure 26. A *chipendani* piece based in the most elementary way on the 6-step ‘standard’ root progression: “Kwa ambuya asina keriya”, played by Mr. Muchabaiwa, supported by two unidentified singers, Marondera District, Zimbabwe (then Marandellas District, South Rhodesia), 1951. Recording by Hugh Tracey (H. Tracey 1955–1970 and 1973: TR-174 (A-6)). Condensed transcription, restricted to sound and motional pattern of *chipendani* part. (For an extended transcription which also includes some typical lines of the two polyphonic vocal parts, see Brenner 1997: 57). Transcription by author.

The two corresponding audio examples provide a looped and slightly slowed down **excerpt** from Hugh Tracey's recording, comprising two cycles of the root progression [DVD, Audio 4], and subsequently the **complete recording** in its original tempo [DVD, Audio 5].

- DVD, Audio 4. *Chipendani* piece "Kwa ambuya asina keriya", played by Mr. Muchabaiwa, supported by two unidentified singers, Marondera District, Zimbabwe (then Marandellas District, South Rhodesia), 1951. Recording by Hugh Tracey (H. Tracey 1955-1970 and 1973: TR-174 (A-6)). **Excerpt**: Two cycles of *chipendani* solo, looped and slightly slowed down. Copyright: International Library of African Music. Courtesy Prof. Diane Thram, Director / ILAM.
- DVD, Audio 5. *Chipendani* piece "Kwa ambuya asina keriya", played by Mr. Muchabaiwa, supported by two unidentified singers, Marondera District, Zimbabwe (then Marandellas District, South Rhodesia), 1951. Recording by Hugh Tracey (H. Tracey 1955-1970 and 1973: TR-174 (A-6)). **Complete recording** in original tempo. – Copyright: International Library of African Music. Courtesy Prof. Diane Thram, director / ILAM.

In the following short video clip <DVD, Video 1>, the author demonstrates the playing technique of the *chipendani* in motion.

- DVD, Video 1. Author demonstrates playing technique of *chipendani* by playing "Kwa ambuya asina keriya". Excerpt from footage for exhibition trailer video 'Schätze des Wissens' ("Treasures of Knowledge"). Production and Copyright: Georg-August-Universität Göttingen, Germany, 2011.

In the next three video examples (Videos 2—4), recorded in an informal workshop situation during the 1st Bow Music Conference in Durban, 2016, Sekuru Compound Muradzikwa demonstrates some of the more complex pieces from his *chipendani* repertoire, "Ndezvemeso Muromo Chinyarara" and "Mabhiza", along with one that he considers a beginner's piece, "Tsoko", and which he combines in a medley with another one that I was not able to identify. These examples show how the 6-step 'standard' progression relates to and is structurally contained in individual root progressions which are derived from it by means of

1. temporal permutation,
2. insertion of elements,
3. iteration of groups of elements,
4. as well as combinations of these three operations.

In addition to the underlying sequence of roots *in abstracto*, it is its metro-rhythmic phenotype ("harmonic rhythm", cf Berliner 1993: 77) *in concreto* that — often together with a kind of melodic 'catch phrase' — shapes the musically distinctive character and identity of an individual *chipendani* piece.

The piece "Ndezvemeso Muromo Chinyarara" [It is for the eyes; mouth, keep quiet] <DVD, Video 2> (cf Kyker 2007) is based on a metro-rhythmic cycle of $8 \times 2 = 16$

elementary pulses (occasionally ternarized towards a cycle of 12 elementary pulses) and, harmonically, on the root progression

16 (= 12) EP [IV . I . . . II . | III . I . . . II .]

which is the sixth temporal permutation of the 6-step 'standard' progression.

→ DVD, Video 2. Sekuru Compound Muradzikwa plays the *chipendani* piece "Ndezvemeso Muromo Chinyarara". Recorded at the 1st Bow Music Conference in Durban, 2016. Video by author. Copyright: Compound Muradzikwa and Klaus-Peter Brenner.

The piece "Mabhiza" ("Horses") <DVD, Video 3> (cf Kyker 2007) is based on a metro-rhythmical cycle of $8 \times 3 = 24$ elementary pulses and, harmonically, on the root progression

24 EP [IV . I IV . I IV . I II . . | III . . I . . II . . I . II]
[IV I II III I II]

which is the sixth temporal permutation of the 6-step 'standard' progression, extended by insertions and internal iterations.

→ DVD, Video 3. Sekuru Compound Muradzikwa plays the *chipendani* piece "Mabhiza". Recorded at the 1st Bow Music Conference in Durban, 2016. – Video by author. Copyright: Compound Muradzikwa and Klaus-Peter Brenner.

The piece "Tsoko" [Monkey] <DVD, Video 4> (cf Kyker 2007) is based on a metro-rhythmical cycle of $8 \times 3 = 24$ elementary pulses (inferred from the vocal part, because in this case the *chipendani* pattern is rhythmically restricted to a manifestation of the beat) and, harmonically, on the root progression

24 EP [II . . I . . IV . . I . . | II . . III . . II . . I . .]
[II IV I II III I]

which is the fifth temporal permutation of the 6-step 'standard' progression, extended by insertions. Along with it, the author can be heard picking up and humming the catch phrase "Tsoko, tsoko, tsoko, tsoko" on the (relative) notes, a f d f, a g e f, in the background.

24 EP [a . . f . . d . . f . . | a . . g . . e . . f . .]

Occasionally, Muradzikwa switches to a simplified variation that replaces root III for root I, thereby omitting root III (and partial g) altogether:

24 EP [II . . I . . IV . . I . . | II . . I . . II . . I . .]
[II IV I II - I]

The unidentified second piece of the medley <Video 4, beginning at 1'16"> is based on a metro-rhythmical cycle of $8 \times 3 = 24$ elementary pulses and, harmonically, on the root progression

24 EP [II . . IV . I IV . . I . . | II . . III . II III . . I . .]
24 EP [II IV I II III I]

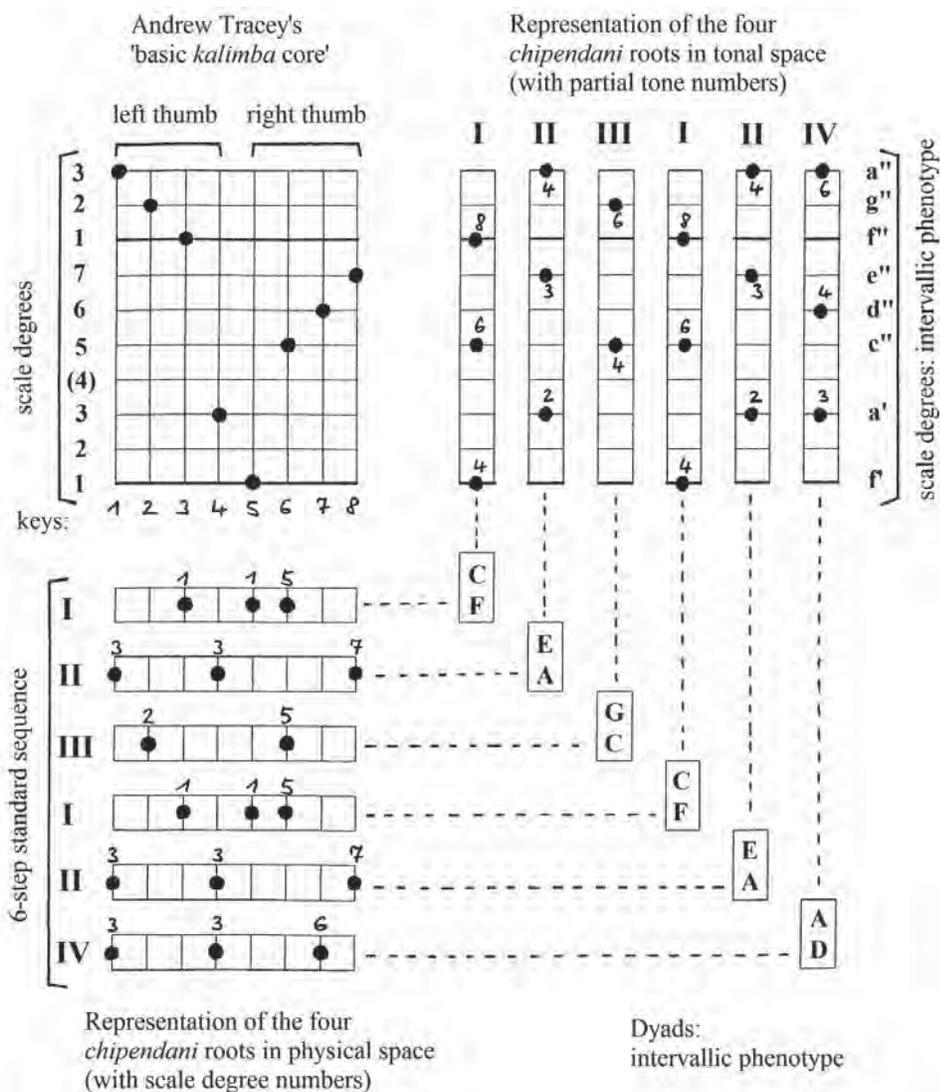


Figure 27. Andrew Tracey's 'basic kalimba core' (top left) and its structural affinity to the *chipendani* system in terms of pitch distribution in physical space (bottom left) and tonal space (top right), and its most typical manifestation in temporal respect, the 6-step 'standard' root progression (bottom right). Illustration by Klaus-Peter Brenner, incorporating an illustration by Andrew Tracey.

which is again the fifth temporal permutation of the 6-step 'standard' progression, extended by insertions.

→ DVD, Video 4. Sekuru Compound Muradzikwa plays a medley of two *chipendani* pieces, "Tsoko"/ [second piece unidentified]. Recorded at the 1st Bow Music Conference in Durban, 2016. Video by author. Copyright: Compound Muradzikwa and Klaus-Peter Brenner.

As we have seen, the organization of the tone material is distinctively characterized by the combination of three features which together form the unique *chipendani* system:

1. the register-dependent distribution of the tone material which is tetratonic at the bottom, as opposed to being hexatonic at the top,
2. the inventory of four roots in a specific intervallic relationship, and the fifth dyads erected upon them, and
3. the typical temporal manifestation of that inventory, that is, the 6-step 'standard' root progression.

The transference of this system to a small lamellophone in the remote past yielded the 8-key 'basic *kalimba* core', identified by Andrew Tracey (A. Tracey 1972, 1974, 2013), and it triggered and coherently channelled the evolution and gradual branching-out of the 'family' of Zimbabwean and circum-Zimbabwean lamellophone tuning plans (A. Tracey 1972, 1974, 2013), and, interdependently with it, it also triggered and coherently channelled the evolution and gradual branching-out of the Shona *mbira* system of harmonic patterning (A. Tracey 1961, 1970, 1989, 2015, Kubik 1987, 1988, Brenner 1997, 2013, 2015, Grupe 1998, 2004).

The following condensed four-quadrant graphic representation (Figure 27) visualizes the evidence for the first point: Andrew Tracey's 'basic *kalimba* core' (top left) (A. Tracey 1972, 1974, 2013), that is, the tuning plan of the hypothetical common ancestor of the Zimbabwean and circum-Zimbabwean family of *mbira* lamellophones, bears a close and encompassing structural affinity to the tonal-harmonic system of the *chipendani* in terms of the distribution of its pitches in physical space (bottom left): each of the four dyads can be played with two thumbs, the distribution of its pitches in tonal space (top right): the tetratonic lower versus hexatonic upper representation of the tone material is preserved, and in terms of its most typical manifestation in temporal respect, the 6-step 'standard' root progression (bottom right) on which all present day Shona *karimba* music is based.

The corresponding audio example [DVD, Audio 6] demonstrates this threefold affinity *in abstracto*.

- DVD, Audio 6. Demonstration of Andrew Tracey's 'basic *kalimba* core', keys from left to right, notes from lowest to highest, and available two-thumb combinations of keys producing the 6-step 'standard' root progression.

The lower manual of the present day Shona *karimba* (Figure 28) is structurally identical to Andrew Tracey's 'basic *kalimba* core', as marked on the depicted specimen. Its music is exclusively based on a stock of distinctively structured and closely interrelated root progressions the most elementary and typical variety of which is the six-step 'standard' progression [FC → AE → DA → FC → AE → CG →] (*cf* A. Tracey 1961, Kauffman 1970, Kaemmer 1973, Berliner 1993)!



Figure 28. Present day Shona *karimba* whose lower manual is identical with the 'basic *kalimba* core'. Depicted specimen made by Chris Mhlanga, New Canaan, Harare, Zimbabwe, before 1993; now: Georg-August-Universität Göttingen, Collection of Musical Instruments, inventory number 1311; 'basic *kalimba* core' assigned to the lower manual by author. Photo by author.

In the YouTube tutorial video (Video 5), Eric Orem gives a typical example of this. He demonstrates an elementary version of the Shona *karimba* piece "Chemutengure" ("That which carries", "Wagon") (cf A. Tracey 1961, Kauffman 1970, Berliner 1993, Matiure 2008), based on the 6-step 'standard' root progression and restricted to the lower manual, which conforms to and preserves the 'basic *kalimba* core'. My corresponding transcription (Figure 29) shows how the pattern relates to the root progression.

→ DVD, Video 5. Shona *karimba* piece "Chemutengure", based on the 6-step 'standard' root progression, elementary version restricted to the lower rank of keys which is identical with the 'basic *kalimba* core'. Excerpt from: Orem 2013. ©Eric Orem. Courtesy Eric Orem.

(24)

Dyads:	C F	E A	A D	C F	E A	G C
Roots:	I	II	IV	I	II	III

Figure 29. Shona *karimba* piece "Chemutengure", based on the 6-step 'standard' root progression, elementary version restricted to the lower manual which is identical with the 'basic *kalimba* core', transcribed from Video 5 (Excerpt from Orem 2013). Transcription by author.

Figure 30 shows, on the highest level of abstraction, my reconstruction of how the 12-step and 9-step harmonic progressions of Shona *mbira* music are likely to have evolved from the 6-step *chipendani / karimba* ‘standard’ progression (Brenner 1997) as their origin and prototype. In the synopsis, fundamentals of dyads/triads are shown in terms of heptatonic scale degree numbers. From the synopsis, their structural and hypothetical evolutionary relationship becomes evident.

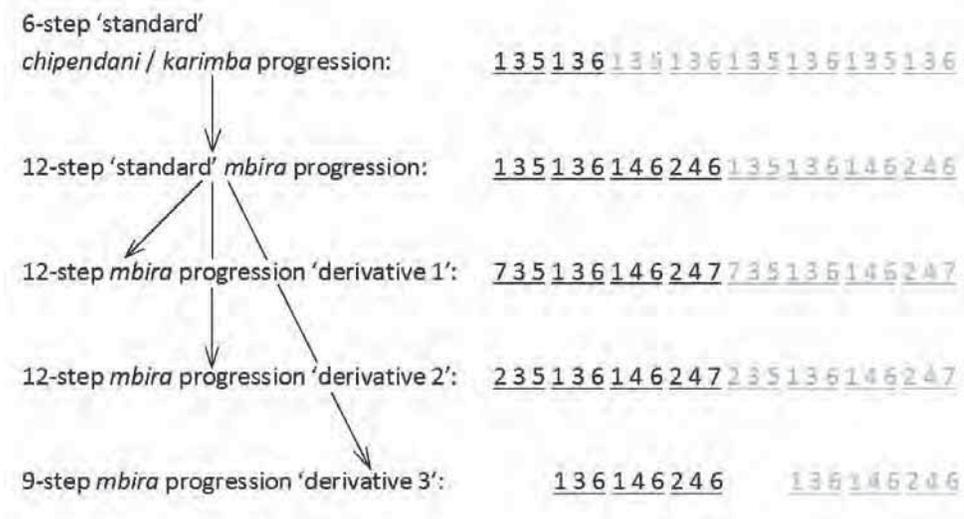


Figure 30. Evolution of harmonic progressions of Shona *mbira* music from *chipendani / karimba* progression (Brenner 1997) (figures = fundamentals of dyads/triads in terms of scale degree numbers).

Let us finally focus on the 12-step ‘standard’ *mbira* progression (first described by A. Tracey 1970 for Shona *matepe* music) (Figure 30) [DVD, Audio 7].

→ DVD, Audio 7. Shona *mbira dzavadzimu* piece “Kariga mombe”, based on the 12-step ‘standard’ root progression, elementary version of *kushaura* part (cf transcription: Brenner 1997: 219, Brenner et al. 2013) restricted to the central upper region of the tuning plan which is a heptatonized derivative of the ‘basic *kalimba* core’ (cf A. Tracey 1972, 1974, Brenner 1997). – Version according to Ephat Mujuru Mbire. Demonstration played by author.

How did this ingenious musical invention possibly come about? Where and how did the cognitive transgression and breakthrough occur that led from the well-established 6-step *chipendani / karimba* progression to what was to become the 12-step ‘standard’ *mbira* progression of Shona music?

The following hypothetical model (Figures 31–32) offers a plausible explanation: The 12-step ‘standard’ progression resulted from the fusion of the 6-step ‘standard’

progression with a fourth-transposed temporal permutation of itself. This is theoretically realizable by a duet of two alternating *zvipendani* (pl. of *chipendani*) tuned a fourth apart. In this model, the first *chipendani* provides the roots F A C D, while the second one provides the roots B^b D F G. As the roots F and D occur in both *zvipendani*, though in different positions on the instrument, their combination yields the common inventory of the six roots F G A B^b C D. [DVD, Audio example 8] demonstrates *in abstracto* their playing in overlapping alternation.

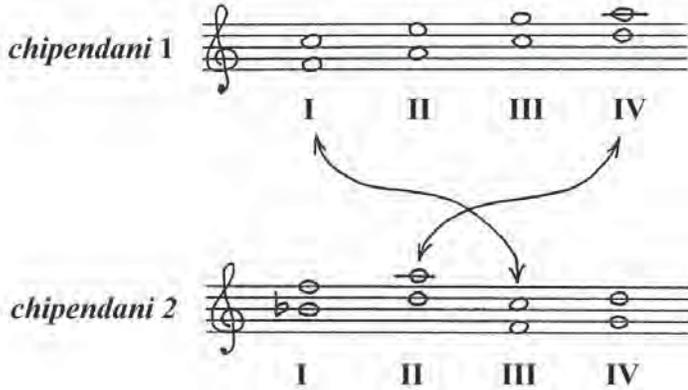


Figure 31. Inventory of dyads of two *zvipendani* with root I tuned in F vs. B^b.

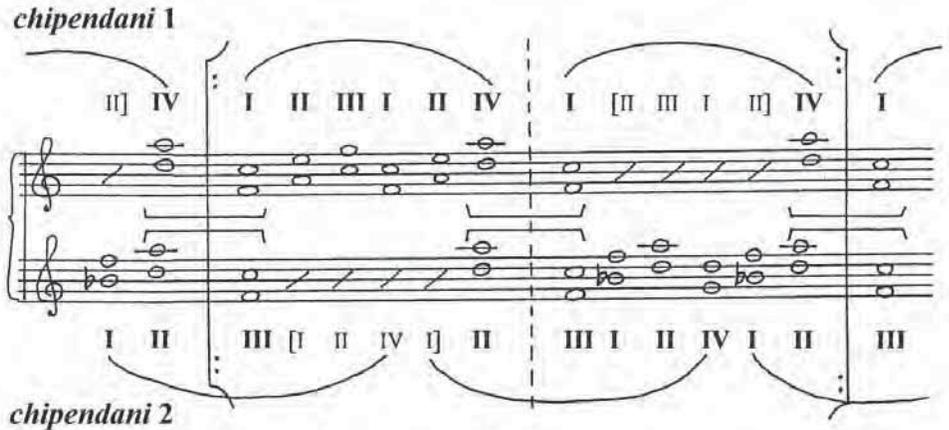


Figure 32. 12-step 'standard' *mbira* progression as potentially realizable by a duet of two alternating *zvipendani*.

→ DVD, Audio 8. Demonstration *in abstracto* of the the 12-step 'standard' progression resulting from the fusion of the 6-step 'standard' progression with a fourth-transposed temporal permutation of itself as played by an alternating duet of two *zvipendani* (pl. of *chipendani*) tuned a fourth apart. The sequence starts at root IV of *chipendani 1* (= root II of *chipendani 2*). Demonstration played by author.

Whether or not this self-referential reduplication and transposed recombination of the *chipendani* progression really emerged from a praxis of *chipendani* duet playing in the remote past, or whether it emerged rather from some creative transposition experiments, carried out by an inventive and explorative *kalimba* player, remains beyond our knowledge. But whatever was the case historically, this much is certain: the style-molding impact of the *chipendani* on the harmonic and polyphonic foundations of Shona *mbira* music is perfectly obvious.

This is cogently demonstrated by the last audio example [DVD, Audio 9] (Figure 33). In the Shona *mbira dzavadzimu* piece “Ndodzungaira” (“I wander around”) the 12-step harmonic ‘standard’ progression is materialized in the most exemplary way, with the roots being pointedly articulated in the bass register throughout the cycle.

→ DVD, Audio 9. “Ndodzungaira”. Rendition by Cosmas Muza and John Gandidze, in Karanda village near Gora Primary School, Mashayamombe chiefdom, Mhondoro Communal Land, Chegutu District, Mashonaland West Province, Zimbabwe, 1993. – Analytical recording by author.

Postscript

I always wondered what, in the remote past, the precise socio-cultural circumstances, position and function of the *chipendani* might have been that enabled it to wield – as a kind of ‘gravitational’ force – such a formative, pervasive and lasting influence on the grammatical foundations of Shona *kalimba/mbira* lamellophone music. There was every indication that these must have significantly differed from the comparably marginal present-day position of the *chipendani*. In her insightful and corrective reassessment of the latter, Jennifer Kyker (2016a, cf 2016b) presented in this respect a most thrilling and crucial finding, namely, some evidence for a recently local use of the *chipendani* – instead of the *mbira* (!) – in religious possession ceremonies of the ancestral cult (called *bira*, pl. *mapira*, in chiShona, cf Gelfand 1959, 1962, Kaemmer 1975, 1989, Berliner 1975/1976, 1993, Brenner 1997, Rutsate 2010). This, when considered in correlation with the evidence presented above of the musical continuity, reveals that the *kalimba/mbira* inherited from the *chipendani* is possibly not only **the nucleus of its harmonic system**, but **also its religious function**. At least, such an assumption would offer a plausible explanation of where and why the *chipendani-kalimba/mbira* system transfer is likely to have occurred and to have become so firmly established as to configure the harmonic deep structures of much of Shona music for centuries to come.

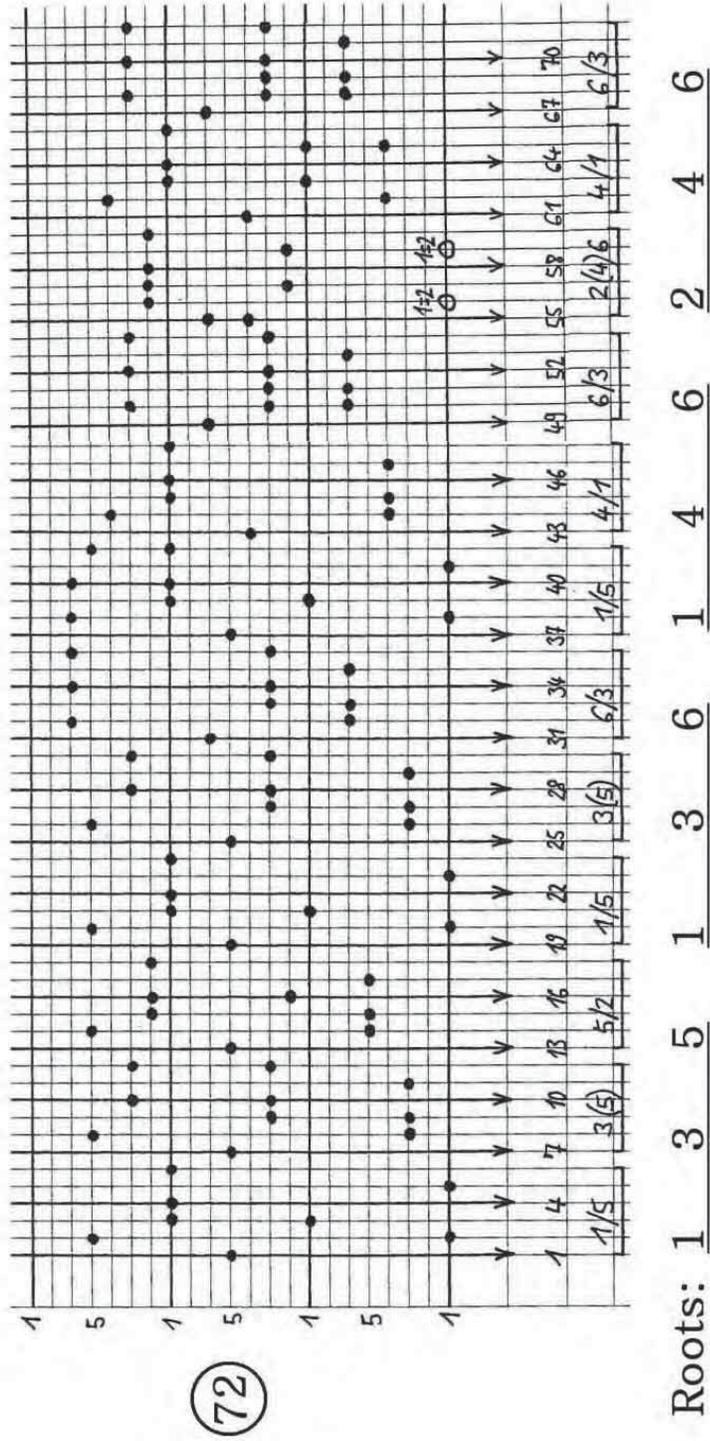


Figure 33. "Ndodzungaira", a perfect example of a Shona mbira *dzavadzimu* piece based on the 12-step harmonic 'standard' progression. Rendition by Cosmas Muza and John Gandidze, recorded by author in Mhondoro, Zimbabwe, 1993. Transcription shows one harmonic cycle of superimposed complementary *kushaura* and *kutsinhira* parts. (For an extended transcription which also shows the two parts separately, see Brenner 1997: 238-243).
 Transcription by author.

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Spectralism in Nguni Art Songs

ANDILE KHUMALO*

Abstract: This paper explores the feasibility of developing new compositional techniques using Nguni Arts Songs (NAS) as the foundation, outlined by spectral theoretical framework. Since the end of apartheid NAS also known as bow music, have enjoyed significant amount of scholarly interest. Musicologists and ethnomusicologists contributed majority of the research on NAS. The main focus for the research has been on NAS' relevance to the Nguni social life and bow instruments' history within the Nguni society. In 2002 Dr Michael Blake a South African composer approached the research on NAS from a new perspective. He researched on possibilities in which NAS can inform inventive approaches to composition.

The project which I was part of, had around twelve composers contributing a new work that has been inspired by their transcription of an art song by Nofinishi. The transcriptions were to instigate a new string quartet composition. Majority of the contributing composers displayed an imbalanced understanding of the theoretical framework provided by their Nofinishi transcriptions. This misinterpretation can be attributed to the limited understanding of the core theoretical framework that guides this music and its position within the current research. Blake's bow project is the foundation for this study of NAS. I argue that studying the connection between melodic contour, harmony, rhythm and vocal style of the NAS within the spectral framework can bring a deeper understanding of the NAS compositional quality and present a new way of using NAS as a model for new compositional language.

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Introduction

In 2002, I was invited by Dr Michael Blake to be part of a group of composers who were to contribute a new composition inspired by Nofinishi Dywili's bow music. Mrs Nofinishi Dywili, born in 1928, in Notreyini Booi, was undoubtedly one of the best *uhadi* musicians to have come out of South Africa (Dargie 2011). This project was part of the annual New Music Indaba taking place in Grahamstown and organised by NewMusicSA. The project was to transcribe one of Dywili's compositions and then use that as a form of research that will inspire a new work for a string quartet. I focused on Dywili's composition called "Umagunqel'indawo", which is one of the music examples I am going to use for my presentation. I will also use music examples from Princess Magogo, which I had been working on since 2001 when I wrote a piece called "Ekuboleni Kunempilo" for a trio. This piece explored many of the compositional techniques used in bow music. Since then I have been fascinated by this music, particularly its relationship to spectral music. Spectral music is a term used to describe music that uses timbre as the foundation for composition (Rose 1996). The introduction of the first commercial computers in the late 1940s presented new, advanced possibilities to study all the properties of sound on a microscopic level. The results proved that sound consists of many elements that define each sound as uniquely distinct from others.

One of those elements was a study focused on the spectral identity of each sound. Each sound favours a particular structural formation of weak and strong overtones. The shape of the resonating body or the amplifier, the method of activating the sound, and so on, defines the uniqueness of each sound produced. In other words, the *gestalt* is also part of the sound analysis. Spectral compositions make use of this collected data as the main compositional tool, in the same way as tonality was used in music before the twentieth century. The scales do not define the resulting music but only serves as one of the tools for creating a composition. Spectralism is music that through the analysis of sound makes timbre the centre of the composition.

Bow music makes use of timbre as the foundation of each composition. The vocal part develops out of the spectral structure of the bow instruments. And while spectral music — which French composers Gerard Grisey & Tristan Murail first created in the 1970s — is often associated with French tradition and science, bow music is associated with traditional music and not considered a science. I argue that bow music could be viewed as one of the early forms of pure, spectral musics as it focuses mainly on timbre as the foundation. I propose to demonstrate this interaction between bow music and spectral music through an analysis of some of the music examples taken from bow music.

Nguni bow music

Bow music in South Africa has in recent times received enormous attention from scholars as well as composers, particularly after 1994. According to Dargie (2007), Impey (1983) and many other scholars, bow music often refers to songs sung by a solo vocalist accompanying herself or himself with a bow instrument, as seen in Figure 1 showing a woman playing the *umakhweyana*.



Figure 1. A female performer with *umakhweyana* (Zulu bow instrument). Photo ILAM archive.

Much of the research on bow music has focused on the historical background of the bow instruments and the music's relationship to society. There exists little research on the music's compositional craftsmanship. As a composer, this would be my primary focus. I would like to look at ways in which we can view this music as a compositional resource for a contemporary composer. I will present this music with particular focus on timbre. The founding principle of spectral music, one of the dominant compositional approaches currently, is evidenced in bow music.

Historical background

While I acknowledge that single-stringed bow instruments exist in other parts of the world such as Brazil, where it is called the *berimbau*, Zambia, where it is called the *kalumbu*, and Mozambique, where it is called the *chitende*, my focus for this paper would be on music examples taken from Nguni music, particularly the music of the amaXhosa and amaZulu.

My access to the *umakhweyana*, *ugubhu/uhadi*, and *umrhubhe* instruments influenced my decision to focus on Nguni music, specifically the music of the amaXhosa and amaZulu. Even though I will not be including other regions that have bow instruments, I do hope that the insight I provide may be helpful to adding a balanced understanding of these instruments and their relationship to timbre.

Scholarly research on this music has revealed valuable insight into bow music. The *uhadi* had a strong influence on the use of a hexatonic scale (F-G-A-B-C-D) that also prevails in other genres of music of the amaXhosa people (Dargie 2007). This underlines the importance of bow music in the development of the music culture of a society as a

whole. Transcriptions have shown the rhythmic complexity inherent in the irregular rhythms in bow music, particularly of the amaXhosa people (Figure 10). Some scholars have focused on the irregular rhythms as a way of understanding the music culture of the amaXhosa people and the Nguni in general (Dargie 2011, Johnson 1971, Rycroft 1971). Researchers and some practitioners claim that while instruments such as the *umakhweyana* are now closely associated with the amaZulu, they were not originally Zulu instruments but came from Mozambique, while others claim it came from the San.

David Rycroft (1975/6), who wrote extensively about Princess Magogo's music, reveals in his writing that Princess Magogo once said that the *umakhweyana* was not an authentic Zulu instrument; but was borrowed from the Tsonga people of Mozambique. Angela Impey (1983) adds that the Qwabe clan from the Thukela Valley first adopted the instrument in the early nineteenth century. The Qwabe clan was then absorbed into the Zulu Kingdom when King Shaka conquered them in 1819 (Mahoney 2012). Rycroft notes that even though *ugubhu* was a Zulu instrument, and preferred by Princess Magogo, the *umakhweyana* was more widely spread among the Zulus as it still is today. There seems to be conflicting ideas about the reasons for this different opinions, with some claiming this was due to practical and technical reasons. Mpho Molikeng (interview 29 January 2016), a practitioner of both *ugubhu* and *umakhweyana*, believes that while it might be true that the Zulus adopted *umakhweyana* through contact with the Qwabe, the origins of both the *ugubhu* and *umakhweyana* can be traced to the San people. San people used bows for hunting but also as an instrument to accompany their songs while they waited for their prey or on their way to hunt. Singing while walking long distances was common among the Nguni in the generations before the arrival of cars. The song distracted the person from thinking about the long distance, and as such it reduced the physical pain felt when walking. The practice of singing was more common among individuals taking long trips than it was in a group. The song metaphorically replaced the potential conversation that would have been held, had there been more than one traveller. The bow instrument is metaphorically the walking companion.

The bow instruments, *umakhweyana* and *ugubhu/uhadi*, were associated with two different types of companions; a younger companion and a mature companion. Youths mainly played the *umakhweyana* and the content of the text would be lighter, while the *ugubhu* was used for more serious subject matters, and as such was associated with mature performers (S. Dlamini interview 10 January 2016, Impey 1983). If the text is such an important part of this music, classifying this music as "bow music" is limiting as this implies the text and the voice are subordinate to the instrument. This is not accurate; the instrument only reinforces what is being done by the voice and the other way round. I will elaborate on this later. It is for this reason that I would be referring to this music as Nguni Art Songs (NAS) rather than bow music. The complexity and depth of the poetry used in *ugubhu* songs are complemented by the ability of the instrument to create richer harmonies and sound colours. These rich harmonies are witnessed in the scales used for *ugubhu* and *umakhweyana* songs.

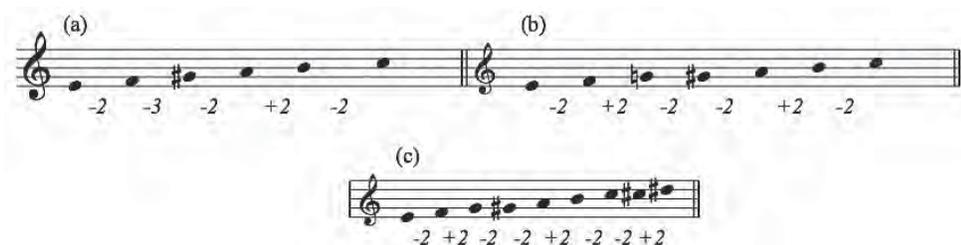


Figure 2. Illustrations (a) and (b) by Dave Dargie, and (c) by author.

The scale observed in Figure 2a shows the hexatonic scale often heard in *ugubhu* songs (Dargie 2007). While Figure 2b includes a G natural that is sometimes heard in some performances of *ugubhu* songs (Rycroft 1975/6). I cannot explain why some players omit the G natural while others use it, but I would like to believe that it is not a mistake on the performer's side to use the G natural. This G natural forms part of a possible scale seen in Figure 2c.

The synthetic scale (a scale derived from a unique combination of intervals found in a diatonic scale) is based on a cyclical loop made up of three intervals (+2 -2 -2). While on the other hand, the *umakhweyana* uses a cyclical loop that has the following intervals, (+2 -3). The loop results in the classic major pentatonic scale seen in Figure 3.



Figure 3. Major pentatonic scale on F. Illustration by author.

By nature, the pentatonic scale exhibits a less complex structure than the hexatonic scale used for *ugubhu* songs. The clarity and ease of the pentatonic scale do not translate into less exciting music. The complexity of the hexatonic scale employed in *ugubhu* songs gives much richer harmonic and melodic possibilities. It is possible that some musicians were attracted to this instrument because of its finer quality when compared to the *umakhweyana*. The intervallic analysis of these two scales might explain the possible logic inherent between the two scales, but it fails to explain the relationship that exists between the two scales and the nature of the bow instruments. The *ugubhu* and *umakhweyana* focus on the vertical projection of the harmonic spectra rather than a linear melodic contour. While it is possible to play melodic lines on a single stringed instrument, for example, the violin, or *masinko* (Ethiopia), the Nguni people consciously focused on these two bow instruments (*ugubhu* and *umakhweyana*), providing the vertical harmonic spectra which are amplified through the chest of the performer. These two bow instruments do not play melodic lines but provide the spectral harmonic structure for the melodic lines. What this means is that the scales developed from analysing the vocal lines can be traced back to the spectral organization of the bowed instrument.

Acoustics of the bow instrument

The studies conducted as early as the 6th century by Pythagoras up to the latest studies using the most advanced technology of the 20th century, have proved that sound is made up of many elements that combine to produce one unified, aural phenomenon (Moscovich 1997). This could be a tone of an instrument or a sound in nature. Aspects such as the material of the resonator, the material used to activate the sound waves, in this case, the length of the string, and the type of the material utilized for the string, produce a big difference in sound colour that gives each instrument its unique tone. I would like to focus only on one aspect of the sound production for bow instruments, and that is the pitch content.

Every sound is made up of an indefinite number of frequencies which are multiple numbers of the fundamental. Less complex multiples of the fundamental results in a group of partials that are termed harmonic series. The harmonic series involves multiples of integer numbers. Most of the instruments that we know, including the bow instrument, have harmonic series. The harmonic spectra exclude percussion instruments which have a rather complicated relationship between the fundamental and its overtones. Most percussive instruments have enharmonic spectra.

The graph in Figure 4 shows an analysis of a tone with “F” as the fundamental, on *ugubhu*. While we clearly perceive the fundamental (recorded sound), we also recognize the overtones from the virtual representation of the recorded sound. An intense black shade represents the strongest overtones on this graph. I have analysed this chart and expressed it in musical notation, seen in Figure 5.

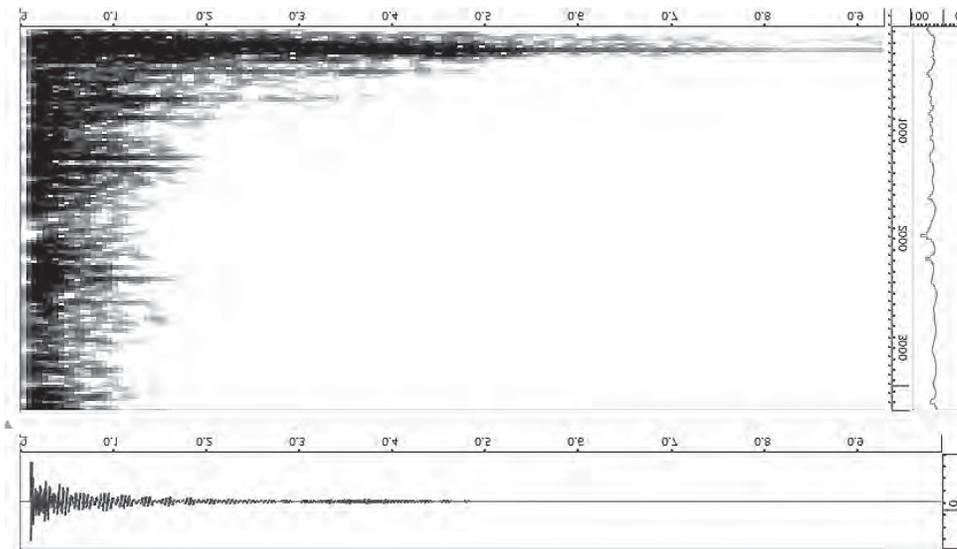


Figure 4. *Ugubhu* tone based on the fundamental F. Illustration by author.

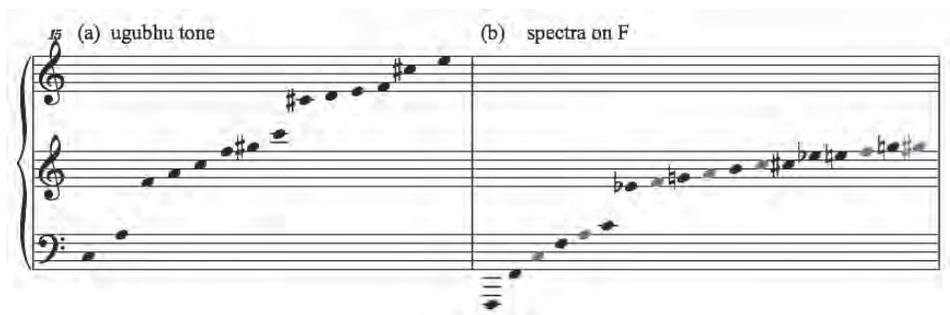


Figure 5. (a) Spectral analysis of *ugubhu* tone with F as the fundamental; (b) harmonic spectra on F. Illustration by author.

The graph in Figure 5b shows the first 18 overtones on the fundamental F. The graph in Figure 5a shows only the strongest overtones (only those with a dynamic above *pianissimo*) present on the *ugubhu* tone (Figure 4). It is evident that not all of the overtones are present or have equal strength. The material associated with the calabash reinforces other partials while some fade away. The material of the resonator has a substantial influence on this development. Compared to a calabash a metal resonator will strengthen different overtones from those favoured by the calabash. The musician uses both the calabash and chest to amplify the sound. The musician amplifies different partials of the fundamental through closing the hole of the calabash with the musician's chest. The calabash could be completely open or half closed or completely closed by pressing it against the chest. Each slight variation in the position between closing and opening affects the amplification of the spectra. What is interesting to observe from the analysis in Figure 5a is that the fundamental is not even present in the study, which means, what we hear are its overtones. As a unity of sounds, the overtones produce what I call a virtual fundamental. The virtual fundamental is not physically played, but perceived as a result of the sum of the overtones. The analysis of works such as “Inkulu Into Ezakwenzeka”, performed by Nontwintwi, “Umalilela Imango Ingasiyo Yakho”, performed by Nontwintwi, “Ngazula Ezintabeni”, performed by Bakhapile Makhoba, “Emalomeni”, performed by Cwayizile Shandu, “Ngimthanda Nje Muhle”, performed by Princess Constance Magogo kaDinizulu, and “Umagunqel’ indawo”, performed by Nofinishi Dywili, among others, have shown the same results, where the physical fundamental is not present in the harmonic structure.

Figure 6 shows the beginning of Nofinishi Dywili’s *Umagunqel’ indawo*. The open circle above the lower stave indicates an open sound (calabash positioned at 45–90 degrees to the chest) while the circle with a line through it means the calabash is half closed (calabash placed at 5–35 degrees to the chest). The analysis seen in Figure 6 shows that the change in position of the calabash slightly affects the amplified partials (indicated through the ossia). The more closed the calabash is, the more the instrument can increase the velocity of its lower partials (notably the 3rd is more present as opposed to when the calabash is opened). The spectra in Figure 6 show that the fundamental is

not physically present. The lowest staff indicates the loudest partial which is reinforced by the exact position where the performer is striking the string. The position can shift between the 4th and 6th partial. The change in the strength of partials can affect the sound colour, but it does not affect the virtual fundamental.

Figure 6. Nofinishi Dywili' *Umagunqel' indawo*. The score has been transposed a semitone up from the recording (B to C). Transcribed by author in 2002.

Most musicians who work with bow instruments stress the importance of the inner partials (3rd, 4th, 5th, and 6th) that form a major chord. It does not matter that all of the *ugubhu* or *umakhweyana* partials are always present (completely audible), but from the analysis, it seems critical to have the 4th and 5th partials clearly audible to the performer.

The importance for the artist to clearly hear these partials, particularly the third, fourth, fifth and sixth partials, helps the musician to keep the virtual fundamental in tune and the instrument in tune with the voice (synthetic scales). An in-depth analysis of the spectra on the F fundamental (Figure 5b), reveals that the notes of the *ugubhu* and *umakhweyana* synthetic scales (Figure 2 and Figure 3) are all present on one fundamental. This begs the question as to why musicians feel the need to change the fundamental (see Figure 6) rather than using the same fundamental if the melodic notes related to the hexatonic scale (Figure 7b) and major pentatonic scale (Figure 7c) are all present on the same fundamental.

Figure 7. (a) Harmonic spectra on F, (b) hexatonic scale, (c) major pentatonic scale. Illustration by author.

Humans hear in the range from 20 Hz to 20 kHz. This range narrows with age. The quality of the original sound can further worsen one's ability to hear the frequencies correctly. The thin string which is activated by tapping on the string with a small and light stick produces a softer sound that fades away quickly. Since the string of the instrument is thin, and struck rather than bowed, certain frequencies disappear very fast. And as such musicians tend to perceive clearly the middle register, which has frequencies that resonate longer and louder for this type of instrument. In Figure 5a, this will correspond to the range from F3 to F5. The combination of the range for hearing among humans and the spectra of that particular fundamental (often around F0 - G0) apparently results in a major chord, which reinforces the fundamental. Most of the transcriptions of bow music have only indicated this register as the foundation. By looking at the analysis in Figure 5a, it is clear that what we hear is only a selected part of the overall sound. The limitations associated with human hearing has unfortunately led to some inaccuracies such as:

- Notating the virtual fundamental as a real pitch.
- Researchers have tended to focus less on the relationship between the spectra (as a whole) of the instrument and the synthetic scales deduced from the melody.

The inability to hear (even if the ear and the brain can register these overtones on the unconscious level) the overtones outside the audible and most resonant register of the bow instruments correctly has led to researchers as well as performers feeling the need to change the fundamental to perceive the other overtones related to the scale, which are not easily perceptible in the middle register (Figure 7). The role of the voice in this music seems to be that of reinforcing some of those overtones from the instrument. In other words, the voice enriches the sound of the instruments, in as much as the instruments define the sound world of the voice. The voice fills in two functions, 1) melody (linear sound sculpture) and 2) harmony (vertical sound sculpture).

Below is an example taken from Mzilikazi Khumalo's transcription of Princess Magogo's "Sabulawa KwaZulu".

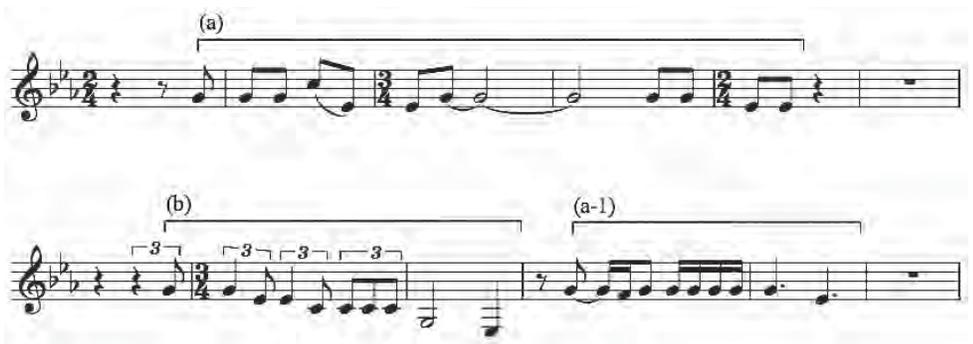


Figure 8. An excerpt from Princess Magogo's "Sabulawa KwaZulu." Transcribed by Mzilikazi Khumalo.

The "head" or the "question" (Figure 8a) always presents the basic idea of the melody, which is either on a single pitch or a group of notes that reinforces one central pitch.

The excerpt in Figure 6a is a good example. The central pitch is G natural (G4) above middle C. A similar structure is observed when the head returns (Figure 8 a–1). Perhaps it would be a stretch to think of this “head” as musically symbolising a single person, but when we compare this with section (b) “answer” in Figure 8, it is clear that the composer is aiming for harmony rather than emphasizing a single pitch. In an ensemble, this is a section which would have been sung by a group of people. Section b reveals a fuller sound with more partials of the spectra present. The two sections create an impression of a conversation between two people, in the form of a call and response. The structure of this single musical line composed for a single performer projects already an impression of two participants rather than one. This phenomenon is very much in line with how the voice is also treated in the ensemble. The voice is in conversation with the instrument in as much as the instrument is in a conversation with the voice. When comparing section (a) and section (b) in Figure 8 of the melody, it is clear that they are both developed from the same sound colour. Section (a) is a filtered version of section (b). The use of the filter is one of the techniques used in this music to reveal different sound colours of the same musical object.

The use of a filter can be viewed as a form of variation. The rhythm in this music also goes through the same principle of one basic rhythmic pattern that is varied with each loop, as in Figure 9.

The rhythmic friction that results from filtering or replacing some part of the note values with rests (Figure 9, bar 5 & bar 13), as seen in the vocal line (upper system), against a stable and fixed loop of the rhythmic pattern (Figure 9, lower system: bars 1–4) for the lower voice creates a new sound colour to the presented loop. While the idea is not to create a sense of development as often used in Western music to initiate a forward motion in music, the constant, minute changes to the sound colour, both rhythmically as well as in overtone distribution, creates an incredible sense of forward motion within this fixed sound world. In most of the music of Madosini [Latozi Mpahleni] — one of the leading South African musicians with a special focus on Xhosa music and NAS — this idea of filtering the overtones is not only presented rhythmically or with regard to the *uhadi*'s overtone structure but also in the voice, which reinforces this concept further.

The graph on the right hand side of Figure 10 shows a normal pitch sustained on the same note, while on the left there is a graph that shows the voice tone with the same fundamental sustained throughout, but in the middle of the sound the higher overtones are compressed and some are filtered out. Filtering higher overtones gives a darker sound colour to the voice but more importantly, it reinforces the lower overtones (similar to the technique of closing and opening used for the calabash to filter the higher partials and strengthen the lower partials). The fundamental is more present, creating a bass like voice, rather than a high, bright voice.

The *umrhubhe/umqangala* is not covered in this presentation, due to time but the *umrhubhe/umqangala* also falls firmly within the remit or realm of NAS as it is fundamentally built on the principles of overtone structure as the foundation of sound. The construction of melodies in *umrhubhe/umqangala* is developed from the

performer's reinforcement of some partials through whistling. It should be pointed out that the human whistle is a pure sine wave. The lack of overtones (depth) in a sine wave allows the performer to filter out the partials of the bow, without adding new partials to the sound. What this means is that the melodies are the result of the sound spectra of the bow. The melodies reinforce certain partials of the sound, which changes the overall

Umagunqel' indawo

The musical score for "Umagunqel' indawo" is presented in four systems. The first system (measures 1-6) features a tempo marking of quarter note = 400 and a section labeled "Loop - 1 (a)". The second system (measures 7-11) includes a section labeled "(b)". The third system (measures 12-16) includes a section labeled "loop - 2 (a-1)". The fourth system (measures 17-20) includes a section labeled "(b-1)". Each system consists of a vocal line in treble clef and a bass line in bass clef, both with a key signature of one sharp (F#).

Figure 9. Nofinishi Dywili' *Umagunqel' indawo*. Transcribed by the author in 2002.

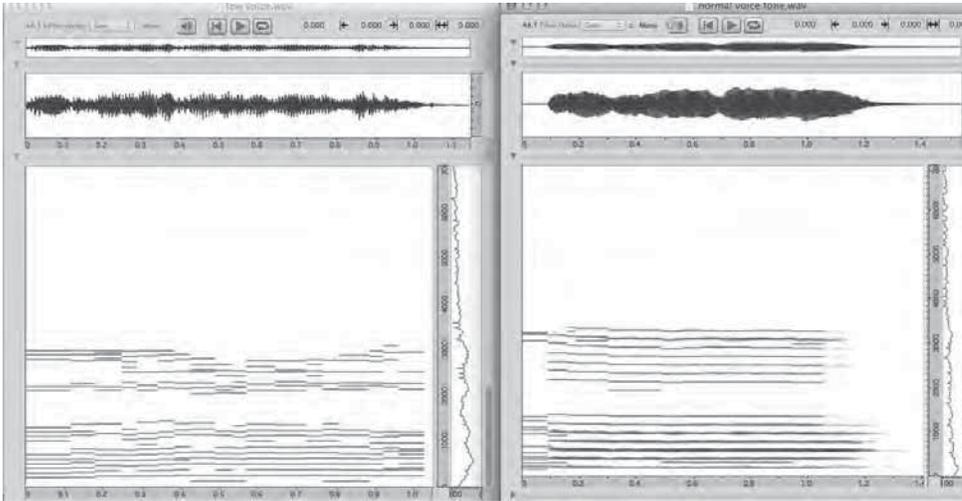


Figure 10. Spectral analysis of Madosini's [Latozi Mpahleni] undertone (left) compared to the normal voice tone (right). Illustration by author.

sound colour. And so, the melodies are really a construction of changing sound colours. Taking from Tristan Murail's definition of spectral music, that it is an attitude towards music composition that makes timbre the focal point of the composition, it would be fair to consider NAS as an early form of spectral music. It is this aspect of bow music that has been interesting to me as a contemporary composer.

Conclusion

I propose that the NAS can be perceived in terms of its contribution to writing music that is based on timbre. If we think of the music as one unit, then our analysis of the vocal part or the instrument should be integrated into one unified experience. You might wonder why I think this is important, or whether I am imposing western thinking on African music. I believe I can answer these possible concerns at various levels. On one level, I believe that it is possible and important to see music as transcultural. Yesterday we heard a wonderful paper by Tiago Oliveira-Pinto where he used research on African music to further understand Brazilian music. On another level, because of South Africa's past, many composers have been trained in Western musical approaches so the idea of the 'transcultural' in music is not new. We can use that knowledge to know more about African music. This second level is even more urgent, because many South African universities do not have modules in African composition. We need to use what we have, to make sure that future generations of South Africans are not only able to play and analyse African music but are also able to compose it, in this way creating new contexts for its continued existence.

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