

ATTRACTING AND BANNING ANKARI:

Musical and Climate Change in the Kallawaya Region in Northern Bolivia



Degree of Master of Science (Two Years) in Human Ecology: Culture, Power and
Sustainability
30 ECTS

CPS: International Master's Programme in Human Ecology
Human Ecology Division
Department of Human Geography
Faculty of Social Sciences
Lund University

by Sebastian Hachmeyer

Department:	Department of Human Geography Human Ecology Division
Address:	Geocentrum Sölvegatan 10 223 62 Lund
Telephone:	046-222 17 59

Supervisor:	Dr. Anders Burman Department of Human Geography Human Ecology Division Lund University, Sweden	Dr. Bernardo Rozo Lopez Department of Anthropology UMSA La Paz, Bolivia
-------------	---	--

Title and Subtitle:	Attracting and Banning Ankari: Musical and Climate Change in the Kallawayá Region in Northern Bolivia
Author:	Sebastian Hachmeyer
Examination:	Master's thesis (two year)

Term:	Spring Term 2015
-------	------------------

Abstract:	<p>In the Kallawayá region in the Northern Bolivian Andes musical practices are closely related to the social, natural and spiritual environment: This is evident during the process of constructing and tuning instruments, but also during activities in the agrarian cycle, collective ritual and healing practices, as means of communication with the ancestors and, based on a Kallawayá perspective, during the critical involvement in influencing local weather events. In order to understand the complexity of climate change in the Kallawayá region beyond Western ontological principles the latter is of great importance. The Northern Bolivian Kallawayá refer to changes in climate as a complex of changes in local human-human and human-environmental relations based on a rupture of a certain morality and reciprocal relationship in an animate world in which music plays an important role. The study seeks to investigate and analyse the complex relationship between musical and climate change in different manifestations such as the construction and materiality of instruments, the musical sequence of the year and the poetics and aesthetics of <i>qantu</i> music. Musical and climate change are interrelated from a Kallawayá perspective. This will be discussed against the background of a global scientific perspective on climate change.</p>
-----------	--

Picture on front page (own):

Pututu in Cañizaya 2015

Ohne Musik wäre das Leben ein Irrtum

Götzen-Dämmerung

Friedrich Nietzsche

[Without music life would be a mistake]

Centro de Culturas Originarias



Kawsay

Sumaj Kawsayta Llank'aspa

TABLE OF CONTENT

Abstract	2
Table of content	5
List of pictures, figures and tables	7
List of tracks (CD)	8
Acknowledgements	9
Prologue	10

PART I: FRAMING OF THE THESIS

Chapter 1: Introduction: Sounds of the present and music of the future	13
Chapter 2: Theoretical framework: Climate in the musical and sonorous web of life	18
Retrospective of the study of music	18
Theoretical approximation of musical change as part of cultural change	19
(De)colonial perspectives	20
Towards an ecological approach to music: social relevance	21
An animate understanding: expanding the ecological approach	22
Existential conditions	24
Chapter 3: Methodological framework: How to deal with the multiplicity of contexts	26
How to approach the relation between musical and climate change analytically?	26
Grounding I: Rhizome: Grounding in multiplicity	27
Grounding II: General research methodology	28
Grounding III: Specificities of research	29
Grounding IV: Questions of scales	29
Research strategy	30
Research process	32
Methods and techniques of research	33
Musical dynamics in a sonorous-musical system	35
Delimitation and limitations	38

PART II: MUSICAL AND CLIMATE CHANGE IN THE KALLAWAYA REGION

Chapter 4: The analogy of materials: Reciprocity, economic diversification and the scarcity of primary materials on supra-regional markets	41
The meaning of reciprocity	42
Reliance on import	43
On finding the reasons	44
Scarcity of primary materials in the Kallawaya region	46
Effects of market mechanisms in the Kallawaya region	48
Effects of the scarcity in the Kallawaya region	49
Reinterpreting reciprocity	50
Chapter 5: The calendars of the region: Annual cycles, musical generalizations and climate collision	51
Climate Trends in the Kallawaya region	52
The agrarian cycle under climate change effects	52
The change from dry to rainy season	53
The rain ritual <i>qallay</i> in Niñocorin	55
The clash of feasts in November and the generalization of music	57
The change from rainy to dry season	58
Climate collision or silent adaptation	59
Chapter 6: The poetics and aesthetics of <i>qantu</i> music: Professionalization, property rights and transversal love	61
Settling the ground	61
Migration I: Effects of climate change on migration	63
Migration II: Effects of migration on climate change	64
Professionalization of music	65
Questions of property rights I: Precision over participation	65
Questions of property rights II: The production of songs	67
The professionalism of flutes and fusionist music	69
<i>Qantu</i> in the context of autochthonous music	70
<i>Qantu</i> in the context of folk music	74
Música <i>qantu ch'ixi</i>	78
Chapter 7: Conclusion: Musical change as cause and product of climate change	82
Epilogue	87
Glossary	88
Bibliography	92
Annex	99

LIST OF PICTURES, FIGURES AND TABLES

Picture 1: Analogue chromatic tuner used for the acoustic analysis	38
Picture 2: <i>Pinkillu</i> with burn mark from Walata Grande	44
Picture 3: Pair of <i>malta</i> of the same kind used in Niñocorin's <i>qantu</i> ensemble	47
Picture 4: Tubes of register <i>sanqa</i> stuck together	49
Picture 5: <i>Quena Chatre</i> made from bamboo; <i>Quena</i> made from jacaranda	70
Picture 6: Cover of "k'ampaj kausacunci" by Sumaj Ñan	76
Figure 1: Rhizome as an image of thought	28
Figure 2: Scarcity of primary materials on supra-regional markets	48
Figure 3: Dance performance during rain ritual <i>qallay</i>	56
Figure 4: Transcription I: Harmony of Niñocorin's <i>qantu</i> ensemble	72
Figure 5: Techniques of <i>qantu</i> ensemble	73
Figure 6: Lyrics of "Saavedreño" by Sumaj Ñan	74
Figure 7: Transcription II: "Aguita de putina" autochthonous version (Markasata)	80
Figure 8: Transcription III: "Aguita de putina" folk version (Akhamani)	81
Table 1: Research process	33
Table 2: Data collected during fieldwork	34

LIST OF TRACKS (CD)

Track 1: *Qantu* from Niñocorin 2014 (Preste in Chajaya)

Track 2: *Pinkillu* Ensemble from Niñocorin 2014 (*Qallay*)

Track 3: *Quena* made from jacaranda

Track 4: *Quena Chatre* made from bamboo

Track 5: “Saavedreño” by Sumaj Ñan

Track 6: “Caminando tras mis sueños” by Sumaj Ñan

Track 7: “Aguita de putina” by Markasata (autochthonous version)

Track 8: “Aguita de putina” by Akhamani (folk version)

Additional tracks:

Track 9: *Pifano* from Charazani 2014

Track 10: “Me sorprendió el amor” by Sumaj Ñan

Track 11: “Mujer superficial” by Sumaj Ñan

Track 12: “Pastita” by Sumaj Ñan

Track 13: “Vivir por ti” by Sumaj Ñan

Track 14: “En carnavales” by Sumaj Ñan

ACKNOWLEDGEMENTS

I am sure that it is not possible – if at all sufficient – to mention here all names of those persons I have to express my gratitude to: Not only for helping me during the thesis project, but also for helping me to become the person I am.

The time in Bolivia shaped my thoughts and identity even more. I am thankful for the coincidence of decisions in my life that made it possible for me to travel to Bolivia. I found a new home and the second part of my heart.

I hope that I am able to show this gratitude to those persons beyond this sheet of paper, which actually says little about the degree of my gratitude.

In all what I learned about myself and life in the last 9 month this was my personal kuti.



PROLOGUE

The structure of a text is complex if it should reflect my learning processes and the engagement with life. The connections need to be followed, as I followed them throughout the course of my fieldwork. The idea here is to send the reader on a voyage as an itinerant thinker.



I wake up on an early morning in the tree house of my colleague. Sunbeams are tickling my nose. I open the skylight towards the sun. The tree top is an ocean of light and sound. Shaking leaves; singing birds; whining branches. I am immersed in light and sound and go off, climbing down the tree. I am part of it. Only in a living environment you can feel alive. The earth surface opens up like a rabbit hole and I feel what lies beneath. It is quite comfortable to stay in the tree tops of our minds. Once you move and make your connections, it is like a delirium. This voyage is addictive. You realize that you know little, although you learn a lot.

The main part of the thesis consists of several alleged chapters being connected and interrelated under the surface of the text. Each chapter develops a story in and out of the rabbit hole, entering with a misty-eyed delirium and coming back to where it departed. The itinerant thinker is the one who leaves behind what he learned in order to learn something new without forgetting the past.

The past is always with us.

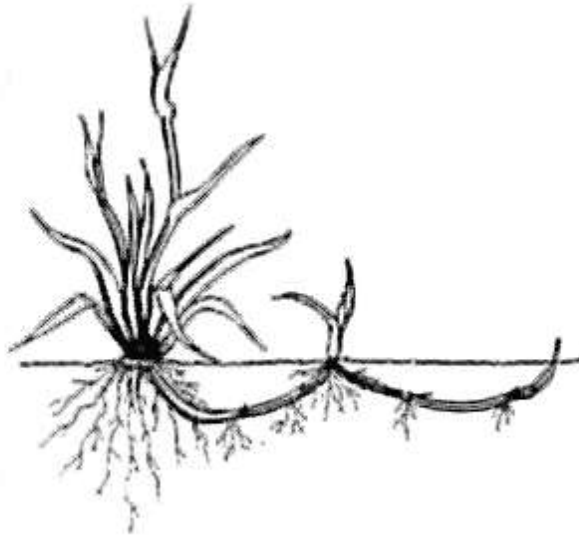
My host in Niñocorin

2015

*for
Jesika*

A veces las cosas irracionales son las más racionales.

[Sometimes the irrational things are the most rational]



Connection underground

*Our eyes are blind and soon
we hear of what we do.
For life to work and bloom
amalgamation is the clue.*



Sebastian Hachmeyer

Part I

Framing of the thesis

Chapter 1

INTRODUCTION

Sounds of the present and music of the future

If you want to know a civilization you should listen to its music.

Confucius (551–479 BC)

We do not suffer from aural as we do from optical illusions.

Tim Ingold (2000: 246)

The following thesis deals with the interrelation between musical and climate change in the Kallawayá region in Northern Bolivia. The Kallawayá people are known for their medical tradition, collective ritual practices, ancestral agricultural practices and famous musical genre called *qantu*. As a musician producing musical sound in a different environment, I learned a lot about these concepts during the course of my fieldwork. The people I encountered taught me to leave behind my preconceptions about music and the environment. I shared with my hosts food, shelter, stories and music. They taught me to listen to the sounds of nature. I learned constructing autochthonous instruments and playing them in order to get a better feeling (or rather hearing) of sound and music in the region. Music opened my mind to access another reality of climate change.

My focus on the interrelation between musical and climate change is related to the Quechua time-space terminology (cf. Gifford 1986): The Quechua word *ñawpa* refers to the past and to space situated in front of ego, thus relating to visibility, whereas *qhipa* refers to the future and to space situated behind ego, thus relating to invisibility. Based on this understanding, Stobert makes an interesting interpretation of the aural axis, which is defined as the “point at which the past and future meet” (2006b: 32). He claims that the present might be seen to be represented by audition. If this is so, then, we should rather *listen* to the sounds of our environment in order to understand the present by means of the visual past. In the present hearing is the pivotal point, not seeing.

While sight and observation are conventionally considered to be basic conditions for knowledge production in modern science, hearing is reduced to accompany visual senses. Similarly, music was reduced by former ethnographies in the Andes as *accompanying* rituals and agrarian practices (cf. Rösing 1995: 75).¹ Ingold (2000: 284) argues that in an aurally minded society people would express their ideas of knowledge or understanding by drawing on metaphors from the realm of acoustic experience. With this debate in the background, I argue that if we listen to the sound and music of a given culture, it can improve “the quality of our attention to the world” (Adams 2009: 103).

Hence, in order to better understand the present situation of climate change in the Kallawaya region, we should rather listen to the cracking sound of melting glaciers, to bird songs appearing in different times and spaces, to the sirens singing songs of rivers drying out, and ultimately to the music that is played with different instruments, each of them telling a story about their unique ecology and meaning in a meaningful world, for music and sound to be not only the mediator and integrator of the visible past and the invisible future, but also a means of communication with the ancestors and the flow of life energy.

The global attention towards climate change cumulated in the Intergovernmental Panel on Climate Change (IPCC), which aims at gathering the global scientific knowledge about climate change and its impacts. These impacts of climate change in Bolivia are investigated in several studies (i.e. Urrutia & Vuille 2009; Hoffmann & Weggemann 2011). Temperatures tend to increase more in high altitudes and countries closer to the equator would experience effects of climate change earlier than others further away (Hoffman & Requena 2012: 29f). The change in precipitation patterns and the increased temperature would have impacts on the size and distribution of glaciers and wetlands, the integrity of ecosystems and the disposability of water for human consumption and irrigation (Hoffmann & Requena 2012: 31; based on Urrutia y Vuille 2009; Soruco et al. 2009; Painter 2007). In a case study about climate change and indigenous livelihoods in the Kallawaya region Vidaurre et al state that changes in climate show “negative effects on peoples' livelihoods” (2013: 117) and that “the occurrence of extreme weather events, with their respective substantial impacts on agriculture, represent a threat to farmers” (Ibid.: 113).

¹ Another example is how the government presents musical expressions with a rather essentialist image as accompanying dance, see *Registro de Música y Danza Autóctona del Departamento de La Paz* of the Autonomous Departmental Government of La Paz (2012).

In Cañizaya, a community in the Kallawaya region, I talked to locals about climate change and its effects on life in the community. The community members mainly suffer from water scarcity during the dry season which would be caused by the melting glacier of the sacred mountain called Akhamani. Moreover, they complain about mild frosts in the winter months of June, July and August so that 2014 the preparation of *ch'uño* (dehydrated potatoes) has been affected. Frost would not occur at appropriate times in accordance to the seasons of the agricultural cycle. Hoffman & Weggemann (2011) in a study about glacier retreat in the Apolobamba Cordillera call attention to the flood risk of glacier lakes in the region.

When I had conversations in the region about the climate, mostly elderly stated that it had changed. The people in the Kallawaya region are aware of changing climate because of their immediate dependency on different climate patterns for agricultural production, water supply and ritual activity. At the end of the dry season, when prolonged droughts occur, rituals are realized in order to call for rain which music is an integral part of. Basically, music plays a crucial role in relation to climate patterns, agricultural and ritual practices, social acts and catholic feasts. Thus, what happens with these complex relations if the climate changes?

The general research question is the following: *How does musical change interrelate with climate change in the Kallawaya region?*

Several specific research questions focus on main pivotal points in order to answer the general research question:

SRQ1: How does the relation manifests itself in the *construction of instruments*? This specific research question addresses the materiality of autochthonous wind instruments and their construction.

SRQ2: How does the relation manifests itself in the *musical sequence of the year*? This specific research question addresses the interrelation between musical practices according to the sequence of the year.

SRQ3: How does the relation manifests itself in the *poetics and aesthetics of qantu music*? This specific research question addresses the production and creation of music and the sensual perception of sound and harmony.

SRQ4: How does all this affect the *social relevance of music* in the Kallawayaya region? This specific research question addresses the changes of significance, use and function of music.

The Kallawayaya culture has been subject of study in several musicological investigations.² Not a single one has been presented concerning the transformative power of climate change. The present study develops an ecological account that investigates the interrelation between musical and climate change within complex social, natural and spiritual contexts.

The explanation of the title reveals the project of the thesis: Ankari is the deity of the wind which is related to the appearance and disappearance of clouds in the region. Sound and music play a crucial role in attracting and banning Ankari which is based on different conditions that have to be fulfilled: Firstly, musical sound has to be produced by specific instruments which require different primary materials and construction techniques; secondly, musical sound requires a specific time-space condition in the sequence of the year which is mainly related to the agricultural cycle and catholic feasts; thirdly, musical sound requires different patterns of harmony, rhythm and performance. Hence, if these conditions are not fulfilled, something will happen to the local climate understood here as the totality of all possible weather events in a location, including their typical sequential succession as well as their daily and annual fluctuation. The thesis seeks to understand the interrelation between musical and climate change based on an emic understanding of Kallawayaya people in order to critically rethink hegemonic assumptions about music and climate.³

The first part is dedicated to the thesis' framework. It consists of an introduction about the phenomenon of study and the research questions (chapter 1). Then, the theoretical framework is presented which briefly introduces a retrospective of the study of music, before developing an ecological approach to music and theoretical approximations of the interrelation between musical and climate change (chapter 2). Afterwards, the methodological framework is presented which explains the philosophical principles of the thesis, the general research methodology and applied techniques for collecting and analysing data (chapter 3).

² See de Bustillo (1981), Sato (1982), Baumann (1985), Langevin (1987, 1991), Whitney Templeman (1994) and Mamani Perez (2007).

³ When I use the word “Kallawayaya” I bring together local beliefs about music and climate that should attempt to open an emic understanding of such phenomena opposed to global or scientific discourses. I do not aim at talking in behalf of all the Kallawayaya people in the world. Sometimes explanations and interpretations are rather referred to my own subjective perceptions about the interrelation between musical and climate change based on my social and musical interaction with my hosts and other people in the Kallawayaya region and beyond.

The second part of the thesis consist of three chapters forming the main part: The first chapter describes how the relation between musical and climate change manifests itself in the construction of autochthonous wind instruments in Niñocorin (chapter 4). It delves into the meaning of reciprocity within the *ayllu* structure of Niñocorin, the ecology of plants providing primary materials for the construction of mainly flutes and *qantu* panpipes and the scarcity of primary materials.

This leads to the next chapter of the thesis which deals with the manifestation of the relation between musical and climate change within the sequence of the year (chapter 5). In the Andes not every instrument or genre should be played at every time because of certain ideas about influencing local weather. It discusses climate change in relation to the sequence of the year based on different calendars.

The last chapter of the main part describes how the relation between musical and climate change manifests itself in the poetics and aesthetics of *qantu* music (chapter 6). The changes in ritual and musical practices during the sequence of the year are part of a larger process of cultural change over the last decades that mostly elderly people perceive as having caused climate change in the region. The chapter ask in detail how this cultural change manifests itself in the poetics and aesthetics of *qantu* music.

When it comes to possible explanations of climate change mostly elderly people in the region state that the maintenance of a normal climate (adequate climate for crop growth) depend on the adherence of moral duties, collective ritual practices and the time/space condition of music and instruments. This explanation is not always shared by the younger generation which is a product and generator of such a cultural change in the region. Music serves the younger generation to construct new identities, rather than fulfilling agricultural or ritual purposes. The question will be addressed how these different perceptions relate to each other. The last chapter closes the thesis with a conclusion about the study of musical and climate change which resumes the thesis' main findings and presents perspectives for consecutive research (chapter 7).

THEORETICAL FRAMEWORK

Climate in the musical and sonorous web of life

We do not perceive it; we perceive in it [...]. We do not touch the wind, but touch in it; we do not see sunshine, but see in it; we do not hear rain, but hear in it. Thus wind, sunshine and rain, experienced as feeling, light and sound, are essential to our capacities, respectively, to touch, to see and to hear [...].

Tim Ingold (2011: 138)

The following chapter establishes the theoretical framework of the thesis with regard to the main concepts, namely musical and climate change. A short historical retrospection of the study of music in academia leads to an ecological approach which attempts to include music's social, natural and spiritual contextuality. The theorization of the relation between musical and climate change is mainly based on local perceptions which synthesize both phenomena in an animate approach to music and climate change.

Retrospective of the study of music

One of the early ambitions to study non-Western music was the school of Berlin and their comparative musicology. Based on Western dualism and under the premise of cultural dominance non-Western music was understood as primitive, wild and inferior (Olivia 2002: 3). German musicologists recorded samples of music and analysed them in studios in Germany. This led to the foundation of the *Berlin Phonogram-Archiv* in 1904 by Stumpf and Hornbostel, who studied the empirical data with a focus on musical sound. The Berlin school of comparative musicology was target of critiques in the midst of the 20th century because of their studio approach (Holzmann 1987: 16). This led to the foundation of the International Council for Traditional Music in 1947 and the Society of Ethnomusicology in 1955. While musicology was considered the study of Western art music, ethnomusicology was defined as the study of all music as a context-based social and cultural phenomenon. In the end of the 1950s the American ethnomusicologists divided into two classes, one of which further focussed on the current of (ethno-)musicology led by Mantle Hood, the other took a more anthropological perspective led by Alan Merriam. Both are important for the theoretical

understanding of this thesis: The latter further criticized the studio work of the Berlin school and expressed the need to study music *in* culture, rather than music *as* culture (Mújica 2014b: 165). The class of the (ethno-)musicologists led by Mantle Hood focused on the necessity of studying the music from the inside which led to the research tool of bi-musicality (chapter 3).

Beyond the broadening of the focus in connection with anthropology the study of music related more and more to other sciences, social as well as natural science such as acoustical physics (Gérard 2002), linguistics and semiotics (Nattiez 1990) and phenomenology (Zuckermandl 1956). The ramification with acoustical physics led to the possibility of acoustic analyses of autochthonous instruments based on the measurement of intervals (cent) (chapter 6). The ramification with semiotics and linguistics led to the investigation of the symbolic meaning of music and should help here to understand the music's aspect of performativity in Austin's sense. Austin (1962) says that performative utterances are situations where saying something means changing social reality. Performative utterances cannot be either true or false. They have to be judged depending upon whether the conditions for the success have been fulfilled. In this sense musical practices are performative utterances which require certain conditions that have to be fulfilled for the success of the musical (speech) act (chapter 5).

Theoretical approximation of musical change as part of cultural change

Musical change can be understood as part of cultural change against the background of different currents: The current of evolutionism states that the sources of music have been the imitation of natural sounds, emotions and the relation to magic (Mújica 2014a: 22). It suggests a development on the ladder of cultural evolution from the savagery over barbarism towards civilization which is exemplified with the instruments drum-flute-lyre (Ibid.). The cultural historical school and the current of transcultural diffusion was a reaction against such an evolutionist account of cultural change. The cultural historical school states that change and transformation was caused by the interaction of different cultures and population movement having increased through processes such as cultural globalization and global population movement. Other currents such as the contextualists rather indicate the emic aspects of musical change grounded in a cultural analysis of the musical process and dynamics based on a model of three analytical levels by Merriam (1964): The

conceptualization of the music, the behaviour in relation to the music and the sound of the music.⁴

(De)colonial perspectives

Gutiérrez (1991) refers to potential conflicts in Bolivia's colonized reality between the traditional society which possesses an Andean musical system and modern society which possesses a Western musical system. He argues that the result of this interaction is a new societal stratification of the *mestizo* and an alienated or *acultural* musical phenomenon which seeks to construct its own identity with elements from both poles (Gutierrez 1991: 35 – 44, cited in Mújica 2014a: 25). On the one hand this contact causes an *exogenous* dynamic which generates competition, change of musical logic towards an artistic ideal of individual and temporary pleasure and elaborates a music for every audience, moment and place; in procurement of forming a Bolivian identity of folklore and neo-folklore (Mújica 2014a: 25). On the other hand the *endogenous* dynamic originates within the traditional group which modifies in a strategic way the musical form through implementing modern elements, such as harmonization and the insertion of well-tempered scales and instruments.

Solomon (2011) argues that ethnomusicology has a need to decolonization because of historically being part of colonized relations and unequal relations of power. In this sense, the Western musical system depicted by Gutierrez (1991) continues to colonize Andean music in different theoretical, poetical and aesthetical aspects as part of a “colonization of the senses” (Solomon 2011: 221). In a musicological study about the Mediterranean island of Corsica Bithell (2003: 49) states that some musical practices for instance retaining the production of distinct intervals can become part of a conscious resistance to colonization.

Margaret Kartomi (2001 [1981]) argues that expressions such as *mestizo* or *acultural* would have a strong pejorative element which does not accept musical change as a creative and valid process of fusion and transformation. The concept of musical transculturation, the process of merging and converging of musical cultures, should only be applied to processes of intercultural contact, not to their consequences (Ibid.: 367).

Rivera (2006) develops the concept of *ch'ixi* (grey, something with many spots) in order to understand the coexistence, instead of the potential conflict, of cultural differences in a single

⁴ This broad retrospective of the study of music is mainly based on Mújica (2014a, 2014b). See further Reynoso (2006, 2007).

practice. Out of former perspectives two musical cultures mix in order to form a third entity (cf. Montoya 1996). Burman says that “the differences do not entirely mix; they are still there as if they were small spots of white and black, although for the eye they can appear as having mixed in a single colour of grey” (2014b: 14 [my translation]).

Towards an ecological approach to music: Social relevance

Martí (1995) applied the concept of social relevance to the study of musical phenomena. He argues that “the concept of social relevance applied in the realm of music makes reference to the degree of belonging of a given music for a determined society” (Martí 1995: 4 [my translation]). Two interacting aspects are important to identify the social relevance of music in a determined time/space condition: the significance of music and its use. Significance is the process in which music makes itself significant in moments in which it is associated with other things apart from itself (Rozo Lopez 2011a: 29). Enacted uses determine the way one understands and feels music. The concept of social relevance helps to break with certain dichotomizations such as traditional/modern and rural/urban, because it states that “it is not antiquity which determines the belonging of a given music to a concrete sociocultural realm, but the fact that it is socially lived” (Ibid. [my translation]).

Departing from the concept of social relevance, it is possible to enrich the study of music from a human ecological perspective taking into account the spheres of the individual, society and the environment. Thus, an ecological approach to music studies the relationship of music to the “dynamics of the total culture” (Archer 1964: 29). Since Archer (1964) the ecology metaphor was used in relation to music with different meanings such as (Keogh 2013):

- 1) Reference to mimic relationships between human-constructed sound and the sounds of the natural world (Polansky 1994)
- 2) The environment in which music takes place (Schafer 1977; Archer 1964)
- 3) The connectedness between human-constructed sounds and the natural world (Harley 1996; Feld 1994)
- 4) The connectedness between human-constructed sound and the social, political and economic environment (Feld 1994, 1996, 2000)
- 5) Ecological thought as a basis for the continual transmission of divers music cultures in analogy to biological studies of ecosystems or eco-criticism (eco-musicology) (Titon 2009, 2010, 2013; Allen 2011)

The ecology metaphor, although having been criticized for its over-arching use and un-usefulness for questions of continual transmissions of diverse music cultures (Keogh 2013), will be helpful when theorizing the relation between musical and climate change.

Archer (1964) wrote that one can “expect a music to be shaped by *climate*, by natural resources, by the incidence of certain diseases within the population [...], by economy, [...] by the capacities of technology” (Archer 1964: 29 [emphasis added]). Although elitist and dismissive to certain non-Western music cultures (Keogh 2013: 2), Archer (1964) can be considered a starting point here. Feld (1990) for instance describes the relationship between music and the environment in his work of the Kaluli people of the Bosavi forest in Papua New Guinea who link the production of musical sound to the reproduction of bird songs in the Bosavi forest. If one imagines that climate change has effects on the bird population in the Bosavi forest causing extinction or replacement, then it would certainly cause changes in musical production of the Kaluli people as well.

An animate understanding: expanding the ecological approach

In order to expand the ecological approach towards an understanding of the relation between musical and climate change in the Kallawayá region, it firstly has to be clarified what is meant by those concepts from a local perspective. This perspective should not only serve as a mere vessel of information to be extracted by an ethnographer, a system of beliefs or an inferior and illusive cultural perspective on the reality already sufficiently explained by science. I attempt to tie local beliefs about music and climate intrinsically to the theoretical framework in order to denaturalize to certain degree my own ontological assumptions (cf. Blaser 2013: 550). I argue that fundamental assumptions of such an ecological approach to music, for instance interrelatedness and interdependency, are based on such ontological principles implicit in the practice of indigenous peoples. Anthropology of climate investigates the phenomenon from perspectives other than Western science and dualism and is the “study of the interrelation between climatic factors and human cultures” (Lammel et al. 1997: 13 [my translation]).⁵

⁵ One example in Bolivia for such an approach to understanding climate on anthropological grounds is Gilles Rivière’s (1997) study about weather, power and society in Aymara communities of the Bolivian *altiplano*. Here, I would like to tie in with this understanding and the necessity to comprehend climate and/or climate change beyond Western ontological principles, not only in order to arrive at better adaptation strategies based on local testimonies or traditional farming methods (cf. Vidaurre et al. 2013; Hoffmann 2012), but also as an attempt to decolonize knowledge and address asymmetries of power that are in place.

The approximation to an understanding of climate starts from within the atmospheric sciences. Meteorology steams from Greek language, means the “study of things in the air” and has a focus on short term weather events. Climatology is the study of atmospheric changes which define average climates and changes over time. Climate change is scientifically defined as a “change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.” (Oxford English Dictionary 2015). From a scientific perspective increased greenhouse gas emissions are the cause of global warming and climate change (cf. IPCC 2014). The quantity of greenhouse gases in the atmosphere determines on the one hand the quantity of solar energy that reaches the surface of the earth and on the other hand the quantity of reflected energy which is transported out of the atmosphere again.

When I entered the Kallawayaya region the first time in September 2014, I had a conversation that should help to arrive at another definition of climate. We left Bolivia’s Capital of La Paz at around six o'clock in the morning towards Achacachi, passing Lake Titicaca and arriving at Escoma a few hours later where the paved road ends. A man sitting next to me on the bus pointed at some mountain tops on the way, told me their names and said: ‘You don't go up there alone, hear me? Those are sacred mountains. You have to ask permission of the ancestors.’⁶ On my question what would happen, if I ascended the mountain peak without permission, he answered that clouds would come up to impede the ascent. My new friend further asked me whether there are sacred mountains in Germany, too. I said no and referred to German people’s loss of an intimate connection with nature. He was confused by this answer and I was confused by his confusion.

If the changing local weather has to do with the sacredness of the mountains and the ancestors, two questions arise at this point: What is the condition of the mountain's sacredness and how does this relate to the ancestors? In which way do they have power to change local weather events? Thinking about the confusion I caused by my answer, my mind was insisting on the fact that the condition of the mountain's sacredness was nothing else but a mere belief created by an ethnic group living in a special kind of human-environmental relationship, not so much an inherent characteristic of the mountain's being-in-the-world.

⁶ Original conversations in the annex 6.

What I saw in front of my eyes for the first time in my life, these mountains with their snowy peaks, was the past in a twofold sense: As a formation of the earth's surface now changing and transforming with every sun beam, wind, rain or hail, as well as the residence of the dead ancestors, known as *machulas* in Quechua, the “owner” of sacred places that simultaneously *are* the sacred places having specific powers over the forces of nature (Rösing 1996: 432f). The people on the mountain slopes live in constant reciprocity with the *machulas*: While the *machulas* give good climate conditions to grow food and hand over authority and responsibility, “the cries of [...] musical instruments (that is sound) may be seen to move in the opposite direction – whether expressing desire [i.e. for rain], distress [i.e. during droughts] or youthful energy [i.e. during feasts]” (Stobert 2006b: 31).

This conversation was my first encounter with what can be called “the moral meteorology of the Andes” (Burman n.d.). If you do not act as you morally have to do, if you behave badly (*actuar mal*) as it is commonly said, extreme weather events will occur, for example hailstorms or frost after abortion. “Bad behaviour” can mean a lot of things. In my personal case it was not asking permission to ascend the peak of a sacred mountain. For this thesis more important is the critical role of musical practices and phenomena in relation to the social, natural and spiritual environment and to the maintenance of such a reciprocal relationship in an animate world. If this reciprocal relationship is disrupted, the *machulas* rather incline to create bad climate conditions. Thus, climate is something you locally live in, something that surrounds you like light and sound, something that changes and transforms you and the landscape, something that functions as a morality and directly interacts with peoples' (musical) behaviour.

Existential conditions

In the Kallawaya region autochthonous wind instrument are related to the Ankari, the deity of the wind and the messenger of the *machulas* (Rösing 1996: 514). There is an inherent deep relation between breath and wind as life sustaining movements. Ingold states that “[i]nhalation is wind becoming breath, exhalation is breath becoming wind” (2011: 138). The sound of autochthonous wind instruments is produced by breathing out or blowing into a bamboo tube, thus producing a stream of air, a wind forming the landscapes and communicating with the Ankari who, then, transports the people’s offerings and sacrifices to the mountain peaks where the *machulas* reside. Sound transports the life energy (*animu*) of things to the *machulas* and establishes the aforesaid reciprocal relation. Reciprocity in the

sense of giving and taking is a constant “tension” on which the world’s existence and continuity is founded (Stobert 2006b: 31). It is based on an immediate interrelation between both behaviours. If one part does not commit to it, the other will not do either.

In reference to the phenomenological work “Symbol and Sound (1956)” by the Austrian musicologist Zuckerkandl, Ingold (2011: 73ff, 126ff) argues against visions of the earth as being seen as though it was only terrestrial. In those visions landscape is the word for such terrestrial space, separated from sky which is not part of it (remember the Greek meaning of meteorology). He states that sky is not something separated from landscape:

“In short, far from facing each other on either side of an impenetrable division between the real and the immaterial, earth and sky are inextricably linked within one indivisible field, integrated along the tangled lifelines of its inhabitants” (Ingold 2011: 74).

I argue here that this indivisible field is a complex *musical and sonorous web of life* which integrates and articulates certain dimensions of our immersion in and commingling with what is called in Quechua *pacha*. Besides the meanings of cosmos and time/space, the word *pacha* also refers to weather and climate (chapter 6). *Pacha*, then, synthesizes our existential conditions in a transversal sense: Weather is essential to what constitutes our capacities of sensory perception in short term (recall the quote at the beginning of this chapter), whereas climate is essential to what constitutes our capacities of life extension in long term.

Chapter 3

METHODOLOGICAL FRAMEWORK

How to deal with the multiplicity of contexts

To reach, not the point where one no longer says I, but the point where it is no longer of any importance whether one says I.

Gilles Deleuze & Felix Guattari (1988: 3)

The global is collapsed into and made an integral part of parallel related local situations rather than something monolithic or external to them.

Georg E. Marcus (1995: 102)

The following chapter deals with the methodological framework of the research. In a first step the philosophical principle of the rhizome is introduced leading to the general research methodology of a multi-sited ethnography. Subsequently, the specificities of the research are clarified, which leads to questions of scales and the presentation of certain techniques applied during the research. At the end delimitations and limitation of the methodological framework are presented.

How to approach the relation between musical and climate change analytically?

The theoretical framework purports the following characteristics and directions of causation between musical and climate change: The first direction of causation is the way climate change causes musical change. Musical change, as indicated above, has mainly been understood as part of cultural change or caused by cultural change (depending on whether you frame music *as* culture or *in* culture). The environmental conditions of musical change were neglected, if not unperceivable for music studies which were established around a binary division between Nature and Culture. Climate conditions might have direct impacts on for instance the ecology of plants providing primary materials for instrument construction, the mimic relationship between human-constructed sound and the natural environment and musical performance with certain performative purposes. Moreover, climate conditions define a necessary variable in order to understand musical change due to transcultural diffusion through for example population movement, (musical) globalization and ultimately migration

as a generator and bearer of such cultural diffusion. I argue in this thesis that climate change, which diminishes the possibility of reproducing once life in a given geographical area with high climate change vulnerability, is indispensable for understanding migration patterns in the region and rural displacement (chapter 5).

The second direction of causation is the way musical changes cause climate change or variability in the region. This direction of causation is based on an explanatory model of Kallawaya people. Here sound and music play a crucial role in maintaining a reciprocal relationship with the mountains through communicating sentiment and transporting the offerings to the *machulas*. Therefore, it is important to analyse the way musical change relates to climate change and variability in the Kallawaya region because of changes in materials and sound produced by instruments, the significance of music and its use during the musical sequence of the year and the changing poetics and aesthetics of music due to for instance migration patterns and population movement and the contact with other musical cultures.

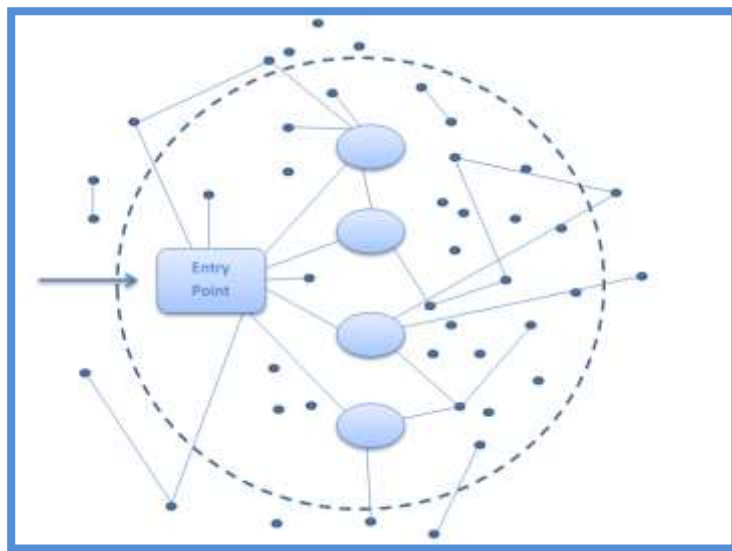
Grounding I: Rhizome: Grounding in multiplicity

In order to analyse the relation between musical and climate change in the Kallawaya region an appropriate philosophical base needs to be introduced that copes with the multiplicity of contexts. Based on the research context an image of thought is necessary that adequately portrays such multiplicities and makes interrelated connections in such a *musical and sonorous web of life*. The philosophical principle of the rhizome was developed in order to understand and follow certain lines and connections in a multiplicity of contexts of a given phenomenon (cf. Deleuze & Guattari 1988). In the introduction to “A Thousand Plateaus”, Deleuze and Guattari (1988) use the rhizome as an image of thought to oppose it with the arborescent conception of knowledge which “has dominated Western reality and all of Western thought” (1988: 18). It stems from the way genealogical trees are drawn, namely based on unidirectional progress, hierarchical and vertical orders, dualist categories and binary choices. The rhizome as an image of thought is based on horizontal and non-linear connections that allow for non-hierarchical entry and exit points in data representation and interpretation.

Thus, in order to understand musical and climate change in the Kallawaya region as multiplicities in themselves the thesis is based on rhizomatic thinking that allows making interrelated ramifications to several different factors that are involved in the study of musical

and climate change that “are not necessarily linked to traits of the same nature” (Ibid.: 21). As the rhizome, the phenomenon of study does not have “neither a beginning nor end but always a middle (milieu) from which it grows and which it overflows” (Ibid.). In the case of the thesis this milieu is the context of the construction of my host’s house in Niñocorin. Hence, the entry point into the *musical and sonorous web of life* and the departure of the rhizomatic thinking is the construction of the house. During the presentation of the empirical data a map is unfolded. It portrays those manifold ramifications that have to be made in order to understand the relation between musical and climate change within its core which integrates certain phenomena and relates to peripheral ones outside of it alike (figure 1).

Figure 1: Rhizome as an image of thought
(own elaboration)



Grounding II: General research methodology

This complex *musical and sonorous web of life* also includes what Deleuze and Guattari call the “line of flight or deterritorialization as the maximum dimension after which the multiplicity undergoes metamorphosis, changes in nature” (Ibid.). Thus, an appropriate ethnographic method needs to be chosen that goes beyond the study of local ethnographic sites and acknowledge different scales in a single ethnographic practice. In order to understand musical and climate change in the Kallawayá region one needs to “follow people, connections, associations, and relationships across space” (Falzon 2009: 2). The aim of the multi-sited ethnography is “to pursue the more open-ended and speculative course of

constructing subjects by simultaneously constructing the discontinuous contexts in which they act and are acted upon” (Marcus 1995: 98). It “[...] moves out from single sites and local situations of conventional ethnographic research to examine the circulation of cultural meanings, objects, and identities in diffuse time-space” (Ibid: 96). Furthermore, I argue that the definition of site goes beyond geographical space because it also includes temporal aspects in relation to the dynamic aspect of change.

Grounding III: Specificities of research

Given the main research question I apply a *qualitative* framework in order to reach the basic aim of generating ideas and knowledge about the phenomenon of study from an emic perspective. The qualitative research is “a means for exploring and understanding the meaning individuals or groups ascribe” (Creswell 2009: 22) to certain phenomena. In the understanding of this thesis, qualitative research implies a researcher who firstly acknowledges the complexity of the phenomenon of study, secondly enters actively and participatory in social and musical interactions and thirdly uses local ontological assumptions in order to make sense of the empirical data. The basic qualitative framework is complemented with certain *quantitative* research methods applied during the musicological analysis (i.e. musical language, acoustic analysis). In this sense qualitative and quantitative approaches are not considered in total opposition to each other, but complementary.

The following research is considered an *exploratory* research because of three reasons: Firstly, the relation between musical and climate change has not been profoundly defined within the theoretical body of musicological research; secondly it has not been addressed in an analytical way in the context of rural societies in Bolivia; thirdly it has not been investigated based on local ontological assumptions.

Grounding IV: Questions of scales

If we consider the fact that the Kallawayaya culture is not a homogenous entity bounded to the borders of the province Bautista Saavedra, it is certainly difficult to state that the current study about musical and climate change is only a local study within the Kallawayaya region. The phenomenon of study includes fundamental aspects that primarily are not local:

Firstly, Kallawayaya people have always been travellers that have healed with herbs and curation rituals all over the continent, thus having left the area of the Northern Bolivian Andes

very frequently. Cultural contact was an integral part of Kallawayaya history. During the history of colonization the area was divided into administrative units of the subsequent colonial powers. In the Plurinational State of Bolivia indigenous peoples are nowadays related to specific territories (cf. Burman 2014a: 263). The province of Bautista Saavedra is considered the Kallawayaya region on which a cultural and ethnical entity lives, the Kallawayaya, self-defined as a proper nation, in order to utter certain claims on land, territory, autonomy and self-determination in the logic of the Plurinational State of Bolivia.

Secondly, the phenomenon of music is not bounded to the border of Bautista Saavedra. Music has a dynamic aspect that does not allow theorizing the study of music as merely local. On the one hand the reproduction of the musical system is not necessarily based on local factors; on the other hand the dynamic aspect of music in a local context is caused by population movement and cultural diffusion that go beyond the geographical space of Bautista Saavedra, especially in times of economic and cultural globalization that breaks with dichotomies such as local/global or rural/urban. Answering the research questions implies considering how global processes manifest themselves in the realm of music in local contexts.

Thirdly, the same applies to climate change as a genuine global phenomenon. Thus, the climate is not bounded to the province of Bautista Saavedra but needs to be understood on both local and global scales in order to grasp the complexity of the relation between musical and climate change in the region. Answering the research questions implies considering how climate change manifests itself in local contexts and how people in the Kallawayaya region perceive climate changes and its effects based on their own ontological assumptions. Consequentially, there are several climate changes perceived and lived out locally and practically.

Research strategy

My fieldwork activity was informed by different concepts: Rather than considering my fieldwork as a mere data collection activity, it was primarily an essential guidance in my research by different subjects on which this thesis is based (cf. Mignolo 2009; Burman forthcoming). I consider the concept of guidance as an “ethically justifiable way” (Burman submitted: 26) to do research in the global South, also because it implies, as I think, Taussig’s (1980) idea of recognizing former objects of research as knowledge critical thinker in their own rights which have critical vantage points on different phenomena (cf. Burman submitted;

Krisch 2006). In analogy with Stobert (2006b) I will describe those persons that gave me shelter during my fieldwork in the Kallawayá region with the word “host” which conveys a “sense of visitation and dependency” (Ibid: 18). For me the word “host” also expresses notions of living together and sharing.

The phenomenon of study is to certain degree, but not only, located in the province of Bautista Saavedra in the Northern Bolivian Andes known as the Kallawayá region. My main fieldwork activity in the region took place in a community called Niñocorin, a small community in *ayllu*⁷ Kaata, 90 minutes walking distance from the provincial capital of Charazani and the home of one of the most famous and respected *qantu* ensembles in the region. My host is in his 50s and lives together with his wife and his youngest son. The older sons have moved to La Paz after finishing education equivalent to high school in order to continue with higher education, which is a common thing to do for young people in the region. Moreover, my host and his wife have three daughters: The oldest daughter lives with her husband and her two children in Charazani. One of the younger daughters studies medicine in Venezuela with a scholarship from the government. The youngest daughter goes to school in Kaata and comes back to Niñocorin every weekend. The older sons play *qantu* music in a “modern” rock group called *Amor Nuevo* (New Love) with keyboards, guitars and electronic drums. I visited him and his family three times in October, November and December 2014. His family constellation is a perfect micro-cosmos where phenomena such as generation change, cultural and musical change and migration manifest themselves. My experiences with them allow me to see a bigger and complex picture of the region in general.

My fieldwork activity was framed around an internship with the centre for indigenous cultures called Kawsay. Kawsay works with revitalizing indigenous identity and supporting processes of cultural reaffirmation through educational workshops. On the one hand I helped Kawsay during the organisation and systematization of their workshops; on the other hand Kawsay supported my research with information and establishing contacts. With Kawsay I entered the region four times in order to realize workshops. In the community of Cañizaya we realized three workshops, hence more frequently than in other communities. During our workshops I could realize some fieldwork for my own research.

⁷ *Ayllu* is an ancient political and social form of organization based on reciprocity and mutual exchange. To be explained further in chapter 3.

For the research of the required primary materials in the Kallawayaya region I firstly had to leave the province of Bautista Saavedra in order to follow the materials to their places of origin in the (sub)-tropical *yungas*. Here, my main fieldwork activity took place in a community called Camata, which is a two hours bus ride from Charazani towards Apolo. Camata lies at the boarder of the province of Bautista Saavedra and belongs to the municipality of Ayata and the province of Muñecas. I visited my host in Camata, his mother and a friend of the family two times in November and December 2014. My host has a double residency in Camata and La Paz where he also lived for years in his adolescence. Ultimately, the study of the required primary materials led me to La Paz and other areas of Bolivia.

In the same way the musical dynamic around the poetical and aesthetical aspects of *qantu* music led me to follow the actors from a rural setting to urban areas such as La Paz and Cochabamba. Phenomena of transculturation led directly to aspects of cultural and musical globalization that in turn manifest themselves in local areas through migration. This fluidity of people, as well as the phenomenon of study required ethnographic fieldwork activity in urban areas such as La Paz and Cochabamba. Following the phenomenon of study on these different scales of research allows me to identify processes of change with regard to the social relevance of music based on different contextual logics.

Research process

Table 1 shows the research process from September 2014 until July 2015. This is not a ready-made research process I had from the beginning, but a map of how the research unfolded in a rather open-ended research design (cf. Punch 2005). As a basic principle of my inductive approach to qualitative research I mainly applied the literature review in complementation with data analysis.

Table 1: Research process

<i>MONTH</i>	<i>TOPIC</i>	<i>ACTIVITY</i>
September	Acclimatisation Thematic Approximations	First Visit in <i>Charazani</i> : Workshop with Kawsay (05.-07.09.14)
	Systematisation of the workshops and writing of reports	Other Workshops with Kawsay in two different regions: Ivitipora, Municipio Charagua, Provincia Cordillera, Santa Cruz (Autonomy <i>Guarani Hyambae</i>) Choro, Municipio Cocapata, Provincia Ayopayo, Cochabamba (Cordillera Oriental)
October	Identification of area for collaboration	First Visit in <i>Cañizaya</i> ; Workshop with Kawsay (17.-19.10.14)
November	Consensus on topic related to music and climate change in the Kallawaya region	First Visit in <i>Niñoscorin</i> (19-23.10.14) Second Visit in <i>Niñoscorin</i> (16-23.11.2014)
	Fieldwork activities	Congress of the indigenous autonomies (CONAIOC) in <i>La Paz</i> (16.10.14)
	Study of musical instruments of the region (<i>Sicu, Quena, Pifano, Pinkillu, Charango</i>)	Congress of decolonization in <i>La Paz</i> (25.11.14) Congress of the sages in <i>Cochabamba</i> with Kawsay (29.-30.11.14)
		Realisation of interviews (see table)
December	Continuation of the fieldwork activities	First Visits in <i>Chacarapi</i> and <i>Charí</i> : Workshop with Kawsay (05.-07.12.14)
January		First Visit in <i>Camata</i> (07.-12.12.14)
		Second Visit in <i>Camata</i> (10.-16.01.15)
		Third Visit in <i>Niñoscorin</i> (16.-23-01-15) <i>Akulliku</i> Second Visits in <i>Charí</i> and <i>Cañizaya</i> ; Workshop with Kawsay (29.01.-01.02.15)
		Realization of interviews (see table)
February	Systematisation of the empirical data	Visit for carnival in Bautista Saavedra (15.-18.02.15)
March	Literature Review	
	Writing of the thesis	
April	Writing of the thesis	Participation at thesis seminar
May		Hand-In 18 th May
June	Defence of the thesis	

Methods and techniques of research

Due to the multi-sited ethnographic approach I found it adequate to distinguish between methods and techniques for rural settings such as Niñoscorin and Camata and urban settings such as La Paz and Cochabamba. During my fieldwork in Niñoscorin and Camata I mainly applied two types of data collection: Participant observation which allowed me to collect first-hand experience in the region and audio-visual-materials recorded and/or collected throughout my fieldwork. As a basic principle I did not record any conversations or discussions with the local people I encountered during my fieldwork on rural sites (mainly my hosts in Niñoscorin

and Camata), because I realized that many people in the region did not feel comfortable with it. Such secretive patterns surely have to be understood against the background of a history of exploitation “in which Kallawaya have seen outside researchers as people who have misrepresented them and who [...] have appropriated Kallawaya knowledge without sharing the profit” (Callahan 2011: 5). Rather than recording conversations I wrote small memos or notes which I systematized in the evenings or nights in my field diary as kind of observational protocols (example in the annex 1).

During my fieldwork I collected the following audio-visual data:

Table 2: Collected data during fieldwork

Type	Content
Photography	Over 1000 photos of the region, the workshops, the musical groups, landscapes, communities, etc.
Audio (MP3 and WMA) Own recordings	Qantu from Niñocorin 2015 (Preste in Chajaya) (10 minutes) Pifano from Charazani 2015 (celebration ABC) (21 minutes) Sound of different flutes (10 minutes)
Audio (MP3) Provision by my host	Pifano from Chulina (14 minutes) Pinkillu from Niñocorin (during qallay 2015) (36 minutes)
Audio – Video (CD/DVD) Folk Bands in the region	Sumaj Nan, 2 albums, 1 DVD Akhamani, 1 album
Video (MP4) Own recordings	Qantu from Niñocorin 2015 (Preste in Chajaya) (15 minutes) Pifano from Charazani 2015 (celebration ABC) (15 minutes) Provincial Anniversary Charazani 2015 (15 minutes) Band Contest Charazani 2015 (25 minutes)
Video (MP4) Retrieved from Internet	Qantu from Niñocorin 2011/12 (60 minutes) Qantu from Quiabaya 2013 (6 minutes) Qallay in Kaata 2013 (15 minutes)
Video (DVD) Purchased	Qantu Charazani (50 minutes) (compilation) Qantu Originario de Chari (50 minutes)

Within this research strategy in rural settings I added one unstructured interview with my host in Niñocorin about the musical sequence of the year and one *akulliku* with members of Niñocorin’s *qantu* ensemble. The word *akulliku* refers to the act of collective coca-leaf chewing that I used as a method similar to a focus group.⁸

In the urban settings I mainly applied one type of data collection, namely interviews. During my research I realized 27 interviews ranging from musicological aspects, medicine and history of the Kallawaya culture to issues of UNESCO cultural heritage, political autonomy and ultimately climate change in Bolivia and in the region (see table of interviews realized

⁸ I avoid mentioning names of my hosts and other persons in the Kallawaya region for reasons such as the precariousness of information about the social relations in the communities which would disturb the social stability.

during fieldwork including their categorization in annex 2). I chose semi-structured and unstructured interviews in combination with a snowball sampling because of my broad focus at the beginning of the research which I more and more narrowed down during the ongoing research. For semi-structured interviews I prepared some topics and themes I wanted the interviewee to talk about. Basically, I wanted my interview partners to talk as freely as possible in order to systematize the importance of the interview afterwards (see below). Hence, some interviews assume a more narrative style. During the interviews I asked supplementary questions if I wanted my interview partner to delve deeper into a topic. I am aware of the fact that my questions might appear suggestive in some or another sense, but it was basically the flow of conversation that guided the interviews.

The philosophical and theoretical framing of the thesis also justified the diversification of areas and topics during the interviews. Most of them helped me to get an overview of the complexity of the phenomenon of study, so that only some parts of some interviews are ultimately used in the thesis. During the recorded interviews I took hand written notes for remarks on gestures, location and surroundings. The mode of selection of the interviews was based on a categorization of the interviews during the systematization and transcription. The categories are: Base (B), core (C) and periphery (P) according to the image of thought (figure 1). Basis interviews relate to the entry point and/or the main pivotal points of the research, core interviews are situated within the core of study, thus interrelated in one or another way to the base. Periphery interviews are situated outside the core of study, less important although necessary to maintain and sometimes retake connection with the core. This should not be seen as a hierarchical order of the interviews. All of them are important and necessary in order to grasp the complexity of the phenomenon of study.

Musical dynamics in a sonorous-musical system

Apart from these general ethnographic tools the study seeks to understand the phenomenon of music and its relation to the context. Following up on the understanding of Gutierrez (1991) music can be seen as a sonorous-musical system: The sonorous aspect of the system includes everything that sounds and forms part of the landscape of sound or “soundscape” (Schafer 1977). The musical aspect here is not an isolated element, but implies a series of interactions that connect aspects of sound, music and dance with others in life of a social group; everything that forms the process of organization of a given community (cf. Mújca 2014a). The musical system is

“the complex of roles, practices, instruments, repertoires, values and sonorous resources – everything interrelated and interdependent – constituted as a universe of material and subjective expressions and representations present in a given culture. This complex contemplates transformations occurring in time and space, as the result of the aperture of the permanent contact with other cultures, suspending the static of localism.” (Rozo Lopez 2004: 130 [my translation])

This understanding helps to frame musical phenomena in a series of given time/space conditions from a dynamic perspective. Rozo Lopez (2011a) states that formerly music was only investigated as something that sounds, that is to say a physical sonorous phenomenon. In his dynamic understanding music is based on the constant interaction of three levels (Rozo Lopez (2011a, 2011b); originated from A. Merriam (1964)):

- 1) Concepts and Values (CV) including styles, identities, poetics, aesthetics, apprenticeship, repertoire;
- 2) Behaviour and Attitudes (BA) including rituals, ceremonies, performances, feasts, construction, bodies and techniques;
- 3) Sonorous Product (SP) including music, instruments (materials), songs, dance.

These three interdependent and interacting levels, if put in a dynamic understanding, assume the following characteristics (Lopez 2011a: 19f):

$$\begin{array}{ccccccc} & CV & & & CV & & \\ + & = & SP & = & + & & \\ BA & & & & BA & & \end{array}$$

The scheme indicates that the sonorous product is in the centre of transformation and once transformed it changes the other factors in turn. Based on this analytical understanding chapter four can be understood as an inquiry into the concepts and values about the process of construction and the behaviour and attitudes towards respective techniques of construction and involved rituals. Ultimately, those aspects help to understand the sonorous product, or in this case, as Rozo Lopez suggests in a personal conversation, *producto para-sonoro* (for sonorous product), the instrument with which sounds are produced. Chapter five investigates the musical sequence of the year, thus different instruments, genres and dances based on cyclically appearing behaviour and attitudes such as rituals, feasts and agrarian practices which have certain symbolic and semiotic value in relation to the sonorous product, the

musical performance. Chapter six investigates changes in values and concepts of the poetics and aesthetics of *qantu* music during processes of folklorization and the implied musicological and acoustical impacts on the sonorous product, which is *qantu* music. These musical changes in the sonorous product lead to a different behaviour and attitudes towards *qantu* music resulting in a process of decontextualization and commercialization.

In order to methodologically approach these three layers I would like to refer to different musicological tools which should help analysing musical data against the background of thick ethnographic descriptions (Geertz 1973) of the context and the dynamics on different scales: bi-musicality (Hood 1960), musical language (Qureshi 1987), acoustic analysis (Gérard 2002a, 2010b) and experimental anthropology with regard to the construction of instruments.

The tool of bi-musicality allows experiencing an emic-perspective towards the instruments, the sound and the techniques of playing and helps to imagine different associated contexts with its performance. Thus playing instruments and participating in musical production in the Kallawaya region was an attempt to such a commitment to bi-musicality. Regula Qureshi (1987) states that three analytical steps are necessary in order to combine the sonorous-musical structure with the performative structure of the occasion: the musical language, the context of performance and the process of performance. The latter two also relate to the concept of social relevance by Martí (1995) which includes music's significance and use. The context and process of performance are describes with the ethnographic tools.

Musical language tries to understand certain rules within musical production, identifying structure and properties of the music (Mújica 2014a: 52). In this sense musical transcriptions as a descriptive musical language (Western representation system: scores) are applied in the case of Niñocorin's *qantu* ensemble in order to analyse harmony and tonality and in the case of an autochthonous and folklorist version of the *qantu* song "Aguita de putina" in order to analyse changes in melodic and rhythmic patterns. The transcription of harmonic patterns of the *qantu* ensemble into musical scores is questionable with regard to generalizing and eradicating the special and diverse sonorous aspects (cf. Hood 2001 [1979]). Hence, such a musical transcription needs to be accompanied by an acoustic analysis which shows the sonorous diversity of the musical sound.

For the acoustic analysis of the purchased pair of panpipes of the same kind used in Niñocorin's *qantu* ensemble (picture 3) I had help by the division of world music of Malmö's

academy of music who helped me getting in contact with a Swedish guitar constructor who provided me with an analogue chromatic tuner (picture 1).

Picture 1: Analogue chromatic tuner I used for the acoustic analysis



For complementing the ethnographic description in the area of the construction of autochthonous wind instruments I chose an experimental approach to anthropological research. During my visits in Camata I was guided by my host and other people during the extraction and construction of certain instruments such as *pifano* (see experimental sheet in the annex 3).

Delimitation and limitations

The overall limiting factor of the whole research process was time. Although I had great liberty for my own research, it was sometimes difficult to merge both aims of my internship, namely my contribution to Kawsay's work and my own research, into one single practice. I have to say that most of the time this relation between these aims was complimentary, so that I hope to further contribute with this thesis to Kawsay's work. Surely, I could have spent more time both in the Kallawaya region and in different urban areas in order to deepen data collection. Nevertheless, I think that with the reality of limiting resources of time I reached to equilibrate the emphasis both on rural and urban settings. Moreover, much of the musicological analysis is only exemplified, but I think that the main argument of the thesis, which surely can be further supported by additional empirical data and a deepening of the existing one, is made clear to the reader in the reality of limiting resources of time.

The primary limiting factor during my ethnographic fieldwork in the Kallawaya region was language. Although I am fluent in written and spoken Spanish, the main language of communication in the Kallawaya region is Quechua. Apart from sometimes having been a barrier in everyday communication, knowledge of the Quechua language would have made

perceptions of Kallawaya people about music and climate more accessible to me. Quechua is, as it appears to me, more vivid, picturesque and onomatopoeic in its nature. For further studies into the emic understanding of Kallawaya people, handling Quechua is an indispensable factor. Still, I think that different sentiments and meanings can be expressed through music that goes beyond the rational use of language.

This leads to another limiting factor for the fieldwork activity in the Kallawaya region which was the “presence” of former researchers. Some former researchers are said to have stolen ideas, knowledge and wisdom of the Kallawaya people in order to make money and proceed with their careers without really giving back anything or entering into profound social relations with the local people. Of course in a framework of a multi-sited ethnography, the time at every local site is a limiting factor for entering into profound social relationships. I guess that if I had spent my whole internship period of 5 months in a single site it would not have been sufficient for that either. But, I also guess that I respected the local people’s needs and rights and that I did not do anything without permission. I will come back to the region in order to keep on living, working and making music with my hosts in the future.

Part II

Musical and Climate Change in the Kallawaya Region

Chapter 4

THE ANALOGY OF MATERIALS

Reciprocity, economic diversification and the scarcity of primary materials on supra-regional markets

Making coffee is always difficult; grinding is a lot of work. Drinking coffee is easy.

Mother of my host in Camata

If we flout the rocks, they can sicken us and our animals.

Carlos Yurja Mamani (2005: 63)

The following chapter deals with the manifestation of the relation between musical and climate change in the tradition of constructing autochthonous wind instruments and the required primary materials. My interest into the primary materials emerged from interviews realized with different Kallawayá healers in Cochabamba and La Paz before starting my fieldwork in Niñocorin. The statements were mainly very similar: Changes in climate have certain effects on the ecology of medical plants including displacement, disappearance or changing growth patterns (cf. Llanos 2006: 78). My point of departure was the construction tradition in the region, since I supposed similar effects on the ecology of plants producing primary materials for the construction of autochthonous wind instruments.

The chapter firstly deals with the meaning of reciprocity in the *ayllu* of Niñocorin. The experience of the materials for constructing a house serves as a synecdoche for the required primary materials for constructing autochthonous wind instruments and allows analysing their current situation. While most of the materials and instruments are imported from La Paz, changes in the ecology of plants producing primary materials are investigated as a possible reason for the reliance on import. Ultimately, the chapter discusses how mechanism of supra-regional markets causes the scarcity of primary materials in the Kallawayá region.

The meaning of reciprocity

‘This is a female rock, for the concrete of the foundation we need male rocks,’ my host remarks indicating at a different stone laying around on the soil. It was astonishing for me to hear that even stones with different physical and chemical compositions seem to be divided alongside gendered differences. I arrived in Niñocorin for the first time in October 2014. For my host the construction process of his new house had not started yet, whereas in other parts of the region some were already finished. The housing projects are part of the attempts of the Morales government to implement a rural development for the living well (*vivir bien*) of indigenous peoples in Bolivia.

Most of the material used for the construction of these houses is not proper to the place. Bricks, cement, iron rods and corrugated sheets were imported from other parts of Bolivia, replacing *adobes* (mud bricks) and thatched roofs. Far from being simply a traditional political and social organization, the *ayllu* refers to the ongoing and reciprocal exchange relation between people among each other and the place they inhabit (Stobert 2006b: 44), or as Allen argues:

“An *ayllu* exists through the personal and intimate relationship that bonds the people and the place into a single unit. Only when *runakuna* [plural of *runa* (people)] establish a relationship with a place by building houses out of its soil, by living there, and by giving offerings of coca and alcohol is an *ayllu* established.” (1988:106 [emphasis in the original])

The quote links the idea of reciprocity with a necessity of local production and residency. It suggests that building houses with other than local materials apparently disrupts ‘the single unit’ between the people and the place.

This idea of disrupted reciprocity may refer to many areas of life: Industrial food is imported from La Paz, so that rice and industrially produced chicken complements the local diet of *ch'uño* and *ch'arqui* (dried meat). Traditional clothes are only worn during provincial feasts and local festivities. Children play with toy trucks from McDonalds on the main square and people drink *gaseosa* (soft drink). During the construction process we mostly listen to *música chicha* from Peru, which is characterized as the modern *wayño* (musical genre) (Montoya 1996: 483). Youngsters that come from the region but nowadays live in urban areas play themes and melodies of *qantu* with keyboards and synthesiser. Against this background of a certain reciprocity with the place and the people it is not surprising that mostly elderly people

relate climate change with changing local practices such as the production of litter and waste in the region, increasing migration, but also the changing musical sounds.

Reliance on import

Every community with a musical group used to have at least one constructor. In the context of the *qantu* tradition those constructors are called *qantu phukuna huchoq* (the one who cuts *qantu* panpipes). The appearance of such constructors in provinces such as Bautista Saavedra is based on the “vertical control of ecological zones” (Adams & Valdivia 1991), thus on the direct contact with the places of primary material production in the *yungas* (sub-tropical areas) (cf. Gutiérrez 2002: 377f). In the Kallawaya region barter was (and still is to a certain degree) a common economic relation between the higher ecological zones changing *ch'arqui*, potato or wheat for fruits, coca or cane and bamboo with the lower ecological zones (Rösing 1996: 44; Langevin 1991: 15).

During the course of my fieldwork my host in Niñocorin presented me to his uncle who used to make different flutes such as *pinkillu*. My host and I visited him one afternoon during heavy rains, having a break from bringing *ladrillos* (bricks) from the main square to the construction site of the house. I asked him whether he could construct an *athun pinkillu* for me, a duct flute of 54 cm longitude used for the collective ritual *qallay* (chapter 5). My question surprised him and he said that I should buy it in La Paz from one of the shops of Walata Grande, because of the better quality and exact tuning, as he said. Walata Grande is an Aymara community near Lake Titicaca which is known for its long tradition of construction and *luriris*, which are nowadays considered professional constructors of autochthonous wind instruments. Most of the *luriris* from Walata Grande nowadays live in urban areas such as La Paz.

Two further experiences shall proof that instruments made by *luriris* from Walata Grande circulate in the Kallawaya region: During the regional carnival festivities in another community called Amarete in February 2015, I noticed that the instruments of many *tropas* (musical ensemble) showed a burn mark by the constructors of Walata Grande (picture 1). The *qantu* panpipe I purchased in Niñocorin was made from a species of cane produced in the region of Quime, as a specialized constructor originally from Walata Grande would confirm to me later in personal conversations in La Paz. The canes from Quime are preferred materials of *luriris* from Walata Grande (Gutiérrez 2002: 387).

Picture 2: Pinkillu with burn mark from Walata Grande



If Allen (1998) is right in interpreting reciprocity as linked to local production and residency, why have the constructors and musicians decided to rely on import, if this decision apparently breaks with reciprocal relationships?

On finding the reasons

The loss of the vertical control of ecological zones in some regions is proposed to be the reason for the reliance on imports (Gutiérrez 2002: 377). Those communities that have been able to maintain direct access via vertical control (such as Walata Grande), started to specialize themselves as regional providers of autochthonous instruments in the early 20th century (Ibid.). In the region of interest Schulte (1999: 112-118) states that some vertical economic relations have been neglected during the last 50 years, but that the economic integration of the ecological zones still exists in the Kallawaya region. Barter is applied less frequently today, whereas regional and supra-regional commerce have increased, especially with the *yungas* and the urban areas because of migratory work (Ibid.). Whereas the vertical control in the Kallawaya region basically functions until today, the people in the region nevertheless have decided to rely on import.

Whitney Templeman (1994: 79-81) describes that some communities changed their tunings for pragmatic reasons such as the lack of mature cane long enough to construct the lowest registers. Langevin (1991: 24) states that the *qantu* ensemble of Quiabaya, a community 30 minutes walking distance from Niñocorin, always played in the *medida grande* (large pitch), but in 1978 changed to the *medida mediana* (medium pitch) which has a range approximately one tone higher, thus requiring smaller canes. Are changing local conditions of plant growth the reason for the reliance on import?

As suggested by Langevin (1991: 15) I concentrated on the riverbanks of the Camata River and the correspondent community in Apolo valley which is considered the “most important place for the access to the yungas” (Schulte 1999: 95). My host in Camata and I extracted several local materials such as *soqos* and *ch'uqui* and had several conversations with local people.

In the region of interest, different types of bamboo and cane can be distinguished by means of different local linguistic categories which correspond to a respective flute type: *Ch'alla* is used for the construction of *qantu* panpipes; *toqoro* is mainly used for the flutes in the *quena* family, *pinkillus* or *moseños*; *soqos* for *pinkillus* and *ch'uqui* for *pifanos*. My host in Camata and I constructed *pifanos* made of *soqos* (*arundo dorax*) (experimental sheet in the annex 3). The habitat of *soqos* is mainly associated with riparian or wetland ecosystems such as riverbanks. Langevin (1991: 24) also states that steep mountain tops, where more rain falls, are possible habitats for *ch'alla*. Temperature and precipitation in the region show cyclic patterns that correspond with distinctive rainy and dry seasons that are related to the phenomena El Niño and La Niña (Vidaurre et al. 2013: 112f) (chapter 5; calendar 1). The precipitation rates increased over the last decades and the intensity of extreme weather events too (Ibid.).

According to my host in Niñocorin, *pifanos* are ideally made of *ch'uqui*. When I asked my host in Camata about the changes in material he answered that other materials such as *ch'uqui* were not available. He said that the plants would appear for a period of seven years in order to disappear again for another period of seven years, something that I also heard in Niñocorin. Several locals told me that there is a difficulty in finding such materials because of a period of scarcity. The literature on this issue is not very abundant. Langevin (1991: 44) states that it would be a disease of the plant that would dry out the cane after seven years, whereas Whitney Templeman (1994: 93) argues that the cane takes seven years to mature, which rather indicates an ecological life cycle.

Several local people in Camata rather corresponded with the version of the ecological life cycle of the plant. Unlike the stem of a tree which grows thicker during its vegetative growth, the individual culm grows directly with its final diameter from the ground in one growing season in up to four month. Every following shoot grows vertically into the culm without branching out until the full maturity is reached. In the following years branches extend from the nodes, leafing out occurs and the calms harden. This takes up to seven years and the cane

is ready for harvest. The more mature the rhizome system, the taller and longer further culms grow every year. If this cycle is disrupted, the rhizome system does not develop properly, thus causing a partial extinction from the habitat. In the Northern hemisphere ecological studies have indicated that leaf-out in the flora occurs at progressively earlier times in the year because of climate change patterns and global warming (cf. Polgar & Primack 2011). I cannot attest any changes in the life cycle of the plant according to local testimonies in Camata because of climate change.

According to Langevin (1991: 24) such a period of scarcity of seven years began in 1987. This would explain the changes in the tuning indicated above because of another period of scarcity from 1973 to 1980. Following this assumption a period of abundance began in 2008 and finishes in 2015, although several local people in Camata and Niñocorin have stated a period of scarcity which would endure another two up to three years. On a second hike with my host in Camata we finally found plant societies of *ch'uqui* required for the construction of *pifano*. Our third trip to more remote places to find *ch'alla* needed to be cancelled because of heavy rain falls over several days. Langevin says that they are difficult to reach, but normally available (Ibid.).

During one of my visits my host in Camata presented me to a man, who once extracted cane and bamboo culms. Nowadays he dedicates his economic life to selling *locoto* (species of pepper) on supra-regional markets, which is a more lucrative economic activity than working with primary materials.⁹ This replacing economic activity causes a non-use of potential materials in the Kallawaya region.

Scarcity of primary materials in the Kallawaya region

The *qantu* panpipe I purchased from Niñocorin's *qantu phukuna huchoq* is called *malta*, which is the second smallest register (chapter 6; picture 1). He told me that there is a current scarcity in the region and that he did not have *ch'alla* long enough to construct anything else than a *malta*. Since musicians and constructors in the Kallawaya region rely on import of primary materials and instruments from La Paz, the current scarcity in the region must be dependent on the supply of primary materials on supra-regional markets.

⁹ Langevin (1991: 25) discusses the effects of higher gold prices in the 1990s, which made people lose their interest in recollecting and selling cane and bamboo in the Kallawaya region. This assumption, namely the replacement through more profitable economic activities, proves to correspond with the actual testimonies of local people nowadays in Camata.

Picture 3: Pair of *malta* of the same kind used in Niñocorin's *qantu* ensemble

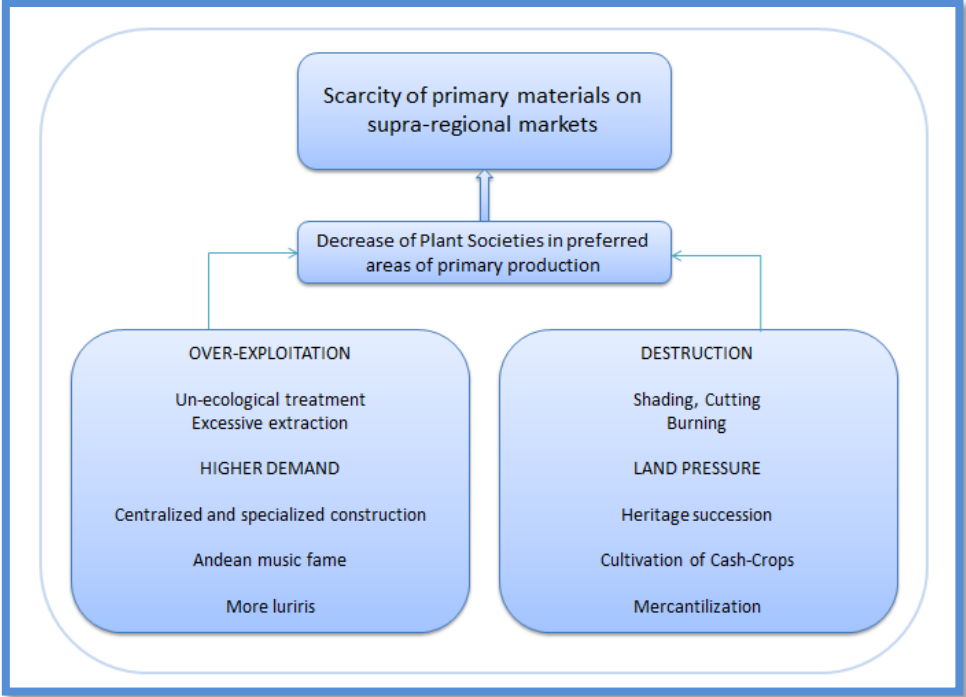


Those specialized constructors like the *luriris* from Walata Grande have preferred regions of primary production, so that the supply is basically centred on some regions, in the case of the *luriris* from Walata Grande Quime, Songo and Alto Beni (cf. Gutiérrez 2002: 387). N. Q., a *luriri* from Walata Grande who lives with his family in La Paz, told me in an interview that the materials from Apolo valley are not preferred materials from the *luriris* from Walata Grande. He said that once some people brought materials from Apolo valley to La Paz, but they ‘are not very pleasant, they are not good for constructing, but probably there are materials to find, but not this quality of material’. These disfavours of specialized *luriris* in La Paz towards primary materials from Apolo valley add to the reason why working with primary materials is not very lucrative.

What my interview partner suggests are two reasons for the lack of primary materials on supra-regional markets: The destruction and over-exploitation of plant societies in preferred areas of primary production (figure 2, see transcription in the annex): I define *destruction* here as the systematic extermination (shading, cutting, burning) of existing plant societies in preferred areas of primary production because of prioritizing the cultivation of edible or cash-crops required for sustaining one’s living in a gradual mercantilization of the regional economy and land pressure. Since land is scarce people make new land accessible through the destruction of plant societies that are considered “wild plants” with little economic value. I define *over-exploitation* here as excessive extraction of primary materials from existing plant species in preferred areas of primary production because of higher demands from specialized constructors in urban areas such as La Paz resulting in an unsustainable treatment based on the non-recognition of the ecological life cycle of the plant.

An aspect that has added to the demand was the general fame or “boom” with regard to Bolivian folklorist and autochthonous music as a national project of cultural re-vindication starting from the 1960s and 1970s (cf. Bigenho 2009). As all these factors result in an increased pressure on plant societies in preferred areas of primary production intermediaries of specialized *luriris* started to cut plants earlier without respecting the life cycle of the plants causing its partial extinction from previous habits.

Figure 2: Scarcity of primary material on supra-regional markets
(own elaboration)



Effects of market mechanisms in the Kallawayaya region

Since the musicians and constructors in the Kallawayaya region rely on import, they are also affected by mechanisms of demand and supply of supra-regional markets, thus lacking resilience in times of partial extinction in preferred areas of primary production that cause a decrease of supply on supra-regional markets. The non-use of potential materials in the Apolo valley adds to the lack of resilience and is caused by a specialization of economic activities and the preferences of specialized constructors on supra-regional markets. The reliance on import and the specialization of economic activity in the region have to be understood against the background of a diversification of the economy beyond subsistence agriculture and its gradual mercantilization. Chapi (2011) says that since 1999 six percent of the agricultural

terraces in the region have been abandoned and that the dependence on agriculture has decreased from 83,02% in 1999 to 44,71% in 2011. Sustaining one's living based on agriculture became incrementally difficult in the Kallawayá region in the last decades because of several interrelated processes: the lack of arable land due to heritage succession, the lack of labour because of migration, a gradual mercantilization of the region and changes in climate presenting threats to local farmers (cf. Vidaurre et al. 2013).

Effects of the scarcity in the Kallawayá region

The scarcity of primary materials in the Kallawayá region forces the constructors to consider certain changes. The *qantu phukuna hochoq* in Niñocorin needs to work other materials and techniques such as sticking tubes because of the scarcity of primary materials for construction and reparation. For lower registers it is nowadays common to use two separated sticks put together in order to reach the length of the longer tubes (picture 3). During some performances I realized that tubes were repaired with scotch tape, some even broken, although they used to be replaced by new ones given the fragility of the cane that normally last not more than one festivity epoch (Valencia 1989: 41).

Picture 4: Tubes of register *sanga* stuck together



According to the musicians I talked to during our *akulliku* in 2015 this has certain effects on the sound of the *qantu* panpipes, which would lose their fluent air stream. The wind instruments in the Kallawayá region are divided into dry season and rainy season instruments (chapter 5; calendar 1.3). Similar to the cases described in Northern Potosí (Solomon 1997: 96f, Stobert 2006b: 52f), the people in the Kallawayá region refer to different sounds and instruments as calling or sending away the rain. The appearance of the rain season duct flutes, especially the *pinkillu*, coincides with different rituals that should strap/tie up (*amarrar*) or capture (*capturar*) strong winds so that the clouds will not be dispersed (Rivière 1997: 35).

The clouds are perceived as bearer of rains, a guaranty for mild temperatures and a protection against frost that would destroy the crops in times of early production (Ibid.)

At one occasion my host in Niñocorin associated the anatomy of the wind instruments and their respective sounds with different influences on wind patterns (chapter 1): The embouchure of the rainy season duct flutes (for instance *pinkillu*) is also called *tapa* (tap). The sound is much higher and pressed, kind of tapped, which serves in analogy as a tap that banns the Ankari in the rainy season, so that he does not disperse the clouds with his breeze, or to talk with Rösing (1996: 215-9 [my translation]) it “closes the door of the wind”. The dry season notched-end flutes, traverse flutes or *qantu* panpipes do not have such a *tapa*. The sound is more direct, streaming and fluent, so that it attracts the Ankari in order to blow away the clouds so that frost can arrive at appropriate times for preparing *ch'uño* (compare track 1 & 2).

Given this role in influencing climate patterns through musical sound, the disruption in the fluent air stream produced by dry season instruments, in this case *qantu* panpipes, might have different effects on local climate patterns as indicated by my host. It suggest that the appearance of mild frosts in the Kallawaya region are caused by the lack of a fluent air stream of dry season instruments, in this case *qantu* panpipes that do not attract the Ankari, the deity of the wind, as normally.

Reinterpreting reciprocity

In the context of the Kallawaya culture it is certainly difficult to talk about reciprocity linked to local production and residency given the fact that traditional itinerant healers always went on long journeys to heal people on the continent and brought different goods from different areas to the Kallawaya region (chapter 2 and 6). Thus, it is rather questionable whether self-sufficiency of primary materials once existed and this is not the most important question either. Moreover, the imported materials or instruments are incorporated into some maintained ritual practices around the construction and execution of those instruments, for instance *ch'allas* (libations), overnight *sirenadas* (ritual for tuning instruments) or *qallay* (chapter 5). Some changes in some areas of life are perceived as a threat to the tradition, whereas others are incorporated into the social and spiritual life of the Kallawaya, thus are more easily “accepted”.

Chapter 5

THE CALENDARS OF THE REGION

Annual cycles, musical generalizations and climate collision

If there is no music, there is no production.

Alberto Aguilar, Bolivian anthropologist and musician

The following chapter deals with the manifestation of the relation between musical and climate change in the sequence of the year. As expressed by my host in Niñocorin life is cyclically related to different calendars. In the region of interest my host in Niñocorin showed me three calendars that he designed with different layers that simultaneously organize the sequence of the year with certain implications for the manifestation of the relation between musical and climate change (see calendars in the annex 4).¹⁰ The aim here is not to present more calendars from another context in Bolivia (something that has been done sufficiently in other studies).¹¹ Instead I will show how changing climate affects such an integrative sequence of the year and how changes in cyclical practices in turn are thought to cause climate change and variability.

I focus on two main seasons of the year: The first season is the critical time of droughts at the end of the dry season in October/November, also the times of final ploughing and sowing, when rainy season duct flutes are used to anticipate the change of the seasons in reference to All Saints (calendar 1.2, calendar 3). The second season is the time of harvest and the overlapping processing and preservation of agricultural fruits in May/June, when dry season instruments are used to blow away the clouds in reference to the catholic feasts of the Holy Cross and Corpus Christi (calendar 1.2, calendar 3). The calendars I refer to here present a schematic understanding of musical practices that contradict to a certain degree the enacted

¹⁰ Thanks go to my flat mate in La Paz, Juan, who helped with the design of the calendars.

¹¹ See Turino (1993); Solomon (1997); Stobert (2006).

reality. This contradiction within the sequence of the year, which includes the generalization of music and instruments, is part of a generational shift and will be addressed throughout the chapter.

Climate Trends in the Kallawayaya region

A “normal” climate in the Kallawayaya region is a climate adequate for agricultural practices, since agriculture is still one of the mayor life sustaining activities for many people in the region (Vergara Aguilar 2013: 55). The climate is governed by cyclic patterns of temperature and precipitation with distinctive dry and rainy seasons being related to the phenomena of El Niño and La Niña (calendar 1). In an interview with M. M., who works in the Bolivian vice-ministry of environment, biodiversity, climate change and forestal management, I was told that these phenomena usually appear every two years in an interchanging sequence causing intensified rain falls or droughts respectively, but because of climate change these phenomena tend to appear annually, thus increasing the frequency and intensity of weather events in Bolivia.

In the region of interest averaged precipitation rates increased during the last decades and the monthly maximum temperature rose from 1980 by 0.27 °C (Vidaurre et al. 2013: 112). My host in Niñocorin testified that extreme weather events occur during the dry and rainy season, namely intensified droughts and precipitation events respectively. Furthermore he said that the change from dry to rainy season is every time more delayed, so that until the end of November or beginning of December the first rains still have not fallen with certain effects on the agricultural cycle. This delayed change from dry to rainy season was also experienced in other parts of the region (Vidaurre et al. 2013: 112f) and the Bolivian *tierras altas* (high lands) higher than 3000 meters above sea level (Nordgren 2011: 15ff). The same would occur with regard to the period of frost so that *qasa qallariy* (the beginning of the frost) is delayed; or frost appears in inappropriate times of the agricultural cycle.

The agrarian cycle under climate change effects

The agricultural calendar of the year shows certain climate related practices (calendar 1.2, calendar 2). For Niñocorin, being a community in the valley ecoregion, it means the following: From the end of September until January is the time of sowing, firstly tubers, maize (*sara tarpu*), then legumes and cereals. The beginning of the sowing season in

September is the end of the dry season which means a critical time of prolonged droughts. During this time there is a necessity for precipitation and/or artificial irrigation before and during the final ploughing (*revole tijray*) and sowing. At the midst of November the first preparation works start with weeding, hilling, fertilizing and irrigating (if it has not rained by then) the maize (*sara llankay, sara kutisay*), then weeding and hilling cereals and legumes (*qjuray llank'a*) which last until March and the time of floescence and fertilization of maize (*sara parwayuy, sara p'uñiy*). This is the growing season of the crops which require constant and sufficient precipitation rates. Intensified rains during this period destroy crops and cause landslides and are sometimes experienced after February/March when the rains normally calm down leading to the time of harvest from April to midst of June, when furthermore the maize is cut and leaves are removed from the cob (*choclo*) (*sara kallchay, sara tipiy*) for the processing and preservation work of drying. This period of processing and preservation also requires intensive frosts for preparing *ch'uño* which is the basic source of alimentation in Andean communities such as Cañizaya and a traditional cultural peculiarity in the Andes.

The change from dry to rainy season

The appearance and disappearance of musical instruments and genres is related to climate conditions such as the interrelation between wind and rain patterns in the region (calendar 1.3). The appearance of rainy season duct flutes such as *ch'ili* or *pinkillu* in November is related to the call of the rains and respective sounds produced by different anatomic peculiarities of autochthonous wind instruments (chapter 4). Thus, in this manner the appearance of rainy season duct flutes on November 1st seem to anticipate the first rains and the change from dry to rainy season.¹² The loss of tradition of ritual practices, for example with regard to climate related collective rituals, is related by elderly people to the variability in climate, since adequate climate for crop growth is believed to be dependent on the reciprocal tension with the *machulas*.¹³ The abandoning of ritual practices as something “backward” after the Agrarian reform coincided with one of heaviest droughts in 20th century,

¹² In addition to the climate related reasons for calling the rain, the change of the instruments is also related to the receiving and dispatching of the dead around All Saints, where the *ch'ili* appears for the only time in the year. In the Andean cosmology of the Kallawayas the dead are believed to come down to earth again around All Saints to share another 24 hours with their relatives. Because the dead or the ancestors are associated with rain and appropriate climate conditions it is a complex web of interrelations that is articulated by music.

¹³ See Rösing (1996: 52f) for several testimonies of the loss of collective ritual practices and cultural change in other communities such as Inka Roca, Upinhuaya, Saganación, Huata Huata among other. Rösing (Ibid.) calls it cultural decomposition.

so that people related to the abandoning as having caused climate disaster and famine (Spedding & Llanos 1999: 105f).

Rösing (1996: 61ff) makes a distinction between the curation ritual in the circle of the family and the collective ritual for the well-being of the whole community. Collective rituals are directed towards the well-being of the community such good climate conditions which are related to the production of crops (Ibid.). These collective rituals are divided between cyclic and temporal rituals (Ibid.). Cyclic rituals take place every year and relate to the agricultural cycle. Temporal rituals take place for instance for the roofing of a house or when a calamity occurs which preoccupies the community such as the lack of rain for crop growth.

These temporal rituals need to be convoked by the community council or the community ritualist, the *watapurichiq*. Since the *watapurichiq* is sometimes referred to as *machula* he is considered their representative or their “man of enlacement” (Ibid.: 64). The Quechua word *watapurichiq* literally means ‘the one who makes the year walk’ (Ibid.: 537). This translation suggests that the *watapurichiq* is the ritualist of the annual cycle of collective rituals which are related to asking for good climate conditions for the production of crops. Therefore, he is also called “the authority of the time/weather” (Vergara Aguilar 2013: 38f [my translation]). The relation to cyclic time and climate is also laid out in the Quechua word *pacha*, which means cosmos and time/space, but also weather which can also be understood as climate in relation to the main climate seasons *ch’aki pacha* and *paray pacha* (calendar 1).

Against this background the loss of tradition of collective ritual practices can be seen as if there is no one making the year walk or proceeding with the cyclic stations of life, thus a situation of being in a limbo and of not being able to predict what is going to happen in life next. At one occasion my host associated this feeling with climate change: Weather cannot be predicted anymore, he said. The people, who are mainly farmers, are more or less vulnerable to drastically changing weather events. He said that it would be good if the climate once and for all changed so that the nature would be readable again in order to adequately make sense of the new environment and life in *pacha*.

What my host expresses here can be interpreted as a return to normal climate conditions. It symbolizes a re-balancing of the world through a tumultuous turn of weather events which can be referred to with the Andean concept of *pachakuti* (world turning). In this context *pachakuti* means the restoration of the world’s balance by means of a climatic reversal or

turning. I argue that musical sound is an essential part of such a *pachakuti*, not only because it is associated with healing the climate which is sometimes associated as being “sick” (cf. Vergara Aguilar 2013), but also because of its existential condition in relation to *pacha*, that is to say being the articulator and integrator of dynamics and changes (chapter 2). Musical sound is not an accompaniment, but a cosmological centrality for the “transformation of time/weather” (Oblitas Poblete 1963: 340).¹⁴

The rain ritual qallay in Niñocorin

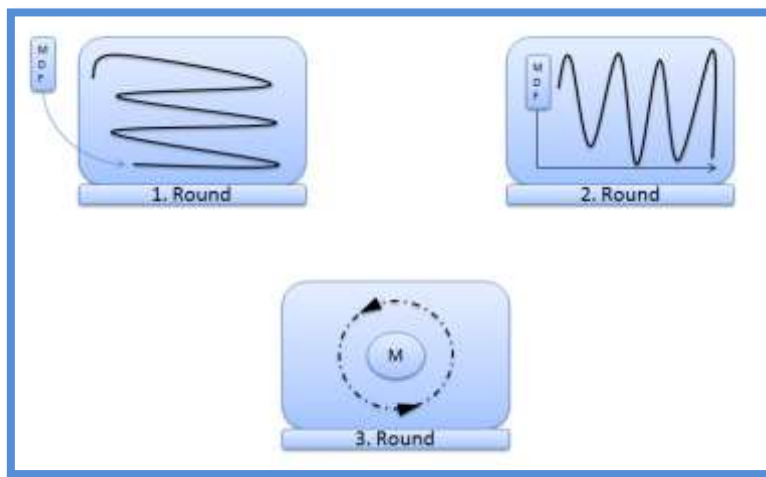
One of these climate related rituals is the collective rain ritual *qallay* in Niñocorin, which appears after All Saints. Rösing (1996: 351) states that ritualists believe that prolonged droughts are caused by the loss of tradition. She quotes local people saying that the generation shift and the including cultural change is believed to cause changes in climate patterns which are perceived as “pain and penalty” (Ibid.). She argues that migration would generate such cultural change between the generations and would reinforce a potential loss of tradition (chapter 6).

In 2014 the collective rain ritual *qallay* occurred on the night of November 14th. I arrived in Niñocorin on November 16th because of the region’s anniversary and the annual community feast in Chajaya. While working on my host’s construction site we had to go to the main square in order to get more asphalt. We stood on the street looking towards the main square. Since I could not participate personally, he explained to me what had been going on Friday night on the main square. He said that a group of six people (sometimes more) had played *athun pinkillu* (great *pinkillu* of 45 cm longitude with seven holes) and that many people danced on the main square shortly before midnight (track 2). The ritual, the music and the dance is in its complex a certain act of performativity in Austin’s sense (1962): While the right instruments with a specific harmony (chapter 6) play certain melodies that connect with the environment and the ancestors at the right time and in the proper place the ritual gains its sense and meaning towards its ultimate purpose, the call for rain. Given the fact that most of these instruments are imported from La Paz, the locality of the materials does not seem to be a necessary condition (chapter 4).

¹⁴ Oblitas Poblete uses the Spanish word *tiempo*, which literally means *time* and *weather*. In Oblitas Poblete’s sense it means time/space, weather, climate, world, thus *pacha*.

In this case the performative aspect is not only related to the musical sound as such, but also to the combination of music and dance during *qallay*. My host in Niñocorin explained to me that the pair dance of *wayños* (music genre) is a rather recent change, since formerly the people danced in a row. Furthermore, he says that most of the collective dances are abandoned because of the architecture of the main squares in the province which nowadays have parks in the middle like Charazani. He picked up a stone from the soil and drew three figures on the bottom of the wheelbarrow that should explain to me the difference in dance tradition in Niñocorin (figure 3).

Figure 3: Dance performance during the rain ritual *qallay*
(own elaboration)



The dancers (D), musicians (M) and the flag bearers (F) form a pageant and dance in a row like a meander of a river striping up and down the whole main square two times until the musicians finally form a circle in the middle of the square and the dancers and flag bearers dance around the musicians.

Everything boils down to the functionality of the main square: While in an urban understanding the main square has recreational functions, thus requiring parks and benches, the main square in a rural community such as Niñocorin has a function proper to such performances of music and dance. Still, I cannot say here whether the changes in architecture and dance performance in other communities are incorporated or not into the ritual tradition as the imported instruments. This has to be clarified by subsequent fieldwork in the region.

The clash of feasts in November and the generalization of music

At the time of my second visit in the region the provincial anniversary and the *preste* in Chajaya took place (calendar 3). The *preste* is an annual feast of a community that is mostly related to a virgin. In the case of Chajaya it is related to the *Virgin de los Remedios* which is a title for Mary (mother of Jesus). It is organized by a couple of the community which is also called *preste*. Hence, it can refer to both the annual feast of the community, as well as the organizers. Chajaya is a community that was referred to by my host as abandoned, because it is a community of *vecinos* who nowadays live in La Paz and would only come back for purposes such as *prestes* or other regional feasts. He explained to me that the word *vecino* is used in the region in order to refer to the social stratification of the *mestizos* with European antecedents in contrast to *comunario* or *originario* which refers to indigenous identities. My host, self-considered *originario*, was worried about the circumstance that the *preste* (organizers) in Chajaya contracted Niñocorin's *qantu* ensemble for three days during their annual feast. My host was disappointed about the announcement of the *qantu* ensemble to play at the *preste* (feast) in Chajaya, rather than on the prestigious provincial anniversary where all the other musical bands of the region would play. Furthermore, he explained to me that a certain colonial relation maintains until now through such hierarchical monetary relations between the *vecinos* in Chajaya that would contract original *qantu* ensembles of the province for purposes of their own amusement.

In the morning of the provincial anniversary I watched the pageant in Charazani where several musical and dance ensembles of the region performed. After midday I hiked to Chajaya in order to see Niñocorin's *qantu* ensemble playing. During the *preste* I got the impression that musicians, who had worn traditional *ponchos* and *ch'ullo* (hat), did not want the groups to be mixed, thus always respecting a distance between themselves and the participants of the *preste* (feast), mainly *vecinos* and habitants of La Paz who had worn urban *polleras* and fancy shirts. I wondered how they could endure such a speed of drinking for three days, when I hardly did for three hours. In the evening I left Chajaya with Niñocorin's *qantu* ensemble, walking towards Charazani where the provincial anniversary was still going on.

The next day I woke up around midday. My head hurt and my feet burned because of the long walk from Chajaya over Charazani to Niñocorin during night with a respectful amount of alcohol in my blood. My host entered the room, brought me food and water and asked me

what happened last night. I told him about my experience. He said that it is always like this that if there is a contract to be fulfilled, they would do it. I remarked that they also played *qantu* out of the season, while he responded that ‘they play *qantu* all the time, like Charazani, they always play their *pito* (another word for *pifano*), or in Cañizaya *chatre*’.

As indicated by my host the *qantu* panpipes are normally played in its precision in April/May during the time of harvest with the referred impact on the wind patterns and the attraction of the Ankari. When played in the rainy season they are said to prevent it from raining which drastically diminishes the year’s agricultural yield (Langevin 1991: 43). This suggests that there is a relation between the prolonged droughts at the end of the dry season and the generalization of the music over the last decades. Music is played more for social and civil acts and events, rather than in its calendrical understanding in relation to agricultural practices. As my host indicates, it is a question of identity and belonging to a community that specializes and professionalizes around the execution of one specific ensemble of instruments (chapter 6).

The change from rainy to dry season

During Carnival *tarqas* appear which are said to invoke the calming of the rains with their rich vibrant sound (cf. Buechler 1980: 385; Stobert 2006: 213) (calendar 3). After *Domingo de Tentación* (last day of the Carnival celebration) the instruments used to be mute because of the time of Lent which endures until Easter Sunday. Although the land turns yellowed, dried up and bare, it is a time of abundance because of harvest (Stobert 2006b: 47). Heavy rainfalls after Carnival and before the harvest time are destructive for the crops and can have severe impacts on the yield of the agricultural production. One farmer I talked to in Inca Roca during carnival fumigated his crops because of a fungus that grew due to intensive rain falls over several days.

The change to dry season is related to the feast of the Holy Cross in May. Corpus Christi is a reference point for the end of the harvest seasons because of the overlapping processing and preservation work (calendar 3.2). It becomes obvious that the main activities with regard to agricultural and musical practices are organized around catholic feasts, which are All Saints, Carnival, Eastern, Holy Cross and Corpus Christi. Such calendars in general can be considered “temporal frameworks to live by, through which collective action, economic activities, socio-political relations and belief systems are coordinated, ordered, controlled and

maintained” (Stobert 2006b: 57). It is common to identify the appearance of rains with All Saints and the calming of the rains after Carnival, although climate variability sometimes does not allow identifying such exact turning points.

As argued above music and instruments anticipate or are believed to create such changes and temporal turnings, which rather relates to a processional understanding of seasonal change due to “music’s critical involvement” (Stobert 2006b: 51). Thus, calendars such as the Gregorian calendar time agricultural tasks and to a certain degree “‘impose system’ on the ‘inherently untidy experience’ of seasonal climate conditions” (Stobert 2006b: 50 based on Douglas 1994 [1966]: 4). The conception of time always derives from the relation to the environment in which one lives. It boils down to the question whether the Gregorian calendar with its orientation to seasonal cycles and ecological realities of Northern Europe fits with those of a Southern hemisphere country such as Bolivia. Moreover, climate change would obviously cause adaptation in the agricultural cycle as well, since the sequence of the year in the Kallawayá region is mainly related to agricultural practices that are dependent on different climate conditions.

Climate collision or silent adaptation

Before I started my fieldwork in the Kallawayá region I realized an interview with J. G. P., who originally comes from Curva and nowadays lives and officially works in the SEDES in Cochabamba as a traditional healer. He says that climate change has tremendous effects on the agricultural cycle so that it would be necessary to re-code the sequence of the (agricultural) year based on the re-coding of nature and climate. He further argues that it would be necessary to recuperate the own calendar of the reading of nature and to retake what the environment expresses. If not, there will be a collision (*choque*), because the expected climate conditions effectively governing agricultural practices will not necessarily coincide with the months or feasts of the Gregorian calendar which serve at the same time as reference points for agricultural practices. But agrarian practices, he argues, have to be flexible in order to vary because of climate variability and should not depend on catholic feasts that are more or less irrespective of climate change. From this perspective, the Gregorian calendar impedes to a certain degree the ‘recalibration’ of the ritual and agricultural practices due to climate variability.

In an interview the Sociologist D. L., who originally comes from Chari and has extensively written about the effect of migration on the rural production in the region, mentioned that this re-coding of the sequence is difficult because nowadays it is more and more difficult to read nature properly, because of the unpredictability of weather events as an effect of climate change. Nobody could guarantee that the re-coded sequence will correspond with the ecological reality year after year. Moreover, he believes that climate change has positive effects on the availability of land, because nowadays certain communities are able to grow crops such as tubers at ever higher altitudes.

Given the fact that J. G. P. does not live anymore in the region, I assume that he might not have a personal insight into the dynamics around climate change in the region. After having realized *qallay* in Niñocorin the rains still did not appear a few days later. On my question what they usually do if the weather does not correspond with their ritual practices, my host in Niñocorin answered that they would gather with the community council in order to convoke a repetition of the ritual, as many times as needed until it ultimately rains (cf. Rösing 1996). As the first drops fell down in late November he called me and said that the people are happy because it finally rained so that they could start sowing. This suggests an adaptation to climate variability that probably always has existed in the region. Climate variability is not a new phenomenon, but according to local people the gravity and intensity of recent climate changes are unprecedented forcing them to additional adaptation strategies such as the insertion of modern technology (new irrigation systems, pesticide or genetically modified seeds), diversification of the economy and ultimately migration as a process of displacement from rural areas with high vulnerability to climate change (cf. Vergara Aguilar 2013).

Chapter 6

THE POETICS AND AESTHETICS OF QANTU MUSIC

Professionalism, property rights and transversal love

Our music does not come out right with this one.

Friend of my host's family in Camata

The following chapter deals with the manifestation of the relation between musical and climate change in the poetics and aesthetics of *qantu* music. The word *poetic* steams from the Greek language and literally means *creative* or *productive*. This includes the creation and production of songs in relation to the social and natural environment. The musical changes with regard to the musical poetics cannot be separated from an aesthetic point of view and sensual perceptions. The word *aesthetic* also steams from the Greek language and means *sentient*. It refers to the idea of experience of a whole organism gifted with a nervous system which implies an encounter between the senses and the sensations, a process which happens due to auditory perception in this case (cf. Rozo Lopez 2014; Mignolo 2011). A brief discussion of the concept of migration leads to the discussion of professionalism, property right and certain musical dynamics during the process of folklorization. The identification of changes in melodic and rhythmic patterns during the transformation of autochthonous into folklorist *qantu* music ultimately ends in a discussion about the social relevance of *qantu* music.

Settling the ground

One day my host in Niñocorin played some themes on the *qantu* panpipes I purchased. He explained to me that one peculiar theme was once written by his father who listened to the voice of a *chiwanku* (English: glossy-black thrush, Scientific: *Turdus serranus*) and who translated the bird song into a *qantu* verse. This exemplifies the mimic relationship between human-constructed sound and the sound of the natural environment (chapter 2). The *chiwanku*, as I was told, is a local indicator for climate patterns announcing the appropriate

time of sowing (cf. Vergara Aguilar 2013). Another local indicator with regard to seasonal change is the *duraznero* (*prunus persica*) whose florescence indicates the change to rainy season (Vidaurre et al. 2013: 115).

Most of these local indicators are not in use anymore, given the link to catholic feasts as reference points for the agricultural tasks and other strategies for adaptation to intensified climate variability (chapter 5) (cf. Vidaurre et al. 2013).¹⁵ While the diversification of the regional economy has certain impacts on the reproduction of the musical practices with regard to the required primary materials for the construction of instruments in the region (chapter 3), migration patterns need to be further analysed, especially the way they relate to musical and climate change. As I explained above the thesis does not primarily investigate migration patterns in the region, but considers the concept of migration a complementary factor in order to understand musical dynamics (chapter 2). As I argue, climate change is a substantial factor in order to understand migration in relation to strategies of adaptation in a rural area of high vulnerability to climate change (cf. Vidaurre et al. 2013).

Since migration is a modern concept, it is actually at odds with a Bolivian reality in which “migrants without migration” (Llanos 2006: 48) always existed. It is certainly difficult to adequately relate such a concept of migration to the history of the Kallawayá culture, since traditional itinerant healers have been migrants without having a specific place of destiny (cf. Spedding & Llanos 1999). Thus, cultural contact was always part of the Kallawayá culture and not a new phenomenon. Income generated on voyages was always inverted in the Kallawayá region, the place of origin, which turned into a complex of consumption of local and foreign goods alike. People always moved, which is actually a precondition of what is nowadays called the vertical control of ecological zones. Nowadays, especially the elderly think that certain cultural elements, products and thoughts do not fit into the reality of Kallawayá people and into a harmonious way of living with nature, thus assuming that this cultural change has certain impacts on the reciprocal relationship and the climate conditions in the region.

Another contextual era requires another perspective on the concept as an integral part of *physical* and *functional* urbanization. *Physical* urbanization is here understood as the

¹⁵ Climate change might also have impacts on such local indicators in a biological sense: the *chivanku* sings later or in other habits, or the florescence of the *duraznero* is delayed. This could be analyzed in relation to the production and performance of musical sound. For me it was not very important for the argument given the fact that those indicators are mainly not in use anymore.

displacement of rural population to urban areas, whereas *functional* urbanization is here understood as the change in behaviour of rural population in rural areas towards urban ideals. Against this background the concept of migration has to be theorized around the impacts on the urban area (labour market, housing situation, discrimination etc.) as well as on the rural area (system of production, loss of labour and transculturation).

Migration I: Effects of climate change on migration

Based on a study of Rafael Archondo (1991: 43ff) four pivotal points of physical urbanization in Bolivia's 20th century history can be distinguished: Firstly, the Chaco War and during the recession in the mine industry in the mid-1930s given the global economic crisis; secondly, the urban transformation in the 1940s and the requirement of labour for construction, mainly in La Paz; thirdly, the consolidation of the Agrarian reform in the 1950s, the forced assimilation into a specific Bolivian nationhood and the racist assault in rural areas; fourthly, in the 1970s caused by the economic pauperization due to the individual division of large land holdings (*minifundización*) during the Agrarian reform (cf. Choque Canqui 1992: 77), the boom of urban construction, the development of certain industries and the neoliberal reforms in the 1980s.

Here, one can add a fifth flow that emerged after the climatic catastrophes in the 1980s of prolonged droughts and intensive rainfall which forced migration towards urban areas (Albó et al. 1987: 3f). Apart from climate catastrophes, climate change has been a contributing factor to the migration flows to urban areas that started in the 1980s because the lack of land increased due to heritage succession (*surcufundización*) (cf. Vidaurre et al. 2013).¹⁶ The result is even lower productivity and further economic pauperization leading to a decrease in number of people dedicated to agriculture in recent decades, a gradual diversification of regional economies and a reliance on supra-regional markets.

¹⁶ Since the land was individualized after the Agrarian reform, every family got their private plot of cultivation or *minifundio*, which in turn was divided among the sons and daughters after the death of the parents. It is a process of heritage succession because the sons and daughters in turn have to divide their part of the parent's *minifundio* among their own sons and daughters resulting in a process called *surcufundización*. *Surku* is the row in which crops are cultivated. Thus, the *minifundios* are divided among the offspring until every son or daughter has not more than one *surku* for the cultivation of crops which is not sufficient land for sustaining all the family members.

Besides economic reasons migration was and still is related to better education possibilities in urban areas and consecutive higher education which is required in a new economic reality beyond agriculture (cf. Spedding & Llanos 1999: 218ff).

Migration II: Effects of migration on climate change

Spedding & Llanos (1999) argue that the migration flows are not unidirectional from rural to urban areas. In the 21st century many temporal migrants have claimed to be double residents living in two areas at the same time (Llanos 2006: 71). In this case agricultural production is not mainly used for own consumption, but primarily for selling on supra-regional markets. In other cases younger relatives, who live in urban areas for educational purposes, frequently visit the region and their parents who have sent their children to the city to “improve life” (Ibid.). Traditional healers who nowadays live in urban areas temporarily return to their places of origin because of local resources such as medical herbs that grow in the region. NGOs or other supra-regional actors who promise development enter the region. All these factors, to mention only some, cause certain interactions with urban areas, here mainly La Paz, thus causing functional urbanization.

The cultural change does not only relate to a rural-urban relationship though. The relation also makes references to others beyond (cf. Mújica 2014a: 27): a person lives temporarily in *rural* and *urban* areas alike; in the latter being surrounded by elements in some way or another *Western* which are *globalized* all over the world and which manifest themselves in *local* spaces through cultural diffusion. Thus, migration has to be understood as a *functional* urbanization, modernization and globalization alike, that is the adaptation of behaviour and creation of new identities in rural areas. Cámara (2003: 233) states that music in this sense is a means to unite people which help to articulate changing identities and give significance to their life. In a country with consistent migrations from rural to urban areas musical practices play an important role in struggles for maintaining and modifying one’s life and identity (Ibid.).

This change in habits and behaviour is not homogenously understood by all the people living in the Kallawayá region. In this thesis it is argued that mostly elderly relate such cultural change in the region to changing climate patterns because of a rupture of reciprocity with the *machulas* and the new way of living being inherently at odds with a harmony with nature (chapter 2; 4 and 5) (cf. Vergara Aguilar 2013). Thus, migration in the region and the related

functional change in behaviour are perceived to have effects on the local climate. The question is now how this cultural change manifests itself in the realm of *qantu* music.

Professionalization of music

I would like to take Gutiérrez (1991) idea of endogenous and exogenous dynamics as a starting point in order to discuss the concept against the background of my own empirical findings. He states that the brass band can be considered a perfect example of the *endogenous* dynamic of music in Bolivian rural societies. This *endogenous* dynamic is caused by the contact with the Western music culture and can be seen as an attempt to maintain rhythm and melody with well-tempered instruments such as the trumpet (cf. Mújica 2014a). Rather than being considered an expression of an acultural entity, brass bands are primarily considered more prestigious than autochthonous music ensembles because they are considered the more expensive and louder option (Stobert 2006b: 181), thus economic status is one reason for such a claim. On the other hand people affirm brass band musicians certain professionalism with regard to the execution of instruments and songs. Brass bands consist of “professional” musicians, while autochthonous ensembles consist of farmers. It is a perpetuation of certain discrimination towards autochthonous music that seems to lack economic status and professionalism.

Based on my fieldwork I claim that the *endogenous* dynamic goes far beyond the insertion of well-tempered instruments and the brass band. In the context of the Kallawaya culture I argue that the *endogenous* dynamic is moreover finely nuanced around the perception of precision and participation within autochthonous music groups in the region, as well as different perceptions of professionalism assigned to materials.

Questions of property rights I: Precision over participation

As argued in chapter 4, the concept of the *ayllu* refers to the ongoing and reciprocal exchange between people among each other and with the *machulas*, thus the place. The word *runayay* means to become a man or “to become an integral human being in relation with other living beings” (Cerruto et al. 2006: 12). It is the concept of the respectful human being living in social and ecological harmony in such an *ayllu* and in constant flux and interchange with the living landscape which it is a part of. During musical participation in the community unsocialized young people become recognized members and fully humans of the ancestral

and human community (Stobert 2006b: 103 based on Canessa 1998: 240). Integration through participation in this sense was understood as one of the primary purposes of musical practices, not so much depending on the precision and execution of instruments and the experience of the practitioner.

This changed through economic diversification and specialization in the region and the import of even autochthonous wind instruments ‘with better quality and exact tuning’ (chapter 4). Since constructors specialized in the mid-20th century, they also adapted construction techniques in relation to Western technology. This causes two dynamics: On the one hand constructors gradually lose their almost perfect musical ear, but on the other hand they gradually professionalize and are nowadays able to construct autochthonous wind instrument with almost exact well-tempered scales by giving the instrument an exact cut in accordance to chromatic tuners. Because of the diversification of the economy in the region and the specialization certain perceptions of “professions” developed around the execution of different economic activities. Thus, far from being an integral human being in relation to other living beings you are mainly farmer, traditional healer, politician or musician.

Since the performance of *qantu* music certainly has a commercial aspect also or especially within autochthonous music groups such as the one from Niñocorin (chapter 4), members nowadays claim to be musicians as if playing music was their profession. In our *akulliku* in Niñocorin the participants said that they would wait for national recognition of being professional musicians in the same manner as the state recognized traditional healers as professionals. In this way, it was argued, the community would be able to safeguard their intellectual property in a situation of international interest, fame and commercialization which only third parties would benefit from, especially against the background of the international declaration of the “Andean Cosmovision of the Kallawaya” as intangible cultural heritage by the UNESCO in 2003.¹⁷

This development is based on the gradual commercialization of musical elements as part of the decontextualization of the Kallawaya culture as consequences of modernity. According to Giddens (1991) modernity is characterized by a disembedding of social life from local contexts and a time/space distancing. Based on Giddens Mújica (2014c) analyses the concept of cultural heritage by the UNESCO as an invention of modernity which

¹⁷ Inscribed in 2008 on the Representative List of the Intangible Cultural Heritage of Humanity.

decontextualizes social relations out of their local contexts. In the context of my thesis it means that modernity and globalization, which “entails the universalization and radicalization of modernity” (Escobar 2007: 181), decontextualize musical practices from their local contexts and meanings through such a process of cultural politics (Mújica 2014c). This process creates a separation of time and space in order to fit cultural expressions, such as *qantu* music, into the logic of modernity and capital. This also explains the generalization of music throughout the musical sequence of the year as part of the *endogenous* dynamic so that instruments and genres are played with no regard to the seasons of the year and in other contexts (chapter 5).

Kallaway identity, i.e. to be part of the Kallaway culture, is currently used by certain actors as a legitimizing tool to represent and commercialize cultural elements. This needs to be understood against the background of such an international declaration by the UNESCO which is said by local people to only have benefitted others than themselves living in the Kallaway region. Hence, the priority of participation over precision was turned around during the last decades so that precision is prioritized over participation in order to make claims to be a professional musician. Moreover, youngsters that play *qantu* music with different instruments and genres, for instance the sons of my host in Niñocorin, are not considered legitimate practitioners of *qantu* music, thus are rather excluded from the community. This dynamic was supported by a static image of “the Kallaway culture” by the UNESCO which opened the way to materialist uses and strategic essentialism. “In this sense, the so defined “culture” [in this case *qantu* music] always reverts to its place of origin and limits the possibility in thinking of the future” (Llanos & Spedding 2009: 427 [my translation]).

Questions of property rights II: The production of songs

Before I started my fieldwork activity I had a profound assumption about the composition of songs in relation to the environment. I thought that the act of composition is a genuine individual process of translating ready-made patterns on a blank page by a composer, thus a human being who turns out to be the bearer of creativity and the owner of the intellectual work, namely the musical piece. In my vision the guitar neck transforms into a sphere of projection of the brain bathed in sentiment about personal reflections of life in a certain social and natural environment so that the initiative and agency always comes from something inside the human body. With this vision in mind I entered the Kallaway region in order to

detect musical changes in the composing tradition because of climate change that I thought to be reflected in the composition of songs. Soon I realized that with this mind-set I was not going to detect anything related to how Kallawaya people themselves think about such a process.

Once again I would like to refer to the interview I had with J. G. P. He said that *qantu* music is born with a verse which is a symphonic expression of a lived or desired life. He adds that ‘there is always a transversal of themes like the wind, the air, the panorama, always you mention scenes like [...] sacred places which you should conserve, you speak of the peaks which are obviously the deities of the Kallawaya, always you make a synergy between the individual and collective life of person linked to the ecological environment, because we, the Kallawayas, say that our teachers are our fathers and mothers, but our university where we learn is the environment, where we obviously apprehend what they [the ancestors] transmit or deposit for us.’

What J. G. P. emphasises is the collective act of production that starts with a verse that connects (*conectar, vincular*) with a past and desired life of a person in its environment. As J. G. P. automatically mentions the production of knowledge in relation to the production of music, it will help us to understand the idea of musical production. The university where people go to learn, says J. G. P., is the environment, the place through which ancestors transmit and where they deposit knowledge for new generations. Thus, knowledge is not so much generated in the head through reason but through practical involvement which includes senses as well as sensations. Knowledge and emotions alike enter the human body through winds, initiated and transported by musical sound, as I argue in this thesis. They comprise a complex of “non-linguistic and personal experiential knowledge” (Burman 2012). Thus, composing a song is not a theoretical process of writing about places, rather than a practical process of experiencing with and through places, where you go, “connect” with and “collect” the melody that was deposited for you.¹⁸ Burman (2012) says that “being connected” in Aymara language has to be understood as “being one with”. Consequentially, you do not primarily need lyrics to refer to what you ‘connect’ with, since you ‘connect’ symphonically with your whole as a sentient being (in the sense of *aesthetic*). If audition is the representation of the present and the point where the past and future meet (chapter 1), the production of

¹⁸ Stobert (2006: 244) explains how Kalankira people describe how men did journeys to special places in order to “collect” melodies in contemplation of the natural environment.

musical sound is the moment where the past and the future condense into a recognizable form of expression.

One example should here exemplify that the act of *personal creativity* is somehow marginal to the creation and production of new songs. Such a *collective creativity* is important with regard to the imagery of the *sirena* (siren, mermaid), which is related to different aspects: Turino (1983) describes how the *sirena* in Southern Peru near Lake Titicaca is closely related to mermaid imageries, string instruments such as the charango and courtship, while Stobert (2006b: 241ff) describes how the Kalankira in Northern Posotí relate the *sirena* to Carnival devils, new creation of *wayño* melodies in February and *pinkillu* flutes. My host once explained to me that the *sirena* is related to tune musical instruments. It is said that the new instruments need to be left over night with offerings in specific aqueous places. Overnight the instrument itself stores the capacity of writing new songs which is developed during the execution of the instrument. As I used to travel with my ukulele my host once said that we should make a serenade with it at the river of Niñocorin down in the valley. He suggests that if we really want to do it, we should do it secretly because if people would know about our intentions, they would steal it overnight.

This discourse about musical production needs to be reflected against actual dynamics of how people nowadays relate to it in a different environment. As I argue, the further such tuning traditions get lost, the more individuals in the region tend to announce an act of personal creativity as the process of musical production. This surely has to be understood as changes in the musical production as part of what I would call functional adaptation to questions of property and copyright which legitimize commercialization.

The professionalism of flutes and fusionist music

Before I started conducting fieldwork in the Kallawaya region I purchased an end-blown notched flute called *quena* (picture 1). This *quena* was made of a wood of the genus called *jacaranda* belonging to the family of *bignoniaceae*, native to tropical and sub-tropical regions; a wood which I actually encountered for the construction of *charangos* (small string instrument). I did not wonder why this autochthonous wind instrument is nowadays also made of wood, instead of bamboo as they used to be made of (chapter 3). The friend of my host's family in Camata tried to play some themes on it, but he rarely could produce a tone. He said to me: 'Our music does not come our right with this one.' He grabbed his own *quena* that he

made of bamboo and perfectly played some themes without any problem. My host in Camata explained to me that the wooden *quena* would be a “professional” flute. This would also imply that the flutes made of bamboo are not considered “professional” in some sense or another. How do you explain such a distinction between the professionalism of flutes based on different materials?

Picture 5: *Quena Chatre* made from bamboo (Cañizava); *Quena* made from jacaranda (La Paz)



The use of wood has two reasons, as I was told by N. Q. in La Paz: firstly, it is a direct answer to the scarcity of primary materials of bamboo and cane (chapter 4), and secondly, it is related to the different sounds that are produced with different materials and the different contexts of performances (compare track 3 & 4). The sound of wooden flutes is more direct, soft and smooth and is associated with performances in the area of fusion with genres such as jazz, classical, folk, funk or reggae. The sound of bamboo flutes is more indirect, rough and raw which several *luriris* I talked to related to a dry cough or the wind of the *altiplano*. This sound is associated with autochthonous music ensembles. Moreover, wooden flutes would not detune themselves so quickly as bamboo flutes because of the higher resistance to temperature and humidity changes during their execution. Hence, different materials cause different associations with the context in which music is performed.

Qantu in the context of autochthonous music

During my fieldwork I encountered several folk ensembles in the region that play *qantu* music with well-tempered instruments such as guitar, mandolin or charango. Two of them, Akhamani and Sumaj Ñan, serve here as examples and units of analysis. These folk ensembles should also be the product of what Gutierrez (1991) calls *exogenous* musical dynamic. In this section I analyse the structure of the folk ensemble, certain shifts of melodic and rhythmic patterns during the process of folklorization and the creation of songs and their contextual relation. The analysis ultimately allows approximations about the uses and

significance of such a *qantu* folk music. It is important here to firstly clarify some musicological aspects of the autochthonous ensemble in order to relate them to the folk ensemble afterwards.

The autochthonous ensemble ideally consists of 25 musicians playing panpipes, drums known as *bombos* and a triangle known as *ch'inisku* (cf. Langevin 1990). The typical quint harmony is based on parallel fourths, fifths and octaves that give the *qantu* ensemble its “special brilliance and character proper to the musical themes of this region” (Cavour 2010: 38 [my translation]). The ensemble consists of six registers played in par or complementarity of *ira* (6 tubes) and *kati* (7 tubes).¹⁹ Thus, the whole quint harmony of the *qantu* ensemble is produced by a six-voice polyphony. *Ira* and *kati* played in complementarity have a range of 13 notes, so that every register, if interlocked, produces heptatonic scales. This performance technique is called hocketing in which two or more voices share the production of a scale or a melody. In the Kallawaya region it is called “answering” from the Spanish word *contester*.²⁰ As I purchased a par of panpipes in the register *malta* it is possible to reconstruct the quint harmony based on a heptatonic E mayor scale for the basic registers and a heptatonic A Major scale for the corresponding register (figure 4).²¹ Most of the melodies of the *qantu* songs can be reproduced by pentatonic scales, a common feature for Andean music (cf. Bauman 1985).

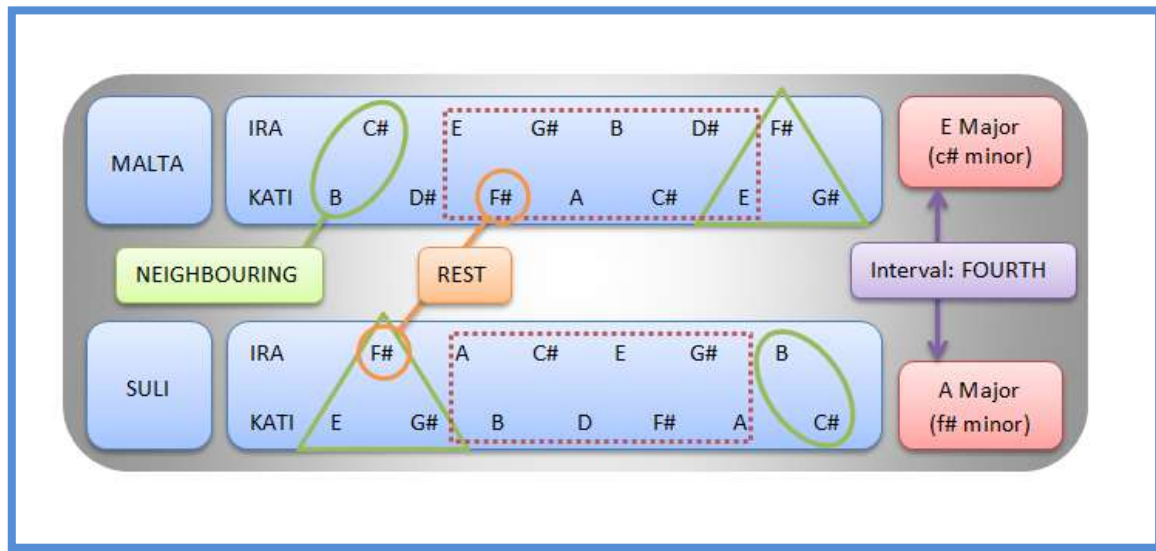
The *qantu* panpipes are divided into three parts that overlap with the neighbouring registers (figure 4 and 5). The structure of the *qantu* songs is also divided into three parts including slight interpretations and variations (Sato 1982; Whitney Templeman 1994: 63f). This division into three parts has a symbolic and pragmatic reason and is related to the spiritual and natural environment. Bastien (1978) explains that the *ayllus* are organized like a human body with lakes being the eyes and communities being other parts of it. This exchange relation between the parts of the mountain provides for the complementarity of goods and a balanced diet (Ibid.). In analogy the division of the *qantu* panpipes is necessary for the musicians to answer each other during the course of performance and to produce the typical melodic line of the *qantu* song through hocketing (cf. Whitney Templeman 1994). While the typical cadencial motive of the *qantu* song is referred to as “resting” musicians and instruments do rest alike

¹⁹ In Niñocorin the registers are called, from the lowest to the highest, *sanga*, *tayka*, *alto mama*, *bajo*, *malta*, *suli*. The names *ira/kuti* is a specialty in Niñocorin. Other names in other parts of the Kallawaya region and Bolivia are *ira* and *arka*.

²⁰ In a more general expression for such a quint harmony of parallels of fourths, fifths and octaves Cavour (2014) suggest the following denomination for the main register and their “sobres” (overs): *Sanka*, *Sobre Sanka*, *Malta*, *Sobre Malta*, *Ch'uli*, *Sobre Ch'uli*.

²¹ Special thanks go to Richard Mújica who helped me with the musical transcriptions.

**Figure 5: Techniques of the *qantu* ensemble
(own elaboration)**



An acoustic analysis with the register of *malta* I purchased should exemplify the harmonic particularity and sonorous diversity of the *qantu* ensemble (see table in the annex 5). The pitches indicate a microtonal deviation for instance the C# on the *kati* with up to -50 cents, which is at the edge of an actual C. Another particularity with this pair of *qantu* panpipes is definitely the G# on the *kati*, which is actually a proper G + 42 cents, thus the tube is too long to produce a G# as normally used in the Western well-tempered E major scale. The work of the physician and musicologist Arnaud Gérard (2002) suggest intentionality within the construction of such panpipes that reproduce sonorous patterns within these deviations. The acoustic analysis of the autochthonous music in the Kallawaya region surely merits further investigation, but because of the framework of the thesis it is not possible to go further into detail.²² For now, we can retain here that the influences and impacts of such an autochthonous music, on the human body and the well-being of the people, as well as on the local climate, are related to such a sonorous diversity. With much precision it can be stated that musical scores erase such little microtonal differences and do not picture the sonorous diversity which is “imperceptible for the Western ear” (Gutierrez 1991: 152) being accustomed to well-tempered instruments.

²² See for further acoustic analysis Mamani Perez (2007): Multiplicidad sonora del siku qantu, or for theoretical understandings the work of Arnaud Gérard.

Qantu in the context of folk music

The folk ensemble Sumaj Ñan includes up to six members singing and playing guitar, charango, mandolin and different autochthonous instruments such as *bombo*, *quena* and panpipes. *Quena* and panpipes are adapted to well-tempered scales in order to fit the rules of harmony within a mayor-minor third accord progression of the folk songs. The panpipes are not divided into two complementary parts (*ira/kati*), but produce the melodic line individually. Thus, the hocketing technique of the autochthonous ensemble is lost. The melody is not based on a quint harmony, but on the basic tonality in which the song is written. During the performance the *qantu* melody is reproduced by vocalists singing lyrics that are imposed on the *qantu* melody and written by the composer. The connection is established through the lyrical that can be directly related to the context, rather than through the symphonic as by the autochthonous ensemble.

I analysed the lyrics of 19 songs by Sumaj Ñan in order to approximate the topics of the songs. Topics are related to the younger urban identity which is life in the city, women, love, loss of love, migration, love to the region, loss of tradition in the region and references to social and civil reality such as feasts. There are no references to nature or natural phenomena (if there is any relation to the landscape then it is to the richness in the sense of resources like in “Saavedreño”: Amarete with minerals). If in the autochthonous ensemble the transversal is nature and sacred places as suggested by J. G. P., the transversal in the song of Sumaj Ñan is certainly love.

One of these songs is called “Saavedreño” (the one from Bautista Saavedra) and is especially directed to the phenomenon of migration, as R. M., member of the band, told me during a personal conversation in La Paz (track 5). The province shall be represented as glorious, honourable and something to be proud of. The lyrics are the following (figure 6):

Figure 6: Lyrics of “Saavedreño” by Sumaj Ñan

En un cantar provinciano	In a provincial chant
Oigan mis versos	Listen to my verses
Soy de Bautista Saavedra	I am from Bautista Saavedra
Cuna de hombres talentosos valerosos	Cradle of talented and valorous people
Es por eso que su hijos	That is why its sons
Estamos unidos	Are united

Enarbolando tradición
Por la senda del progreso venturoso.

Amarete con mineral
Pueblo de esperanza
Curva la tierra colonial
Que conserva sus reliquias
De aquel ayer
Chullina Chajaya también
Encaminado a la prosperidad

Rearing up tradition
For the path of venturous progress

Amarete with mineral
Village of hope
Curva the colonial land
Which conserves its relics
Like yesterday
Chullina Chajaya also
On the right path to prosperity

This expresses the duty of the younger generation not to forget the roots and the tradition, especially the place where they come from. Thus, the song portrays a connection between the place of origin which is connected to the legitimate act of “rearing up the tradition for the path of venturous progress”. References to nature are made in the sense of resources (mineral) and “a colonial land that conserves his relics” might refer to aspects of tangible culture, rather than aspects of intangible culture such as rituals, ideas or practices (although one has to be careful with such a binary distinction in the Kallawayaya cosmology). Another song is called “Caminando tras mis sueños” (Walking behind my dreams) in which a man is portrayed who had to leave Charazani as a child, but found his way back to the province almost 50 years later. In one verse it says: “Never will I forget you, my grandiose Charazani; never will I forget you, although thousand times may trickle away” (track 6).

All the compositions from Sumaj Ñan also depart from a lived past or desired future which is proper to new identities that are constructed in the new Bolivian society. The immense proud of the province is something that I have not heard from locals living permanently in the region, but rather is a phenomenon that I would relate to migration and temporal or permanent residence in La Paz or other cities. For J. O., another Folk musician I talked to in Cochabamba, his music is as “original” as *qantu* music from the province. He is proud of his origins and music that helps him constructing new Kallawayaya identities in urban areas.

The cover of the second album “Besos de mi madre” (kisses of my mother) shows hands of an old lady handing over symbols of the Kallawayaya culture, namely *wincha* (headdress), *tupu* (spoon of silver) and *tecancha* (green linen), to younger hands of a little girl (picture 2). This shall represent the act of transmission of tradition. The act of transmission is portrayed here as if symbols of the Kallawayaya culture possess certain identity that is handed over in order to

create personhood within the receiver. This act of transmission refers to the idea of genealogy based on kinship relation, places of origin and symbols that possess certain identity.

Picture 6: Cover of “k’ampaj kausacunci” by Sumaj Ñan



Personhood understood in the context of many indigenous peoples is not so much generated by only “bringing already established personal identities into play” (Ingold 2000: 135), but by everyday practice and maintenance of the reciprocal exchange relation with the ancestors and the mountains that establish good conditions for their offspring to “grow” into personhood (in analogy with establishing good climate conditions), which would rather refer to musical practices and involvement into the *musical and sonorous web of life* of a community (cf. Canessa 1998). Against this background Ingold (2000: 136) distinguishes between *relatedness* and *relationship*. In contrast to genealogy as relatedness bestowing some set of ready-made attributes from the antecedents, the relationship, practical in its nature, is the “experience of involvement, in perception and action, with their human and non-human environments” (Ibid.). The picture on the cover of the CD presents the idea of genealogical relatedness, rather than invoking musical practices of involvement into the community.²³ I relate this shift of musical production to the contact with the city in a twofold sense: It is a Westernization of the mind which manifests itself through different practices in urban environments that are to a certain degree based on a Western logic (for instance institutions and nation state), as well as at the same time an “indigenization” of practices in urban environments and modernity based on an indigenous logic (ritual practices through convocations of ministers or during social and civil events). This relation is also unfolded within the process of folklorization.

²³ The UNESCO also imagines the act of transmission like handing over ready-made identities to younger generations. In contrast to this, the older generation can only show the younger generation the places where they have to go in order to learn through personal experimental knowledge (cf. Burman 2012).

In the theoretical framework I approximated the concept of folklorization as a contextual adaptation to modernity and as a process of construction and institutionalization of musical practices which are considered *qantu*, but which only constitute themselves through fragments which are “retracted” from the *qantu* tradition. *Qantu* folk music is usually based on melodic lines of *qantu* songs from different communities in the region which are played with different well-tempered instruments such as guitar, mandolin or charango. The structure of the song may maintain the same although often the typical intro with the *bombo* and *ch'inisku* (track 1 & 7) is replaced with an intro by string instruments (track 10 & 11) or the third section of the *qantu* song (track 8).

For the sake of presenting one example of the transformation of melodic and rhythmic patterns I transcribed one *qantu* song, which is called “aguita de putina” (water from putina), in its autochthonous and folk version (compare figure 7 & 8; track 6 & 7). “Aguita de putina” is one of the most famous *qantu* songs in Bolivia that is also played with Bolivia’s symphonic orchestra. Originally from Charazani the autochthonous version is played by a group called Markasata, whereas the folk version is played by the folk group I encountered in the region called Akhamani. The tempo of the folk version (every eights on 156 bpm) is slightly faster than the autochthonous version (every eights on 148 bpm). I would relate this to accelerations of time in modernity in Rosa’s (2013) sense, who investigates how time functions as a social structure and attests a higher pace of life in production as well as consumption. Faster music is related to more danceable music styles and greater entertainment (Monotya 1996: 486). The basic tonality is transposed from A major to G major. This might be related to the adaptation of the tonality to wind instruments such as *quena* and *panpipes* that are mostly tuned in G major. I would argue that the melodic structure is catchier for Western ears if transposed to G major, because of lesser used semitones in the melody. This perception is also related to well-tempered instruments such as the guitar, mandolin and charango which produce a chord progression based on the duality of major and minor thirds.

Therefore, the melodic line is adapted to the tonality and straightened for the fluidity of the song and the overall change in harmony perception (for instance beat 11/12 in both versions). The production of the melodic line is shared between the vocals and the panpipes, always accompanied by string instruments playing the main melody as well. According to this change, the panpipes appear as a solo part in the song. A rhythmic pattern of autochthonous

qantu songs is certainly the cadential motive at the end of the sections, which is referred to as “resting” (cf. Sato 1982, Bauman 1985, Whitney Templeman 1994). This cadential motive in the autochthonous version (beat 19/20; 30/31; 42/43) totally disappears in the translation of the melody for the folk version (beat 19/20; 30/31; 42/43) which adds to the fluidity of the melody and the directness of the song. Furthermore I refer to the concept of acceleration of time, where “resting” is something unnatural which appears rather as a “loss of time”.

Música qantu ch'ixi

Against the background of the debate I introduced with the cover picture above, some questions arise here: Is the process of folklorization a Westernization of the mind, or to talk with Solomon (2011) a “colonization of the senses”, or an “indigenization” of musical practices in environments such as theatres, concert halls or street festivities? Is it a loss of tradition or its perpetuation? Is it a process of imposed alienation or legitimate creativity?

During our *akulliku* in Niñocorin 2015 the statements were very similar: this cultural and musical dynamics are seen as a ‘stylization of autochthonous music’ that causes the loss of interest in traditional music, something that is also strengthened by the insertion of different music genres and instruments. This would have impacts on the balance between the significance of the music and its actual use in for instance climate related rituals or other ritual or curation practices. While this is the first end of the continuum of musical performance, the second can be considered the interpretation of *qantu* music with symphonic orchestras or electronic equipment. The process of folklorization is situated somewhere in between these two ends. Who has the right to say that it is a scale of “increasing alienation” of *qantu* music from local contexts and meanings, apart from the musicians themselves? Can you equate decolonization of music with a prohibition of musical dynamic? If this is so, then a given culture cannot “recuperate the future as a cultural capacity”, to talk with Appadurai (2004: 62). Rozo Lopez states that if you understand decolonization in such a way, you only

“ [...] take musical forms as if they were isolated elements from, including in contrast with, the cultural systems in which they emerge, as it happens when you emphasize individualism when well-tempered instruments are used; you understand the music only from a score; or if you play a European symphony with native instruments, or if the symphonic orchestras interpret popular *khantus* (sic.)” (Rozo Lopez 2014: 2 [my translation; emphasis in the original]).

When I talked to one of the sons of my host in Niñocorin, who plays *qantu* music with keyboard and various rhythms different from *qantu*, he explained to me that their idea was to

‘recuperate the interest in *qantu* music’ among youngster in the region that barely play instruments in school and listen to other music, mostly *música chicha*, *morenada* and *tinku*. They synthesise *qantu* melodies with rhythms from other genres so that younger people find interest again in listening and making music from the region which is a different understanding of recuperation. For him such a dynamic is not a loss of tradition, but its perpetuation. J. G. P. told me during our interview that ‘the music is the first bait for the son who is living in the urban areas, nowadays being tempted by modernity, by the internet, by everything that brings us the globalization, the first bait to make his return, let us say, their *kuti* which means returning to their roots, is music.’

It is not an opposition between antiquity and modernity either: As seen in this chapter the autochthonous *qantu* music is not the same any more as it once was. And here I am talking about practices, as well as ideas about musical production, participation and performance in the same local context. On the other hand autochthonous folk music is never only modern. If music in the city is used for the construction of an “imagined community” (Anderson) of Kallawaya people (which is a quite traditional function), it seems to be more traditional, as the music in the countryside that is used for generating monetary income and is played for the temporal amusement of people (which is sometimes more related to a function in modernity). These categories are obsolete and do not work: If both are subsumed under the label “*qantu*”, then it is surely a *música qantu ch’ixi*, to talk with Rivera (2006).

Figure 7: Transcription II: Aguita de putina autochthonous version (Markasata)
(own elaboration)

Aguita de Putina

Qantu

Siku

Bombo

Sk.

Bm

Sk.

Bm

Sk.

Bm

Figure 8: Transcription III: Aguita de putina folk version (Akhamani)
(own elaboration)

Aguita de Putina

Qantu

The musical score is presented in four systems, each with two staves. The top staff of each system is for Siku (treble clef) and the bottom staff is for Bombo (bass clef). The key signature is one sharp (F#) and the time signature is 9/8. The score includes first and second endings for both instruments.

System 1: Siku and Bombo parts. Siku starts with a whole rest, followed by a melodic line. Bombo starts with a whole rest, followed by a rhythmic accompaniment.

System 2: Siku and Bombo parts. Siku starts at measure 9. Bombo starts at measure 9.

System 3: Siku and Bombo parts. Siku starts at measure 21. Bombo starts at measure 21. Both have first endings.

System 4: Siku and Bombo parts. Siku starts at measure 32. Bombo starts at measure 32. Both have second endings.

Chapter 7

CONCLUSION: MUSICAL CHANGE AS PRODUCT AND CAUSE OF CLIMATE CHANGE

Music is the best-equipped of the performing arts to express both the ever-changing realities of biological and social life and the continuity of the concepts on which human societies depend for their existence.

John Blacking (1986: 11)

The last chapter of the thesis resumes and discusses the main findings of the thesis against the background of the main research question, namely how musical change interrelates with climate change in the Kallawaya region. In each of the chapters forming the main part of the thesis the relation between musical and climate change was unfolded in two possible causal and interrelated directions:

In chapter 4 it was argued that climate change has certain implications on the diversification of the economy and is a necessary factor to understand the decrease in number of people dedicated to agriculture against the background of low productivity. This causes a greater reliance on import, higher migration rates and a gradual mercantilization of the market. The current lack of primary materials is caused by market mechanisms of supra-regional markets which suffer from a lack of availability because of over-exploitation and destruction of plant societies in preferred areas of primary production. Due to reliance of imports this causes certain changes in the Kallawaya region with regard to the construction of instruments. Primary materials of Apolo valley are not traded in the region because of more lucrative economic activities in the *yungas*. The indicated changes include the construction and reparation with different techniques and materials that are said to change the sound of musical instruments. This changing sound has not the desired impact on the balance of weather in the region and causes climate variability. For subsequent research in this area it would be interesting to analyse the relation between industrial production of wooden instruments such as flutes and drums; especially the latter are currently produced from chipboard that might have connections to the increasing deforestation in Bolivia.

In chapter 5 climate change effects are analysed based on the calendrical organized sequence of the year. Climate trends show an increase in temperature and precipitation and an

intensification of weather events. The change of seasons is more delayed, so that certain agricultural practices need to respond to climate variability. The generalization of musical performance is believed to have direct negative impacts on the local weather, while a certain loss of traditional ritual practices over time is perceived as the cause for inappropriate climate for crop growth and agricultural practices. Musical performances are used for social and civil events, as a source of income, as well as for the construction of identity and difference to other local communities, rather than for agricultural and ritual purposes. Climate change is perceived as a tumultuous situation that will be passed in order to restore the world's climatic balance.

In chapter 6 climate change was identified as a necessary variable in order to understand flows of migration as physical and functional urbanization. The cultural diffusion changes the idea of musical production in the sense of an act of individual creativity and produces certain tendencies towards the commercialization of music and implied questions of property rights. Through a professionalization of music and instruments an evolutionist understanding of musical practices and instruments is perpetuated that has certain impacts on the participation during musical practices. The cultural diffusion caused by interactions with urban areas cause processes of folklorization that imply certain changes in significance, use and function of music. Playing *qantu* in different contexts and with different well-tempered instruments such as guitar or mandolin shows a certain musical dynamic with which especially younger generations construct their “urbanized” indigenous identities. The musical production is also related to an urban life and to other topics such as migration.

All these chapters show certain idealization of reciprocity, calendrical organized music and musical production that contradicts, as indicated above, with the enacted reality: Reciprocity is not necessarily based on the locality of materials and self-sufficient production; music is not only organized calendrically, but is used for various purposes; musical production is based on individual creativity and is related to realms other than ritual and agrarian practices. While climate change has either direct or indirect consequences for musical practices in the region, musical changes as part of a bigger cultural change in the region are believed to have impacts on the reciprocal relationship and the balance of the world: It disrupts the climatic normality that existed in relation to life, something that can be restored again through musical practices which are believed to be the cosmological centrality for change and transformation in a transcendental sense (*pachakuti*). This goes beyond an understanding of climate reductionism

which states that climate totally determines the fate of people and societies. It portrays a crucial difference to most of the apocalyptic visions of climate change, portrayed by scientists as the end of the world. If musical practices identify changes *in* and *of* society, that is to say in its economic, social, political and epistemological realm among others, how can musical practices and performance be a tool for initiating such a change in society and restoring of the world's balance in an very practical sense?

In the animist understanding of Kallawayaya people musical change relates to climate change in the following sense: Musical change is a product as well as a cause of climate change. Thus, it is a reciprocal relationship of mutual causality. Now, what does all this mean for the discussion of climate change? Is my friend playing the “wrong” instrument at “wrong” times and places the cause for climate change in the Kallawayaya region? These question reveals the political debate about different ways of knowing that coexist in a given time/space continuum. There are certain inherent contradictions between the animist perspective informed by Kallawayaya people and a hegemonic and global perspective informed by Western science:

While the scientific perspective relies on linear causality from climate change towards musical practices (in its radical form sometimes understood as environmental or natural determinism), the animist perspective refers to an interdependent and reciprocal relationship between local practices, in which music plays a crucial and integral role, and local climate patterns. While an “abnormal” climate within the scientific perspective, namely global warming because of human induced greenhouse gas emissions, is testified if gases outreach normal concentrations (Nordgren 2011: 4), an “abnormal” climate within the animist perspective is testified if climate conditions are bad for agricultural practices and crop growth. While the scientific perspective explains climate change and global warming by referring to gradually increasing greenhouse gas emissions, the animist perspective explains climate change with the gradual loss of reciprocal relationships, moral duties, collective ritual practices and the time/space condition of music and instruments.

Studying the musical dynamic in the region allows me to critically rethink the relation between these two perspectives because, as I have shown, musical change transports certain ontological assumptions about how the world is constituted. These different views have to be related to what is understood as climate. Is the climate of scientists the same as the climate of Kallawayaya people? Discussing the “ontological turn” within anthropology Blaser (2013) argues that there are potential “ontological conflicts” about what exists, thus in this case

climate and climate change. Rather than cultural perceptions on one and the same reality, those “climates” are considered different but constantly interacting realities, which are “narratives that embody certain ideas about the world and its dynamics” (Ibid: 548). How do these ontologies relate to each other?

In his climate blog Hoffmann (2012) reviews Nordgren’s book about rural perceptions of climate change and states that the study of local perceptions by Nordgren (2011) is not able to substitute more rigorous and detailed scientific investigations about climate change effects. Although Nordgren (2011) relies on the same scientific explanatory model of climate change (cf. Nordgren 2011; Hoffmann 2012), Hoffmann (2012) discredits local testimonies as having lesser epistemological value as knowledge produced by the scientific method. Although there is coexistence, there is also to some degree a tension between these two ontologies. I guess that talking about “conflicts” does not necessarily acknowledge the dynamic aspect of incorporation and adaptation.

The question about the ultimate causer of climate change, as necessary as it is to confront climate change especially within a climate justice perspective, makes only sense in its ontological armature in which it is asked. Supra-regional and international actors import perspectives on climate and climate change into the Kallawaya region, especially in relation to a climate justice discourse of the Moral government, that impede the adoption of socioecological changes in the region based on the local people’s own ontological armature. Here again, the changes in musical practice help to understand changes in other realms of society, too. While questions of intellectual property and ownership became important in the region because of a shift in economic logics towards more market integration and commercialization, property and ownership is also important in a climate change debate: On the one hand countries can equip themselves on international markets for carbon emission trading with rights to extended carbon emissions which is a very concrete material property and ownership; on the other hand climate debts are claimed by countries with lesser carbon footprints from primary polluters based on their ownership of responsibility for climate change which is unequally distributed in a global world system.

I think that it is mistaken to believe that people through local practices, which music is an integral part of, could directly *influence* or even *control* climate patterns (cf. Solomon 1997). Talking about a control of climate through local practices rather indicates the intermingling of these practices with Western ontological principles and the idea of human dominion over

nature. An act of reciprocity is, if you want to say it like this, a mutual control of the world's balance. In the assigned sense and against the background of human's place on earth from such a perspective, we should ask each other whether we should try to *control* climate or any other environmental factor or live with and within their processes and dynamics in an integrated way. This discussion about the political ontology of climate change needs to be further addressed in subsequent research.

I guess that this thesis is only a beginning of the study of music in relation to climate change that will be further developed in subsequent research. I have shown that music does not accompany life, but is its very base. What I have learnt throughout my fieldwork, besides leaving behind my ontological presumptions about music and climate, is the following: You do not play music to perform, you play music to live.

EPILOGUE



Niñocorin, November 2014

The material of music is sound and silence.

Integrating these is composing.

I have nothing to say and I am saying it.

David Tudor

This thesis was only made possible with the knowledge and wisdom of those who are the actual authors...

GLOSSARY

Adobes: Spanish word for mud bricks

Akulliku: Collective coca-leaf chewing

Altiplano: High Plateau in Bolivia

Ankari: Divinity of the wind and messenger of the machulas

Animu: Life energy

Athun: Quechua word for big/great

Ayllu: Ancient political and social form of organization based on reciprocity and mutual exchange

Bombo: Spanish term for huge drum, similar to kettledrum

Cent: Measurement for the distance of intervals

Comunario: Expression for indigenous in contrast to vecino (see also originario)

Charango: Small Bolivian String Instrument

Chiwanku: Quechua for glossy-black thrush, scientific name: *turdus serranus*

Choclo: Cob of maize

Ch'alla: Local name for species of cane or bamboo

Ch'arqui: Dried meat

Ch'ili: Small duct flute like pinkillu, very special for the Kallawaya region

Ch'inisku: Rhythmic instrument, iron triangle

Ch'ixi: Concept by Rivera (2006) meaning grey, something with many spots

Ch'ullo: Traditional cap

Ch'uño: Dehydrated potatoes

Ch'uqui: Local name for species of cane or bamboo

Descansa: Name of the tube that it used for the candencial motive of autochthonous qantu songs

Duraznero: Spanish Word for peach, scientific name: *prunus persica*

Gaseosa: Soft Drink

Ira/kati: Pair of complementary panpipes, in other parts of Bolivia it is called ira/arka. Together they produce the melody of a qantu song through hocketing

Jacaranda: Genus of 49 species of flowering plants in the family of bignoniaceae, material for the construction of instruments

Ladrillo: Spanish word for brick

Locoto: Species of pepper, scientific name: *Capsicum pubescens*

Luriri: Specialized constructor, Aymara language from „luraña“, i.e. „to do“, and –iri, indicating a practice

Machulas: Ancestors who reside on sacred mountain

Malta: Register of panpipe

Medida: Measure stick, also a name for the tuning of the qnatu ensemble in combination with medida grande or medida mediana

Minifundización: Process of individualization of large land holdings. The word “*minifundio*” is the contrast to the word “*latifundio*” which means large land holdings. During the Agrarian reform in the 1950s large land holdings were individualized and allocated to every family in the region. On the one hand this was good, because every family got their “own” parcel of land which they could cultivate individually. This broke with colonial relations and the necessity to work to work for *vecinos* on latifundios. On the other hand individual cultivation disrupted the collective cultivation practices of the people and caused economic pauperization because the *minifundios* were less productive than the collectively cultivated *latifundios*.

Mestizo: Identity/role (ascribed, imposed or internalized) within a system of social (colonial) stratification because of the encounter between indigenous people and Europeans

Morenada: Music genre

Moseño: Rainy Season Instrument

Música chicha: Modern music genre

Ñawpa: Quechua, adjective: Refers to the past and to space situated in front of ego, thus relating to visibility

Originario: Expression for indigenous in contrast to vecino (see also comunario)

Pacha: Quechua word for cosmos, time/space, but also weather and climate, i.e. the climate seasons: ch’aki Pacha, paray Pacha. In Pacha all living being exist and in which human are only a very small part. Everything is related to everything else. Every living being has life energy.

Pachakuti: also Pachakutiy, a Quechua word composed of pacha meaning cosmos, time/space, but also weather/climate (see pacha), and kuti or kutiy meaning constant return, reversal, turning or upheaval. It is mostly associated with a transformation from one order or epoch to another, for instance the primordial era of the chullpas and the start of the present epoch or order (cf. Yujra Mamani 2005). It is an inverse vision of life and a cyclic understanding in which time and space are seen as being united and simultaneous. In the context of the thesis it means a return to the balance of the world through tumultuous climate conditions.

Pifano: Dry season traverse flute

Pinkillu: Rainy season duct flute

Pollera: Traditional one-piece skirt

Poncho: Traditional dress

Preste: annual feast of a community that is mostly related to a virgin. It is organized by a couple of the community which is also called preste. Hence, it can refer to both the annual feast of the community, as well as the organizers

Qallay: Collective rain ritual in Niñocorin. In Kaata there are two two qallay: qhagmay qallay (harvest), tarpuy qallay (sowing)

Qantu: Music genre, related to the Kallawaya region

Qantu phukuna huchoq: Quechu word for the one who cuts qantu phukuna, phukuna means panpipe, see also sicu

Qasa Qallariy: Beginning of the frost

Quena, Quena Chatre: Dry season notch-end flutes

Qjuray Llank'a: Preparation work (wheat, pea, barley) including hilling and weeding

Qhipa: Quechua, adjective: Refers to the future and to space situated behind ego, thus relating to invisibility

Revole tijray: Final ploughing before sowing

Runa: Quechua word for people, runakuna is the plural for of runa.

Sara kallchay: Cutting of the maize

Sara kutisay: Second hilling of maize

Sara llankay: Working the maize, preparation work including hilling, weeding, fertilizing, irrigating

Sara parwayuy: First florescence of maize

Sara p'uñiy: Second florescence of maize, p'uñiy means hair of cob

Sara tarpuy: Sowing of maize

Sara tipiy: Removing the leafs from the cob of maize

Sirena: Spanish word for siren/mermaid. The sirena is related to musical enchantment and creation, source of beauty, seduction, creation, knowledge inspiration and danger, associated with rivers and aqueous places. In the Kallawaya region it is believed that the sirena tunes the instruments during so called sirenadas where you have to leave the instrument one night at specific aqueous places

Sicu: Also siku, Aymara word for panpipe, in Spanish zampona. Quechua antara or phuku / phukuna

Soqos: local name for species of cane and bamboo, scientific name: arundo dorax

Surcufundización: Division of minifundios in surkus through heritage succession. Surku is a row in the plot of land

Tarqa: Heavy wooden flute, rainy season instrument that calms the rain after carnival

Tecancha: Green linen

Tierras Altas: Highlands, another word for *altiplano*, in contrast with *tierras bajas* or lowlands

Tinku: Musical genre

Toqoro: Local name for species of cane and bamboo

Tropa: Spanish word for troop which means the music ensemble

Trueque: Spanish word for barter

Tupu: Spoon of silver

Vecino: Other expression for mestizo, in the Kallawaya region related to owners of haciendas and large land holdings

Watapurichiq: Ritualist of the collective and annual rituals, “authority of climate”

Wayño: Musical genre in the Andes

Wincha: Traditional headdress of women

Yungas: Subtropical region

BIBLIOGRAPHY

- Adams, John Luther. 2009. *The place where you go to listen. In search of an ecology of music.* Middletwon CT: Wesleyan University Press.
- Adams, Norma, and Néstor Valdivia. 1991. *Los otros empresarios. Ética de migrantes y formación de empresas en Lima.* Lima: I.E.P.
- Albó, Xavier, Tomás Greaves, and Godofredo Sandoval. 1987. *Chukiyawu. La cara aymara de la Paz. IV. Nuevos lazos con el campo.* La Paz: CIPCA.
- Allen, Catherine. 1988. *The hold life has. Coca and cultural identity in an Andean community.* Washington & London: Smithsonian Institution Press.
- Allen, Aaron. 2011. "Prospects and problems for ecomusicology in confronting a crisis of culture." *Journal of the American Musicological Society* 64 (2) (Summer 2011), 414-424.
- Appadurai, Arjun. 2004. "The Capacity to Aspire: Culture and the Terms of Recognition". In *Culture and Public Action*, edited by V. Rao y M. Walton, 59-84. Palo Alto: Stanford University Press.
- Archer, William K. 1964. "On the ecology of music." *Ethnomusicology* 8 (1) (June): 28-33
- Archondo, Rafael. 1991. *Compadres al micrófono. La resurrección metropolitana del ayllu.* La Paz: PIEB-CEBEM.
- Austin, John L. 1962. *How to do things with words.* Oxford: At the Clarendon Press.
- Baumann, Max P. 1985. "The kantu ensemble of the Kallawayá at Charazani (Bolivia)." *Yearbook for Traditional Music* 17: 146-166.
- Bithell, Caroline. 2003. "Shared Imaginations. Celtic and Corsican encounters in the soundscape of the soul". In *Celtic Modern: Music at the Global Fringe*, edited by M. Stokes and P. V. Bohlman, 27-72. Lanham, MD: The Scarecrow Press, Inc.
- Blacking, John. 1986. "Identifying processes of musical change." *World of Music* 18 (1), 3-12.
- Blaser, Mario. 2013. "Ontological conflicts and the stories of peoples in spite of Europe. Towards a conversation of political ontology." *Current Anthropology* 54 (5): 547-568.
- Buechler, Hans. 1980. *The masked media.* The Hague: Mouton.
- Burman, Anders. 2012. "Places to think with, books to think about. Words, Experience and the Decolonization of Knowledge in the Bolivian Andes." *Human Architecture: Journal of the sociology of self-knowledge* 10 (1): 101-120.
- . 2014a. "Now we are indígenas. Hegemony and indigeneity in the Bolivian Andes." *Latin American and Caribbean Ethnic Studies* 9 (3), 247-271.
- . 2014b. "Lucha, pasión, y resignificación en el fútbol ch'ixi". Prologue to *Otro fútbol. Ritualidad, organización institucional y competencia en un siglo de fútbol popular en Bolivia (1896-2014)*, edited by J. Müller & M. Murillo, 9-18. La Paz: Plural Editores.

- . submitted. "Kharisiri anthropology. The traits of our trade and other colonial monstrosities." *Current anthropology*.
- . n.d. "The political ontology of climate change. Moral meteorology, climate justice, and the coloniality of reality." (Unpublished document).
- Callahan, Mollie. 2011. "Signs of the time: Kallawayaya medial expertise and social reproduction in 21st century Bolivia." PhD diss., University of Michigan.
- Cámara, Enrique. 2003. *Etnomusicología. Colección Música Hispana*. Madrid: Instituto Camplutense de Ciencias musicales ICCMU.
- Canessa, Andrew. 1998. "Procreation. Personhood and Ethnic Difference in Highland Bolivia." *Ethnos* 63 (2): 227-247.
- Cavour, Ernesto A. 2014. *Instrumentos Musicales de Bolivia*. (3rd ed.). La Paz: Producciones CIMA.
- Cerruto, Leonel, Irma Quiroz, Beatriz Ramos, Tiina Saaresranta, and José Rocha. 2006. *Methodology with indigenous identity. Education that makes a difference*. Cochabamba: Kawsay.
- Choque Canqui, Robert. 1992. "II. Historia". In *La cosmovisión Aymara*, edited by H. van den Berg and N. Schiffers, 59-80. La Paz: UCB-Hisbol.
- Creswell, John W. 2009. *Research design. Qualitative, quantitative, and mixed methods approaches*. (3rd ed.). Los Angeles, London, New Delhi and Singapore: Sage Publications, Inc.
- Deleuze, Gilles, and Felix Guattari. 1988. *A thousand plateaus. Capitalism and schizophrenia*. London: The Athlone Press.
- Escobar, Arturo. 2007. "Worlds and Knowledges otherwise. The Latin American modernity/ coloniality research program." *Cultural Studies* 21 (2-3), 179-210.
- Feld, Steven. 1990 [1982]. *Sound and Sentiment. Birds, Weeping, Poetics and Songs in Kaluli Expression*. Philadelphia: University of Pennsylvania Press.
- . 1994. "From Ethnomusicology to Echo-Muse-Ecology. Reading R Murray Schafer in the Papua New Guinea Rainforest." *The soundscape newsletter* 8 (June), Accessed May 12, 2015. http://wfae.proscenia.net/library/articles/feld_ethnomusicology.pdf
- . 1996. "Pygmy Pop – A Genealogy of schizophonic mimesis." *Yearbook for Traditional Music* 28: 1-35.
- . 2000. "A sweet lullaby for World Music" *Public Culture* 12 (1): 145-171.
- Geertz, Clifford. 1973. *The interpretation of Cultures. Selected essays*. New York: Basic Books .
- Giddens, Anthony. 1991. *The consequences of Modernity*. Stanford: Stanford University Press.
- Girault, Louis. 1973. "La syrinx dans les régions andines de Bolivie." Diploma, l'EPHE Paris
- . 1984. *Kallawayaya, querisseurs itinérants des Andes. Recherche sur les pratiques medicinales et magiques*. Paris: l'ORSTON.

- Gérard, Arnaud. 2002. "Acústica del Suri-Siku. Una genial acomodación de alturas de sonido que permite una multi-pentafonía." In *La Música en Bolivia: De la Prehistoria a la Actualidad*, edited by W. Sánchez C., 481–96. Cochabamba: Fundación Simón I. Patiño.
- Gifford, Douglas. 1986. "Time metaphors in Aymara and Quechua." Working Paper No. 16 Centre for Latin American Linguistics, University of St. Andrews, Scotland.
- Gutiérrez, Ramiro. 1991. "La dinámica musical en el mundo andino." *Etnología: Boletín del Museo Nacional de Etnografía y Folklore*, 35-44. La Paz: CIMA.
- . 2002. "Walata Grande y Condo, dos centros especializados en construcción y afinación de instrumentos aerófonos en Bolivia." In *La Música en Bolivia: De la Prehistoria a la Actualidad*, edited by Walter Sánchez, 377–412. Cochabamba: Fundación Simón I. Patiño.
- Hale, Charles R. 2004. "Rethinking Indigenous politics in the era of the 'Indio Permitido'". *NACLA Report on the Americas* 38 (2): 16-21.
- Harley, Maria. 1996. "Notes on music ecology. As a new research paradigm." Los Angeles: University of Southern California. Accessed May 12, 2015.
http://www.wfae.proscenia.net/library/articles/harly_paradigm.pdf
- Hood, Mantle. 1960. "The challenge of bi-musicality." *Ethnomusicology* 4 (2): 55-59.
- . 2001 [1979]. "Transcripción y notación." In *Las Culturas Musicales de Etnomusicología. Lecturas de Etnomusicología*, edited by F. Cruces, 79-114. Madrid: Trotta.
- Hoffmann, Dirk. 2012. "'Percepciones, efectos y respuestas en cuatro regiones' – Un libro de Marcos Nordgren sobre cambio climático en Bolivia." *Cambio Climático Bolivia*. Accessed May 12, 2015.
http://www.cambioclimatico-bolivia.org/index-cc.php?palabra=nordgren&cod_aporte=35#35.
- Hoffmann, Dirk, and Cecilia Requena. 2012. *Bolivia en un mundo 4 grados más caliente. Escenarios sociopolíticas ante el cambio climático para los años 2030 y 2060 en el altiplano norte*. La Paz: PIEB/Instituto Boliviano de la Montaña.
- Hoffmann, Dirk, and Daniel Weggemann. 2011. Climate change induced glacier retreat and risk management. Glacial lake outburst floods (GLOFs) in the Apolobamba mountain range, Bolivia. Paper on the worldwide online Climate Conference Climate 2011 'Climate Change and Disaster Risk Management', November 7-12.
- Holzmann, Rodolfo. 1987. *Introducción a la etnomusicología. Teoría y Práctica*. Lima Huanuco.
- Ingold, Tim. 2000. *The perception of the environment. Essays on livelihood, dwelling and skills*. London and New York: Routledge.
- Ingold, Tim. 2011. *Being alive. Essays on movement, knowledge and description*. London and New York: Routledge.
- Intergovernmental Panel on Climate Change (IPCC). 2014. "Climate Change 2014. Synthesis report. Summary for policymakers." IPCC Fifth Assessment Report. Accessed April 21, 2015.
http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf.

- Kartomi, Margaret. 2001 [1981]. "Procesos y resultado del contacto entre Culturas Musicales. Una discusión de terminología y conceptos." In *Las Culturas Musicales: Lecturas de Etnomusicología*, edited by F. Cruces, 357-382. Madrid: Trotta.
- Keogh, Brent. 2013. "On limitations of music ecology." *Journal of Music Research Online* 4. Accessed December 18, 2014. <http://www.jmro.org.au/index.php/mca2/article/view/83/33>.
- Krisch, Stuart. 2006. *Reverse anthropology. Indigenous analysis of social and environmental relations in New Guinea*. Redwood City: Stanford University Press.
- Lammel, Annamaria, Esther Katz, Marina Goloubinoff, and Csba Nemes. 1997. Introduction to *Antropolgía del clima en el mundo hispanoamericano*, edited by M. Goloubinoff, E. Katz & A. Lammel Ediciones, 13-26. Quito: Biblioteca Abya-Yala.
- Langevin, André. 1990. "La organización musical y social del conjunto de kantu en la comunidad de Quiabaya (provincia de Bautista Saavedra), Bolivia." *Revista Andina* 8 (1): 115-137.
- Langevin, André. 1991. "Los instrumentos de la orquesta de Kantu." *Revista del Museo Nacional de etnografía y folklore* 3 (3), 11-54.
- Llanos, David. 2006. "Migración campo-ciudad en los Andes." *Working Paper 83 Hanns Seidel Foundation: Opciones y análisis: Las Migraciones de Bolivia*, 47-90.
- Llanos, David, and Alison Spedding. 2009. "Los valles interandinos del Norte. Charazani y las identidades en la región Kallawayá" In *¿Indígenas u obreros? La construcción política de identidades en el Altiplano boliviano*, edited by Denise Y. Arnold, 397-428. La Paz: Fundación UNIR-Bolivia.
- Mamani Perez, Marco A. 2007. *Multiplicidad sonora del siku qantu*. La Paz: Instituto Normal Superior 'Simón Bolívar' La Paz.
- Marcus, George E. 1995. "Ethnography in/of the World System. The emergence of multi-sited ethnography." *Annual Review of Anthropology* 24, 95-117.
- Martí, Josep. 1995. "La idea de relevancia social aplicada al estudio del fenómeno musical." *TRANS-Revista Transcultural de Música* 1, 11-21.
- Merriam, Alan P. 1964. *The anthropology of music*. Illinois: Northwestern University Press.
- Mignolo, Walter. 2009. "Epistemic disobedience, independent thought and de-colonial freedom." *Theory, Culture & Society* 26 (7-8), 1-23.
- Mignolo, Walter. 2011. "Aiesthesis decolonial." *Calle 14: Revista de investigación en el campo del arte* 4 (4), 10-25.
- Montoya, Rodrigo. 1996. "Música chicha. Cambios de la canción andina Quechua en el Perú." In *Cosmología y Música en los Andes*, edited by M.P. Baumann, 482-96. Madrid: Vervuert.
- Mújica, Richard. 2014a. "Quina Quina y bandas en la fiesta de San Pedro y San Pablo: Dinámicas musicales y culturales en la localidad de Tiwanaku." Thesis "Licentiatúra", University Mayor de San Andres La Paz.

- Mújica, Richard. 2014b. "Música, cultural y transformación. Panorama de los estudios sobre antropología de la música y las tendencias en Bolivia en el siglo XX." *ArcheoAntropológicas* 4 (4), 161-194.
- Mújica, Richard. 2014c. "Cultural, desarrollo y patrimonialización. Acercamiento a la vinculación entre desarrollo y patrimonio cultural en Bolivia." Paper presented at the II. Plurinational congress of anthropology, La Paz, Bolivia, Septiembre 22-25, 2014.
- Nattiez, Jean-Jacques. 1990. *Music and Discourse. Toward a Semiology of Music*. Princeton: Princeton University Press.
- Nordgren, Marcos. 2011. *Cambios Climáticos. Percepciones, efectos y respuestas en cuatro regiones de Bolivia*. La Paz: CIPCA.
- Oblitas Poblete, Enrique. 1963. *Cultura Callaway*. La Paz: Archivo y Biblioteca Nacional de Bolivia.
- Olivia, Aurora. 2000. "Una introducción a la etnomusicología." *Revista Antrópolis*. La Paz: Comunidad Kurmi-UMSA, 3-4.
- Oxford English Dictionary. 2015. "Definition of climate change." Accessed May 12, 2015. <http://www.oxforddictionaries.com/definition/english/climate-change>.
- Painter, James. 2007. "Deglaciation in the Andean Region." Occasional Paper Human Development Report Office, Human Development Report 2007-2008 (55), s.l.
- Polansky, Larry. 1994. "Live interactive computer music in HMSL 1984 – 1992." *Computer Music Journal* 18 (2), 59-77.
- Polgar, Caroline, and Richard Primaack. 2011. "Leaf-Out Dates highlight a changing climate." *Arnoldia* 68 (4), 14-22.
- Punch, Keith. 2005. *Introduction to Social Research. Quantitative and qualitative approaches*. London, Thousand Oaks and New Delhi: Sage Publications.
- Qureshi, Regula Burckhart. 1987. "Musical sound and contextual input. A performance model for musical analysis." *Ethnomusicology* 31 (1): 56–86.
- Reynoso, Carlos. 2006. *Antropología de la Música. De los géneros tribales a la globalización. Volumen I: teorías de simplicidad*. Buenos Aires: SB.
- . 2007. *Antropología de la Música. De los géneros tribales a la globalización. Volumen II: teorías de complejidad*. Buenos Aires: SB.
- Rivera, Silvia. 2006. "Chhixinakax utxiwa. Una reflexión sobre prácticas y discursos descolonizadores." In *Modernidad y Pensamiento Descolonizador*, edited by M. Yapu, 3-16. La Paz: PIEB, IFEA.
- Rivière, Gilles. 1997. "Tiempo, poder y sociedad en las comunidades aymaras del Altiplano" In *Antropología del clima en el mundo hispanoamericano*, edited by M. Goloubinoff, E. Katz & A. Lammel, 31-56. Quito: Biblioteca Abya-Yala.
- Rosa, Hartmut. 2013. *Social Acceleration. A new theory of modernity*. New York, Chichester and West Sussex: Columbia University Press.

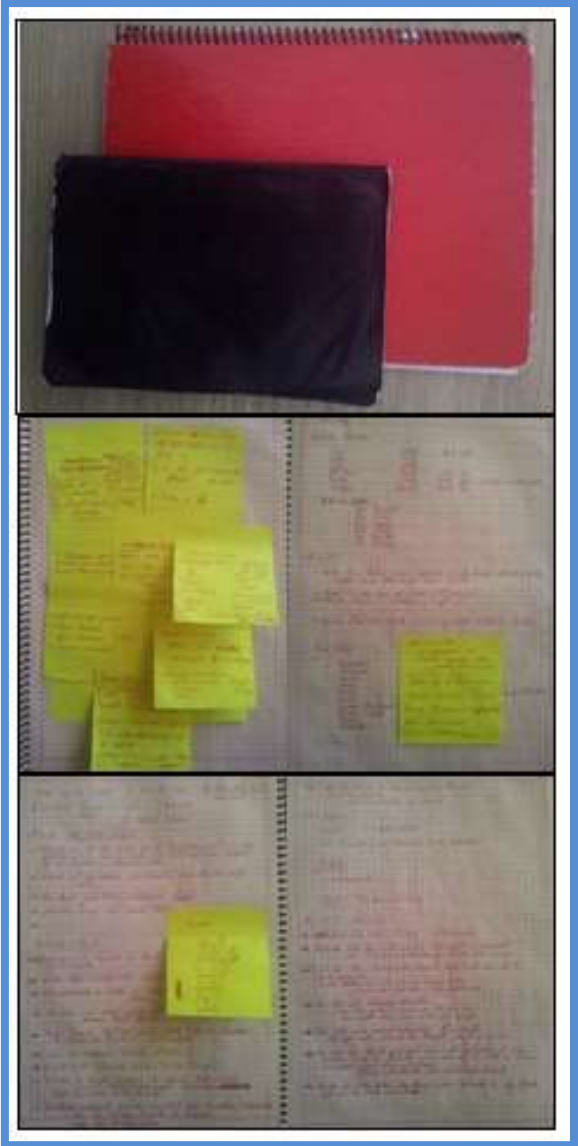
- Rozo Lopez, Bernardo. 2011a. *Guía introductiva para la investigación de saberes, prácticas y productos musicales*. La Paz: Fundación FAUTAPO.
- (Coord.). 2011b. *Curaciones de luna nueva. Saberes, prácticas y productos musicales en Lomerio*. La Paz: Fundación FAUTAPO-ProAa.
- . 2014. “¿De qué estamos hablando cuando decimos ‘descolonización de las artes?’” Paper presented at the II. Plurinational congress of anthropology, La Paz, Bolivia, September 22-25, 2014.
- Rösing, Ina. 1995. “Paraman Purina – Going for rain. ‘Mute Anthropology’ versus ‘Speaking Anthropology’. Lessons from an Andean Collective Scarcity Ritual in the Quechua-speaking Kallawayá and Aymara-speaking Altiplano Region (Andes, Bolivia)”. *Anthropos* 90 (H1./3.), 69-88.
- . 1996. *Rituales para llamar la lluvia*. La Paz and Cochabamba: Los amigos del libro.
- Sato, Shigemi. 1982. *Transcripción y análisis etnomusicológicos de Q’antus de la provincial Bautista Saavedra del Departamento de La Paz*. La Paz: Japan International Corporation Agency, Departamento de Etnomusicología y Folklore del Instituto Nacional de Antropología.
- Schafer, Murray. 1977. *The tuning of the world: Towards a theory of soundscape design*. Philadelphia: University of Pennsylvania Press.
- Schulte, Michael. 1999. *Llameros y caseros. La economía regional kallawayá*. La Paz: PIEB.
- Solomon, Thomas J. 1997. “Mountains of Songs. Musical construction of ecology, place, and identity in the Bolivian Andes.” PhD Diss., University of Texas at Austin.
- Solomon, Thomas J. 2011. “Where is the postcolonial ethnomusicology?” In *Ethnomusicology in East Africa: Perspectives from Uganda and beyond*, edited by Nannyonga-Tamusuza, Sylvia and Thomas Solomon, 216-249. Kampala: Fountain Publishers.
- Soruco, Álvaro, Christian Vincent, Bernard Francou, and Javier Francisco Gonzalez. 2009. “Glacier decline between 1963 and 2006 in the Cordillera real, Bolivia.” *Geophysical Research Letters* (36).
- Spedding P., Allison, and David Llanos. 1999. *No hay ley para la cosecha: un estudio del sistema productivo y las relaciones sociales en Chari (provincia Bautista Saavedra) y Chulumani (provincia Sud Yungas), La Paz*. La Paz: PIEB/SINERGIA.
- Stobert, Henry. 2006a. “Devils, Daydreams and Desire. Siren traditions and musical creation in the Central Southern Andes.” In *Music of the Sirens*, edited by L. Austern & I. Naroditskaya, 105-139. Bloomington & Indianapolis: Indiana University Press.
- Stobert, Henry. 2006b. *Music and the Poetics of Production in the Bolivian Andes*. Hants and Burlington: Ashgate.
- Taussig, Michael. 1980. *The devil and commodity fetishism in South America*. Chapel Hill: University of North Carolina Press.
- Titon, Jeff T. 2009. “Music and Sustainability. An ecological viewpoint” *The World of music* 51 (1), 119-138.

- . 2010. "Ecology vs. Economy. Reconciling two sustainability discourses for Folklife through the concept of nature's economy." Paper presented at Annual Conference of the American Folklore Society, Nashville, October 14, 2010.
- Titon, Jeff T. 2013. "The nature of ecomusicology." *Música e Cultura: revista da ABET* 8 (1), 8-18. Accessed October 23, 2014. <http://musicaecultura.abetmusica.org.br/>.
- Turino, Thomas. 1983. "The charango and the sirena. Music, magic and the power of love." *Latin American Music Review* 4 (Spring/Summer): 81-119.
- Urrutia, Rocío, and Mathias Vuille. 2009. "Climate change projections for the tropical Andes using a regional climate model. Temperature and precipitation simulations for the end of the 21st century." *Journal of Geophysical Research* 114, D02108. Accessed March 14, 2015. <http://onlinelibrary.wiley.com/doi/10.1029/2008JD011021/full>.
- Vergara Aguilar, María Eugenia. 2013. *Respetemos a la Madre Tierra. Percepciones sobre el cambio climático del pubelo quehuca Athun Ayllu Amarete*. La Paz: FIDA/Fundación PRAIA.
- Vidaurre de la Riva, Marolyn, André Linder, and Jüren Pretsch. 2013. "Assensing adaptation – Climate change and indigenous livelihood in the Andes of Bolivia." *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 114 (2), 109–122.
- Whitney Templeman, Robert. 1994. "We answer each other. Musical practice and competition among Kantus panpipe ensembles in Bolivia's Charazani Valley." Master Thesis, University of Illinois at Urbana-Champaign.
- Yujra Mamani, Carlos. 2005. *Los grandes pensamiento de nuestros antepasados*. La Paz: CAUP.
- Zuckerandl, Victor. 1956. *Sound and Symbol. Music and the external world*. Princeton: Princeton University Press.

ANNEX

ANNEX 1: FIELD DIARIES

Picture of field diaries and examples of protocols with small memos



ANNEX 2: TABLE OF INTERVIEWS

Interviews realized during fieldwork including their categorizations

<u>DATE</u>	<u>PERSON</u>	<u>FUNCTION</u>	<u>CONTENT</u>
06.10.14	J. G. P.	Kallawayaya sin fronteras Inbometraka	Music: Function and Concept (0:57 min) Music as an articulator (B)
09.10.14	J. O.	Musician from Cochabamba/Curva	Difference Music on the Country Side and in the city (1:35 min) (B)
09.10.14 07.11.14	L. C. A.	Lawyer Kawsay Cochabamba	Law of the traditional medicine (0:40 min) Laws and their concepts of tourism (0:15 min) (C)
09.10.14	L. C.	Director Kawsay Cochabamba	Relation between Music and Andean Cosmology (1:05 min) (B)
10.10.14 05.01.15	R. M.	Ministry of Culture and Tourism UNESCO	Concepts of musicological analysis (2:52 min) (C)
13.10.14	J. G.	Ministry of Culture and Tourism UNESCO	Application for information about the inscription process of the Kallawayaya (0:30 min) (P)
14.10.14	M. Z.	Foundation Friedrich Ebert La Paz	Experiences about the process of autonomy and decolonization through music (1:15 min) (P)
14.10.14	W. Á.Q.	Inbometraka	The connection between music and medicine, music therapy (1:15 min) (C)
24.10.14	D. T. P.	Musician from La Paz/Niñokorin	Musical transitions from the countryside to the city (0:41 min) (B)
27.10.14	D. C.	Ministry of Culture and Tourism UNESCO	Intangible Cultural Heritage: Andean Cosmvision of the Kallawayaya (1:20 min) (C)
08.11.14 10.11.14	L. W. Q.	Director Qantu Residents of Curva	Music and Medicine (1:36 min) (C)
11.11.14	M. M.	Vice-Ministry of Decolonization (Director)	Challenges in nature protection and effects of climate change (1:21 min) (C)
11.11.14	R. M.	Director of Apolobamba SERNAP	Climate Change and challenges with regard to Nature Protection (0:50) (C)
11.11.14	R. M.	Musician from La Paz/Charazani, Sumaj Ñan	Andean Poetics and Musical Production in the 21. century (0:45 min) (B)
12.11.14 06.01.15	E. V.	Vice-Ministry of Decolonization	Process of Autonomy (1:15 min) Kallawayaya Culture and Rituals (0:50 min) (B)
12.11.14	M. Á.	Musician and Producer	Folklorization of the autochthonous music in Bolivia (1:01 min) (C)
18.11.14	F. P.	“Ideologist” Niñocorin	Catholic and Original Festivities in the Kallawayaya Region (1:10 min) (B)
25.11.14	D. L.	Sociologist UMSA La Paz	Effects of Migration patterns in the Kallawayaya region (1:02 min) (B)
05.01.15	M. M.	Ministry of the Environment and Water	Climate Change in Bolivia (0:30 min) (C)
06.01.15	N. Q.	Constructor La Paz/Walata	Construction of musical instruments, materials and challenges (1:00 min) (B)
08.01.15	G. A.	Musician of Savia Andina (Band)	History of folklorization of autochthonous music in Bolivia (0:45 min) (C)
05.02.15	E. C.	Musician, Soloist La Paz	History of folklorization of autochthonous music in Bolivia (0:35 min) (C)

ANNEX 3: EXPERIMENT SHEET

Experiment Sheet: Pifano



Picture (left) of two *pifanos*. (The left one is made of *ch'uqui*, the right one is made of *soqos*. The *pifano* made of *soqos* has a hollowed nude, the one made of *ch'uqui* is one piece).

Picture (middle) of the construction process of the *pifano* in *Camata, Muñecas*. It shows the measurement of the new piece of *soqos* based on the medida).

Picture (right) of the tools and materials used for the construction of the *pifano*. (*Medida*, cane of *soqos*, *cortapluma* with semi-sharp tip, pocket knife with saw, pocket knife with corkscrew, stick with sand paper, sand paper).

Name of the instrument:

Pifano/Pito

Site:

Camata

Date:

December 12th 2014

Description of the site:

Cloth to the cemetery; humid place, spring area; semi-shaded, dark and sand-like soil; surrounding: banana plants

Walking distance:

10 minutes from the main square of Camata

Material of the instrument:

Carrizo (Soqos)

Description of the plant society:

approx. 30 units of different sizes up to four meters high and different diameters, distances between nudes 30 up to 40 centimeters, leaves: small quantity of leaves, smooth/glossy, semi-sharp edges, up to 40 centimeters

Description of the construction process:

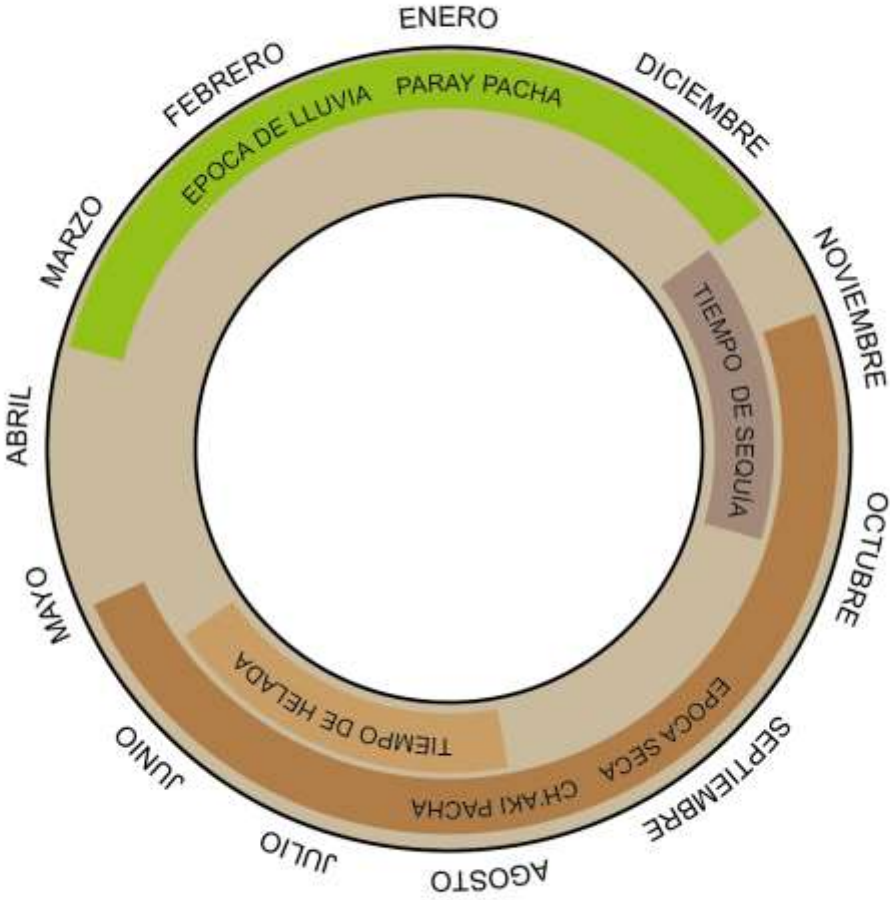
I used the medida for the measurements for cutting the appropriate part of the soqos for constructing a pifano based on the medida. Afterwards I measured the wholes, signed the places where to cut out wholes and finally cut out the wholes. Ultimately I used sandpaper in order to tune the instrument. Medida: Length: 38,5 cm, Diameter: 2,6 cm; Materials used: Carrizo 250,50 cm, 8 junctions (nudos), Tools used: picture (right)

Discussion:

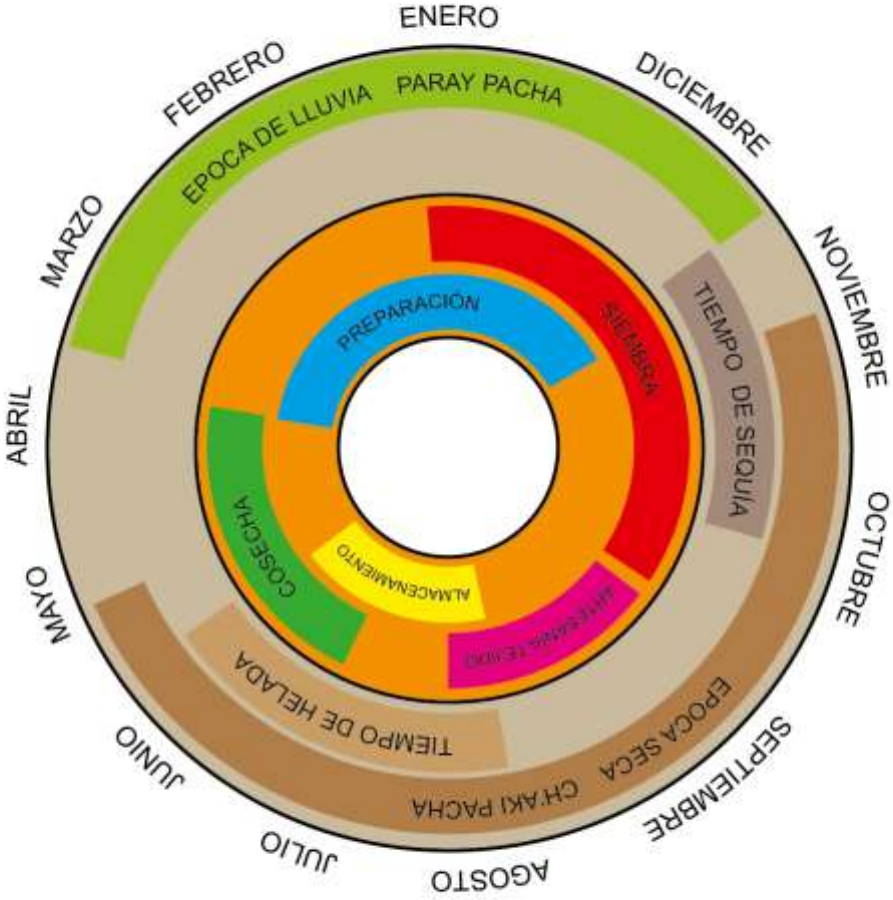
Ideally you use *ch'uqui* for constructing pifanos and *soqos* for pinkillus, such as *alma pinkillu* for instance. The tools used were not adequate for perfectly cutting the soqos. I was told that you need a slim blade with a sharp tip in order to perfectly cut around the wholes from both the inside and outside. If there is small resistance to the cut because of blunt blade for instance the probability is higher to cut break the soqos.

ANNEX 4: THE CALENDARS OF THE YEAR

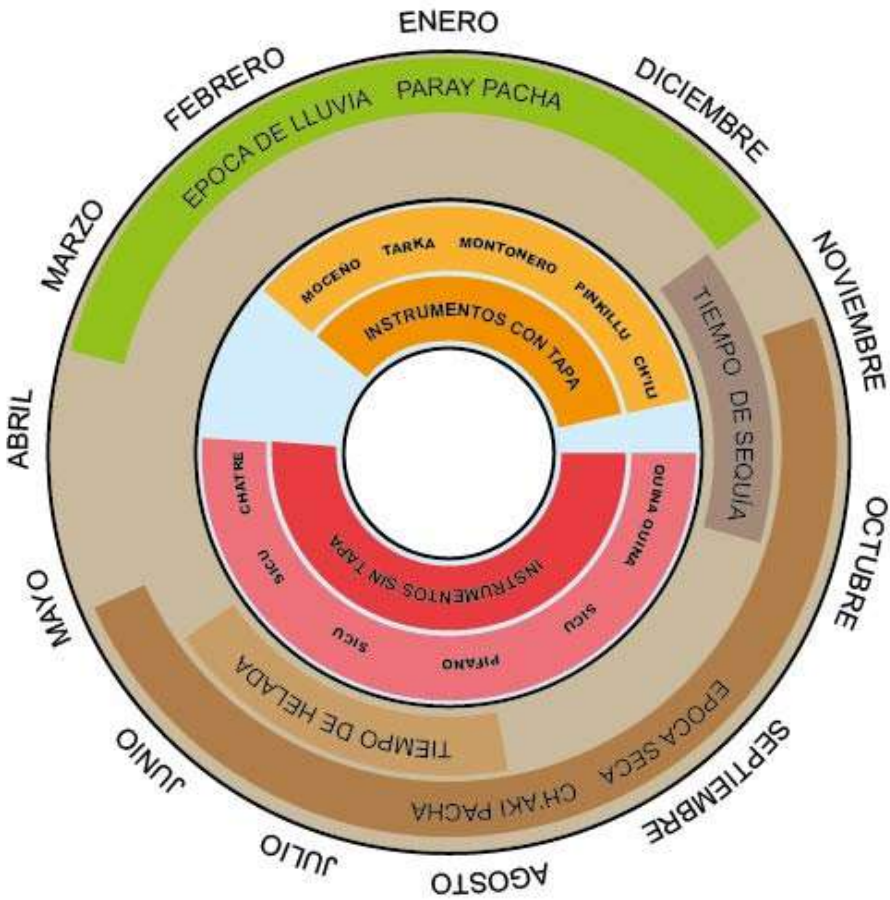
1. Climate Calendar



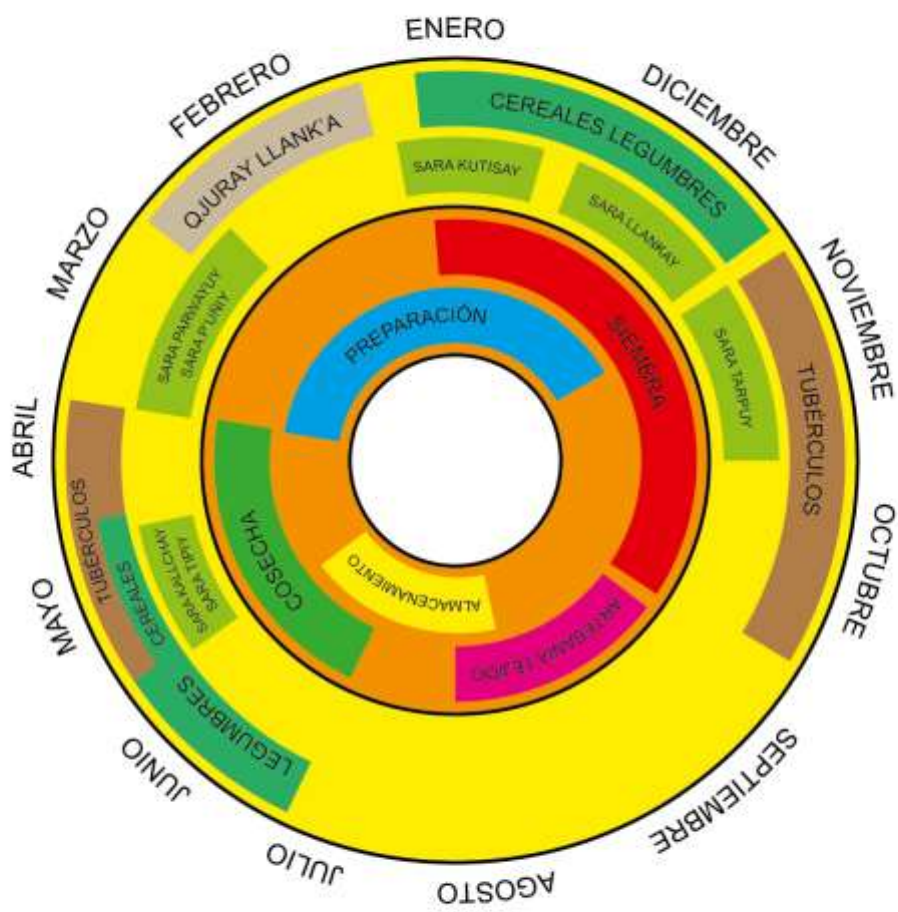
1.2 Climate and Agrarian Calendar



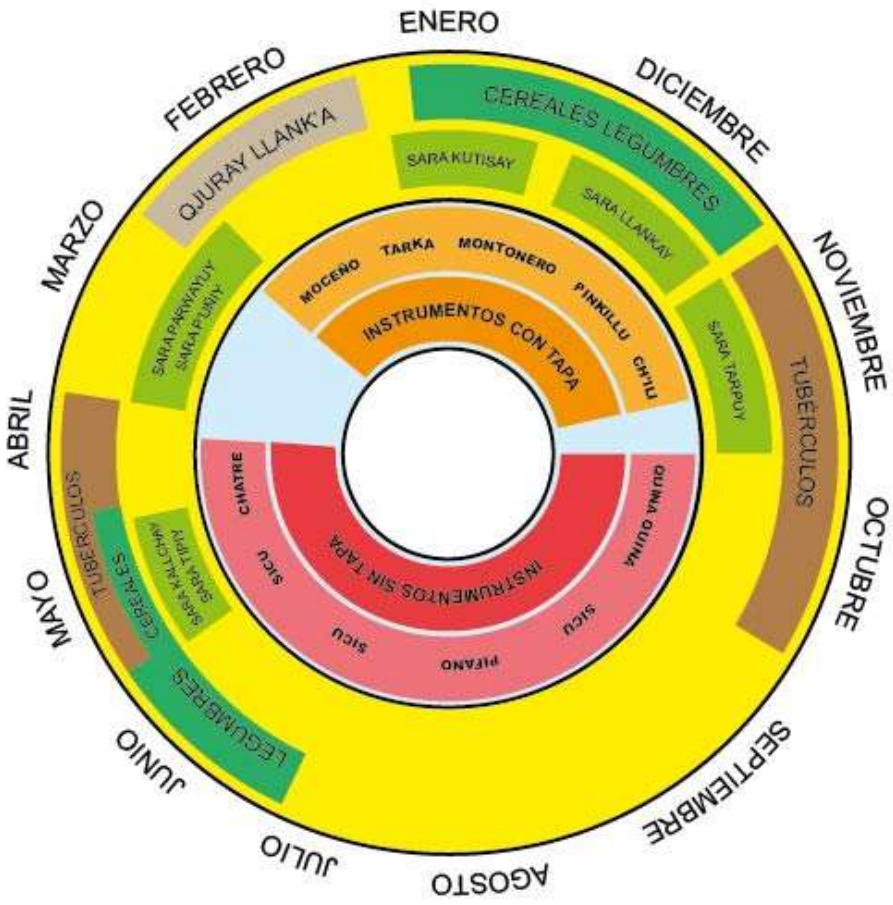
1.3 Climate and Musical Calendar



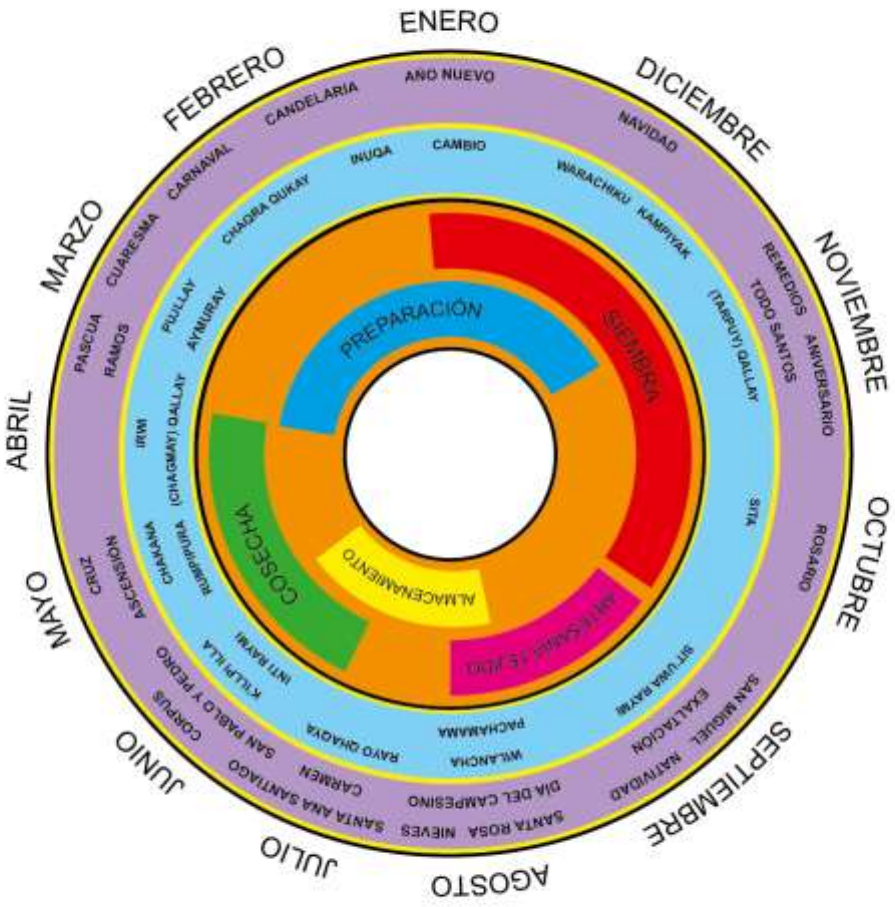
2. Agrarian Calendar



2.3 Agrarian and Musical Calendar



3.2 Festival and Agrarian Calendar



ANNEX 5: TABLE ACOUSTIC ANALYSIS

Acoustic analysis of register *malta* of Niñocorin's *qantu* ensemble

<u>KATI</u>			<u>IRA</u>		
Length	Diameter	Pitch (440 Hz)	Length	Diameter	Pitch (440 Hz)
17,2	1,1	B -2	15,1	1,1	C# +25
13,6	1,0	D# +11	12,8	1,1	E +11
11,3	1,0	F# +15	10,3	1,6	G# -15
9,6	1,0	A -13	8,6	0,9	B -10
7,5	1,0	C# -50	6,7	0,9	D# -21
6,4	0,9	E -30	5,8	0,9	F# +17
5,2	0,9	G +42			

ANNEX 6: ORIGINAL CONVERSATIONS IN SPANISH

Chapter 2:

“No te vayas solo arriba, ¿oíste? Son montañas sagradas. Antes tienes que pedir permiso de los ancestros.”
(Conversation on the bus)

Chapter 4:

“Hacer el café es siempre difícil, molerlo es mucho trabajo. Tomar es siempre fácil.”
(Mother Host in Camata)

“Si nos hacemos la burla de las piedras, nos pueden hacer enfermar a nosotros y a nuestros animales.”
(Carlos Yurja Mamami)

“Esto es una piedra hembra. Para la Mezcla del fundamento necesitamos piedra macho.”
(Host in Niñocorin)

“No son muy agradable, no son bueno para hacer, pero tal vez haya para buscar, pero no esta clase de material.”
(N. Q.)

Chapter 5:

“Si no hay música, no hay producción.”
(Alberto Aguilar)

Chapter 6:

“Nuestra música no sale con esta.”
(Friend of my host’s family in Camata)

“En realidad cuando se toca siempre hay una trasversal del tema del viento, el aire, el panorama, siempre se hace mención de escenarios como ecorregiones de Curva, se hace menciones de los lugares más sagrados, místicos que se deben conservar, se habla del viento otra vez, del aire, de los cerros que son obviamente deidades de los Kallawayas, se habla del agua, siempre se hace una sinergia entre la vida individual colectiva de la persona pero ligada al entorno ecológico medioambiental de cada región, porque nosotros decimos el docente es nuestros padres y nuestras madres, pero la universidad donde aprendemos eso, es el medio ambiente, el lugar, donde nosotros obviamente hacemos aprensión de los conocimientos los que nos transmiten o nos depositan.”
(J. G. P.)

“Estilización de música autóctona.”
(Participant during the Akulliku)

“Recuperar el interés en el *qantu*.”
(Son of my host in Niñocorin)

“La música es el primer anzuelo para que el hijo que está viviendo en las áreas urbanas, ya tentado por la modernidad, tentado por el internet, tentado por todo que nos trajo la globalización, el primer anzuelo para que haga su retorno, su *kuti*, que quiere decir retornar a sus raíces, es la música.”
(J. G. P.)

ANNEX 7: LYRICS OF SONGS BY SUMAJ ÑAN

En carnavales

Recuerdas, en ese carnaval
Que pasamos juntos
Te entregue mi vida

En carnavales que pase contigo
Te entregue mi vida
Juraste amarme negra
Eso no se te olvide palomita

En carnavales que pase contigo
Te entregue mi vida
Juraste amarme negra
Eso no se te olvide palomita

Zampoñas, cajas y bombos
Carnavalito
Bailemos hasta el alba
Que nuestro amor perdure para siempre

Zampoñas, cajas y bombos
Carnavalito
Bailemos hasta el alba
Que nuestro amor perdure para siempre

Bailemos hasta el alba
Que nuestro amor perdure para siempre

Bailemos hasta el alba
Que nuestro amor perdure para siempre

Desde tan lejos vine, bailemos hasta el amanecer

Vengo de lejos
De un lugar muy bello
Que es mi Charazani
Donde su encanto negra
Renacen bellas coplas de mi tierra

Vengo de lejos
De un lugar muy bello
Que es mi Charazani
Donde su encanto negra
Renacen bellas coplas de mi tierra

Zampoñas, cajas y bombos
Carnavalito
Bailemos hasta el alba
Que nuestro amor perdure para siempre

Zampoñas, cajas y bombos
Carnavalito
Bailemos hasta el alba
Que nuestro amor perdure para siempre

Bailemos hasta el alba
Que nuestro amor perdure para siempre

Bailemos hasta el alba
Que nuestro amor perdure para siempre

Pastita

Para todas las pastitas de mi amada provincia

Con el penar de los gorriones
Se van, se van mis ilusiones
Mañana cuando te ausentes pastita

Con el penar de los gorriones
Se van, se van mis ilusiones
Mañana cuando te ausentes pastita

Ese lunar que está cerca a tu boquita
Robármelo, quisiera esta nohecita
Y así sentirme cerquita vidita

Ese lunar que está cerca a tu boquita
Robármelo, quisiera esta nohecita
Y así sentirme cerquita vidita

Porque me pides que me aleje, no exijas perderme
Porque quedarme eternamente contigo pastita

Te robare este tu lunarcito y lo conservare junto a mi corazón

Con el besar de tu boquita
Ilusionaste mi corazón
Nunca jamás te olvidare pastita

Con el besar de tu boquita
Ilusionaste mi corazón

Nunca jamás te olvidare pastita

Añorando putina y sus andenes
Recordando a esta mi tierra querida
De los lugares que aun los conservo

Añorando putina y sus andenes
Recordando a esta mi tierra querida
De los lugares que aun los conservo

Porque me pides que me aleje, no exijas perderme
Porque quedarme eternamente contigo pastita

Si te amo, porque, porque me pide que me aleje

Caminando tras mis sueños

.... Max no te vayas
No te vayas Max

El tiempo y la nostalgia
De recuerdos dulces y amargas
Muchos triunfos y tropiezos
Nunca, nunca me rendiré

El tiempo y la nostalgia
De recuerdos dulces y amargas
Muchos triunfos y tropiezos
Nunca, nunca me rendiré

Bendita seas virgencita
Carmencita milagrosa
Con tu sonrisa me enseñaste
Un camino tras mi sueño

Bendita seas virgencita
Carmencita milagrosa
Con tu sonrisa me enseñaste
Un camino tras mi sueño

Jamás te olvidare
Mi Charazani grandiosa
Jamás te olvidare
Aunque transcurran mil tiempos

Su magia cautivadora
Que siendo pequeña es gigante

Es el encanto de mi vida
Con tu amor me iré a mi tierra

Su magia cautivadora
Que siendo pequeña es gigante
Es el encanto de mi vida
Con tu amor me iré a mi tierra

Cuando partí de tu regazo
Jure volver a tus jardines
Hoy retorno para servirte
Y prometo morir por ti

Cuando partí de tu regazo
Jure volver a tus jardines
Hoy retorno para servirte
Y prometo morir por ti

Jamás te olvidare
Mi Charazani grandiosa
Jamás te olvidare
Aunque transcurran mil tiempos

... Max no te vayas...

Me sorprendió el amor

Me embriague con el mirar
De tus lindos ojos
Color de miel
Me detuve al pasar en tu vida

Me embriague con el mirar
De tus lindos ojos
Color de miel
Me detuve al pasar en tu vida

Eres ternura, mi alegría
Iluminas mis días
Mis sueños son realidad

Eres ternura, mi alegría
Iluminas mis días
Mis sueños son realidad

Quiero tu amor para siempre
Que tus manos guíen nuestro hogar

Quiero tu amor para siempre
Que tus manos guíen nuestro hogar

La ternura de tus ojos, vive dentro de mi alma

Te entrego todo mi amor
Hoy día la aurora resplandece
En nuestro porvenir
Mucha ilusión

Te entrego todo mi amor
Hoy día la aurora resplandece
En nuestro porvenir
Mucha ilusión

Abrásame te agradezco
Floreciendo en nuestro inmenso amor
Nuestros hijos

Abrásame te agradezco
Floreciendo en nuestro inmenso amor
Nuestros hijos
Quiero tu amor para siempre
Que tus manos guíen nuestro hogar

Quiero tu amor para siempre
Que tus manos guíen nuestro hogar

Eres lo más lindo que me ha pasado en la vida

Vivir por ti

Jure Amarete contigo soy feliz
Donde tú vaya seguiré tus huellas
Mas mi amor late
Cuando pienso de ti

Llegaste a mi vida, que feliz mis días
siento el cielo estando junto a ti
Flores y besos
Jamás te faltaran

Mientras tenga vida
Mis ilusiones serán siempre por ti

La luz de luna en tus lindo ojos
Me recuerdan la promesa da amarnos

Quiero tus sueños dentro
De mi alma

Brindamos nuestro amor
Que creció con el tiempo pero es como ayer
Una linda estrellita es la gran dicha
De historia de amor

Mientras tenga vida
Mis ilusiones serán siempre por ti

Mujer superficial

Mujer superficial...

No creas que siento
Porque te alejaste
Ni trates de sobre
Porque no me importas

No creas que siento
Porque te alejaste
Ni trates de sobre
Porque no me importas

Tu rostro pintado
Con colores
Parece un carnaval

Tu rostro pintado
Con colores
Parece un carnaval

Sabía quién eras
Antes de hablarte
Mujer superficial

Sabía quién eras
Antes de hablarte
Mujer superficial

No digas quien eras
Ni ilusiones que no dicen la verdad

Bien sabes tú misma
Lo mucho que sufres
No encuentras amores
Que te correspondan

Bien sabes tú misma
Lo mucho que sufres
No encuentras amores
Que te correspondan

No aparentes
Ser feliz
Ni te engañes
Probado tu suerte

No aparentes
Ser feliz
Ni te engañes
Probado tu suerte

No te guardo rencor
Ni despecho
Pero si compasión

No te guardo rencor
Ni despecho
Pero si compasión

ANNEX 8: TRANSCRIPTIONS OF INTERVIEWS

Interview with N. Q. (06.01.2015)

...

Sebastian Hachmeyer: la gente en la comunidad. Digamos fui a Niñocorin allá he hablado con este maestro constructor y me ha dicho ya no hay para zanca, no hay grandes te puedo hacer un chuli. Ya listo porque no hay, hay crisis del material siete años aparece, etc, etc, entonces no sabían porque y me fui al trópico. Y me han dicho lo mismo. Este material es un poco difícil de conseguir, esto es más fácil porque crece en cualquier lado. Y eso me han dicho la gente pero no sabía porque es así ahora es más claro. Es más extracción hay más demanda, la gente corta porque hay más constructores, hay más demanda de turistas.

N. Q.: Uno es eso porque el otro es los lugareños también se han multiplicado como siempre ya tiene hijos nietos y quieren un sembradío. Y estos bambús ellos no conocen mucho dinero de esto, entonces a ellos no les sirve. Es como un pasto o como si fuera una rama y lo atizan y lo queman, se hacen arroz y hacen también caña. Entonces esto es lo que pasa.

SH: caña de azúcar?

NQ: Si caña de azúcar. Muchas veces he pensado en este gobierno se puede hacer un proyecto, comprar lugares de cañaverales en los Yungas, reservarlo y sembrarlo para conservarlo. Para que no desaparezca.

SH: no es posible con este gobierno?

NQ: Eso se puede hacer pero yo no tengo en mi comunidad gente, no hay unidad. Eso se puede hacer

SH: a mí me parece buena idea

NQ: Unas hectáreas con el gobierno para comprar y eso hay que preservar. Tiene que ser cuidado y si falta hay que sembrar

SH: Por un lado la música andina es muy famosa, por otro lado no cuidan los materiales

NQ: Es como decir en Bolivia se habla de Pachamama y todos los lugares son sucios. Entonces si se hablaría de Pachamama tiene que estar bien cuidado la Pachamama y no es así.

...

English Translation:

...

SH: Ah, now it gets clearer. There is more extraction because of higher demands, also because of tourism; there are more so called luriris that need primary materials, so that people cut more...

NQ: One point is this, because another is that the people in the country side [referring to preferred areas of primary production] have multiplied like always, they have sons and grandsons and they want a seed plot. And those bamboos do not make a lot of money for them, so they have no use for them. It is like pasture or as if it would be weeds and they shade them and they burn them, they plant rice and cane, this is what is happening...

SH: Sugarcane?

NQ: Yes. Sugarcane. A lot of times I thought that with this government you can do a project, buying places in the yungas, reserving them and planting those wild plants for conserving them so that they do not disappear.

SH: And it is not possible with this government?

NQ: This you can do, but I do not have people in my community, there is no unity. You can do it...

SH: It sounds like a good idea to me...

NQ: Some hectares for buying with the government and this you have to preserve. They have to be taken care of and if missing you have to sow them.

SH: On the one hand the Andean music is very famous, but on the other they do not take care of the primary materials, right?

NQ: Yes. It is like in Bolivia they talk about Pachamama, but all the places are dirty. Thus, if you talk about Pachamama it has to be well taken care of and not like this.

...

Interview with J. G. P. (06.10.2014)

...

J. G. P.: Hay bastante tema por profundizar en el tema especial de la música de los kallawayas y bastante, bastante, (...?) está ligada desde tratamiento terapéutico como musicoterapia hasta para recorridos individuales, entonces la música era acompañante de la vida kallawayaya, claro que el qhantus es más una música colectiva pero también hay instrumentos exclusivamente para que se pueda interpretar personalmente, no, individualmente, entonces, (3,29) es infinidad de aspectos mismo que está ligado a la música por el hecho mismo (3,36) estos instrumentos son puestos en lugares específicos pare que puedan tener este sonido que requiere que tenga, no, siempre son puestos, se deja toda una noche para que puedan serenar sus instrumentos y tengan este sonido, tengan esta mística que tiene la música de los qhantus, no. Entonces en detalle podemos hablar desde los instrumentos que tocan los kallawayas desde los sikus, no, que son tema de los qhantus, el tema de los sikus están clasificaciones, no, tenemos la sanqa, el suli, mama, y otros clasificaciones que son específicas depende del tamaño y del sonido que tienen, son para el tema colectivo. También se maneja el tema de la tarca, que también es un instrumento que se toca colectivamente en épocas de carnavales, no, febrero, marzo, en este periodo si interprete este tipo de música. Tenemos el pifano, y que el pifano también se toca colectivamente, pero se inició justamente para estos recorridos que el kallawayaya tenía, (4,44) ... (4,49) hacia recorrido soles entre la acompañante de él, era justamente el pifano que es un instrumento que se toca de forma vertical, y obviamente ... (5,00) y elaborado justamente por cada miembro, entonces, cada persona tenía su tamaño, grosor y el tono que podía darle y así mismo lastimosamente (? 5,12) tenía que someterlo a una infusión de una planta medicinal para que tenga el sonido y a la acompañante que ... (? 5,21).

Sebastian Hachmeyer: ¿Entonces, hay como vinculaciones entre la medicina y la música?

JGP: Esto es una transversal en el tema Kallawayaya, de que es, todas sus cosas siempre han inducido (? 5,33) a la terapia, al equilibrio, al mantener lo harmónico de la comunidad, la familia y el individuo. Así notamente tenemos el pinkillo, que es un instrumento más delgado, pequeño, y justamente se toca entre tres o cuatro personas para el tema de las ceremonias rituales, ceremonias rituales muy complejas, donde se requiere este tipo de música para que se pueda armonizar, para que se tenga el escenario adecuado para que se pueda desarrollar la terapia Kallawayaya. También tenemos por otra parte (? 6,09) de los chatres, que es, que usan instrumentos también, son, como el pinkillo, es más grande, eso (?) una, eso se toca ya, es una danza guerrera, ya para el tema del hacer un preparativo

para alguna situación bélica (?), que también ahora ya es una expresión cultural, parte de la danza autóctona de la nación kallawayaya, que son los chatres. Entonces a partir de estos cuatro instrumentos podríamos ver la gran cantidad de las armonías que se sacan para los rituales colectivos e individuales que se puede tener. Obviamente en el tema de los qhantus es más para ocasiones reivindicatorias, es más para festividades comunitarias. Los qhantus se toca con más precisión en Junio, donde es la celebración del año nuevo andino, que sea relacionado ahora con un sincretismo a la fiesta de san pedro y san pablo, que es una festividad muy muy concurrida allá en la zona Kallawayaya en Curva, donde si los músicos vienen de ninokorin, que son los más contables. Los más contables son los músicos y los qhantus de ninokorin. Entonces, ahora pero no solamente, ahora ya se ha (?), tenemos qhantus de (?), hay una infinidad de grupos musicales que se han empezado a ver este tema. Obviamente la denominación del patrimonio con referente eso ha sido transcendental para hacer promoción justamente de estas músicas que estaban tal vez en el baúl (?) solamente de recuerdo pero si se ha podido otra vez del patrimonio difundir mucho mucho ... (? 8.07) y también reconocer autoría (?), porque también habían grupos que han estado imitando, no, y creyendo ver el tema de que serían los autores de este género de música como son los qhantus.

SH: Entonces, pero la música tiene su sentido en el entorno, no ve, en el medio ambiente en que se toca la música digamos.

JGP: Generalmente, o sea, (...) el qhantus nace con un verso, (...), obviamente es una expresión real primero de los que componen a partir de una realidad vivida o de una realidad esperada. Entonces no es, no son las letras, como diríamos, que obviamente solamente los interpretes las desarrollan, porque es más sinfónica que cantada, pero empieza con un verso, eso implica de que es, tienen que ver una realidad desarrollada o una realidad que se desea tenerle. Entonces, es por eso que se vincula, se vincula necesariamente en un verso, es un verso y los compositores tienen la letra, y lo expresivo sale a través de lo sinfónico de la música, pero si todos los interpretes tienen su verso, tienen su letra, como diríamos, tienen la letra porque a partir de esos empieza (?), a partir de, diríamos, de situaciones colectivas conflictivas o harmónica, de pasiones amores y desamores, que se empieza a vincular, o si no de edades(?) que se tiene en la cultura de Kallawayaya, o si no antepasados que los recordamos, o alguna situación que se desea, no, para la cultura, para la familia o para la comunidad.

SH: O el medio ambiente, la naturaleza pues.

JGP: En realidad cuando se toca siempre hay una transversal del tema del viento, el aire, el panorama, siempre se hace mención de escenarios como ecorregiones de Curva, se hace menciones de los lugares más sagrados, místicos que se deben conservar, se habla del viento otra vez, del aire, de los cerros que son obviamente de edades (?) de los Kallawayas, se habla del agua, siempre se hace una sinergia entre la vida individual colectiva de la persona pero ligada al entorno ecológico medioambiental de cada región, porque nosotros decimos el docente es nuestros padres y nuestras madres, pero la universidad donde aprendemos eso, es el medio ambiente, el lugar, donde nosotros obviamente hacemos aprensión de los conocimientos los que nos transmiten o nos depositan.

SH: Entonces no existe propiedad del conocimiento por ejemplo de la medicina tradicional, porque si el conocimiento se queda en el entorno, no, en el medioambiente, en los caminos, en los cerros, no es propiedad de la comunidad digamos, de los ancestrales, sino el paisaje la lleva.

JGP: En parte si, obviamente a ser parte de la naturaleza no debe nacer la propiedad (11,37?). Donde nace de alguna forma la propiedad colectiva comunitaria, no individual, porque siempre se ha hecho por familias, por comunidades se ha planteado muchas terapias, a partir de la innovación, y eso que implica? Se puede hacer combinaciones de tres plantas diferentes y se tenga una terapia, allá diríamos de una innovación, no solamente, no aplicación de plantas aisladas para una solicitud, eso obviamente a ser parte del ecosistema no tiene propiedad, pero cuando se selecciona una planta de sector, una del otro sector, una de otro sector, y se las combina para una cierta terapia obviamente estuviera que de alguna forma aludiera (?) a una innovación, no, un innovación y obviamente, no, emergería una propiedad, pero si las plantas sueltas así, no, es por eso que no se hace patentes de estos elementos en una zona, porque es una propiedad colectiva de la nación Kallawayaya.

SH: Bueno, quien es la nación Kallawaya? Y ahora sabemos que hay como conflictos sobre personas que asumen la identidad Kallawaya, no, que asumen el conocimiento de las plantas medicinales, así, en la región de Kallawaya.

JGP: Hay que hacer un corte, siempre partimos los que estamos (?), que es gestión inicial del patrimonio, parte he sido yo, parte lo que de a ver (?), hecho la carpeta para postulación de la UNESCO, así manejamos un corte, un corte antes del patrimonio y después del patrimonio. Nosotros siempre decimos que antes de que la cultura Kallawaya sea patrimonio creo que los que sí han podido expresar la terapia kallawaya como parte de su expresión cultura, como parte de su vida, en cualquier escenario, sea el más escenario político, económico, de estatus mostrarlo así, como parte de su verdadera expresión sin demorar (?) nada, sin tener pudor, sin tener ninguna tipo de vergüenza de su expresión, si se ha hecho, y se ha hecho en todo los escenarios hasta hemos por decir, que hacemos esta práctica sometidos a la acción penal, pedidos por la policía, por el colegio médico, que los médico no querían que eso sea demonio como terapia ancestral, han estado en las calles expresando, haciendo la terapia para la población, los, yo creo que ellos son los que están en verdadero depositario de la cultura. Post, después del patrimonio empezaron a ver el tema más folclórico, todo si eran, porque antes no. Cuando se hizo un primer evento en la nación callada, un congreso nacional de Kallawayas, mucha gente veía como quienes se reunirán, quienes serán los malayas en la nación Kallawaya, quienes serán ellos, ah los brujos, en la propia nación y veían con asombro (?), quienes siempre serán, entonces si hay mismo había. A los dos años se nombre patrimonio, y a partir de eso, brillaban todos, obviamente, por la denominación cultura todos son kallawayas, pero en la práctica real de lo que es la medicina tradicional, no, hay linajes, hay linajes, hay linajes (?), el linaje cultural es innegable, es para... (? 15,31).

SH: Y la UNESCO no reconoce estos linajes, estos límites?

JGP: No, es que la UNESCO ha reconocido, por eso la denominación es a la cultura y medicina Kallawaya, es la denominación, obra maestra del patrimonio intangible de la humanidad a la cultura y medicina Kallawaya. Entonces hay dos rangos, la cultura que son todos desde recién nacido hasta el ciento y 10 años y su forma de vivir, agricultura, el tema de cuidar, cosmovisión, pero el tema de la medicina Kallawaya es más preciso, es mas de elite. Si tu abuelo o tu abuela no fue de eso, no hay, porque sigue (?) este linaje, y entonces si no sigues, es un cosa muy forzada, es una cosa muy forzada, porque antes se hacía recorridos de Bolivia, a Argentina, Chile, Perú, hasta llegaron hasta Panama. Había una prueba de someter a que si estabas, tenías el temple, tenías el, si era tu destino hacer la medicina Kallawaya. Entonces de esta parte es porque nosotros decimos los del corte anterior y los del corte después. Ahora todo el mundo, todo el mundo, ha dejado su agricultura, ahora está haciendo medicina Kallawaya, ha dejado su orfebrería, ahora está haciendo medicina Kallawaya, ha dejado la siembra, ahora está en el tema Kallawaya. Entonces de alguna forma hemos, yo diría, en cuanto (?) cualidad de atención hemos reducidos, somos muy pocos los que seguimos haciendo innovación en este tema.

SH: Que interesante, porque el patrimonio debe asegurar, digamos, proteger la cultura Kallawaya, pero ahora la consecuencia es que la cualidad baja.

JGP: Obviamente baja porque todo si ha por el tema de la firma que se ha dado obviamente se rojo (?) fue muy rápido el vuelco de cultura oprimida reprimida, algo que si fue, que es novedoso, que es patrimonio, es por eso que ahora la UNESCO mismo cataloga (?) como tesoros vivos humanos, ya no es el patrimonio global cultural, sino el tesoro vivo humano que se queda cada persona que si es depositario de este conocimiento, de esta terapia, y obviamente es un tesoro vivió humano, porque sigue desarrollando su cosmovisión, sigue transmitiendo, y además es medio de que este conocimiento se transmite todavía a su otra generación, entonces, por lo menos en mi caso, mi abuelo, mi papa, yo y mi hijo. Estamos todavía en cuatro generaciones, entonces que se todavía, aún sigue goteando de mi abuelo a mi papa, de mi papa a mí, o a veces de mi abuelo directamente a mí, y a mi hijo. Esto es lo que nos llamamos elite, de que si se está manteniendo, y ahora, no, con las nuevas normativas que hemos gestionado, este ultimo la ley de le medicina tradicional que obviamente hemos generado ya de que estas prácticas es una profesión, ya no es un oficio, ya no es un hábito, sino es, se cataloga en la

parte de lo que es medicina tradición Kallawayaya, y hace considera (?) como una profesión. Entonces, a partir de allí, es mí, la generación mía, todo los Kallawayas de mi generación, hemos perdido perfilar a que el estado reconozca a través de una ley específica de que nuestra practica en el tema obviamente medicinal, ya es una profesión. Y es por eso que tenemos una cuarta promoción que está saliendo de la facultad de la medicina en un programa de profundización de conocimientos de la medicina tradicional. Entonces, realmente, si hemos podido lid erizar muchas situaciones (?) y eso transversa porque retornamos de que siempre había un acompañamiento musical. Acá, los Kallawayas que tenemos residencia temporal en las áreas urbanas siempre nos ha acompañado. El motivo para que nos reúna era el tema musical. Tenemos un grupo musical de chantas acá, se llama el Chantas de los Residentes de Curva que siempre nos interpretaba, hace poco estuvimos en un encuentro justamente de Kallawayas donde hemos ido a creadores (?) de un premio como por interprete de expresión de lo era la música de los Chantas de los Kallawayas. Y entorno eso el primer anzuelo para que el hijo que esta vivienda en las áreas urbanas, ya tentado por la modernidad, tentado por el internet, tentado por todo que nos traje la globalización, el primer anzuelo para que haga su retorno, diríamos, su Kuri, que quiere decir retornar a su raíces, es la música. Los primeros encuentros juventudes de la gente que se estaba dejando tentar por la modernidad y no absorba, también absorba, podría también estudiar otra cosa, una carrea académica, pero no dejar de lados su raíz (?), entonces por eso el anzuelo era justamente la música. Nos reuníamos para hacer música y esto era el anzuelo.

SH: En lugares urbanas, en Cochabamba mismo?

JGP: En Cochabamba tenemos justo una organización que es Kallawayas sin Fronteras. En el alrededor a eso (?) hacemos música, hacemos encuentros y promocionamos nuestra cultura, promocionamos, y llevamos a escenarios como este, como de tener un ambiente, una oficina acá a dentro, que es el ambiente estatal, lo que es salud, o sea el ambiente estatal en la parte de salud, y lo que nos corresponde, lo que es la medicina tradicional. Actualmente yo estoy ocupando como jefe de la unidad de la medicina tradicional ala en todo el departamento, y obviamente eso ha sido en compensación a todo del trabajo que hemos hecho como Kallawayas, no, de mi generación, hoy me toca ocupar, seguramente, precisamente, me suplida (?) otro de mi generación para poder seguir haciendo fuerza y defender este expresión cultural, obviamente conservar la música, la música que ha sido una, yo diría, una herramienta fundamental para la unión en una área urbana, nos podamos mantener unidos y no seamos tan subjetivos (?) a que nos tanta la modernidad. O si no, sufrir este procedimiento de ... (?) del Kuri, no, volver a nuestros raíces, y a partir de esto, seguir avanzando, no, de decir quiénes somos, de donde vengo, y de decir que también que no hemos emergido de una población, sino hemos emergido de una elite cultural que vamos a cuidar, comportamos en este entendido y mantener, y siempre decir, no, somos Kallawayas, aquí allá, y donde tengamos que decirlo, dar nuestra rol, no, una rol que nos han depositado y nosotros seguramente llegado a la modus necesitaría tramitaremos este conocimientos.

... (23.22)...

... (39.50)

SH: Y bueno la última pregunta... puede ser que... Por la parte de cambios climáticos o procesos ecológicos, como la perdida de... de la biodiversidad o el... los cambios climáticos... ¿Cómo afecta esta parte? El desarrollo de la cultura, digamos, en la parte de la música, y también de la parte de la medicina...

FGP: Bueno en el tema, como medicina primero, obviamente el cambio climático... porque el tema de que... el mismo... la misma temperatura eh... el mismo... la misma calor... los mismos... la luz ultravioleta que está cayendo sobre las... sobre las platas medicinales, que no son cultivos sino son silvestres solamente por la técnica de cosecharlas adecuadamente se siguen manteniendo... se siguen forestando solos... pero en ese entendido obviamente... si ha afectado bastante, las dosificaciones están aumentando, o sea, si antes se poda dar un puñado para alguna situación ahora ya hay que aumentar un poco más porque están cambiando obviamente... principios... los principios antiguos en muchas plantas está cambiando... el tamaño esta cambiado en cuanto al tamaño está cambiando, en

cuanto a algunas coloraciones está cambiando, en cuanto algunas especies se podía hallar en un cierto escenario geográfico ya no se va a hacer hay que entrar más adentro hay que entrar, para poderlas ubicar entonces si está afectando mucho al tema de las... y algunas especies que ya casi están extinguiendo... están extinguiendo el tema de temperatura, lluvias que no se dan justo en esa época estacionaria, nieblas adelantadas, entonces obviamente por todo este cambio que se está dado en cuanto a estaciones si está afectando mucho a la planta. Y obviamente en el tema musical el cambio ha sido trascendental, el tema de la globalización ah... un poquito diría ha influido mucho en el tema de los versos de la... de la música terapia y el tema también del comercio no? de que se está viendo mucho más... ya no se lo está viendo como una actividad terapéutica así como músico terapia sino más ya como una actividad más de diversión... no? es hay que tocar para diversión para un acto social... social civil no? una actividad social civil no? ya no... se está perdiendo el tema que lo que es la ceremonia, el ritual lo colectivo de... que la terapia era bailar los movimientos están queriendo un poquito degenerarse porque había movimientos específicos para bailar el canto, no podías hacer otro movimiento que no sea ese entonces un poco está cambiando también esa parte y obviamente no? por tema de que también las estaciones, el tema cambio de las lluvias degenera algunos eh... los elementos como son los eh... los materiales para hacer los instrumentos, obviamente están variando, están variando y ya son... más parecen instrumentos comunes, instrumentos comunes sintéticos sin darles ah... sin darles ese corte adecuado, el tamaño adecuado, el diámetro adecuado y ese instrumento se ha sometido a una zona geográfica para dejarlo toda la noche y recogerlo al día siguiente, ya no es el mismo fenómeno, ya no se hace eso... se está queriendo de alguna forma perder eso sino es fabricar el instrumento y ejecutarlo ya no darle ese complemento místico que se daba entonces por alguna parte eso, y contagiándose tal vez queriendo sacar algunos ritmos eh... tal vez de otro género no? querer hacer esa... esa simbiosis con otro género que también de alguna forma he escuchado en dos interpretaciones y que son ritmos no? de otro género digamos, genero cumbia, genero... que quieren hacer una simbiosis con el tema kantus que se está queriendo ver no? ver la parte comercial también que... que le están queriendo dar no? algunos músicos callahuayas

SH: Ya... y usted h vinculando como ahora misma la parte de globalización como parte de cambios climáticos no? o como... ¿Cómo se entiende esa relación entre cambio climático y globalización y estos efectos que ha planteado?

JGP: Obviamente en el tema de los...o sea, yo diría, el tema de la comunicación a influido mucho, ha influido mucho... necesariamente han tenido que sufrirse algunos recorridos necesarios para el tema de recolectar la materia prima para fabricar los instrumentos por una parte era necesario que se haga ese recorrido era necesario que se transcurra ese recorrido pero por el tema de la comunicación por una parte ya lo tienes el elemento en medio día ya esta, ya esta en el lugar donde lo vas a hacer y se lo está haciendo de una forma muy (45:21) en tema de los que es el endoculturismo está generando que se generen instrumentos así rápidos... rápidos no? y obviamente para el tema turismo para los turistas obviamente ellos lo van a llevar para (45:39) tal vez para tenerlo de adorno se esta perdiendo en ese sentido. El tema del endoculturismo para el tema musical si ha influido mucho y obviamente es el tema de estar visibles para todo el mundo ha generado mucho incursión y esa incursión ha generado desarrollar actividades muy... muy rápidas sin cumplir el proceso adecuado para, obviamente, para satisfacer al turista, por otra parte la incursión misma de que a veces muchos de los callahuayas urbanos cuando hacen su incursión otra vez a la zona callahuaya llevan muchas cosas no? llevan objetos muy propios de la urbana que obviamente la cultura, la cultura en algunos la juventud en especial, a cultural en algunas expresiones, en algunas conductas y en... en un hábito costumbre alimentaría allí influyen no? influyen con las cosas que de alguna forman se llevan del área urbana a la zona callahuaya, en cuanto a ritmos igual siempre andan llevando cd, temas propias de ritmos urbanos que obviamente eso de alguna forma desvinculan ese.. Esa ese modo de vida que tienen que tiene la juventud allá desvincula eh... o de alguna forma tientan, de alguna forma, a dejar por cierta... por cierto tiempo algunas cosas o prácticas que se tiene en la zona

Sebas: ¿Eso se refiere a cambios climáticos o a la globalización?

JGP: En tema de la globalización, en tema de los cambios climáticos para los calendarios agrícolas ha influido bastante, tremendamente es como que hubiera eh... parece que estuviera adelantado un mes

en todo, parece que treinta días se hubiera adelantado el clima entonces influye en todo lo que tiene que ver obviamente está influyendo si en un... en un época de Abril no debería llover y ya llueve, ya llueve entonces si el tema de los cambios climáticos ha influido tal vez en... en un mes y medio podría decirse si estamos en junio ya parece agosto entonces ese cambio así ha sido fundamental para el tema de las cosechas de las plantas paz todo el tema de lo que es la actividad rutinaria que se tenía eh... me parece que hay que hacer una reprogramación ya con este calendario gregoriano retornar otra vez a hacer una recuperación de lo que sería el calendario propio de la lectura de la naturaleza para retomar... ya tomar el enero, febrero sino retomar nomás lo que el medio ambiente nos está expresando porque es el choque, mientras nosotros pensamos que es junio y el tiempo esta ya como agosto entonces creo que hay que volver a recalibrar ese aspecto para algunas cosas porque hay actos rituales que se están llevando con el calendario gregoriano, y obviamente cuando tenemos que ver un escenario despejado para hacer justo ese ritual no, estamos viendo un escenario nublado y que no... no está totalmente desplazado en ese sentido

SH: Pero eso se refleja en la expresión de la música también letras, en cambio de...

JGP: Seguramente, seguramente... en el tema de los versos no he podido percibir todavía pero seguramente los de allá deben está influyendo o sea viendo porque como le dije inicialmente los versos son una expresión de la realidad que se vive, seguramente ya deben estar eh... viendo por en este periodo dos mil catorce que hemos sentido, o personalmente he sentido es eh... las veces que incursionado allá, pero si en este periodo no debería estar eh... con neblina, y esta con neblina no debería estar lloviendo, o para ir a ver el tema de las truchas se necesita un escenario que está lloviendo nublado y está despejado soleado entonces seguramente debe estar en... debería ser es...es por gravedad pues y el verso emerge de la realidad vivida y cuando tenemos una realidad adversa un choque entre expresión de la naturaleza y el calendario obviamente si va a generar, va a generar versos ya más propios a... y contradictorios al cambio climático al escenario que se está pasando no?

...

Translated part about Climate Change Effects on Music:

JGP: And obviously in the realm of music climate change has been far-reaching, the topic of globalization ah... I would say has influenced a lot the topic of the verses of the music therapy and the area of commerce, right, while you see more often... it is nowadays not... you see the music not any more as an therapeutic therapy but more like an activity of amusement, right? That is playing for amusement for a social act, social civil, right? It is losing the topic with the ceremony, the collective ritual or the therapy. It is a little bit of a degradation because there have been effective movements for dancing qantu, you could not make other movements which were not those, thus a little bit has changed in this direction, and obviously in the theme of the seasons, the change of the rains degenerate certain ah... the elements which are the materials for the construction of instruments, obviously they are changing and seem to be more common instruments, common synthetic instruments without giving them the appropriate cut, size and diameter and those instruments normally underwent a ritual of tuning in a specific geographical area over night, so that on the other day you have recollected it [serenada]. It is already not the same phenomenon, already they don't make it anymore. And it is losing the mystical component of fabricating and executing the instruments. Moreover, the rhythms change, maybe from other genres, so that a symbiosis of genre occurs which I have heard in two interpretations, those are other genres such as cumbia which make a symbiosis which a qantu melody, thus also the commercial part again, which some Kallawayá musicians want...

Interview with J. O. (9.10.2014)

...

J. O.: la modernidad y no entonces yo me puse a pensar para ver esto yo me hubiera quedado en Cochabamba en la ciudad porque cada fin de semana hay estas fiestas he dicho no con mi esposa comentaba

Sebastian Hachmeyer: Ya

JO: yo he venido a ver lo auténtico porque ir de acá de Cochabamba hasta allá es lejos no

SH: claro, son dieciséis horas no

JO: dieciséis horas no es cierto tones yo muchas personas también amistades nos hemos puesto a hablar a comentar sobre esto. Fucha que pena hemos dicho mira hemos venido desde tan lejos a revivir esa originalidad de nuestra música, nuestras costumbres nos encontramos con esto no es un aspecto negativo no estoy en contra te digo pero eh está haciendo que se pierda identidad en la música allá

SH: y dirías por ejemplo que en contrario con el campo que es tradicional, original digamos y más que la ciudad, aquí en Cochabamba la vida es más artificial digamos, y la música también si me refiero (al) a nuestra a la banda de ustedes no que es Kantus residentes en Curva no

JO: Ah, si

SH: ¿Hay en Cochabamba, no?

JO: Hay, hay sí.

SO: ¿Dirías que esta música no es tan original como la música que tocan en el campo?

JO: Ya sobre esto quiero que me pongas atención dos aspectos bien fundamentales el modo de ejecutar el modo de ejecutar, no, los instrumentos siguen siendo originales sabes donde ha cambiado en el tipo de música ósea sacan melodías ¿no es cierto? Pero ya las melodías que tocamos acá y hasta allá te digo ya son influenciadas por esa música urbana que te digo, por ejemplo un añito de por ejemplo ósea sacan algo de ese pedazo y le influyen en la melodía tu escucha haber yo te hago escuchar una cumbia de acá y allá han escuchado esa cumbia y hay lo adaptan (lo adaptan) a su (a su) música a la música autóctona

SH: en el campo o en la...

JO: en el campo en el campo acá también no algo que está sonando ah ya hesito lo se adaptan lo adaptan y suena, claro es bonito eh a donde me voy que la originalidad del campo o esa influencia para hacer música nativa se está perdiendo no sé si me has comprendido.

SH: Si, si pero yo no estoy pensando en el campo como espacio sino en campo como interno por ejemplo no

JO: Ah ya

SH: porque si hay modernización porque si hay esos procesos modernos de la modernidad (cual) tanto en el campo que en la ciudad no

JO: si

SH: donde, cual es la tradición, donde está la tradicionalidad u originalidad de la música entonces no debe (debe) estar en la (en las) personas que expresen esto no

JO: si

SH: la música

JO: claro pero...

SH: o pregunto ¿Cuál es la diferencia tonos entre los Kallawayas que viven en la ciudad y los Kallawayas que viven en campo?

JO: ya

SH: con respecto a la música no

JO: eh quieras o no Sebastián eh el medio ambiente es un factor bien importante que te (te) influencia a tu modo de vida, a tu modo de pensar a todo entonces en ahí también a tu música te va a influenciar entonces si buscamos la originalidad si o si hay que irnos allá. Acá un buen músico pero ya vive años el medio ambiente te absorbe quieras o no como te digo aquí ejecutan (es) originalmente pero la influencia de la música ha hecho que las melodías ya no sean las mismas que las de allá.

SH: entonces falta contexto digamos no

JO: exacto, claro más que todo me voy a la melodía no a la música claro el género sigue siendo el mismo se usan los mismos instrumentos, los mismos compases, los tiempos no hablando más música teórica pero la melodía ha cambiado ya ¿Porque? Porque como te digo eh el contexto te absorbe, te influencia quieras o no tonos si vamos a buscar primeramente una música con originalidad esta allá en el campo.

SH: Ya, entonces hablamos un poquito de la (de la) teoría de la música ¿no? Has empezado con escalas pentatónicas no

JO: si

SH: puedes seguir hablando de la teoría un poquito y la influencia de la armonía, de la teoría del occidental de la música

JO: ya

SH: en en... los cantos

JO: Ya, mira para empezar yo eh en esta inquietud de la música eh me dado cuenta por ejemplo que la música allá él (el) hombre andino no te va hablar de teoría musical no, no tú le presentas un pentagrama. No, es (no es) propio de su contexto no es cierto

SH: No, entiende la...

JO: No, no pero mira yo que he investigado algo de teoría musical no soy experto en el tema pero me encanta la música Sebastián.

SH: si

JO: como te digo, yo digo que la música de ellos realmente está en su alma, en su cuerpo del hombre andino escucha y te dice ah eso es no necesita una teoría, una partitura para decirte eh por ejemplo yo (yo) no entiendo como sus instrumentos ellos propios los elaboran no, hacen ¿Has debido ver? Es con artesanalmente diríamos no, van cortas las cañas huecas tienen las medidas, soplan, lo ordenan, lo amarran y ya está. Hago una comparación, yo tengo amigos que realizan también ese trabajo con la tecnología no con el famoso diapason tienen que estar tubo por tubo.

SH: si

JO: ah este es, esta falta aliguito no hay que lijar. Allá no, es increíble hermano como esa ciencia como se ha ¡es ciencia!

SH: Es ciencia ya

JO: Solo que no está en, no está en un papel no está digamos en especificado en un libro, una teoría y yo me asombro de eso eh la verdad y allí esta, pervive eso gracias a Dios se sigue transmitiendo también de generación en generación y es interesante esa música por eso te digo; ahora como he sabido que es pentatónica viendo algunos libros y también yo investigando porque para grabar esta canción he investigado por ejemplo. Por ejemplo en que escala musical había estado el Kant está en Do menor sostenido en Do sostenido perdón. Y su (su) acompañamiento haber Sol sostenido no su ¿Cómo se dice? Su...

...

Interview with Host in Niñocorin (HN) (18.11.2014)

...

Sebastian Hachmeyer: en enero por ejemplo, empezamos

Host in Niñocorin: (mal audio) justamente estoy atrasado para el viernes. Tal vez ya han (... No se entiende). Yo he colocado aquí. Aquí era la cosa, después, así nomás era. Estaba pensando pues (se entiende) de repente dibujar la Wipala por aquí pero de repente había salido aquí. De aquí había empezado la Wipala y ha salido mal. Como no me había fijado de año nuevo que estaba así, pero otro año nuevo habían pintado

SH: entonces enero año nuevo, que es más fiesta más católica en el Gregoriano.

HN: Candelaria

SH: Que es Candelaria?

HN: Una fiesta también a la virgen es fiesta patronal

SH: de Niñocorin?

NH: No está muy provincial

SH: muy provincial Carnavales

HN: Por el carnaval

SH: ramos

HN: Ramos ya empieza antes de Pascua

SH: que es ramos?

HN: Hablamos de la entrada triunfal de Jesucristo a Jerusalén. Y ese es el Domingo de Ramos. Y el próximo domingo es Pascua... Aquí reza el Padre Nuestro

SH: no hay música en esta temporada. No?

HN: Se llama cuaresma viene ya justamente después de pascua ya aparece la fiesta del o el (...) la fiesta de la cruz, la Chacana, coincidía de alguna manera

SH: pero eso es más octava cruz

HN: La octava de la cruz. Como hoy día que es martes y próximo martes es la octava, es la misma fiesta pero en otro pueblo. No puede ser en el mismo pueblo, si aquí hacen tres ahora la octava en donde hacen, en Charasani.

SH: pero estos tienen fechas, no?

HN: Fechas, por eso la octava de tres de mayo es 10 mayo nomas es.

SH: 10 de mayo, pascua.

HN: Sin fecha porque dependiendo del Carnaval, no sé de qué depende todavía.

SH: pero carnavales también cambia un poquito pero no tanto como semanas.

HN: No sé. De Carnaval a Pascua es cuarenta días, después hay otra fiesta. Cuarenta días hasta la ascunción, después de cuarenta días también para Espíritu. ¿No hay no?

SH: esto es Corpus

HN: También depende del Carnaval, movable, otro ciclo son los movibles. Aquí no hay movibles.

SH: San Juan

HN: San Juan en fecha exacta.

SH: San Juan, San Pablo, San Pedro son?

HN: 24 de junio, 29 de junio

SH: esos son?

HN: Fijos

SH: fijos. ¿Pero ese San Juan, quién es? ¿Ese San Pablo?

HN: Son Santos, igual que Candelaria

SH: Carmen Virgen

HN: Santiago, Santa Ana. Santiago es hombre y Santa Ana es mujer.

SH: Santiago o san

HN: Santiago, mi escritura es así

SH: esta la patria Nieves

HN: Nieves, es Virgen de las Nieves. Día del indio

SH: ah Día del Indio

HN: Ese es ya agosto y fijo.

SH: Santa Rosa

HN: Asunta debe ser

SH: Santa Asunta. Son santos también

HN: Son santos también. Natividad mujer también de Niñocorin.

SH: a eso es la virgen de Niñocorin, Natividad... San Miguel

HN: Exaltación es no?

SH: exaltación

HN: Tres fiestas en un mes en la provincia. Rosario

SH: Todos Santos. Ahora estos no? Ahora estamos aquí. Y no hay navidad, aquí no hay fiestas

HN: Noviembre (.....)

SH: entre Remedios y Navidad no hay fiestas?

HN: Promociones, así nomás.

SH: esas son las fiestas patronales. ¿Son todos?

HN: Ah!!! Por ejemplo

SH: Faltan? Esos son todos en la provincia

HN: Inclusive municipio Charazani

SH: Eso es municipio Charasani

HN: Exactamente, pero tal vez puede faltar provincia

SH: Fiestas de Provincia?

HN: Si

SH: Cual?

HN: No. Es que tal vez a nivel provincial falta.

SH: Pero cual puede faltar

HN: Yo no sé de comunidad (....) que fiestas tendrán de (.....) Algo se San Pablo esta de la segunda sección

SH: bueno hablemos de los instrumentos y los géneros. Que tocan en enero, febrero y marzo. Año nuevo, calendario de carnavales. Que se toca aquí

HN: Esto es generalmente pinquillo.

SH: Enero, febrero y marzo pinquillo?

HN: Si

SH: o pascua?

HN: De eso nomas

SH: pero entonces en esta, en marzo no toca

HN: Después de domingo de tentación tocan

SH: cuando

HN: Domingo de Tentación

SH: Domingo de Tentación, eso no, ya no. Hasta aquí

HN: Sábado de Pascua

SH: sábado de pascua. Depuse, la cruz, (...)?

...

SH: (...chatre..)

HN: Cantú también

SH: Santa?

HN: El santa está tergiversando. Están tocando en cualquier momento

SH: si ahora

HN: Ese es el problema

SH: porque eso es, aumenta el interés, UNESCO también porque a nivel internacional está reconocido, tocan siempre el Cantas, en cualquier situación. Y (..Chatre), hasta cuando tocan (chatre)?

HN: Hasta San Pedro. Ayer había chatre?

SH: a no chatre no había. Más pincelada

HN: Había pinkillada, no en Chajaya?

SH: No en Chajaya, puro Cantu. Peor en el aniversario había pinkillada, había pífanos.

HN: Ese aniversario tampoco es muy.. aglutina a todos no. Representación de la comunidad

SH: y que tocan más. Entonces después de pascua

HN: Estamos hablando de ... todos santos ... chatre

SH: un poco mas

HN: Hasta aquí es la quinaquina. Pero igual se puede tocar en chatre quinaquina, todos los que tiene tapa abierta. Eso es en realidad. Pueden tocar. En este tiempo se toca cantu, quinaquina, chatre. Aquí los (mucunos), pinkillos

SH: Muculos que es

HN: Son un tipo de pinkillo, un cululu

SH: ah chili

HN: Pero tienes que ... todos santos.. Todos los que tiene tapa. Y todos los con tapa abierta. Pero tampoco puedes tocar quenaquena en mayo, en San Miguel o Natividad puedes tocar. Ahora ha perdido

SH: que es tapa abierta, que es tapa cerrada?

HN: Como la quena

SH: quenas es tapa abierta. Y como se vincula esa tapa abierta?. Con tapa abierta la energía sale a la tierra no? Porque tocas así

HN: No la tapa abajo tocamos con tapa afuera, el viento no ve

SH: eso se va al cielo, el viento no ve

HN: Jaki pacha, en tiempo seco,... lluvioso tiempo

SH: eso es seco. Eso es lluvia. Entonces con todos santos

HN: Entre todos santos y

SH: después de pascua cambia, más o menos no?

.....

SH: puede ser que estos cambian. Porque por ahora la lluvia en el tiempo seco, lluvia fuerte. Puede ser que estos cambian según así que en agosto y marzo, cambia seco a lluvia. Y no entre abril y mayo; octubre y noviembre, sino más entre agosto y septiembre; febrero y marzo. Puede ser por cambios climáticos. Que es adelantado, un mes adelantado en abril empieza el seco ahora sabes

HN: Ojala que está bien. Porque por ahí es todo, todo estamos destruidos también. Y si sería un cambio estaría bien nomas y si no es si todo esta mesclado ya no podemos controlar. Ojala que es un poco ajicerado nomas. No sabemos todavía

SH: pero lo que pasa es que estos con la música se vincula con estas fiestas. Entonces no van a cambiar según estos cambios meteorológicos. Imagínate en tiempo de lluvia dura hasta febrero, aquí empieza Cantus, en marzo Chatra; quenaquena hasta agosto y pinkillada empieza en agosto y no en noviembre. Pero eso no va pasar porque están tan vinculados con estas fiestas. Ahora vamos a hacer esto, las fiestas, rituales. Que es cambio de autoridades.

HN: Un chili también en Charasani. Pero aquí no

SH: y este

HN: Este Con pinkillo

SH: Pero que es este chacracuchuc con pinkillo

...

Translated part in English:

...

SH ... and this?

HC: This is *chacracucuy*, with *pinkillu*.

SH: What is this *chacracucuy*?

HN: Well, this is the distribution of land, this is the translation. In former times it really was a distribution of land, but nowadays it ceases to exist because of the agrarian reform.

SH: Agrarian reform? In which sense does it affect this?

HN: It has individualized our collective lands, nowadays you have *your* place, which is mine. In former times still I could...

SH: Property.

HN: Private property, lets say, individual.

SH: Thus, there is no distribution nowadays because of property.

HN: Private property. It is a legal act, under law.

...

Following this conversation we talked about *pujllay* and how the Gregorian calender replaced it with Carnaval, like the third of may, the feast of the holy cross and the chakana.

...

SH: And this, *pujllay*, what is it?

HN: *Pujllay* is like carnival, is the same translation. *Pujllay* is ..., for example it is like the third of May, the feast of the chakana, the same, they have coincided a little bit, back then they have been wily for collocating.

SH: And what are you doing in *pujllay*?

HN: It is the end of the rain season, the clouds and the blossoms play and dance in the winds, before the harvest time. It starts with Sunday, visits of the godfather, godchildren etc. Monday they affirm the new authorities, although they already have been changed. They could do a small party, not at the end when they finish their turn, but before, at the beginning, starting with those days they begin to govern, to walk. First of all, here [pointed at the authority change in January], they denominate with a ceremony, then, here [pointed at *pujllay* in march] they make a small ceremony but here they already are in Carnaval, they are affirmed.

SH: And this, what does it mean, *preste*?

HN: There have been *prestes*, the whole week have been parties, before. Nowadays it no longer exists. Sunday of temptation it ends when the instruments rest.

SH: Why did it cease to exist?

HN: Nowadays, it does not exist no longer, because ... mh ... well, it is a cost, too, because in former times there were..., nowadays you cannot make it. Well, a *preste* is spending a lot of money of which in former times..., you have to work firstly the terrain, in the morning and on the land, various people worked, and the same people that worked partied in the afternoon. And the party, the owner of the land, of the *chacra*, has to, how do say that, invite, like the *preste* yesterday. Now, *you* make it, or with others you can make it, the money already extinguishes, already you do not effort suchlike costs. In former times there was no beer, and no booze. It was even collective, nowadays they only expect it of the *preste* nothing else. This has changed, In former times is was more collective. Everybody has taken a little drink, too, but now I don't believe that they go with their booze. Thus, there was a *preste* Wednesday, Thursday, Friday, Saturday until Sunday. The next day they were going to work on the *chacra*, in the afternoon party, after midday. Next day another *chacra*, another *preste* and Friday another *preste*, Saturday another.

SH: and another *chacra* again.

HN: Another *chacra* and thus, collective, right? This is about to disappear because one thing is the cost.

SH: A lot of money.

HN: Now you have to pay more, because already it is no longer collective. One person pays, so that it is better to work with the family and wage worker. Moreover, they have been good workers, nowadays they already are not delighted in working.

Interview with R. M. (11.11.2014)

...

R.M.: Si hablamos de Ulla Ulla, Apolobamba, en este caso hablando de la cultura Kallahuaya, estas relacionando cuáles son los efectos del cambio climático en la cultura Kallahuaya verdad?

Sebastian Hachmeyer: Sí

RM: Tú debes saber que toda la provincia Bautista Saavedra ha sido declarada nación Kallahuaya, pero la historia dice que son sólo 8 comunidades Kallahuayas: Curva, Kalaya, Chajaya, Chari, Huata Huata, Opinuaya, esas son las antiguas comunidades Kallahuayas, y el 2003 la Unesco declaró también como Patrimonio Oral e Intangible de la Humanidad a la cosmovisión de la cultura Kallahuaya, entonces, en Bolivia hay esos dos patrimonios, el carnaval de Oruro y la cosmovisión de la cultura Kallahuaya. Contando una experiencia, el 2007 yo he trabajado justo con Chajaya, Kalaya, Pampa Blanca, Huata Huata, Chari, Chacarapi y Kaluyo, 7 comunidades Kallahuayas, con un proyecto llamado Conservación y uso sostenible de especies Vegetales medicinales Kallahuayas de estas 7 comunidades Kallahuayas. ¿Cuál era el trabajo? Era el de realizar estos productos Kallahuayas: Mates, parches, jarabes, rescatar la lengua que es el Machajuyay. Hemos reunido 10 concejos Kallahuayas, les hemos llamado a los más ancianos, los Kallahuayas verdaderos de estos 2 distritos de Chari y Chajaya. Chari tiene sus comunidades que es Chari, Kaluyo y Chacarapi; Chajaya tiene Kalaya, Huata Huata, Pampa Blanca y Chajaya, entonces, de ambos distritos hemos formado un concejo Kallahuaya de los Kallahuayas verdaderos, de allí hemos rescatado todos sus conocimientos, por ejemplo, procesos de elaboración de sus mates; y de cada Kallahuaya variaba su receta, siempre había una variante, no era el mismo, su conocimiento es distinto y hemos hecho mates, hemos hecho jarabes, hemos hecho parches, hemos rescatado algo de su lengua, del Machajuyay, hablaban ellos y otros traducían lo que les hacíamos hablar y Ada Alvarez, una socióloga, estaba apoyando en la parte de sistematizar todos los conocimientos que se adquirían.

SH: sí, la conozco.

RM: ella es de Kalaya, entonces con ella hemos trabajado, el CICADECA es el que ha ejecutado ese proyecto. Entonces, la norma boliviana dice que como son especies silvestres las que se utilizan como plantas medicinales, el 20% de ellas se pueden extraer de in situ, o sea del lugar, pero hay que reponer, entonces hemos hecho huertas comunales para que puedan cultivar plantas medicinales en sus canchones, y teníamos que implementar bancos de germoplasma, porque ya se estaban perdiendo algunas especies que solamente hay en determinados lugares que ellos conocen. Por ahora no se conoce la descendencia de los Kallahuayas, solo que se han implantado en la provincia Bautista Saavedra por la variedad de plantas medicinales que existe en el lugar, pero había algunas plantas que estaban desapareciendo, entonces eso puede ser por efecto del cambio climático. Ahora, talvez conoces Charazani.

SH: Bueno sí, estaba en Kañisaya, Curva, Charazani, en...

RM: has debido ver ese sistema de terrazas de formación lenta, que tengo entendido que es por el cambio climático, por ejemplo este año casi todo el año ha llovido, abajo en el sector de... ha habido un desastre natural, como era Augusto?

Augusto: viento huracanado

RM: un viento huracanado que ha destrozado aproximadamente una hectárea de lo que es cobertura vegetal, árboles y todos eso.

Augusto: árboles mas

RM: árboles más, una huracanada que donde chocaba, todo lo limpiaba: casas, parques.

SH: ¿en qué parte? ¿En qué región más o menos?

Augusto: Ajiyuyo

RM: Ajiyuyo, de Charazani unas 3 horas más abajo, sigue perteneciendo a Charazani eso. Ese tipo de cambios está bajando la producción, por el tema de la precipitación que no está como se esperaba antes, se maneja dos épocas: época seca y época húmeda, generalmente se espera al agua de lluvia en sus calendarios agrícolas, pero ahora empieza a llover tarde o no llueve o no llueve en el tiempo que antes llovía, como se esperaba entonces ese es un problema, son efectos del cambio climático.

SH: ¿pero no adaptan estos calendarios agrícolas según estos cambios?

RM: No, en eso hay que trabajar, yo pienso hay que ver el tema de concientización, capacitación y ese tipo de cosas. Yo creo que hay que ver el historial de los climas, por ejemplo, hay informes del IPCC, se han escrito informes de Global System, que dan datos de medias de temperaturas, de aspectos climáticos, de temperaturas de 1960 a 1990, tiene una media de ahí hasta ahora. Entonces esos datos hay que manejar para tomar decisiones sobre cómo hay que hacer.

SH. bueno nosotros trabajamos en la parte de capacitar con las comunidades sobre diferentes procesos: formación de un autogobierno, proceso autonómico, pero también cambios climáticos y también pensamos que la gente no está tan consciente de lo que está pasando según estos cambios climáticos, entonces hay que entender estos cambios antes.

RM: Claro, yo pienso que para tomar una decisión y guiar a la población, esa base de datos de temperaturas que se tiene, para ver cuál es la diferencia, de cuántos grados, y hay proyecciones al 2030, 2050 y hasta el 2080 que se pueden ver, estas llegan automáticamente del Global System. Yo me enteré de esto en Guatemala, en un seminario del futuro de las áreas protegidas frente al cambio climático, del cual yo regresé ayer. Y hay escenarios proyectados hasta el 2030, hay por ejemplo, varianza de la temperatura que está subiendo arriba de 2°C, si por ejemplo en La Paz la media es de 18 a 20°, entonces el 2030 va a ser 22 a 23°. Hay especies que se adaptan, su hábitat es a 1800 m.s.n.m. y si va a aumentar la temperatura van a tener que subir. Ese tipo de cosas se tienen que ver, primero las temperaturas, hacer un análisis en campo, respecto a cuál es el comportamiento de estas especies.

SH: cómo es el suministro de agua en los ríos.

RM: ¿En dónde?

SH: en las regiones, en las comunidades, ¿cómo afecta el cambio climático el suministro de agua en algún sentido?

RM: ¿Estamos hablando de agua para riego o agua para consumo?

SH: Consumo, hablemos de los glaciares, los ríos y las cuencas, se puede notar alguna diferencia?

RM: En la cuenca Charazani, Chari es una comunidad que tiene agua, Charazani no tiene agua.

SH: ¿porque es más arriba no?

RM: si, generalmente se alimenta de Chamara, siempre hay esos problemas comunales, pero el agua es un factor limitante, toda actividad agrícola depende de la época de lluvia, en septiembre empiezan a hacer la siembra esperando que en octubre empiece a llover, pero si estos aspectos climáticos cambian obviamente va a repercutir en la producción.

SH: ¿se han aumentado el micro riegos y macro riegos en la región? ¿Cuántos riegos han implementado ustedes para apoyar?

RM: El área protegida no ha apoyado, más que todo eso es competencia de la Alcaldía. Por ejemplo existe el programa del gobierno que es “Mi Agua”, que le da justamente a las alcaldías para proyectos de agua potable y riego, en (nombre de pueblo) se ha hecho, en Chari se está haciendo, en Charazani es agua potable, en Llapana y Curva han hecho todo agua potable, Opinaba, Kalaya, Curva.

SH: Y eso viene de los glaciares no?

RM: Claro, aunque también hay ojos de agua, provenientes de los glaciales o bojedales, al lado de Ulla hay los bojedales.

SH: En Calisaya también hay, en la base de Acaman hay bojedales.

RM: bueno, los ojos de agua, las fuentes no las conozco, lo que nosotros vemos es que todos estos proyectos de infraestructura, como “Mi Agua”, cuenten con su licencia ambiental, que no afecten a los objetivos de la creación del área, glaciales, bojedales, donde hay ojos de agua tomamos medidas de que tienen que respetar, enmallar, de manera que no afecte a los objetivos de creación.

SH: ¿ustedes realizan cursos de capacitación?

RM: realizamos talleres de capacitación, el área protegida tiene sus programas transversales al área aparte de lo que es control y vigilancia, las competencias del área y funciones de los guarda parques, tenemos programas transversales de turismo, educación ambiental “Vicuña”, monitoreo ambiental, recursos hídricos, entonces el responsable de educación ambiental da cursos de educación ambiental, manejo de residuos sólidos, entre otros, solo da talleres, el tomar acciones en el caso de la basura es competencia de la alcaldía, de las gobernaciones, coadyuvamos en talleres, talvez en contactos para que se presenten proyectos, pero eso es competencia de las alcaldías y la gobernación; en el tema de turismo tenemos también un proyecto con apoyo del programa biocultural.

SH: ¿de qué tipo de turismo hablamos?

RM: comunitario, Pecharte que empieza en Cota pampa, arriba, y termina en Charazani, luego por los caminos del inca viene Caluyo, Checarais, Chari y baja a Charazani, y empieza arriba en Cota pampa.

SH: ¿y hay empresas bolivianas que ofrecen tours?

RM: sí, este proyecto está fortaleciendo eso, pero hay baja afluencia de visitantes, ahora he tenido que ir a Pele chuco, creo que es más conocido.

SH: es una caminata de 4 días.

RM: sí, entonces ese proyecto más está apoyando en refacción de albergues, acondicionamiento de las rutas turísticas y capacitación a los comentarios para recibir a los visitantes. En el tema de recursos hídricos más que todo nos hemos enfocado en la cuenca del río Suches que es arriba, que limita con Perú y además es límite del área protegida, más nos hemos enfocado en eso por la actividad minera que existe ahí arriba, para ver el efecto de la actividad minera al río Suches que es internacional, entonces hemos hecho espacios de concertación tanto de los operadores mineros que están en Suches como los de la cuenca baja que es de la provincia Camacho, ya que les afecta el agua que va bajando que usan para sus actividades agropecuarias.

SH: ¿y están en dialogo con las empresas mineras?

RM: algo por ahí, ellos también están organizados, tienen su central donde se aglomeran todas las cooperativas, siempre están en reuniones, nuestra competencia es ver que cuenten con su licencia ambiental, aparte que compatibilicen con la zonificación del área, con la actividad minera, si es permitida o no en la zona en la que están trabajando.

SH: ¿en qué zonas están prohibidas estas actividades?

RM: prácticamente en toda la zona está prohibido, hay una zona que está permitida, es la zona de aprovechamiento de recursos naturales de uso extractivo intensivo de acuerdo al ..., entonces en esa zona si se permite pero con licencia ambiental, que tengan todos los estudios de evaluación de impacto ambiental, y en otras zonas no se permite pero también tenemos problemas. Es terrible, además el precio internacional del oro está subiendo.

SH: ¿pero cómo era la situación antes cuando Ulla, por ejemplo, era Biosfera, habían también empresas mineras?

RM: lo que yo sabía es que han trabajado unos españoles ahí en Suches, luego ha trabajado el Gonio, cuando era gobierno y de todo lo que han restaurado y han dejado así ahora están trabajando los comentarios, y han empezado a trabajar porque el precio internacional del oro ha subido, estaba a 300 o 400 bs el gramo, lo que equivale a unos 60\$us el gramo, por eso han empezado a meter maquinaria y esa actividad es aluvial y afecta, arruina el paisaje.

SH: ¿entonces piensa que es necesario como aprovechamiento de los recursos naturales por un lado y por otro cuidar el medio ambiente? ¿Cómo se vincula estas actividades en la región?

RM: obviamente hay efecto en los pastizales ahí arriba a la vicuña, que es un objeto de la creación del área protegida, pero existe una limitante, ya que el área protegida ha sido creada mediante decreto supremo y el reglamento de áreas protegidas también está regulado por decreto supremo, las actividades mineras tienen una ley que está por encima del decreto, entonces nosotros lo que hacemos es cuidar los objetos de creación del área, por ejemplo si un minero pide una cuadrícula que incluye un bojedal, nosotros vemos el compromiso de que 100 metros a la redonda no se lo toque, siempre y cuando sean zonas donde si se permite la actividad, y en otras zonas no. También hacemos talleres con los mineros para que de alguna manera trabajen de manera responsable con el medio ambiente, más que todo por cuidado de ellos, porque utilizan mercurio lo que afecta a la vida.

SH: ¿pero por qué se ha cambiado el estatus de Reserva de la Biosfera?

RM: En 1972 se creó como Reserva Nacional de Fauna Ulla, con el objetivo de proteger a la vicuña porque estaba catalogada en peligro de extinción, aquellos días existía solamente 90 vicuñas, y según el último censo que hemos hecho son 13697 vicuñas. En 1977, la Unesco lo declara Reserva Andina de la Biosfera y el 2000, se re categoriza a Área Natural de Manejo Integrado Apolobamba.

SH: ¿por qué pasó eso?

RM: para darle una conectividad con el Madidi, con Pílon Lajas y con Tambopata, para hacer un corredor biológico.

SH: ¿desde dónde, desde Muñecas?

RM: no. Muñecas está afuera, sólo Bautista Saavedra, Larecaja, Franz Tamayo con el parque Madidi, luego se conecta a Pílon Lajas que ya es Rurrenabaque, Trinidad, en Beni y eso conecta con Tambopata, Perú; ese es el corredor biológico.

SH: Eso en teoría, ¿y en la práctica cómo se hizo?

RM: en la práctica es todo un problema. Hace falta muchos recursos humanos y equipamiento para ir a proteger esta biodiversidad, ya que Bolivia está pasando de ser un país subdesarrollado a un país en desarrollo, en esta zona hay oro, entonces gente de zonas altas está bajando y van a explotar recursos, entonces para eso hay consensos y reuniones. Obviamente la teoría dice que todo este corredor es el más alto en biodiversidad del mundo.

SH: pero no piensa que la transformación de Ulla Ulla tiene razones en la explotación de recursos naturales que antes cuando era Reserva de la Biósfera habían normas que eran más estrictas que con esa zonificación de las reservas, ahora las normas son un poco más ligeras ¿no?

RM: claro, la gente piensa que es manejo integrado y que podemos trabajar.

SH: porque también no se puede dividir la actividad humana con la naturaleza en la región, ¿verdad?

RM: claro, ahora en 2012, Apolobamba también pasa a ser parte Reservas de la Biósfera Amazónica, por el trópico, yo fui a Colombia, Leticia y entendí que eran 10 reservas de la biosfera amazónica en el mundo, se aumentaron dos, Oxapampa de Perú y Ulla Ulla-Apolobamba de Bolivia. Ahora Bolivia está con Pílon Lajas y la estación Biológica de Beni y Apolobamba se ha sumado ahí.

SH: ¿También la misma región que antes era Reserva de la Biósfera Ulla Ulla desde los '70 se han recuperado?

RM: solo se ha ampliado, lo que era Ulla Ulla se ha ampliado hacia Apolobamba, no deroga el Decreto Supremo de creación de Ulla Ulla sino más bien se amplía, los dos siguen siendo vigentes.

S: Entonces Ulla Ulla es reserva de Biósfera si le entiendo bien.

RM: si, sigue siendo dentro del marco de Apolobamba.

S: ¿Ustedes tienen colaboración con el Ministerio de Cultura o con la unidad de la Unesco en la ciudad?

RM: la Unesco Ahora nos está apoyando con el programa MAP, con un proyecto de desarrollo sostenible, que es con café, un proyecto piloto de sistemas agroforestales con café.

SH. yo estuve en la unidad de Unesco en la ciudad, que trabaja con la recuperación cultural de la cultura Kallahuaya y me pregunto por qué hay dos ministros, un ministro ambiental para el Área Apolobamba y un ministro cultural para recuperar la cultura Kallahuaya, aún los dos tienen que colaborar, porque la cultura Kallahuaya no se puede dividir.

RM: el 2007 ha llegado el ministro de turismo a Charazani, justo para apoyar en un proyecto de la Unesco, tenía que hacerse un inventario de toda la cultura kallahuaya, pero se quedó ahí, por el problema de la administración del dinero, las asociaciones Kallahuayas querían administrar, el municipio quería administrar, el ministerio quería administrar, entonces quedó ahí.

SH: ¿quién está manejando ahora el dinero de la Unesco?

RM: hasta el momento como área nos está apoyando la Unesco con el café, en temas de cultura las asociaciones de Kallahuayas deben presentar proyectos, y por ejemplo hay residentes de Curva que están en Cochabamba y ahí tienen sus asociaciones de Kallahuayas, de Kalaya y Chajaya están en La Paz, ellos son los que se movilizan, la gente del lugar no tanto, CICADECA era uno de los que estaba apoyando pero se quedó también por ahí por problemas internos. En el tema de las plantas medicinales hubo un problema porque no se puede vender legalmente, había un viceministerio de medicina tradicional e interculturalidad que estaba trabajando en el proceso de cómo legalizar tu producto, entonces hay falencias porque las plantas que manejan los Kallahuayas son diversas, y hacer un estudio bromatológico de cada planta debe ser complicado, entonces como vas a darle un registro sanitario a esto.

SH: ¿Hay un registro para médicos al menos no?

RM: claro, hay unos registros médicos que pueden vender, pero eso no te da ninguna garantía para exportar.

S: ¿tampoco hay propiedad intelectual de la invención de las mezclas que se hacen con las plantas?
¿No hay propiedad de las plantas porque son de la naturaleza no?

RM: claro, los Kallahuayas que manejan sus propiedades es de plantas cálidas, secas y frescas, eso es conocimiento tradicional.

SH: entonces ¿tienen proyectos para recuperar ese conocimiento Kallahuaya, la música Kallahuaya, el tejido, cómo se vincula la protección de la cultura con la protección de la naturaleza en Apolobamba?

Pausa (0:31 – 0:34) 3 min

RM: por ejemplo, hay una danza de Cañuma de Curva, que le llaman los wariwaris, que bailan cargados de cuero de vicuña, que son costumbres contra las que no podemos ir ya que las bailan desde hace mucho tiempo atrás.

SH: también el tejido estaría ahí, es como mano a mano el trabajo de protección de la naturaleza y la integración de nuestras costumbres y el manejo integrado, entonces la Unesco, por ejemplo, está dividiendo entre lo que es Biosfera, el área natural y lo que es patrimonio cultural, aunque esto no se puede dividir porque es lo mismo, ya que la cultura Kallahuaya tiene características bien materiales como lo que es la planta, las montañas, los lugares sagrados y esas cosas. No se puede dividir la naturaleza de la cultura Kallahuaya. Entonces me pregunto ¿cómo se maneja esta complejidad de proteger la cultura con la naturaleza al mismo tiempo? ¿El equipo de Apolobamba cómo está formado?

RM: se tiene técnicos, tenemos una ingeniera ambiental y una bióloga que apoyan a la gestión del área, tenemos también 31 guarda parques que son de las comunidades.

SH: ¿y cuál es el trabajo de los guarda parques?

RM: protección y vigilancia, a través de patrullajes rutinarios.

SH: ¿y si ven a alguien que está botando basura que hacen?

RM: lo que hacen es llamar la atención, si hay actividades que están dirigiendo con los objetivos de recreación, lo que nosotros hacemos es iniciar procesos administrativos y determinamos una multa o una sanción, si se comprueba la infracción administrativa. No es fácil, cuando hay guardaparques es como si estuviesen sancionando a su familiar o algo así porque son de las mismas comunidades, pero es una responsabilidad que deben asumir.

SH: ¿hay estudios sobre cambios climáticos en colaboración con la universidad, la UMSA por ejemplo, con biólogos que han escrito sobre esto?

RM: ahora están haciendo una base de datos de bojedales, del cual recién van a salir los resultados, luego el Instituto de Ecología está haciendo el proyecto GLORIA para determinar el cambio de productividad por estaciones en los pastizales, sobre la biología de la planta, eso están elaborando en la parte alta. Más allá hay una institución del gobierno que se encarga de riesgos y cambio climático, pero no lo hacen de la mejor manera, a veces no coordinan con el área del ministerio y no se entienden muy bien porque un área protegida debería ser un espacio para hacer estos monitoreos, investigación y determinar, tienen datos a nivel Bolivia que no nos son muy útiles.

SH: ¿en qué fechas van a dar los talleres?

RM: en Amarete va a ser el 22, es un taller de educación ambiental.

SH: ¿y se puede participar?

RM: claro, ellos mismos han solicitado y estamos viendo cómo vamos a ir.

SH: ¿la fecha está confirmada? ¿Y a qué hora empezará?

RM: sí, a las 9 de la mañana.

SH: y después, ¿en diciembre? Nuestro taller va a estar en Chullina el 6, 7 y 8 de diciembre.

RM: ¿sobre qué es el taller?

SH: es sobre Gestión Territorial Comunitaria Práctica, es más sobre capacitación Política de autogobierno, pero ahora nos vamos a enfocar también en el Cambio Climático y sus efectos como parte del taller.

RM: sería interesante participar o coordinar viendo datos, en Chullina creo que también hay actividad minera.

SH: ¿es fuerte? ¿Cómo afecta?

RM: hay diferencia entre Chullina y Ulla Ulla, porque Ulla Ulla es a cielo abierto, es aluvial, en cambio Chullina los mineros trabajan en socavones.

SH: ¿y en Ulla Ulla extraen oro?

RM: no, extraen estaño.

SH cuál es más grave para el medio ambiente: ¿oro o estaño?

RM: Ulla Ulla, porque es a cielo abierto, es aluvial y revuelcan el suelo, en cambio en Chullina es en el socavón, entran dentro de la tierra, en cambio en el otro utilizan maquinaria y destrozan todo.

SH: en el último taller organizado en Cañisaya y habían también 2 ó 3 guarda parques de Apolobamba, ellos trabajaban más privado, que trabajaban más por su persona, no como representantes del área. Entonces podríamos coordinar fechas para participar con técnicos nuestros el sábado 22 y en diciembre ustedes vendrían. La fecha en Chullina no está confirmada pero podemos entrar en contacto. Entonces el 16 voy a viajar a Niñocorin.

RM: ¿con quién estas coordinando lo de Niñocorin?

SH con Feliciano Patzi

RM: el Feliciano era presidente de un Comité de Defensa de la cultura Kallahuaya, formado por los de la provincia; y es bueno porque apoya y sabe bastante.

SH: lo que realmente han planificado la ... y el Ministerio de Cultura era un curso del 21 al 26, sobre el registro del conocimiento de los Kallahuayas con la Unesco y con representantes de Ecuador y de Quito, pero ahora no van a estar, ... no tiene estatuto en el círculo boliviano de la medicina, tienen que renovar esta ley.

RM: lo que pasa es que esos conocimientos son bien peleados por esas asociaciones que hay fuera, en Cochabamba por ejemplo están todos los de Curva y en La Paz están otros que se apropian y ya no dan lugar a los verdaderos Kallahuayas que ya son pocos y es de ellos de quien se debería rescatar, y el proyecto se trataba de eso, escoger del lugar a los 10 Kallahuayas más verdaderos, y de los 10 están 6 ahora porque 4 ya han muerto.

SH esa relación entre el campo y la ciudad es muy extraña, porque yo hablé con médicos Kallahuayas en Cochabamba, que me han dicho “nosotros somos los verdaderos Kallahuayas porque practicamos la

medicina, los del campo solo realizan ganadería y son llameros”, según ellos los del campo no son Kallahuayas, y es algo que no se entiende. Yo creo que también tiene que ver con los flujos de migración entre la ciudad y el campo. ¿Pero cuáles son los verdaderos Kallahuayas según su opinión?

RM: los que están en las 8 comunidades que se dicen históricamente entre las que están: Curva, Chari, Kalaya, Chacarapi, Huata Huata, Kaluyo, y otras que no recuerdo bien.

SH ¿y estas comunidades como Amarete?

RM: no son comunidades principales, pero pertenecen. Ahora se ha declarado nación Kallahuaya a toda la provincia por la declaratoria de la Unesco y ahora todos se creen Kallahuayas pero no son todos.

SH es mala organización de la Unesco, porque no han declarado solo esas 8 comunidades como Kallahuayas o sólo a los médicos o los que practican.

RM: como habrán organizado, pero declara la cosmovisión de la cultura Kallahuaya, y una vez que hizo la declaración la Unesco se nombró a toda la provincia. Ahora hay que rescatar, por ejemplo, el Machajuyay es el el idioma de los Kallahuayas y los Amaretes no hablan ese idioma, en Curva algunos viejitos siguen hablando, en Chajaya también, en Kalaya ya no hay gente, en Kaluyo también hablan, es similar al P’uqina.

SH hay que preguntar a las personas que estaban involucradas en este proceso de inscripción, como Walter Álvarez y Beatriz Carmen, su esposa.

RM: Walter Álvarez es de Kalaya.

SH: he hablado con Walter Álvarez, me parece que tienen algo que ocultar, no sé. Quién ha beneficiado esa declaración nacional.

RM: Walter Alvarez creo que es el gestor, él siempre dice en cada ampliado, pero cuando va al ampliado ya no le hacen hablar a él.

SH: lo voy a contactar y nos vemos el sábado 22 en Amarete.

RM: no hay problema, coordinamos

...

Interview with Son of my host in Niñocorin (SHN) (24.10.2014)

SH: piensas que la música es la misma en el campo que en la ciudad? con la función con la forma de escribir, con la sensación, como los músicos tocan?

SHN: Una cosa en el campo más utilizan al oído, digamos todo el mundo que practica el qantu hace al oído, y se escucha la música no es que no, pero a comparación de un estudio como, digamos estudiamos la música y ya vemos de una parte un ejemplo, hay un grupo de bandas(en mi imaginación) hay un grupo de bandas que toca como 25 o 20 integrantes, tocan bien la banda pero al oído, y un grupo que toca también en el que solamente serían 6 personas que tocan a la nota musical, cual es la más bonito ahí entre el arto y el poquito que hacen ahí a la nota, la nota que hacen aunque son pocos pero la nota tiene un ritmo, más ganas pone la gente a lo que escucha, ya lo ve más bonito todo, aunque no está haciendo tocar fuerte el volumen ni nada, aunque bajito pero hace llegar a un sentimiento de la persona.

SH: otro sentimiento como la música de kantus, entonces esa es la diferencia entre recuperación y perdida, cual es perdida? cual es recuperación según los mayores del campo? la música de ustedes es música perdida, según ustedes es parte de la recuperación, difícil de manejar estas diferencias no?

SHN: Lo que más se confunde la gente, me dijeron hasta a mí, que si tocas esas músicas con electrónico y eso ya te dedicas más a tomas, pero es mucha responsabilidad de cada uno, yo voy a tocar algunas cosas, voy a alguna fiesta o algo y es depende de mi responsabilidad si puedo tomar más o ya no y también ver que es malo tomar. Hemos visto que nosotros manejamos sanamente la música, pero para ellos es más como estoy haciendo algo más electrónico dicen que estoy perdido, ya en otro mundo, que estoy tomando...

SH: pero la idea es que..., entiendo las 2 perspectivas, con ustedes es más recuperación por los niños, que les gusta más esta música. Y también puedo entender esta perspectiva, en teoría es la música de kantus por ejemplo, que tiene su función en el entorno que tiene su existencia en el entorno del campo y la comunidad, no es algo solo, se puede sacar la música y grabar sin alisar el tono y la cosmovisión, entonces la idea es, si esto viene de la ciudad es otro ambiente y pierde esta función que toca en la comunidad, en la teoría no...

SHN: Mejoraríamos en el campo esta visión, ahora ellos piensan que lo hacen bien, súper bien, pero una parte si tratamos de mejorar con algunos amigos compañeros o si hacemos otro grupo de personas para tocar la misma música de kantus, la misma cosa, pero podemos dejar las notas algo saldría más resaltante, digamos en esa forma ahora estamos, viendo lo que hago la música recuperar como te digo esa música de kantus pero en electrónico, acompañando algunas con quena y zampoña, ya no sería en conjunto en 20 personas, solamente sería 6 o 8 personas. Ya sería menos personas.

SH: Si estoy muy crítico en esta transformación de la música del campo a la ciudad digo... no puede ser, la función de la música en la ciudad es liberación, gana plata, la función de la música en el campo es otra función, es más crear sociedad, crear pensamiento de comunidad acompañado de ciclo agrícola, esas cosas, tiene más profundidad en la cosmovisión, mientras la música de la ciudad es algo capturada y así se pone en otro ambiente. Pero yo creo que estas divisiones entre campo y la ciudad, originalidad y artificialidad no se puede mantener, por ejemplo yo no podría decir que ustedes hacen música artificial, y ellos del campo hacen la música original, porque es bien original y creativo, mientras Feliciano me ha dicho que los músicos halla manejan hasta la plata con la música, tocan, han sido contratados por vecinos, por vestigios, por enemigo dice él. Porque?

SHN: halla en el campo yo he visto antes que era más bonito, cada pueblo se iba a visitar con la música, cuando era niño eh visto, a villa... venían los de otros pueblos a acompañar a la fiesta, con una música, pero ahora la gente ya no va así, va solamente cuando les contratan, cuando les pagan. Antes era un compartimiento, como un apoyo, una ayuda.

SH: en rituales, en cosechas, en estas fiestas, ahora es más contratado no... esto es en fiestas católicas más que todo?

SHN: Ahora ya no se encuentra un conjunto musical que visita un pueblo, ya se puede ver que viene contratado. Es como, debe confundir mucho que en la ciudad manejan contratado, cualquier música, aunque sea amplificación manejan con la plata, y al campo creo que eso ya les llega y dicen "nosotros porque no podemos cobrar".

SH: Si es muy fuerte la influencia de la plata.

SHN: Lindo sería si hubiera seguido así, ayudándose y compartiendo.

SH: si, como podemos hacerlo, esa es la pregunta, recuperar?

SHN: Pero esto lo hizo confundir mucho los mestizos, ellos lo confundieron con la plata, antes se iba gratis, solo amor a la música, a acompañar, ahora eso hay que ver cómo recuperar esa temporada.

SH: es muy importante porque esas preguntas son de colonización, si todos los mestizos están contratando a la banda es algo que, digamos. Feliciano siempre dice "no puedo entender a estos hombres, se dejan contratar con el enemigo". Hay 2 fiestas, 17 de noviembre, aniversario de Charasani la región y chajaya que es remedio. Entonces el grupo ya no podía decidir en qué fiesta tocar, los remedio acá van a contactar a ellos, que son vecinos, la fiesta es.... Entonces inclinan a esta fiesta por que van pagados. Así sigue este dominio de la plata. Y por el bien de los vecinos.

SHN: Mucho cambian con la plata

SH: Ha cambiado según cambios del clima, piensas que el cambio climático tiene efecto en la música, en la región.

SHN: La música si, con el pasar del tiempo, ya no toman en cuenta la música de allá, de mi edad aún está con esa música, pero ya son pocos que siguen. Pero yo lo que veo, si ha afectado, está desapareciendo la música. Ya no se animan. Digamos era el 3 de mayo el chatre, antes eh visto pasaba bien y con unas fotografías que tenemos al comparar con esta fiesta ya no es igual, con el 3 de mayo actual. Los más antiguos era llena la fiesta. Los kantus acompañaban a la fiesta de 3 de mayo, y hay también esa fiesta de 3 de mayo en Chari, ese día mismo, se van contratados halla y el pueblo se queda vacío, ya no es como una fiesta.

...

Summary of the Interview with M. M. (5.1.2015)

El Cambio Climático es un problema considerado de importancia para el Gobierno, pues la gran parte del territorio nacional se encuentra en alta montaña lo que incrementa la vulnerabilidad del mismo a los efectos adversos de este fenómeno. El Cambio Climático está siendo medido mediante el incremento histórico de las precipitaciones tanto en frecuencia como en intensidad, por lo que devienen las inundaciones; sin embargo estas no necesariamente son debidas a las precipitaciones, sino también pueden deberse a la deforestación (ya que los árboles son considerados defensivos naturales). La deforestación puede también dar como resultado los deslizamientos de tierras; se ha comprobado que el caso particular del mega deslizamiento que se dio en la ciudad de La Paz no se debió a los efectos adversos del Cambio Climático, sino a la poca estabilidad de los suelos donde se construyeron los barrios afectados.

Los fenómenos naturales como lluvias, tormentas eléctricas, etc., tienen su causa natural pero también un adherente ligado al calentamiento global que ocasiona mayor intensidad y/o alteración de la frecuencia. Por ejemplo en Bolivia son conocidos los fenómenos climáticos del Niño y la Niña que se presentan cada dos años, estos periodos de fuertes lluvia o de fuerte sequía ya se esperaban en todo el territorio nacional, o en algunos casos con fuertes lluvias en las tierras bajas y fuertes sequías en tierras altas; sin embargo se atribuye al Cambio Climático la intensificación de la frecuencia e intensidad con la que se presentan estos eventos, ahora de manera anual. Se toma esta hipótesis gracias a los registros con los que cuenta el SENAMHI (Servicio Nacional de Meteorología e Hidrología).

El fenómeno de la Niña se da en consecuencia del incremento de la temperatura de los océanos, entonces si se registra este incremento ya se puede predecir si será un año con fuerte presencia de eventos extremos; es por esto que si incluimos la variable del calentamiento global podemos atribuirle al mismo una mayor frecuencia de estos eventos extremos.

Actualmente en Bolivia se están llevando estudios acerca de la retracción de los glaciares, mediante los que podemos medir su pérdida en volumen, atribuible también al calentamiento global. Otro efecto

interesante es que el invierno en Bolivia es muy despejado, entonces durante esta época el incremento en la intensidad de los rayos del sol están calentando los glaciares, entonces el invierno que debería ser el periodo de recuperación o mantenimiento de los nevados está siendo afectado por el incremento de rayos solares en la atmosfera, aunado a esto las intensas lluvias que se presentan en el verano darán como resultado de manera inminente la pérdida de los glaciares, aún no se logrado calcular en cuanto tiempo pero se proyectan unos 25 años. Muchas de las poblaciones alto andinas como El Alto, La Paz, entre otras dependen de estos glaciares para su abastecimiento de agua de consumo; actualmente el caudal que despiden los glaciares se ha incrementado por su retracción, pero no se están tomando medidas para almacenar el agua y brindar seguridad hídrica para el futuro a estas poblaciones.

El Niño produce sequía en las zonas del altiplano y del Chaco, además debido a la desertificación debido también a deforestación.

En el oriente de Bolivia, es decir las tierras bajas se tienen lluvias más intensas que conllevan inundaciones; sequías y retracción de glaciares en el altiplano; desertificación y sequía en el Chaco, estrés hídrico en Cochabamba y el altiplano Tarijeños

El Cambio Climático está afectando a las poblaciones rurales sobre todo en su producción, en el sentido de que los campesinos tenían sus respectivos calendarios agrícolas de acuerdo a cada región; los mismos que se han desajustado en consecuencia de los nuevos comportamiento de la variabilidad climática causados por el calentamiento global; es decir que el cambio climático esta alternado los ciclos productivos. Las fiestas culturales en las zonas rurales están ligadas a su calendario de producción, es decir algunas para la época de siembra, otras para época de cosecha, sin embargo las fiestas ligadas al catolicismo no son dependientes de este calendario.

Los campesinos están conscientes del Cambio Climático por lo que el gobierno está apoyando a las poblaciones a su adaptación, mediante proyectos sobre todo de seguridad hídrica como construcción de tecnologías modernas híbridas con saberes ancestrales como de cosecha y represas de agua, entre otras; para asegurar también la producción agrícola.

El seguro agrario es aplicable a pérdida de cultivos a causa de eventos extremos climáticos.

Para muchas regiones en Bolivia puede darse una situación beneficiosa gracias al cambio climático, por ejemplo en zonas que eran secas, actualmente hay mayor incidencia de lluvias; o que en zonas de alta montaña donde no se podía cultivar se estén dando las circunstancias para que en este momento si se logre iniciar cultivos. Es por esto que es complicado asegurar que el Cambio Climático es 100% negativo.

Actualmente el Gobierno ya tiene institucionalidad representada por la Autoridad Plurinacional de la Madre Tierra, que mediante sus tres mecanismos: Mitigación, Adaptación, Mecanismo conjunto de mitigación-adaptación para bosques; iniciará un trabajo exhaustivo para la investigación, análisis de vulnerabilidades y determinación de políticas a nivel nacional.

Existe un estudio elaborado en el marco del Proyecto CIFEM, que contiene el registro de plantas que son vulnerables o han sido afectadas por el Cambio Climático; este es un proyecto que se llevó a cabo a nivel regional es decir en Bolivia, Perú y Ecuador. También podría encontrarse estos registros en el Herbario Nacional del Instituto Nacional de Botánica.