UNIVERSITY OF CAPE TOWN

The role of the saxophone embouchure in the production of the South African jazz sound:

A study of nine jazz saxophone players

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A study of nine jazz saxophone players

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DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced. I declare that the above thesis is my own unaided work, both in concept and execution, and that apart from the normal guidance from my supervisor, I have received no assistance except as stated below:

__Writing support (language usage & style only) and editing from Dr Gudrun Oberprieler___

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ABSTRACT

South Africa is known for having its own distinctive jazz music sound of which the saxophone is a significant feature. The saxophone has often been recognised world-wide as a symbolic jazz instrument and has also played an important role in South African jazz. As the embouchure of the saxophone is crucial to its sound production, it stands to reason that it plays a role in producing this distinctive South African jazz sonority. The purpose of this study is to understand the role of the embouchure in producing the 'South African jazz saxophone sound', and to find a common trend in saxophonists.

The study uses a qualitative research methodology. Interviews were conducted with five South African saxophonists with a South African jazz sound to their playing (Buddy Wells, Dan Shout, Rus Nerwich, Marc de Kock and Byron Abrahams), a South African saxophone school teacher (Harlene Veotte), a university professor (Michael Rossi) who teaches the jazz saxophone, and a British researcher (Jonathan Eato) who specialises in South African jazz music. These interviews informed the embouchure analysis and the relevance of the study from different perspectives. In addition, archival materials from the District Six Museum in Cape Town together with other written materials were consulted for information on the South African jazz saxophone sound, the saxophone embouchure and South African jazz saxophonists' embouchure. A brief explanation is given of how Western music was introduced to South Africa, resulting in the development of new styles of music. Political aspects are mentioned with regard to Apartheid policies and how these affected South African musicians. Standard practise for the saxophone embouchure based on international teaching manuals and journal articles is explained in some detail for the sake of comparison of musicians' practices.

In the main part of the study, the sound and embouchure of nine South African jazz saxophonists [Winston Mankunku (Ngozi), Basil (Mannenberg) Coetzee, Robbie (Robert) Jansen, Zim (Zimasile) Ngqawana, Buddy Wells, Rus (Russell) Nerwich, Shannon Mowday, Dan (Daniel) Shout and Byron Abrahams] were analysed. Their techniques were then compared to those of nine international musicians from Argentina, Brazil, the USA and Mozambique, chosen for having been influential in the history of jazz or currently making an impact on the jazz scene. This comparison informed the discussion of the characteristics of the South African jazz saxophone sonority in terms of its influences and production. The analysis of the sound of all the saxophonists was done on the following aspects: jaw, teeth, lips, cheeks, throat, tongue, mouth placement on the mouthpiece, mouthpiece placement in the mouth, mouth angle and head angle. The intonation, use of expressive devices, equipment used, musical education and description of sound was also examined for each

musician. The comparisons of the analysis of the musicians' playing are summarized in form of diagrams.

The study concludes that the embouchure of the South African jazz saxophonists analysed does not in itself reveal a unique common trend that can account for a distinctive 'South African jazz saxophone sound'; however, characteristics of the embouchure of these players in conjunction with other aspects like harmony, scales, rhythm and chord progression, especially in a group context, makes the music sound unmistakably South African. The study proposes that the South African jazz sound might be interpreted as a genre in its own right, but at least be regarded as 'a South African saxophonist's South African accent', as compared to the unique accent of a language practitioner.

It is hoped that this study will be a recognizable contribution to the acknowledgement of and tribute to the unique if often painful historic development of South African jazz in the apartheid era and to its distinguished saxophonists. It is also a call for the continuation of the teaching of all aspects of the South African jazz sound to new generations of musicians in order to ensure its place in the cultural heritage of this country.

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CHAPTER ONE: INTRODUCTION

1.1 THE PURPOSE OF THIS STUDY

South Africa is known for having its own distinctive jazz music sound. The saxophone is often recognised world-wide as a symbolic jazz instrument and has also played an important role in South African jazz. As the embouchure of the saxophone is crucial to its sound production, it stands to reason that the embouchure plays a role in producing this distinctive South African jazz sonority. Therefore, the objective of this study is to analyse how the embouchures used by South African jazz saxophonists contribute to the production of the South African jazz sound. Various aspects of nine saxophone players' sound and embouchures will be analysed in an attempt to discover this.

It is important to recognise that South African jazz is a genre of its own. It is therefore important for saxophone students to learn and study South African jazz as they would learn other genres of music. For a jazz saxophone student to study different genres of jazz, such as bebop, cool or Dixieland would be the same as for a western classical player to study different styles such as baroque, romantic or classical. A student studying baroque music should aim to learn the correct use of ornaments and other stylistic techniques for baroque music; so too should someone wanting to play South African jazz on their saxophone learn how to produce the South African sound. This study proposes that South African jazz is actually a genre of its own.

A similar study was done by Ole Solberg in 1996, yet his investigation was carried out already a decade and a half ago, and it has not included the huge developments after the end of the cultural isolation of South Africa with the birth of a democratic dispensation in 1994. The South African music industry has experienced much growth since then: many more musicians have come onto the jazz scene and have brought fresh ideas; new technologies such as the internet have made music freely available; travel has become more efficient and available to more people. All these expansions have brought about change to South African music due to more international influences that are constantly bringing new musical concepts into the country. South Africa's functioning as a democratic country under the new government has also had an enormous impact on how South African music has developed. Although many musicians are still affected by the past, new generations are able to experience more opportunities. Past and present, the 'old' and the 'new' South Africa have both hugely contributed to the development of South African jazz. Investigating aspects of these contributions and developments in terms of how they have affected the South African jazz sound production is expected to be very insightful, allowing for this study to be used by educators, performers, researchers and music enthusiasts.

1.2 STATEMENT OF THE RESEARCH QUESTION

There are two main aspects that the author was seeking to investigate: firstly the characteristics of the South African jazz saxophone sound, and secondly how the embouchure affects this. This study attempts to answer the following question: What role does the saxophone embouchure play in the production of the South African jazz sound*?* It was deemed necessary that the embouchure be discussed in detail in order to understand the role it plays in the production of the South African jazz saxophone sound.

1.3 MOTIVATION FOR THE TOPIC

It appears that in South Africa there is a lack of understanding of what the South African saxophone sound is. Although there is some material on this topic, there is very little recent work relating to and specifically focusing on the South African saxophone. There appears to be far too few current students who are exposed to and informed about South African jazz saxophone music and its heritage. Those who are aware of South African saxophone jazz music are often only aware of a few of the musicians and not of the contributions many others have made, or are currently making, to the South African jazz sound and style. Some musicians have failed to be recognized even amongst those who are schooled in this genre. If people are not exposed to it, there is a high probability that many learners and future musicians will not know how to play the saxophone in a 'South African' style if asked to.

Although elements of South African jazz have been introduced into the subject music syllabus in Outcomes-Based Education (OBE) in schools (Department of Education 2006:31-36), a pedagogy that is soon to be done away with, there is still a huge lack of knowledge in the schools, again especially relating to the saxophone. As most South African music teachers in the past have been classically trained, there are few teachers who have either much knowledge of jazz or of the South African saxophone to pass on, and there are many schools that are choosing not to introduce this style into their curriculum (Msimango, 2004:42). For a Cape Town based South African music educator like myself whose main focus is the saxophone and music appreciation, it would be invaluable to know and have material on how to teach learners to play the saxophone in various styles, especially and including the South African jazz style. It is an important part of the development of South African jazz music as well as part of the cultural heritage that South African saxophone learners would benefit

from knowing. School bands that perform African pieces need to know how to play the music stylistically correctly; this can only be achieved if there is a platform where they are exposed to the music by listening and learning who to listen to, and where they can practice how to produce the desired sound. Various aspects of playing the saxophone would probably need individual studies before a text book on 'Learning to play in the South African jazz style: the saxophone' could be compiled. The aspect chosen for this study is the embouchure, as this is where the sound is initiated on the instrument; this will hopefully contribute to the body of knowledge and lead to other potential future studies. It will be unfortunate if the younger generations are not exposed to South African jazz music as it may then be a dying art. This study is meant to help increase available literature and information in this field.

One of the many reasons why South African jazz is not fully known today is that recent South African saxophone players have been influenced by many different styles of music from all over the world, whereas earlier generations were far less exposed to international influences, especially during the apartheid era. These earlier musicians were able to create their own jazz sound due to very little exposure to American and British jazz. They did, however, integrate the little they heard with African traditional music to develop a new unique South African style (Ansell, 2004:70). Saxophone players today are earnestly seeking new sounds to incorporate into their playing. This may be due to personal choice or because of the demands of the audience. However, there seems to be a lack of venues and opportunities for jazz musicians, and this results in them having to play other genres such as pop, rock and classical music as well (Interviews: De Kock, 2010; Shout, 2009). The problem then is that people do not know what the true South African saxophone jazz sound or style is, because they rarely hear it.

1.4 POTENTIAL CONSTRAINTS FOR THIS RESEARCH

The difficulty of this kind of study is that the very nature of art is subjective and sound is a very difficult thing to describe. This can make it difficult for the researcher to avoid bias in the interpretation of the art. With this in mind, it has been the author's goal throughout this study to review the styles and contributions of each artist as analytically, systematically and objectively as possible.

Unfortunately some of the artists to be analysed have already passed away, which has prevented personal interviews to be conducted. Various sources have been used to obtain personal information

needed about each performer, such as recordings, interviews, photographs, video footage and biographies.

For some musicians it was not possible to find a clear video recording, and therefore photographs were consulted as they give at least an indication of the saxophonist's embouchure. Videos, in contrast, show the movement of the mouth and what the saxophonist was trying to achieve at a specific point in time.

As it is not possible to tell what a musician's embouchure looks like inside their mouth, only an external examination was feasible. This precludes a full analysis and comparison of the embouchures from the internal perspective of the tongue and throat positioning.

Studio recordings provide us with evidence of a musician's sound at a specific time only, and more recent recordings can be tweaked or recorded until a musician is satisfied. A live recording or show may reveal different aspects of a musician's sound, such as the quality of the intonation.

Although there are many more saxophonists that could have been included, and potentially should have been for a study of this kind, due to the volume constraints of this dissertation a selection had to be made. The selection criteria will be explained in section 1.5.

1.5 METHODOLOGY

In Chapter Three, a brief history of South African jazz saxophone music regarding the introduction of western music to South Africa is given, and the role of traditional influences is described. Characteristics of the South African jazz sound are examined.

This study makes use of qualitative research methods. A variety of people, involved in different roles in South African jazz saxophone music, were interviewed to gain an overview of perspectives on the significance of the South African jazz saxophone sound and the importance of the embouchure. Books and journal articles were consulted to find already existing information about the South African jazz saxophone sound, the saxophone embouchure and the South African jazz saxophonists' embouchure. The author listened to many interviews from the District Six Museum archives in Cape Town and consulted relevant ones. Videos, sound recordings and photographs of nine South African jazz saxophonists and nine international saxophonists were analysed and compared with each other. There comparisons are summarized in form of diagrams at the end of Chapter Five (5.5.1).

The saxophone sound is produced by a combination of different elements. These include the actual sound production in terms of embouchure and airflow, as well as rhythm, intonation, and scale patterns (within a musical context and not just a sound). Chapter Three provides a discussion of these elements.

In order to provide parameters to analyse and compare the embouchures of the musicians examined in this study, Chapter Four discusses standard practise and guidelines for the saxophone embouchure based on international teaching manuals and journal articles.

In Chapter Five, the sound of nine South African saxophonists is analysed according to the aspects described in Chapter Four: jaw, teeth, lips, cheeks, throat, tongue, mouth placement on the mouthpiece, mouthpiece placement in the mouth, mouth angle and head angle. The use of intonation, expressive devices, equipment used, musical education and description of sound is also examined for each musician. Nine international saxophonists were studied on the same aspects for comparison.

A short biography of each musician has been provided.

The choice of saxophonists was based on the following criteria: South Africa citizens who lived in South African for the greater part of their lives, played the saxophone for many years, and had a South African jazz sound while having their own identifiable sound. All South African saxophonists except one, who is still a student, are well known on the jazz scene. South African musicians of different ages, colours (races), as well as a variation of some who were trained and some who were self-taught have been examined.

The aim was to have a variety of South African saxophonists included in this study, varying in education, age, race and experience. This purpose was to have a cross-section of different musicians to draw the comparison. The particular student chosen, Byron Abrahams, is someone who is in the process of going through the formal music education system, yet only learnt to play music later in his school career and was from a previously disadvantaged area. Although he did have a saxophone teacher, he did not do music as a subject at school, and therefore had no theoretical background knowledge before going to Stellenbosch for a year of theoretical training. This year allowed for him to be accepted at the College of Music at the University of Cape Town; however, his music reading skills are still not very good. His performing and improvisational abilities are of a high standard.
Nine international musicians who have been influential in the history of jazz or are currently making an impact on the jazz scene were chosen to compare their techniques to that of the South African

saxophone players. They are from four different countries, namely Argentina, Brazil, the USA and Mozambique.

The analysis of the embouchures, general intonation, use of expressive devices and description of quality of sound are based on recordings, video footage and interviews by the researcher.

The comparisons of the analysis of the musicians' playing have been summarized in form of diagrams. Each aspect is compared in a separate diagram.

CHAPTER TWO: LITERATURE REVIEW

This chapter outlines what has already been written about the saxophone embouchure in general, and about the South African saxophone sound as well as the South African saxophone embouchure in particular. This will reveal what aspects have been widely discussed and what gaps are prevalent. This chapter has been divided into three sections of research: the embouchure, South African saxophone jazz history, and the South African saxophone embouchure.

2.1 THE EMBOUCHURE

Articles about the saxophone embouchure are mostly written as guidelines of how the embouchure should be. All of these guidebook-type articles that have been used in this study are international publications. There are eight useful articles from the Woodwind Anthology written by different authors. Each one provides similar information about the embouchure, some with more explanation and pictures than others. The Woodwind Anthology is a collection of articles from a journal, 'The Instrumentalist', which describe different playing methods for each woodwind instrument. Hence articles such as 'Teaching saxophone: Tone production' (Hemke, 1992), 'Saxophone embouchure' (Kynaston, 1992) and 'Preparing to start the saxophone tone' (Sheets, 1992) have been used as references for the explanation of how the saxophone embouchure should be.

Two books dedicated to the saxophone have been written by international saxophone educators who are specialists in their fields. Teal's (1963) 'The art of saxophone playing' and Liebman and Vashlishan's (2006) 'A daily practice guide' are dedicated to the study of the saxophone, and both explain the essential aspects of the saxophone embouchure in detail. Teal includes a number of pictures that show the various correct and incorrect positions of the embouchure. Some of these pictures include a representation of the facial muscles that are used to form the correct position of the embouchure. Liebman and Vashlishan's (2006) book is a simple step by step guide to playing the saxophone, paying special attention to breathing, the use of the larynx and the embouchure. The authors provide exercises to assist a saxophonist in learning how to have a good embouchure by strengthening the relevant muscles involved.

Porter's (1970) insightful book 'The Embouchure' is dedicated to the explanation of the embouchure of various brass and woodwind instruments. He explains each aspect of the saxophone embouchure

in great detail with helpful pictures to demonstrate his explanations. He discusses the embouchure from an anatomical and physiological perspective. Comparing the embouchures of different instruments can be of great value to a music teacher. Porter does not, however, give a detailed comparison, he just describes the embouchure of each instrument individually.

A study by an American student, Melissa Tavarez (2005), 'An educational approach to clarinet performance: A comparative study', is of a similar nature to this study in that it focuses on embouchure techniques. However, it discusses the clarinet rather than the saxophone. The study is focused more on comparing different approaches by academic authors in the field rather than studying specific clarinetists, although it does refer to recordings of some artists. The clarinet has a similar embouchure to the saxophone. Tavarez' (2005) study is important for this thesis because if other scholars find value in studying and comparing the embouchure of one instrument, in this case the clarinet, it strengthens the argument that there is value in doing so for another similar instrument, the saxophone.

Westphal's (1990) book 'Guide to Teaching Woodwinds' touches on the basic aspects of all woodwind instruments. It provides an overview of all of the essential techniques of playing a woodwind instrument as well as detailed information about the mouthpiece of the saxophone. It also pays special attention to the importance of the reed, and advice is given as to what reed a player should use.

Heavner's (2004) article 'Assisting the Saxophone Embouchure – Embouchure Formation' discusses elements of the embouchure with regards to problems that can occur if the embouchure is not correct or the supporting muscles are not strong.

Liebman (1989), who studied with Allard, and Allard (1991) have both presented video recordings demonstrating how the embouchure should be to produce the optimum sound production and pitch. Both videos show an emphasis on the importance of overtones, as well as the significance of the player hearing the pitch in their mind before projecting it on the instrument. The *ear* is emphasized as the most important aspect in terms of pitching and production of the sound quality. The importance of throat placement is also discussed.

The literature discussed here is mostly centred around the embouchure in some way, which indicates that it is a valuable topic worth knowing about. Most of the articles that focus on the saxophone embouchure suggest that there is only one specific way of positioning the embouchure rather than discussing the possibility of different positions. Most of them discuss specific details as to how to use the single-lip embouchure. The double embouchure is mentioned but is not described in

any of these articles. The article discussing the clarinet embouchure, however, does present an argument about what a correct embouchure is. This proves that there is space for this kind of study on the saxophone embouchure.

2.2 South African Saxophone Jazz History

The District Six Museum in Cape Town is fortunate to have sound recordings of interviews that were done with three significant early South African saxophonists, Willie Jales, Jimmy Adams and Cups Nkanuka, although no video footage of them has been found. These interviews support much of the historical information found in books that have focused on jazz. Coplan's (1985) 'In township tonight: South Africa's Black city music and theatre', and Albert and Schadeberg's (2007) 'Jazz, blues & swing: six decades of music in South Africa', are examples of books that describe what musicians experienced in South African during Apartheid. They focus largely on the historical aspects of jazz music in South Africa and on all the different music styles that were predecessors to South African jazz.

Devroop and Walton's (2007) book 'Unsung: South African jazz musicians under apartheid' pays tribute to a number of South African jazz musicians by presenting a collection of interviews that they have done. Each of these were centred around the struggles of being a musicians during the apartheid era.

'Chris McGregor and the Brotherhood of Breath: my life with a South African jazz pioneer' (McGregor, 1995) describes in a number of ways what it was like being a jazz musician in South Africa during Apartheid and how South African jazz developed. It discusses many of the key musicians during this time including some saxophonists such as Kippie Moeketsi. Ansell's (2004) book 'Soweto blues: jazz, popular music, and politics in South Africa', and Ballantine's (1993) book 'Marabi nights: early South African jazz and vaudeville' both focus on different styles of music and how these developed under difficult circumstances in South Africa. All these discussions centre around the South African apartheid struggle and how this affected the way musicians played their music. This is also the case in the interview with Jimmy Adams (1998). In these sources discussions of the life circumstances of musicians often overshadow the information about their techniques.

There are two interesting documentaries about South African saxophonists that are relevant resources for this study. The first, 'Keeping the home fires burning', is about Basil Mannenberg Coetzee (Videography: Felix, 1992). It is primarily about his life and the struggles in the South African

music industry, but includes interviews and short clips of his playing. The second documentary, 'Casa de la Musica', (Videography: de Vries, 2003) is about Robbie Jansen's trip to Cuba and the similarities he discovers between the music of this culture and his own. There is also footage of him playing.

There are many books about South African music history in general; most of them contain articles written by different authors. For example, 'The Garland Handbook of African Music' (2000) has a section on jazz history and contains articles by Coplan (2000) and Kaemmer (2000). The book by Ewens (1991), 'Africa O-Ye!: A Celebration of African Music', is also a collaboration of various authors articles on significant music that is unique to Africa. However, it is more of an appreciation of musical styles than an in-depth study. Graham's (1988) book, 'Stern's guide to contemporary African music', is of a similar nature in that it covers many different musical genres from Africa and does not focus on South African jazz in great detail. It also holds significant information as to how western music came to Africa.

2.3 The South African Saxophone Embouchure

In his interview with Layne (1999), Willie Jales mentions that Jimmy Adams taught him to play on the mouthpiece and reed first, before learning how to play the saxophone. This is quite an important technique that has not been mentioned in other South African material.
In his study entitled 'African Horns', Solberg (1996) puts forward his interpretation of the sound of South African jazz saxophones based on African traditional music. He describes this music in four parts namely 'sound', 'expressive devices', 'rhythm' and 'structures in polyphonic music'.

Solberg bases his study on a few iconic black South African saxophonists that all played in a very similar style. His study focuses on the indigenous elements that influenced that style of playing. He explains how in the townships, music has always played an important role, in spite of the difficult political situations that musicians had to go through as a result of Apartheid. He explains how in many cases these situations brought out the best in the musicians. The music gave them a sense of freedom through allowing them to voice their opinions (Solberg, 1996:81). Solberg (1996:81) explains how traditional South Africans have a unique vocal tradition which is comprised of many intricate techniques such as vocal polyphony, parallel singing and the use of the harmonic series.

Solberg (1996) mentions the embouchure of the South African saxophonists he studied, but does not go into great detail. He compares each South African saxophonist with one specific American

saxophonist. Most of these comparisons focus on the musician's general playing style when they solo. The use of expressive devises is also mentioned in his study.

In a short study, Rossi (2001a) discusses important South African saxophonists. He only focuses on the embouchures of Kippie Moeketsi and Barney Rachabane and mentions how they both have loose embouchures, but he does not analysis these further. He discusses Winston Mankunku Ngozi, Basil Mannenberg Coetzee, Ezra Ngcukana, Dud Pukwana, Harold Jefta and Nic Le Roux in terms of rhythmic use, expressive devices, intonation, ability to play different styles and their American influences. He also mentions Robbie Jansen, Buddy Wells, Zim Ngqawana and McCoy Mrubata as having 'developed name status via recordings and concert appearances throughout the country and overseas' (Rossi, 2001a:13). The most significant point that he emphasizes is that players hear a sound and then translate that onto their instrument.

2.4 Summary of the Literature Review

As there has been so much international literature written on the saxophone embouchure for many years, it is possible to deduct that the embouchure plays a significant role in saxophone performance practice. During the Apartheid years, no information was written down about the South African saxophone embouchure and techniques. Although more recently the saxophone embouchure and techniques of South African players have been studied, no in-depth analysis with a specific focus on the embouchure has been conducted. Most of the articles that were written about South African jazz during the apartheid era focus on the political situation and how it affected musicians. The focus is mostly on the historical aspects and not on the use of expressive devises or what musicians were thinking about their playing. Adams (1998) describes how most of the early saxophonists were self-taught through copying the music they listened to as well as studying teaching manuals or magazines.

Although there is a previous study on South African saxophonists, no comparison of South African musicians from different generations has been made so far. There is also no comparison of trends in a group of South African players with trends in a group of international players. There is in fact not very much literature about the South African jazz saxophone overall, and therefore this study will be of benefit to the field.

CHAPTER THREE: AN OVERVIEW OF SOUTH AFRICAN JAZZ

In the first part of this chapter, a brief overview is given of how western music was introduced into South Africa. The main focus of the chapter, however, is on what constitutes the South African jazz saxophone sound. The exploration of this sound includes looking at various significant South African saxophonists throughout the last 50 years. This will assist in putting into context the current sounds that we know today as 'South African jazz' and it will also help to analyse them. It will furthermore allow for a collection of characteristics that make up the South African jazz saxophone sound.

3.1 THE INTRODUCTION OF WESTERN MUSIC TO SOUTH AFRICA

This section provides a brief explanation of how western music was introduced into South Africa and how new styles of music developed as a result of its influence. Political aspects are mentioned with regard to apartheid policies and how these affected South African musicians.

The South African music industry is the oldest and most developed in southern Africa (Ewens, 1991:186). South Africa was one of the first countries in southern Africa to which European musical practices were introduced. Subsequently, these influences spread throughout southern Africa. In 1652, Cape Town officially became a harbour when the first Dutch settlers arrived in Table Bay, bringing their culture and music to the tip of Africa. As the Dutch East India Company started to take over the land, they brought slaves from Asia to farm the land (Kaemmer, 2000:326). People of different cultures thus mixed and influenced each other, forming new styles of music.

Early indigenous music consisted of traditional instruments and vocal harmonies, making use of polyphony[1]. As the colony started to become urbanised, the introduction of western instruments had a profound effect on the development of music. Western instruments such as the guitar, the banjo and the violin were brought into southern Africa during the seventeenth century, and later, during the nineteenth century, the concertina was introduced (Graham, 1988:27). These were then taken and adapted to fit in with indigenous instruments and were utilized in traditional music. It was only during the early twentieth century that brass and woodwind instruments became popular in South Africa (Ewens, 1991:188).

[1] Many musical sounds played simultaneously - see glossary

During the 1600s it had become acceptable to have slaves playing music for entertainment. The more talented a slave was, including musically, the more they were worth (Coplan, 2000:335). Slaves had to learn to play western instruments to entertain their masters and their families. Most of them did not have formal training but were able to learn by ear (335). The skill of learning by ear became quite a common trend in South Africa. When the saxophone was introduced to the country many years later, this skill was often utilized by self-taught musicians.

When the British settlers started coming to African shores in the 1700s, they introduced their country dances which became highly popular amongst the locals. 'Rainbow balls' would be held with all races represented (Coplan, 2000:335).

Christian missionaries had a great influence on music in southern Africa. In some ways this had a negative impact as they discouraged African customs and music. Emphasis was put on the European culture, and strict religious ideas were enforced. Africans often associated religion with power, and as the European influence increased, some Africans believed the notion that indigenous music and religion were sinful and inferior. Select mission stations did, however, recognize the importance of indigenous forms of expression and translated hymns and songs into traditional languages. Early schools in Africa which were run by Christian missions placed a big emphasis on choral singing. The choirs suited many African peoples quite naturally as the vocal traditions are so prominent in their cultures.

Around the 1890s, African-American minstrel and ragtime musicians as well as choirs toured southern Africa, inspiring choral harmonies and an improvisational style of singing for the *makwaya* or African choirs (Ewens, 1991:186). The African choirs then integrated American influences into their music, maintaining the use of the melodic direction of some traditional songs that would parallel the tonal patterns of the words. The African choirs learnt routines to their songs and performed them in special costumes. Many of the choral songs were later adapted to jazz in *marabi* music (Kaemmer, 2000:328).

In the late 1800s, mining and manufacturing became huge sources of income for southern African countries and subsequently there was an increasing demand for labour. Kimberley (mining of diamonds) and Johannesburg (mining of gold) were the main South African cities to offer work opportunities. The promise of employment was very enticing for many local people, especially those wanting to better themselves (Coplan, 2000:333). Those seeking better lives had to move away from their families to work at the mines. This had a significant impact on the musical aspect of community life. As families were separated, many traditional rituals were affected. Those people who were

working in the mines aimed to maintain their cultural identities by taking opportunities to participate in traditional dances and music (Kaemmer, 2000:327). Black and white mine workers socialized together, celebrating and sharing their respective musical styles. There is a possibility that "among these musicians in nineteenth-century Kimberley […] the tonic-dominant-subdominant harmonic progression became established as the signature of South African black popular music" (Coplan, 2000:337). It is this chord progression, among other characteristics, that is prominent in South African jazz and will be discussed in further detail in the next chapter.

At about this time military bands were introduced to South Africa, and with them brass and woodwind instruments such as the saxophone. Slaves were taught and expected to play in the bands, although later on musicians in the bands were paid. The locals living at the missions regarded being in a band or choir as a powerful cultural tool, as music was traditionally important in their culture and a significant aspect of their lives (Kaemmer, 2000:327). According to Willie Jales (Interviews: 1999), the saxophonists in the military bands played in a rigid style. In an interview with Colin Miller of the District Six Museum in 1999, Jales demonstrates how the military saxophonists tongued most of their notes, and used a heavy vibrato. He demonstrates this by playing very harshly and with a wide and fast vibrato. He later plays making a bouncy sound as he tongues the notes while playing a 2/2 march beat.

An American choir, 'Orpheus M. McAdoo and the Virginia Jubilee Singers', toured throughout South Africa between 1890 and 1898, and made an impact on its South African audiences. In Cape Town, the Virginia Jubilee Singers' performances inspired the appearance of the parades by the 'Kaapse Klopse' or 'Cape Coon Carnival' who made use of marching band instruments. The saxophone had a prominent feature in this music. Even to this day, every year on the second of January, troops march through the streets of Cape Town in American minstrel costumes, performing pieces with saxophonists giving a distinctive sound (Albert & Schadeberg, 2007).

The saxophone became a popular instrument to accompany the Cape Malay Choirs. In his interview, Cape Town saxophonist Willie Jales fondly remembers the times that he was inspired to play the saxophone. He described how each year he would watch the Christmas bands and Malay bands leading the choirs during New Year's Eve and New Year's Day parading the streets of Cape Town (Jales, 1999). Galeta (Albert & Schadeberg, 2007:31) states that "it is somehow ironic that this genre of Creole/African/American minstrel-spiritual music which became one of the key developmental elements of jazz in New Orleans in 1895 should also become a contributing factor and play a crucial role in the development of South African jazz".

The music industry in South Africa continued to grow during the early 1900s, although there was growing pressure from the developing segregationist policies. Shortly after the First World War, jazz was introduced to South Africa by American sailors who brought the first jazz recordings (Albert & Schadeberg, 2007).

In 1914, the first British gramophones and records were sold in South Africa, and by the 1920s most South Africans were exposed to American and British jazz because of the gramophone (Graham, 1988:27). As there were no recording studios in South Africa at the time, musicians had to travel to Europe to have their music recorded. In 1932, a man named Eric Gallo helped to end this situation by opening the first South African recording studio in Johannesburg. His recording company, Gallo Records, provided a platform for African musicians. He also collaborated with Hugh Tracey to establish Gallo Bantu Records, an additional company focusing on the production of ethnic recordings sung in all traditional languages. Recordings included 'jive, sacred, concertina and traditional styles' (Graham, 1988:27). This collection of recordings is now an important archive for South African ethnic music. As South African music started to become popular during the late 1930s, other recording companies emerged. A prominent opposition to Gallo records was Zonophone, which also had a specialised sub-company focusing on traditional music (27).

As American ragtime and jazz attained popularity in South Africa, mission-trained instrumentalists from popular 'coon troupes' got together to form some of South Africa's first jazz bands. Bands like the 'Merry Blackbirds', the 'Rhythm Kings' and the 'Dance Maniacs' played prominent entertainment roles for the communities as they performed their interpretations of jazz (Ewens, 1991:188).

In 1948 Apartheid became the official legal policy and Africans were banned from performing at European clubs. People were relocated and separated from family members of a different colour. The separation tore families and communities apart, and many musicians found this a struggle that ended their musical careers. Music education was not a priority for children in African schools. Many musicians lost their jobs and had to take on other day jobs (Kaemmer, 2000:327). Some businessmen made their fortunes to the detriment of others who suffered and struggled. Many of the musicians never received royalties for their recordings and were not even recognised as the performing musicians. Winston Mankunku had to play behind a screen at the Cape Town City Hall while a white musician mimed his notes on the stage. He was accredited as Winston Mann. "On radio broadcasts, pianist Tony Schilder heard himself rechristened Peter Evans, and trumpeter Johny Mekoa became Johnny Keen" (Ansell, 2004:3). The apartheid system caused many black South African musicians to be exploited by white businessmen who controlled the music industry (Graham, 1988:27). Some musicians either gave up music altogether or had to flee the country and go into exile in order to pursue their dreams and careers. These circumstances severely affected the

evolution of the South African sound (Ansell, 2004:27), as people started to use music more and more as a tool for voicing their outrage against Apartheid. Saxophonists such as Winston Mankunku, Basil Coetzee and Robbie Jansen used the saxophone to express their feelings against Apartheid by playing at union rallies (Albert & Schadeberg, 2007). South African jazz started to become recognised as a style of its own, with the saxophone playing an important part of the sonority of this jazz. The South African jazz saxophone was known as having a distinctive sound. Rossi (2001a:12) mentions a quote by the director of the Centre for Jazz and Popular Music at the University of Natal in Durban (UND), Professor Darius Brubeck, who states that the saxophone is the instrument that best resembles the South African jazz sound: "If you were going to give someone a blindfold test and say, 'Well, where is this music from?' – probably the saxophone sound is the most determining thing."

This brief explanation of how western music was introduced to South Africa shows how new styles of music developed as a result of its influence. It also shows that apartheid politics affected South African musicians and the development of South African jazz.

3.2 THE CULMINATION OF INTERNATIONAL AND TRADITIONAL INFLUENCES

Various different South African traditional and international styles of music were combined to form South African jazz. This section will show the relevant styles that played an important role in its development.

Rossi says:

> Jazz was already a 'fully' developed art by the time it reached South Africa with a title to its genre. There have always been various disciplines in the jazz style (ragtime, blues, swing, etc.) and these are what have continued to develop, such as South African Jazz developed its own voice (Rossi, 2001a:12).

Although the root of jazz is a development from African rhythms and work songs of the African-American slaves (Hester & Hester, 2004:3), South African jazz as we know it today was influenced by American jazz, which was already an established style by the time it arrived on African shores (Rossi, 2001a:13). South African jazz is a combination of various international styles, including influences of saxophonists such as Charlie Parker and John Coltrane, and various styles of South African traditional music such as *marabi*, and *mbaqanga*. Styles such as *kwela* and Cape *goema* have also developed from these influences and contributed largely to unique elements found in South African jazz, particularly the distinct *goema* drum rhythms which will be discussed in more detail later (McGregor,

1995:ii). As unique as all of these styles are, some of their elements have contributed to the way South African jazz is played, and have impacted on the way the saxophone was played in this genre. The rhythms, harmonic progressions and execution of the saxophone sound are hugely influenced by these traditional styles.

The simple structure of most traditional African music, explained in more detail in section 3.3.1 on *marabi*, in which very few chords are used and constantly repeated, are commonly found in South African jazz. South African musicians started to combine the various sounds they heard from American and British jazz records that were shipped into the Cape, with their own traditional influences. Some musicians were even inspired by western classical music (Devroop & Walton, 2007:6). Maxine McGregor explains how the amalgamation of these sounds and other styles of music were the platform for a unique South African style of music. She describes how her husband, Chris McGregor, a South African jazz pianist, assimilated these influences:

> The early exposure to very different sorts of music – rural Xhosa, with cyclical motives and intricate harmonies; urban South African, cyclical but relying on two or three chords, underlined by a heavy accent on the beat; western classical and contemporary, Bartok and Schoenberg included – convinced him of the possibility of combining elements borrowed from these different traditions. And jazz – discovered through American records but also by playing with Cape Town dance bands – offered the experimental terrain he needed. Jazz provided the foundations of the harmonic language, extended chords such as heard both in Duke Ellington and Thelonius Monk's works; but at times, harmonic complexity could be replaced by the utter simplicity of marabi and mbaqanga's perpetual movement of two or three chords (McGregor, 1995:ii).

This is a very useful depiction that explains much of what one can hear in South African jazz. When one listens, for example, to recordings of Kippie Moeketsi, the alto saxophonist in McGregor's band 'Blue Note', in his album *Jazz Epistles*, it is evident in his playing that he was influenced by different styles of music.

In the 1950s, the pennywhistle became commonly used as it was both cheap and adaptable. The music of the pennywhistle players became known as *kwela.* This style of music later became internationally recognized, and saxophonists and pianists were introduced and would back up the solo pennywhistle. However, the pennywhistle was used less and less in *kwela* music as the

saxophone became more popular. A so-called 'new jazz sound', *mbaqanga*, then emerged from the big band swing music of the 1930s. Saxophonists Kippie Moeketsi, Basil Coetzee and Winston Mankunku Ngoza played a role in establishing this genre (Graham, 1988:27). These musical genres as well as 'Concert and Dance' were the predecessors to what we know today to be South African jazz music. To understand the role which the saxophone has played in each style, the styles will be discussed separately.

3.2.1 CONCERT AND DANCE

> The universal format of middle-class African entertainment between the world wars was 'concert and dance'. Not only minstrel performers, but choir competitions, institutional functions, official receptions and meetings of political and other organisations were followed by a few hours of dancing to the music of jazz orchestras. The influence of these forms on working-class styles led to the birth of an authentic South African Jazz (Coplan, 1985:128).

Many South African musicians were self-taught, while some were taught by private educators. As early as the 1880s, Africans were being trained by missionaries. The missionaries in South Africa took an interest in training African people for brass bands. The Salvation Army lent brass and woodwind instruments to people who could not afford them (Ewens, 1991:188). In the early 1920s, American Big Band music became very popular in South Africa. South Africans were exposed to American Swing through records played on gramophones and through watching American films. African people in South Africa were especially influenced by African-Americans as they identified with them and viewed them as examples of what life could be like. Members of some enthusiastic bands such as 'The Jazz Maniacs', the 'Jazz Revellers', the 'Merry Macs' and the 'Merry Blackbirds' could already read music at this time and would learn American songs perfectly, mimicking the originals. People looked up to this African-American sub-culture as they believed that jazz was a form of free expression, and they took great care to imitate American bands as closely as possible (Ballantine 1993:6).

'Concert and Dance' music played a large role in facilitating the development of jazz in South Africa between the 1920s and 1940s. This music was performed in community halls providing entertainment for audiences. For the first part of the evening vaudeville troupes, which were theatrical companies that performed various acts that were often accompanied by the bands, would perform, and for the rest of the evening the audience would dance to bands mimicking American swing bands. Later people started to infuse 'Concert and Dance' music with *marabi*.

3.3 TRADITIONAL INFLUENCES

3.3.1 MARABI

In the 1920s, whites had moved out of townships such as Sophiatown and Alexandra in Gauteng due to the Native Urban Areas Act, leaving behind vibrant communities of black, coloured, Indian, and Chinese people. These were two of the few urban areas in the country where African people could own land. It was in these environments that *marabi* developed. There are many contradictory opinions of where the name 'marabi' derived from. Some have said that it is based on the term 'ho raba raba' ('to fly about') in the SeSotho language. The South African pianist Abdullah Ibrahim is of the opinion that it 'came from Marabastad, an old, old, Pretoria location where they first made this music' (Ansell, 2004:29.) Saxophonist Wilson 'Kingforce' Silgee describes *marabi* as a combination of 'tickeydraai' and 'tulan'divile' (Ansell, 2004:31). However, regardless of where its name comes from, *marabi* was established long before 'Concert and Dance' came about (Graham, 1988:27) and was a relaxed style of dance music. Listeners would dance freely to it.

Marabi has a similar chord structure to American blues as it consists of only three chords which are repeated in a specific order. Yet *marabi* music was usually only played in a four–bar cycle consisting of chords such as I-IV-I $\frac{6}{4}$V which was different to the 12–bar structure of American blues. It is this chord structure that is commonly found in South African jazz. Further differences between *marabi* and blues are that *marabi* has a much shorter harmonic cycle and that it does not contain the 'blue-note', which is distinctly found in blues. Traditional African music was an important aspect of *marabi*. Sotho, Xhosa and Zulu ceremonial songs were used in *marabi* music. The musicians would take these songs and develop them in new ways, such as speeding them up and adding different rhythms. African Christian hymns, coloured-Afrikaans and white-Afrikaans music were also used in this manner (Ballantine, 1993:27).

Marabi was initially played in 'shebeens' (township drinking places), sung by a vocalist and accompanied by a self-taught organist or pianist (Solberg, 1996:4) who frequently based their rhythms on repeated traditional African rhythms. Some of the rhythms and melodies were excerpts taken from well-known songs and repeated for most of the duration of the song (Ballantine, 1993:5). Later saxophonists and guitarists also played *marabi* music.

In the tape accompanying the book '*Marabi nights: early South African Jazz and vaudeville*' (Ballantine, 1993) there is variety of early *marabi*, *vaudeville* and *jazz* music. The *vaudeville* music

demonstrates the basic *marabi* structure, including a concertina player and a vocalist. In the recording of *Sponono* (track 13) by the 'Jazz Revellers Band, it is very difficult to hear the saxophones and brass. However, they play repetitive lines and it sounds as if they are all playing the same notes, which means there is no harmonizing. The melody differs only slightly from the piano, and the dynamics are the same as for the rest of the band. The saxophones' intonation sounds flat. In the piece titled *Ntebejana* (track 14), the saxophones have more of the melody and are more supported by the rhythm section. The saxophones play similar melodic lines to the piano and make use of close harmonies, which is a characteristic *marabi* singer's harmonies (tracks 21, 24, 25). Their tuning is not accurate according to Western A440 Hz; it moves sharp and flat and they make use of a wide vibrato. They play repetitive riffs, scoop their notes and are supported by repetitive piano chords. They make use of swing rhythms, but the melody has more of a ragtime feel to it. The 'Merry Blackbirds' playing in the piece *uMajaji* (track 16) sounds very similar to a Dixieland band. The saxophones are quite prominent in the beginning, with counter melodies happening, and they are quite repetitive. The tuning is not very accurate. Some of the players are sharp and some are flat. The piece includes singing, while a clarinettist plays over the singing. Then the band joins in again and other instruments become more prominent. Elements of *marabi* such as the repetitive lines, a supporting rhythm section, repetitive riffs and scooping by the saxophones are prominent features of South African jazz.

3.3.2 KWELA

> The penny whistle was perhaps an ideal instrument on which to build the foundations of an indigenous South African jazz (Coplan, 1985:158).

Many different flutes and whistles were played in African culture. Young boys would play these instruments, and they were also inspired by immigrants from Scotland who would hold regular public practices for their drum and fife[2] bands (Coplan, 1985:155). The pennywhistle thus became a popular instrument for these young boys to play.

As both the various styles of Scottish and American swing and local music were liked by these young musicians, it became necessary for the pennywhistle players to develop different fingerings on the six-hole instruments as well as to make use of overtone playing. These techniques made it possible for them to play chromatically, giving them more notes to play on the instrument and allowing for

[2]Ancient side-blown instrument like a high-pitched flute, frequently used in military bands. Modern drum and fife bands include low-pitched flutes.

variation. This meant that they were able to mimic many styles and the 'blue-note' became very popular to use (Coplan, 1985:157). The use of overtones and the blue-note is also found in South African jazz saxophone playing (Shout, 2010).

This style of pennywhistle music became known as *kwela*. *Kwela* also became popular as a dance form. It comprised a confident repetitive melodic line played by quite a few pennywhistle players which was played over 'a rhythmic ostinato chord sequence'. The pennywhistles and rhythm section played two different parts known as 'antiphonal two-phrase, four-bar sequence typical of African studio arrangements' (Coplan, 1985:158). A pennywhistle solo improviser played a third part above this. The combination of different parts derives from traditional vocal music. This concept can also be found in South African jazz. Ostinato techniques are basic structures as found in *kwela* music. This form of ostinato is used in *kwela* when the solo pennywhistle player improvises over the chorus playing ostinato riffs. This overlapping of rhythms is also found in South African jazz. Audiences, both local and international, particularly enjoyed these solos and the interesting rhythms. *Kwela* became a very successful style. Aaron Lerole's *Lion Killer* is a well-known *kwela* melody (Coplan, 1985:158).

Figure 3.1 West Nkosi playing the pennywhistle

Even though the pennywhistle music was so popular in South Africa and recognised internationally, it had the stigma of being a child-like instrument. Although many musicians preferred to play the pennywhistle as they felt that they could control the vocal quality of the instrument and express themselves by use of 'bending' the notes, many players were obliged to switch to other instruments such as the saxophone. By the 1950s, *kwela* was being recorded with the addition of saxophones and piano that would back up the solo pennywhistle. As the pennywhistle started to be replaced by the saxophone, *kwela* and jazz playing became increasingly combined styles, forming a new style known as *kwela-jazz* (Graham, 1988:258).

3.3.3 MBAQANGA / AFRICAN JAZZ

In the 1940s and 1950s, African people were forcibly moved into different geographical areas according to race, and their homes were destroyed for new housing to be built. Sub-economic township houses were erected, and communities were separated from each other, creating animosity amongst people.

In the 1940s, American swing started to become popular, and *marabi* was heard less and less (Coplan, 1985:138). The *marabi* vocal style and *kwela* were amalgamated with the instrumentation of 'Concert and Dance' American swing. The combination of these styles transcended into a new genre known as 'African jazz' (Solberg, 1996:5). As *Concert and Dance* music was an international influence, it had the potential to override local music as it became more popular. However, a natural development for people is to take what they know and fuse it with new influences and this is what happened here. The integration of *Concert and Dance* with *marabi* and *kwela* meant that the African heritage was preserved (Coplan, 1985:133).

At *Concert and Dance* performances, the musicians played written orchestrations similar to the American Count Basie's band. Then they started to slowly do away with these as they increasingly performed new compositions. It became a competition of sorts, as each band would try to play as creatively as possible to gain the most approval from the audience. These sessions helped forge *marabi*, *kwela* and American jazz into African jazz (Coplan, 1985:165). As African traditional songs and American standards were combined and reworked, it became a trend for soloists to improvise over long vamps. They made use of simple chord structures, syncopated beats with repeated motifs and played traditional African melodies over them. *Mbaqanga* was played by smaller bands than was the case for the *Concert and Dance* style. They would often accompany vocal groups. Some of the bands that made this style popular were 'The Jazz Maniacs', 'The Merry Blackbirds', 'The Rhythm Kings', 'The Jazz Revellers', and 'The Harlem Swingsters' (Ansell, 2004:70).

Ntemi Piliso, a South African saxophonist, describes how *marabi* and American swing were merged together to form this unique African style:

> African jazz, when we started, we emulated the Americans, the big bands, but we played African jazz because we took the chord progressions from marabi... We categorised it as African jazz because when you say jazz, you tend to think of America jazz because - and we were using that style as a big band… Where the

> saxophone section plays a phrase and the brass section answers, that type of arrangement the Count Basies and so forth were using. But the melody - you can see, feel, it's African…. You can do whatever you like, put in American phrases, but you'll come back to that marabi trend. It's a cultural thing; it won't die (Ansell, 2004:71).

The 'Merry Macs', led by Temmy Hawker, was a big band from Langa during the 1940s and 1950s that would play both *Concert and Dance* and *marabi*. It was one of the bands that started to merge these two styles. Hawker was a mentor for budding saxophonists such as Jimmy Adams.
The District Six Museum in Cape Town is fortunate to have sound recordings of interviews that were conducted with three significant early South African saxophonists, i.e. Willie Jales, Jimmy Adams and Cups Nkanuka. Although no video footage of them has yet been found (hence they have not been included in the main research of this study), these interviews support much of the historical information given above about these times.

Jimmy Adams, one of the saxophonists interviewed, discusses his life and experiences of playing. He played in live bands at jive parties, in 12-piece bands that played orchestrated dance music and *marabi*. He was inspired by American saxophonists Charlie Parker and Lee Konitz. He would listen to African pieces and arrange them for his big band to play. He maintains that true jazz is not appreciated in South Africa today as it used to be, the 'jazz scene is gone', and that fusion and electronic music is far more popular (Adams, 1999). When Adams plays the saxophone, he has a wide, fast vibrato, he scoops most of his notes, and he does not use much tonguing. He has quite a harsh quality to his sound, similar to Coleman Hawkins.

People in South Africa then were not exposed to as many different musicians and techniques as they are today. The technique of transcribing note for note and pitch for pitch was not commonly used. Saxophone playing is continually developing throughout the world as practice techniques have become refined. These have only recently started to be taught in South African schools.

By the 1960s, bands that were previously influenced by American swing started to listen to bebop musicians, especially to Charlie Parker and John Coltrane. This new bebop sound was very exciting for South African musicians who started to incorporate it into their own playing (Ansell, 2004:98-99). Saxophonists such as Kippie Moeketsi and Winston Mankunku were among those who were inspired by the sounds of bebop.

Figure 3.2 A South African band influenced by bebop playing at Woodstock Town Hall, 1961

Figure 3.3 Chris McGregor conducting the Castle Lager Big Band, 16 and 17 September 1963

As jazz music started to develop in the 1960s, the political situation in South Africa worsened. Black and white musicians were prohibited from playing together. It became difficult for jazz bands to survive, and there was less opportunity for young developing musicians to learn to read music. Record companies became stringent about controlling the music that was recorded by commercial *mbaqanga* bands. Many of the best musicians such as Chris McGregor and his band, Hugh Masekela, Dollar Brand, Miriam Makeba, Letta Mbulu and many others left the country to live and play abroad. One positive outcome of them leaving the country is that they brought attention to South African jazz throughout the world (Graham, 1988:260).

3.3.4 SAX JIVE

Sax jive was a style of music branching off from *kwela* in the 1970s. It had a much stronger beat and was more dynamic than *kwela*. This style was distinguished by a dominant saxophone chorus that played together over simple repetitive rhythms. Barney Rachabane, Mike Makhalemele and Teaspoon Ndlela are examples of saxophonists who played this sax jive style (Graham, 1988:266).

3.3.5 SUMMARY

The saxophone has played a prominent role in giving South African jazz its unique sound. The focus of this study is the collaboration of characteristics that make up the South African jazz saxophone sound. From the brief description of the history of South African jazz above it is evident that there are many aspects involved in developing this sound. Identifiable traditional rhythms and simple chords are most certainly the backbone of South African jazz. The communicative South African vocal tradition is still a significant feature that has been mimicked by saxophonists for many years. These sounds are translated onto the instrument by the use of expressive devices. As such expressive devices are also used by international saxophonists, it is worth looking closely at players to distinguish between them and see how they utilize these devices differently. It is also important to compare their embouchure positions and use to see how and why these musicians produce such different sounds. Expressive devices are usually utilised by adjustments to the mouth position on the mouthpiece of the saxophone as well as by articulation of the tongue. The tone quality of the saxophone is also largely dependent on this position and the equipment used.

South Africans have been influenced by international musicians. The 'swing' and 'bebop' influences are what have classified this style as 'jazz'. It is evident from the historical overview that the political history of South Africa has greatly affected musicians. It has had a huge impact on the way saxophonists played in the past and how they still play today.

3.4 CHARACTERISTICS OF THE SOUTH AFRICAN JAZZ SAXOPHONE SOUND

> [Saxophonist] Michael Brecker used to say this is unique, man. He never hears anybody in the world play the way we play. Even if you try to play the American tunes written by Americans, you still have our flavor. We're born with it. A mixture of African and American sounds – it's just different (Ansell, 2004:257).

The purpose of this study is to understand how the embouchure plays a role in producing the 'South African jazz saxophone sound' and finding a common trend in saxophonists. It is clear from the research, and in the nature of music, that there are various aspects that make up a specific sound. The researcher is aware of the complexities of music in that the sonority can never truly be isolated, especially when there are so many elements. The contextual complexities result from the fact that saxophonists usually play together with other instruments which influence the harmonies, rhythm

and intonation. These factors, together with the embouchure and scale patterns on the instrument itself, make up the sonority of the saxophone. All these aspects will therefore play a role in the way the South African saxophone sound is produced and heard. In Solberg's (1996) study and Rossi's (2001a, 2001b) articles, attention has been paid to which scales harmonies, rhythms, pitch and expressive devises are used. While both authors describe the embouchures by using words such as 'tight' or 'loose', neither has examined the embouchure in detail by describing the position of the jaw, teeth, lips, cheeks, throat, tongue, mouth placement on the mouthpiece, mouthpiece placement in the mouth, mouth angle and head angle. This information will be helpful in order to know how South African jazz saxophonists use their embouchure to produce the sound, and if it is the embouchure that is in fact affecting the intonation or rather the expressive devices. The analysis of the intonation will be included in this study to support the embouchure analysis.

This author recognises that intonation and expressive devices are very important aspects of the saxophone sound production and has therefore included basic information of each in order to better describe the saxophone sound. Acknowledging that they are not the focus of the study, the author would like to suggest that these are necessary to know when studying any style and may be of interest for further research in the future.

The characteristics of the South African jazz saxophone sounds are comprised of the use of specific scale patterns and harmony, rhythms, intonation, embouchure, and breathing. These characteristics will be briefly described in the next four sections.

3.4.1 SCALE PATTERNS AND HARMONIC USE

South African jazz makes use of the traditional African scales such as pentatonic, blues and basic arpeggios up to the dominant 7^{th}. There are commonly used rhythmic lines which are based on traditional singing (Shout, 2010). Mankunku made use of these scales and rhythms; however, he also made use of harmonic substitutions and chromatic scales as well as the jazz modes (Rossi, 2001a:13).

South African jazz chord progressions are mostly based on the *marabi* I-IV-I $\frac{6}{4}$-V chord progression played in a four–bar cycle.

3.4.2 RHYTHM

Rhythm is essential to creating a style of music and affecting how we hear it. South African indigenous music makes use of polyrhythms which are similarly used in South African jazz such as in the examples from 'Marabi nights: early South African Jazz and vaudeville' (Ballantine 1993) and Shout's (2010) examples in his interview that will be discussed in further detail in the analysis of his playing. Winston Mankunku plays different rhythms over the rhythm section, creating the effect of two simultaneous pulses (Solberg, 1996:87). This is the use of ostinato techniques. An example of this is found in his recording named *Yakhal' Inkomo*.

As mentioned above, a characteristic of African music is that there are repetitive rhythmical ideas (De Kock, 2010). Repetitive rhythms are much used in both traditional African music and South African jazz. This is commonly known as 'ostinato'. It was also used in *kwela* where a pennywhistle player would solo over 'ostinato riffs' played by the other musicians (Solberg, 1996:90).

A popular rhythm used in South African jazz is the *goema* rhythm which is recognizable by its identifiable syncopated rhythms, played on the drums. *Goema* has developed into a style of its own; however, the characteristic beat that is found in South African jazz is notated below:

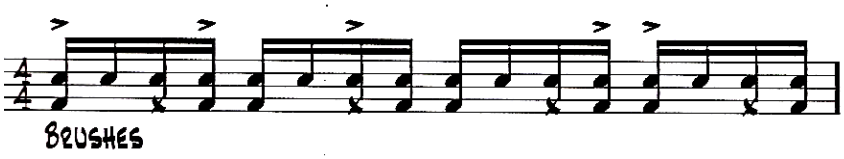


Figure 3.4 Cape Samba / Goema drum rhythm (Miller, 2008)

3.4.3 INTONATION

The intonation of an instrument can have a huge effect on the way sound is heard. Generally South African saxophonists have been known to not have great intonation (Rossi, 2001a:12). The higher register is usually sharp, and the lower register is usually flat.

Expressive devices that affect the intonation of the South African saxophone sound are the use of vibrato, tongue attack, glissandi, fall-offs and legato playing which is also found in American jazz; yet South Africans make use of these in a very different way, similar to that of the African indigenous music. These expressive devices, as well as ostinato and polyrhythmic techniques, are central features of the South African saxophone style.

3.4.4 EMBOUCHURE AND BREATHING

It is important that a saxophonist makes use of good breath control to support the embouchure. This, however, is not the focus of this study and will therefore not be given particular attention.

The embouchure is an essential element when playing the saxophone as this is where the connection between the mouth and the instrument is located and where the sound is initiated. Without the embouchure, there would be no sound production. The investigation of the embouchure of selected South African saxophonists' will be presented in Chapter Five. Different aspects of the embouchure affect how the sound is produced. This will be discussed in further detail in the next chapter.

CHAPTER FOUR: EXPLANATION OF THE EMBOUCHURE

4.1 INTRODUCTION

The focus of this study is the South African jazz saxophone embouchure. The embouchure will be discussed in detail by analysing various trends in the field of saxophone playing. Firstly, the definition of embouchure will be given; secondly, a description of various aspects of the embouchure according to international standards as well as an explanation of the mouthpiece design will be provided.

The aspects of the embouchure to be discussed are the jaws, teeth, lips, cheeks, throat, tongue, mouth placement on the mouthpiece, mouth angle and head angle.

Once these aspects have been clarified, it will be possible to look at the deviations from the accepted standards in both South African and international saxophonists. This will allow for a clear contrast and comparison between South African and international embouchures in order to determine whether there are any differences or similarities between them.

In Chapter Five, these aspects will be used to analyse and compare the embouchure of a number of jazz musicians, both South African and international.

4.2 DEFINITION OF EMBOUCHURE

In order to analyse the embouchure of South African saxophonists, a description will be given of the facial structure and muscles involved, and their ideal construction and use according to international standards. The analysis of the embouchure in general will serve as a point of reference in an analysis of specifically South African embouchures.

According to Porter (1967:7), 'embouchure' is a French word that translates into English as 'opening into'. He describes it as being a term commonly used when referring to the 'mode of applying the lips to a wind instrument'. A similar term, 'ansetzen', is a German word which translates into English as 'setting-on' (also as 'fix', 'place in position', 'attach' and 'place on') (Porter, 1967:7). All of these explanations are essentially the same, and for the purpose of this study the embouchure will be described as:

> […] the formation of the lips around the mouthpiece together with the surrounding physical factors which affect tone production. These include the muscles of the lips and chin, the tongue, and the bony structure of the face (Teal, 1963:37).

This definition serves to explain that the physical factors of the embouchure affect the tone production. According to Teal (1963), the point where the mouth and mouthpiece meet is also known to be the 'control center' of the sound. This means that the embouchure plays a very important part in 'controlling volume, pitch, and tone' (1963:37). Furthermore, the throat is also a physical factor that plays an important part in the production of the sound. It will therefore be included as part of the embouchure. David Liebman (1989), a Joe Allard contemporary, did an in-depth teaching video in the 1980s, describing the embouchure in great detail. He places great emphasis on the use of the throat and gives many examples of its relevance. He also gives exercises that are now commonly taught in universities and schools internationally, but not significantly in South Africa (Cape Town). More details about the throat aspect will be discussed in section 4.3.6.

The support muscles and bony structure involved work together:

> An embouchure of comfort implies a state of the musician's lips and mouth free from any pain or other distracting influence which enables him to produce the quality of tone he desires, to articulate the sounds he needs and to phrase the music as required. All these activities he is able to carry out spontaneously and with a feeling of ease while his embouchure is in such a state (Porter, 1967:23).

It should be mentioned here that the sound achieved is often in fact the desired sound. In other words, it was no mistake that South African saxophonists were sounding differently in the 1960s to the international musicians, but that they *wanted* to sound differently. As we have seen in Chapter One, there were very many important traditional influences that impacted on the way South Africans perceived music. They therefore had a specific sound in mind and that is what they produced. They were exposed to some American and British musicians, but they did not all necessarily want to sound like them. Willie Jales is an example of this. He knew the American music, but he still wanted to be a South African musician. South African saxophonists wanted to produce their own sound, therefore they used a natural embouchure which was comfortable for them. Mankunku was able to play in the American style, yet he still played very 'African' sounding pieces. Buddy Wells has shown patriotism to his country in his compositions such as 'Goema for Change' where he plays with a South African sound. He makes use of a lot of sub-tones in his playing as well, which is achieved by the relaxation of the lower lip which acts 'as a cushion for the vibration'. This will be discussed in more detail in the analysis of Buddy Wells' playing.

4.2.1 THE BASIC DESIGN OF THE SAXOPHONE MOUTHPIECE

The basic design of the mouthpiece has been included to assist with the description of the embouchure. Although each mouthpiece varies in material, thickness and shape, the basic design is the same (Willet, 1992:453). However, these differences in the design of the mouthpiece and ligatures do affect the quality of sound that the musician produces. As far as possible, this will be taken into account when doing the analysis in the next chapter. The different aspects of the mouthpiece design contribute dramatically to the sound with regard to the 'tone quality, pitch, volume, quality of registers, flexibility, and ease of playing' (Teal, 1963:19). As these aspects are adapted in each mouthpiece, the sound quality changes, and as each mouthpiece differs, the reed should be adjusted accordingly (19):

> Tone quality has its birth in the inner chamber of the mouthpiece, with the reed and mouthpiece acting as the generating mechanism. This mechanism sets up the relationship of the fundamental tone to its various partials, which affects the nature of the tonal quality (Teal, 1963:19).

The way the air pressure is built up in the inner chamber of the mouthpiece affects the quality of the tone. Different players place different amounts of pressure in this chamber, depending on how much lip pressure they use, at what angle they blow the air, and the amount of air they use. This varies throughout playing, but usually saxophonists will have a comfortable position and change only when wanting to achieve a specific sound or make use of expressive devices. The throat also plays a big role by allowing certain pitches and frequencies to enter into this chamber.

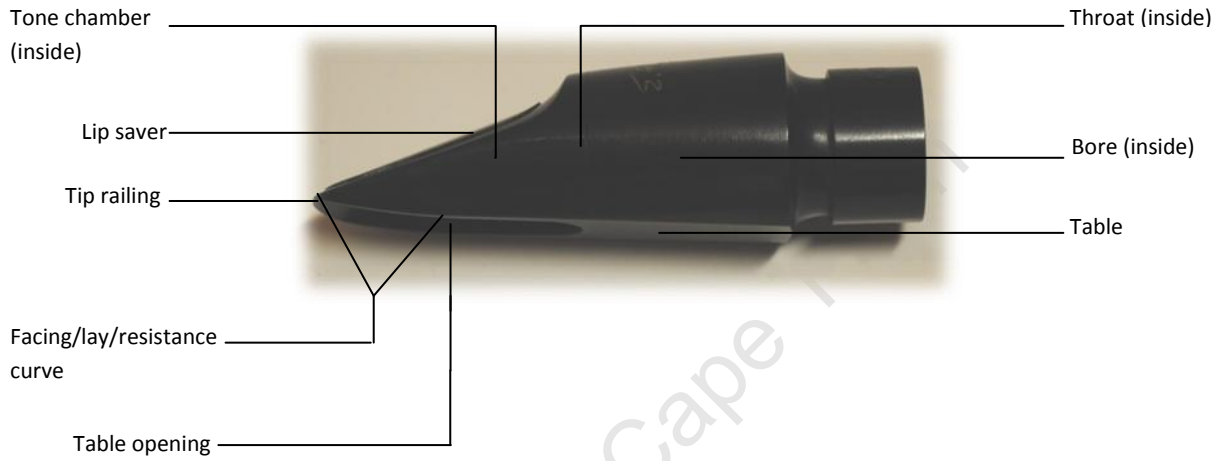


Figure 4.1 Side view of saxophone mouthpiece (photograph by author)

A brief explanation of the different facets of the mouthpiece follows:

The facing/lay/resistance curve

For each mouthpiece, the amount of curve and length of the facing varies (Westphal, 1990:248). If the lay is short, then less of the mouthpiece should be placed in the mouth. Short lays often have a 'stuffy tone' if blown with too much force. If the lay is long, then more of the mouthpiece should be placed in the mouth. This position requires more breath support and force, and it is more difficult to control the intonation. 'A long facing usually requires a soft reed, while a short facing calls for a stiff reed' (248).

The baffle

The baffle is the area inside the tip of the mouthpiece (Willet, 1992:453). The size of the baffle affects the production of the tone. If it is too big, the mouthpiece may squeak. If it is too small, the upper register of the instrument will be stifled (Westphal, 1990:248). A good choice of reeds is important to prevent this from happening. Saxophonists may squeak or produce an uneven tone if they do not have a good reed.

Tip opening

The tip opening is the distance between the tip of the mouthpiece and the reed. It can either be 'close, medium, or open' (Westphal, 1990:248). The size of the tip opening depends on how far the facing curves. Westphal describes that

> it is this opening that provides the resistance to the flow of breath into the instrument. A close opening offers great resistance, requires a stiff reed, and produces a small, stuffy tone quality. A wide opening offers little resistance, requiring a soft reed, a strong embouchure, and is difficult to control (1990:248).

The tip/end rail

The tip of the reed vibrates against the edge of the mouthpiece tip which is known as the 'end rail'. It must be smooth; if it is chipped it will affect the sound. It must not be too wide and must be the same width from side to side (Westphal, 1990:248).

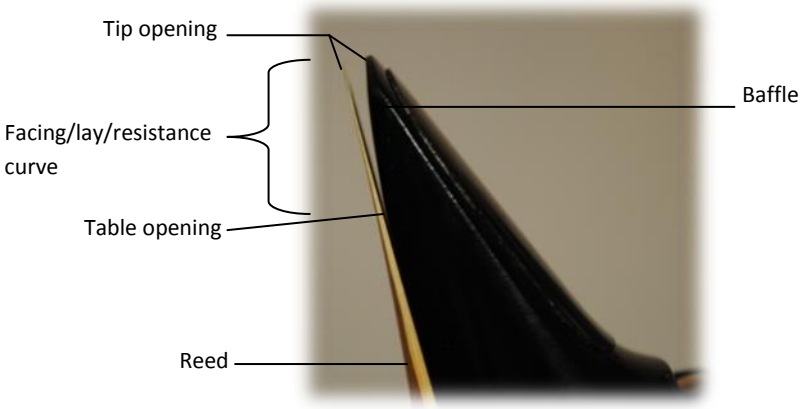


Figure 4.2 Tip opening (photograph by author)

The tone chamber

The tone chamber is the opening inside the mouthpiece between the tip and the bore (Willet, 1992:453). The size of the tone chamber contributes to the way the mouthpiece produces the sound (Westphal, 1990:248).

The bore

The cylindrical area of the mouthpiece, which fits over the neck of the saxophone (Willet, 1992:453).

Window of throat

The throat is the point at which the bore and the tone chamber meet (Willet, 1992:453).

Table

The flat part of the mouthpiece where the reed is attached (Willet, 1992:453).

Table opening

The table opening is the space over the tone chamber where the reed is placed. 'Its size is determined by the basic size of the tone chamber and the length of the table' (Westphal, 1990:248).

4.3 THE BREAK-DOWN OF THE EMBOUCHURE

4.3.1 THE FACIAL MASK

In order to understand the physical features involved in forming the embouchure, it is necessary to take a brief look at the facial anatomy. The skeleton of the face, namely the jaw bones together with the teeth, form the support for the muscles involved in forming the embouchure (Teal, 1963:37). They are therefore the 'framework' of the lips, cheeks and tongue (Porter, 1967:8). The shapes of these bony structures vary with each individual (Teal, 1963:37).

4.3.2 THE JAWS

The following four descriptions of different jaw positions are to be considered:

The square/normal jaw

This shape has an advantage when playing larger saxophones such as the tenor, baritone, and bass, since larger mouthpieces are better accommodated by a broad lip and jaw line (Teal, 1963:37).

The pointed jaw

While it may be possible to adapt to the soprano or alto saxophone, players with a pointed jaw should avoid the larger mouthpiece instruments. The curve of the lips is too radical for a proper adaptation to the wide reed (Teal, 1963:p. 37).

The overbite

Most people have a slight overbite, which adjusts to the embouchure easily. If the overbite is extreme, however, it will become a definite handicap, as the mouthpiece will have to be inserted too far in order to bring the lower lip to the proper position. The embouchure placement for the saxophone calls for the upper and lower teeth to be in alignment (Teal, 1963:37).

The underbite

The 'lantern jaw' shape can be an advantage, especially for the large instruments, as it allows the lower lip to assume the proper position without a wide opening of the mouth (Teal, 1963:37).

According to Teal (1963:37) the jaws and lips for the 'correct' embouchure are to be directly in line. This may not only be difficult for a person with a very bad overbite or under-bite, but likewise for the average facial structure, as most people actually have a slight overbite. In order to achieve the best alignment for someone with an average facial structure, there must be a slight adjustment made to the position of the bottom jaw. The best way to achieve the proper position is by bringing 'the lower jaw forward to blow a small stream of air at the tip of the nose' and then transferring this 'to the mouthpiece when playing' (1963:37). The motion of the lower jaw while playing should be the same as when a person chews (Liebman, 1989).

4.3.3 THE TEETH AND LIPS

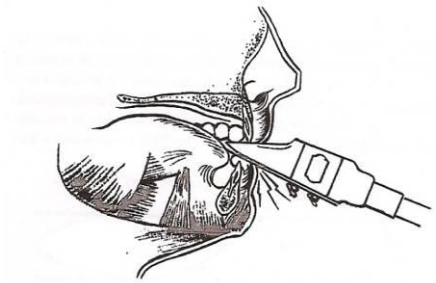


Figure 4.3 The 'incorrect' position of the lower teeth (Teal, 1963:43)

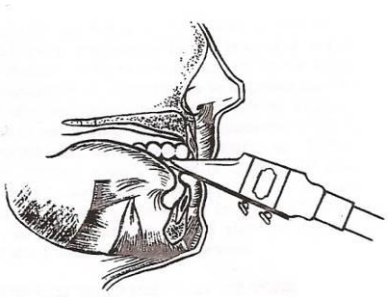


Figure 4.4 The 'correct' position of the lower teeth (Teal, 1963:43)

Although the lips are supporting muscles, they work in conjunction with the teeth; it is therefore necessary to discuss these parts in relation to each other. The top teeth should rest on the top of the mouthpiece and should have a natural bite. There should not be too much pressure on the mouthpiece from the top teeth (Liebman, 1989). The bottom teeth should rest underneath a small amount of the lip touching the reed, but without applying too much pressure to the lip. The lower lip and lower jaw must be relaxed. The mouth should surround the mouthpiece in a way a rubber band would apply equal pressure from every point (Kynaston, 1992:504).

> The player should have the sensation of holding the mouthpiece from all directions and not merely resting the mouthpiece and reed on the lower lip. […] Only the red of the lip should touch the reed. Occasionally young students will pull the lower lip too far over the teeth (Ross, 1992:455).

Saxophonist Buddy Wells (Wells, 2010) explains that even though there will not be much of a change in his mouth position when he is playing, he is sensitive to subtle differences of each reed. He works to slightly adapt his lower lip pressure for each reed that he uses, until he reaches the desired comfort and sound. There is little visible difference for finer tuning, and some work is needed to find where to place the embouchure and how much pressure to use. This is essential to obtain equal tension on both sides of the reed. As was previously discussed, there may be slight deviations to this due to irregular tooth structure. With some work and concentration the correct position can be obtained.

4.3.4 THE SUPPORTING MUSCLES

Figure 4.1 Embouchure muscles (http://www.aip.org/dbis/stories/2005/14401.html)

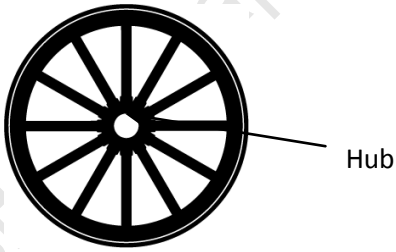


Figure 4.2 A wheel (http://www.woodcraftplans.com/ys149.htm)

Figure 4.3 Mouth muscles surrounding the mouthpiece (Teal, 1963:38)

Although we have already discussed how the supporting muscles should be used and positioned according to the bottom lip, it is important to note how all of the supporting muscles work together to achieve this. Figure 4.5 above illustrates these muscles which support and control the saxophone embouchure. It can be likened to Figure 4.6 which illustrates the spokes and hub of a wheel. Comparing the embouchure to a wheel with all the spokes pressing toward the hub makes it possible to understand a similar action in the mouth. The hub of the wheel, being an imaginary point in the centre of the mouth, is the place where the mouthpiece should be positioned as shown in Figure 4.7. Some saxophonists may hold the mouthpiece slightly to one side of the mouth, which would be deemed incorrect.

4.3.5 THE CHEEKS

Figure 4.4 The 'incorrect' position of the cheeks (Teal, 1963:42)

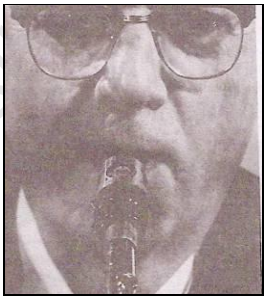


Figure 4.5 The 'correct' position of the cheeks (Teal, 1963:42)

Many players may revert to puffing out their cheeks due to the air pressure building in the oral cavity. However, 'the side walls of the mouth cavity, which form a part of the tonal chamber, should remain in a normal position' (Teal, 1963:37). If the cheeks are puffed, then the supporting muscles of the face may be too loose, which will have an effect on the intonation due to a lack of air control. Many self-taught musicians in South Africa (such as Kippie Moeketsi and Basil Coetzee) adopted this method of playing with the cheeks puffed.

4.3.6 THE THROAT

The throat and tongue are not 'supporting muscles' in the embouchure itself, but both play a very important role in the sound production and intonation and should therefore be considered at this point. It is important, as Abrahams and Wells mentioned in their interviews, that the throat is open and relaxed when playing. There must be no tension in the throat (and jaw), as this will affect the tone severely.

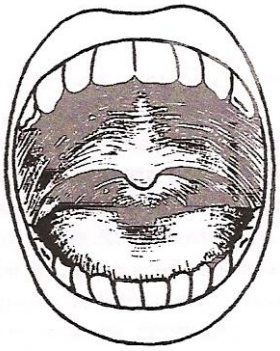


Figure 4.6 Closed throat position (Teal, 1963:47)

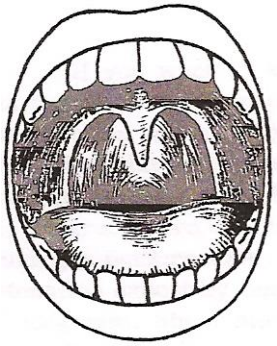


Figure 4.7 Open throat position (Teal, 1963:47)

4.3.7 THE TONGUE

The tongue's primary role is articulation, i.e. starting and ending a note in a specific way. It is mostly the front of the tongue which should move when articulating notes. The tongue clamps the reed, stopping any vibrations and then releases it to be free to vibrate again, producing the sound (Porter, 1967:8). The back of the tongue, however, should be as low and flat as possible. It will only move when a player is intending to change the pitch. The back of the tongue should be in a position in the mouth where, if a person were talking, it would produce the sound 'o' when playing in the low register. In the high register the tongue must be high enough in the mouth so as to produce the sound 'e' (if the person were to speak it). 'This position of the back of the tongue in relation to the pitch should not be affected by the movement of the front part of the tongue in the process of tonguing'. If there is too much movement, it can produce a 'scooped' sound (J. Smith, 1992:459). According to De Kock (2010), this 'scooping'is often heard in the playing of South African jazz saxophonists.

Most jazz musicians make use of bebop tonguing, which is when the upbeat is tongued lightly and the down beat is slurred.

4.4 MOUTH PLACEMENT ON THE MOUTHPIECE

Finding the exact point at which the mouth closes over the mouthpiece will depend on a few varying factors, namely the size of the mouthpiece facing, the strength of the reed, the contour and size of the mouthpiece, and any physical peculiarities in the facial structure (Teal, 1963:37). However, the basic embouchure position should be the same for each saxophone. The size of the mouthpiece may vary due to the different makes of the actual mouthpiece, for example an Otto Link mouthpiece tip openings differ to Meyer mouthpieces. Otto Link's mouthpieces are numbered from 5 to 9*, and Meyer mouthpiece tip openings are numbered from 4 to 11. This means that each mouthpiece has a different size of tip opening as well as a different size of baffle inside the chamber. These variants of the mouthpieces affect how much mouthpiece is taken into the mouth to allow players to produce their desired tone. The mouthpieces also vary in size according to the saxophone size. The soprano is a smaller saxophone and therefore has a small mouthpiece, and the baritone saxophone is one of the biggest and therefore has quite a large mouthpiece. In the case of the larger instruments, the shape and size of a player's mouth may affect how much of the mouthpiece they are able to accommodate.

For a beginner to be able to find the centre of the embouchure, it is a common practice to start a learner on the mouthpiece first. There are various exercises which can be played just on the mouthpiece that will 'force' the correct embouchure to form. It is then recommended to add only the neck to the mouthpiece and work on appropriate exercises before putting the whole instrument together, allowing for the learner to concentrate on one aspect at a time. Using a mirror for this will ensure that the mouthpiece is centred and will aid the learner to focus. These exercises should be done until the position starts to feel natural and a mirror is no longer required (Teal, 1963:37).

It is important that the mouthpiece is placed in the centre of the embouchure circle as in figure 4.7. Knowing how to centre the mouthpiece in the mouth is just as crucial as knowing how much of the mouthpiece should be in the mouth.

The amount of mouthpiece which will be placed inside the mouth varies according to the size of the mouthpiece (whether it is an alto, tenor etc.) and the size of the lay. As a rule, the middle of the bottom lip should rest at the point where the reed breaks away from the mouthpiece. Figure 4.8 illustrates this (W. Smith, 1992:505).

As discussed in section 4.2.1, the position of where to place the mouth on the mouthpiece may vary according to a number of factors. In the analysis in Chapter Five, it will be discussed how much of the mouthpiece is in the mouth. Figure 4.1 shows the lay. If the mouthpiece is in the mouth up to about

half of the lay opening, then one third of the mouthpiece will be in the mouth (1/3). If the mouthpiece is in the mouth where the lay opening ends, then two thirds (2/3) of the mouthpiece will be in the mouth. If the mouth goes up to where the table opening ends, then there will be three thirds (3/3) of the mouthpiece in the mouth.

4.5 THE CORRECT ANGLE OF THE MOUTHPIECE AND HEAD

Figure 4.8 The correct angle of the mouthpiece (Teal, 1963:39)

Some saxophone players develop a habit of playing with the mouthpiece at an awkward angle, with the head either turned or the mouthpiece being skew, meaning that the mouthpiece is not positioned in the embouchure centre. This position causes there to be a different amount of pressure against each side of the reed, which can negatively affect the intonation and quality of the tone. It is usually just a force of habit to play at these odd angles, and this can easily be corrected by improving the body position, the saxophone neck, or the angle of the mouthpiece on the neck.

The amount of mouthpiece in the mouth and the angle at which it enters the mouth affect the intonation. The embouchure is the main factor which controls intonation on all woodwind instruments. The pitch of each note on the saxophone can be changed either up or down by adjusting the embouchure. Important factors in getting the most control of pitch and sound quality include a well-developed embouchure, the correct strength of reed for the mouthpiece, and good quality and well maintained equipment (saxophone, ligature and mouthpiece) (Westphal, 1990:140). The optimum angle of the mouthpiece is approximately 90 degrees to the teeth and lips. Any small deviation should be in the downward direction, decreasing the angle between the mouthpiece and the bottom lip (W. Smith, 1992:505).

Too little mouthpiece

If there is not enough of the mouthpiece placed in the mouth, the reed is not able to vibrate properly. The higher octave is flat even though it usually tends to be sharp. It is virtually impossible to play in tune in this range without sufficient mouthpiece in the mouth. Various difficulties may arise if a student bites the lower jaw in an attempt to play in tune (Westphal, 1990:140).

Too much mouthpiece

If there is too much mouthpiece in the mouth, the bottom lip will be placed too far forward on the reed which causes pitch control to be difficult. It is likely that the pitch will be flat (Westphal, 1990:140).

Mouthpiece angle

The angle at which the saxophone is held affects the control of the embouchure. 'If the instrument is held too far forward so that the mouthpiece enters the mouth almost straight rather than at the recommended upward direction, the embouchure does not support the reed sufficiently and there is an overall flatness in pitch'. If the saxophone is positioned too far back, the mouthpiece enters the mouth at a sharper angle and the resulting unequal support of the mouthpiece by the embouchure causes the overall pitch to be sharp (Westphal, 1990:140).

Each incorrect position affects certain notes on the instrument in a different way. In these positions the embouchure is inhibited from making the necessary adjustments to correct the intonation. The neck strap should be adjusted so that the mouthpiece inserts directly into the mouth when the instrument is in the correct position and the neck strap is taut (Hemke, 1992:523).

4.6 DOUBLE LIP EMBOUCHURE

A double lip embouchure is formed when the upper and lower lips fold over the front teeth and hold the mouthpiece between them (Porter, 1967:30-31). Many successful saxophonists, such as John Coltrane who is famously known for this, have used this embouchure. There are various reasons for its use. For a long time it was the practice of clarinet players, possibly as an adaption from the embouchure used for the oboe. John Coltrane used it because he had very sensitive teeth and was not able to bite onto the top of the mouthpiece. Although it is not commonly used today, it is more likely to be found in France and is thus known as the 'French embouchure'. It creates a 'thinner' or

'narrower' tone, mainly used in the classical field (Shout, 2010). In recent literature the double lip embouchure is not recommended as it may negatively affect intonation, such as the high register sounding flat (Sheets, 1992:532). It is likely that the double lip embouchure is less comfortable than the recommended embouchure discussed in this chapter, as the top teeth bite into the upper lip, which may cause pain. The bottom teeth are also more likely to bite into the lower lip in this position. The upper lip is stretched in such a way that it may cause more tension in the mouth. This will affect how long a saxophonist can play before the mouth becomes too tired (Porter, 1967:30-31).

4.7 Summary of the Embouchure

A problem that some people have with their embouchure is due to irregularity of the upper teeth. If the top teeth are not aligned, they will cause the mouth to be positioned at an angle favouring one side of the mouth. This situation can be made more comfortable for a player by sticking a small square of soft rubber over the point of the mouthpiece where the teeth are placed (Teal, 1963:37).

If the supportive muscles are not strong enough to maintain the 'correct' position, the lower lip will collapse onto the teeth, which will then bite into the flesh causing the lip to be uncomfortable and at times even painful. If this persists, it can potentially cause 'permanent damage to the finely-textured muscles and nerves'. This problem may also be caused by taking in too much of the bottom lip. Saxophone players with irregular teeth in their bottom jaw are inclined to get a sore lip, due to sharp edges of the teeth being exposed and cutting into it. Some 'saxophonists have had their dentists make removable shields out of metal or plastic to provide a smooth contact with the flesh'. This is only a 'temporary relief which may also be obtained by folding a small piece of paper or cellophane over the teeth' (Teal, 1963:37).

'The instinct of all experienced players is to select and adopt an embouchure which will permit greatest playing comfort consistent with the maximum efficiency in tone production' (Porter, 1967:23). Whatever that is, it may not be the best position for producing a sound with good intonation. There are some experienced players, however, whose embouchures have never been entirely comfortable. A study of their jaws and teeth would probably reveal the cause (23). This consideration will be included in the research analysis.

Saxophone and clarinet embouchures have much in common, except that the saxophone mouthpiece is placed a little further in the mouth and is held more loosely than that of the clarinet

(Ross, 1992:455). The angle is slightly different, as the clarinet is positioned closer to the chin. Many saxophonists begin playing the clarinet or flute before learning the saxophone and transfer what they have learnt onto the saxophone. The problem then is that the embouchure ends up being far too tight, causing many problems. An example of this is Wells (2010) who began playing the clarinet before he moved on to playing the saxophone. When he started learning the saxophone, he continued to use the same embouchure as on the clarinet. According to him, this affected his sound negatively.

Most saxophonists have a desire to produce a tone that is pleasing to listen to. However, it cannot be achieved by force. The 'schooled' embouchure position requires control and relaxation. It must be controlled by the 'supporting muscles' so that it is not too loose. The embouchure must have no tension, especially in the jaw, and is therefore relaxed. 'The player should not bite the mouthpiece, nor should he hold it with the lips only - see double embouchure. The former embouchure will produce a shallow inflexible tone, while the latter will produce a fleshy wobbly tone which is difficult to shape and control' (Rascher, 1992:448).

'The lips have a similar function to that of a washer in a reed instrument' (Porter, 1967:8), as they stop air from escaping through the sides of the mouth. Both de Kock (2010) and Wells (2010) mentioned in their interviews that the effect of changing their embouchure allowed for more movement of the lower lip which significantly improved the production of their sound.

Jimmy Adams was one of the few earlier musicians who insisted on teaching his students mouthpiece buzzing and who tried to encourage them to listen to more American jazz styles and more bebop than was part of the popular dance music being played in most of the Town Halls at that time. He wanted his students to have a controlled sound. Not all of them conformed entirely, such as Willie Jales who insisted on playing in the dance bands.

CHAPTER FIVE: ANALYSIS OF EMBOUCHURE AND COMPARISON

5.1 ANALYSING A SAXOPHONIST'S EMBOUCHURE

As has been in elaborated on in Chapter Three, South African jazz musicians have had numerous influences on their playing, both internationally and locally. As many of the earlier musicians were self-taught, it is not clear whether they all had similar embouchures to musicians of other countries and those of later South African generations. The analysis of the embouchure of South African saxophonists and a comparison with the embouchures of international players may indicate whether there is a trend in the South African embouchure or not. It is hoped that the findings will provide techniques for teachers to utilise when describing to learners how a South African saxophonist uses the embouchure, to help them produce the South African jazz sound. Lip bends, fall-offs, scoops, wide vibrato, and growling are all expressive devices will assist in creating the South African jazz sound.

It must be made clear that the use of the terms 'correct' or 'incorrect' is not meant to imply that the musicians discussed in this chapter are wrong in the way they do things; these terms are used merely to provide a comparison to what is presented as 'standard' in teaching manuals as discussed in Chapter Four.

The embouchures of nine South African saxophone players were analysed. They are: Winston Mankunku (Ngozi), Basil (Mannenberg) Coetzee, Robbie (Robert) Jansen, Zim (Zimasile) Ngqawana, Buddy Wells, Rus (Russell) Nerwich, Shannon Mowday, Dan (Daniel) Shout and Byron Abrahams. The saxophonists were chosen specifically to represent different age categories, so as provide a broader spectrum of analysis. This also allowed for a combination of schooled and unschooled musicians, with various degrees of significance in South African jazz, to be analysed.

They are investigated in order of age. Although most of them are from Cape Town, almost all these players have performed throughout South Africa. Cape Town saxophonists have been impacted on by the minstrels and various other influences from offshore visitors. This may affect their sound differently to musicians from other parts of South Africa. Although there are many other South African saxophonists who could have been studied, this was practically not possible. It was also not possible to study a wider range of musicians from South Africa. This should be done in another study.

Four of the selected players were interviewed to gain their personal interpretation of their embouchure. Ngqawana and Mowday were contacted but did not consent to giving interviews. The

researcher, however, did meet Ngqawana and watched him perform at a symposium in Stellenbosch in July 2010, and she has met Mowday as a teacher at the University of Cape Town as well as watched her perform on numerous occasions. Unfortunately Coetzee passed away at only 54 years of age in 1998, Mankunku and Jansen both passed away during the time this research was being done, and subsequently Ngqawana sadly also passed away during the completion of this thesis. The reality of these deaths substantiates the necessity for the older generations of South African musicians to be interviewed and recorded, so that they may remain a part of South Africa's history for future generations, and for schools to educate learners about these musicians. Hopefully more research in this regard will be done in the future.

Further in this chapter, the embouchures of nine international saxophonists will be analysed for comparison with the South African players. The same aspects as for the South African musicians will be looked at. An explanation of these aspects will be given later in this chapter. Finally, a comparison of the South African and international musicians will be provided at the end of the chapter.

5.1.1 Reasons and criteria for the choice of the South African players

The musicians chosen had to have been living in South Africa for most of their lives and be South African citizens. They had to have been playing the saxophone for many years and have a South African jazz sound, yet still have their own identifiable sound. All except Byron Abrahams, who is still a student, are well known on the scene.

The choice of players was also informed by the intention to examine a variety of South African musicians of different ages, different colours (races), as well as some who are trained or and some who are self-taught.

The researcher analysed the embouchure of Nerwich, Shout, Wells and Abrahams from the personal interview video footage and from recordings. The embouchure of Mankunku, Coetzee, Jansen, Ngqawana and Mowday were examined using photographs, video footage and recordings.

A brief biography of each musician is provided in this chapter, with a discussion of the influences on their playing. As far as possible, the musicians' influences or their mentors will be mentioned to gain an insight into who they listened to and studied. This will support the understanding of how the musicians gained their musical conceptions in terms of how they conceived and perceived musical ideas and sounds. The embouchure and various aspects of their sound will be analysed and discussed. The analysis will be listed after the discussion of each of the musicians. At the end,

diagrams will be provided to show the comparison between the players, of each aspect examined in the analyses. An explanation of the comparison of each aspect will be given, followed by a conclusion drawn from the findings.

The embouchure of each musician will be analysed on the basis of the following aspects, which have been explained in detail in Chapter Four:

ASPECT ANALYSED	**HOW AND WHAT WILL BE EXAMINED**
Jaws	The shape and movement of the lower jaw.
Teeth	Whether the top teeth are placed on the mouthpiece or on the lip, implying a single or double lip embouchure.
Lips	As the double or single lip embouchure is implied with the 'teeth' analysis, the lower lip will be examined here, based on whether it is relaxed or tight, and thin, medium or fat in terms of how far it protrudes onto the mouthpiece. It will also be noted if the lip position changes, or moves in and out as a musician plays.
Cheeks	Whether they are relaxed down, puffed out, have pressure in the top parts of the cheeks or move in and out.
Throat	Whether it is open, closed, moving open and closed or moving up and down.
Tongue	Light bebop tonguing, heavy accented tonguing, not much tonguing in general, or generally a combination of light and sharp tonguing.
Mouth placement on the mouthpiece	How far the mouth is placed onto the mouthpiece, or rather how much of the mouthpiece is taken into the mouth. If it is divided into thirds, then it would either be 1/3, 2/3 or 3/3.
Mouthpiece placement in the mouth	Whether the mouthpiece sitting to the left, right or in the centre of the embouchure seal (lips).
Mouth angle	If the mouthpiece enters the mouth at a 45 degree angle to the chin (for an alto saxophone) or if it enters the mouth straight or no more than 30 degrees down (for a tenor saxophone), it will then be labeled as a 'good' angle. If the angle is smaller, as the mouthpiece gets closer to the chin, it will be labeled as 'too low'. If the angle is bigger, as the mouthpiece gets further away from the chin, it will be labeled as 'too high'.
Head angle	The position of the head when playing, e.g. erect (straight), slightly down, slightly up; and the movement of the head, e.g. staying still, moving with the body (i.e. not changing in relation to the body), moving from side to side, or moving up and down.

The intonation is analysed based on the Western pitch standard measured against A440 Hz tuning. It may either be sharp, flat, good, or vary a lot. Each musician's intonation is based on their sound as captured on recordings. The reason for the intonation being evaluated is firstly to see if there is a link between the way the South African saxophonists place their embouchure and their pitching, and secondly to see if there is a difference in intonation between South African saxophonists and international jazz saxophonists. This indicates that the intonation plays a role in how South African jazz saxophone is heard, and whether international players have similarities in this area. It also supports the earlier discussion of how pitch plays a role as a characteristic of the South African jazz saxophone sound.

As far as possible, the equipment used by the musicians is described and compared, such as whether they use an ebonite or metal mouthpiece, or if they use a leather or metal ligature. This is done to see if there is any trend in the South African players compared to the international players. If there is a South African trend in the use of equipment, then this may impact on the study in terms of the sound production.

A comparison is drawn of whether the musicians were schooled or self-taught. This is done to see if there is a difference in embouchure between the two groups in South Africa and internationally.

Then the use of expressive devices is analysed and compared. This is possibly the most difficult aspect to analyse as it can be circumstantial. Different expressive devices may be used according to what the player is trying to achieve. No expressive devices that are not directly related to the embouchure, such as trills, will be analysed. Examples of expressive devises that are discussed are growling, scooping and altissimo. The investigation is based on what the player does that contributes to the South African sound and style.

A description of the quality of sound (tone colour/timbre) is also given. Examples of the words used to describe musicians' quality of sound are: bright, dark, nasal, piercing, rough, harsh, and floating. The following meanings are attributed to these descriptions: warm and bright (a light easy-listening sound that has higher resonance of the overtones yet is not piercing); dark and rich (a deeper timbre that has low resonance, making use of a medium vibrato, round); nasal and piercing (sharp, high resonance that can be uncomfortable on the ear); rough (an airy sound, usually with a wide vibrato, articulate, overblown, where the sound is about to crack, lots of pressure from the throat and loud volume); harsh (an abrupt sound with accented tonguing); warm and round (subtle use of vibrato, not too fast or too wide that it detracts from the tone); breathy (easy-listening low resonance with an airy sound, low volume); raw (a combination of rough and harsh with a rapid use of vibrato).

These descriptions may, however, be subjective.

5.1.2 WINSTON MANKUNKU (NGOZI)

Figure 5.1 Winston Mankunku (Ngozi)

Biography

Although clear footage of Winston Mankunku Ngozi's (better known as Winston Mankunku) embouchure was not found, the significance of his sound and the amount of times his name is mentioned in books and in discussions has led to a great interest in his sound for the author. It is clear that he has the ability to play with a distinctively South African quality, and yet also play with an undistinguishable and rather international jazz sound. This will be discussed further in the description of his sound. He played a key role in the fusion of African and American jazz forms and in developing South African jazz.

Mankunku was born in Retreat, Cape Town, in 1943 and passed away on 13 October 2009 after having been ill for many months. He was a self-taught saxophonist, although he did have lessons with 'Cups and Saucers' Nkanuka for a short period during his career in the 1950s. He played the tenor, alto and soprano saxophones and was a composer as well. During the 1970s he toured to Port Elizabeth and Johannesburg to find work. This afforded him the opportunity to interact with many musicians with whom he was able to exchange musical ideas. He worked with many South African jazz artists including saxophonists Dudu Pukwana and Barney Rachabane. During this time he listened to much classical and American jazz music, including tenor saxophonist John Coltrane who was his main influence. Mankunku mimicked him by memorizing his solos (Ansell, 2004:149).

During the years of the apartheid legislation in South Africa, many of Mankunku's colleagues left the country for Europe and the United States of America to seek a better life. He, however, chose to stay in Cape Town. Unfortunately, what he was left to endure would include such absurd stints as having to play behind a stage curtain while performing with an all-white big band in the Cape Town City Hall

in 1964. This was because at the time it was illegal to have a mixed-race band (Ansell, 2004:114). Mankunku was not interested in fame, but rather in the integrity of his music.

In 1968, Mankunku's *Yakhal'Inkomo* (meaning 'The Bellowing Bull') was the top-selling jazz record of the year, and he won the Castle Lager 'Jazz Musician of the Year' award for it. His influence and the intense expression in his sound in this piece made an impact on South Africans. It was evident to many that Mankunku was aiming to express his emotions about how he felt about Apartheid and what he had to endure. This was his way of voicing his concerns and crying out for something better. This is how he himself described it:

> Yakhal'Inkomo was an odd tune. Things were tough then - but don't ask me about all of that, I don't want to discuss it. You had to have a pass; you got thrown out; the police would stop you, you know? I was about 22. I threw my pass away; wouldn't carry it. We had it tough. I was always being arrested and a lot of my friends and I thought it was so tough for black people and put that into the song. So it was The Bellowing Bull: for the black man's pain. And a lot of people would come up to me and say quietly: Don't worry bra'. We understand what you are playing about (Ansell, 2004:132).

Analysis

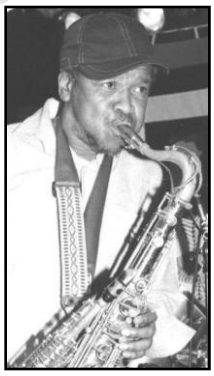


Figure 5.2 Winston Mankunku, changing between saxophones

Figure 5.3 An older Mankunku playing the tenor saxophone

In this analysis, the focus is on Mankunku's playing of the tenor and soprano saxophone. In figure 5.2 it looks as though Mankunku is about to change from playing the tenor to playing the soprano (or vice versa); regardless, his mouth is in the correct position in this picture. There is not too much of the mouthpiece in his mouth and his cheeks appear to be relaxed.

In figure 5.2, Mankunku's cheeks are not puffed out while playing the tenor, but there appears to be a lot of pressure in them, and his lips are relaxed. In the video footage of him playing the soprano he puffs his cheeks out at times, producing a relaxed, soft quality. In this video he plays *Give Peace a Chance (Een Liedjie Vir Saldanha Bay),* and he mostly plays slightly sharp and scoops the notes. Towards the end of the piece he starts cracking some of the notes, and only then does he start using some altissimo notes. It is possible to hear in *Abantwana be Africa* that Mankunku's pitch was somewhat flat when he played in his low register and mostly sharp during the rest of his playing, especially in the higher register.

In both figures 5.2 and 5.3, the supporting muscles of his chin are in the correct position in that the chin is not taut. He has a fair amount of lower lip showing, indicating that he is not biting into his lip. His top lip is touching the mouthpiece, and his top teeth are biting onto the mouthpiece. He therefore makes use of the single lip embouchure. His head is erect, as the saxophone comes directly into his mouth without him having to bend his head.

In a similar study, Solberg (1996) analysed *Yakhal' Inkomo* in great depth and comments that Mankunku made use of bebop scales, glissando, upper extensions, lower-neighbour tones, modes and change of time signatures, all devices that Coltrane and many American bebop jazz musicians were using.

Some elements of the melodies of Mankunku's pieces have very South African sounding rhythms with African chord progressions. However, his soloing is very similar to that of John Coltrane, Charlie Parker and Wayne Shorter, another American saxophonist. Mankunku made use of the pentatonic

scale, hexatonic scale and vocal influences. He performed and recorded with many singers and mimicked their sounds on the saxophone. He also mimicked the sounds of his homeland, for example in *Yakhal' Inkomo,* which is depicting the 'bellowing of the bull'. The tenor's low register can mirror the bellowing of a bull and can sound much more honky than an alto and even a baritone. Solberg (1996:135) gives an example of this: 'In the last four bars of *Yakhal' Inkomo,* Mankunku concludes the piece with variations on a five note phrase in the lower register of the saxophone. The sound is manipulated by changing the pressure of the embouchure and increasing the flow of air into the horn, creating a big raspy sound'. This was intended to signify the 'bellowing of the bull'. This aspect of Mankunku's playing makes it sound South African.

Although Mankunku played 'out-of-tune' (slightly flat at times, and some high squeaks on the altissimo register), it seems that the African element is a collection of characteristics combined with poly-rhythms, ostinato rhythms and simple chord cycles when he soloed (Solberg 1996:133). He sometimes played simply and at other times intricately, yet he played emotionally and expressively. It was the intentional use of expressive devices that contributed to this sound.

Description of the embouchure

- **Jaw:** normal, lower jaw moves
- **Teeth:** top teeth on the mouthpiece
- **Lips:** medium relaxed lower lip
- **Cheeks:** moves cheeks in and out sometimes, but mostly there is pressure in the higher cheeks
- **Throat:** moves up and down
- **Tongue:** clear use of tongue, hard bebop tonguing
- **Mouth placement on the mouthpiece:** about 3/3
- **Mouthpiece placement in the mouth:** slightly to the right of his mouth
- **Mouth angle:** good
- **Head angle:** straight.
-

Intonation: There is out-of-tune playing (slightly flat at times, and some high squeaks on the altissimo register), higher register notes are often played sharp.

Use of expressive devices: Scooping up and down using the lower lip, use of the altissimo register (working together with alternative fingering) and singing into the horn, making use of the throat to create a growling tone (not in all pieces). Makes use of wide vibrato.

Equipment used: Experimented with a range of different mouthpieces, used metal mouthpieces and ligature. Mostly used a Selmer Mark 6 tenor saxophone, which he called "Cookie".

Musical education: self-taught.

Description of sound: Generally a warm, round quality of tone; however, the higher register notes are often played sharp and thus have a tendency to be piercing. His use of vibrato often makes up for this. His lower notes are sometimes slightly flat.

5.1.3 BASIL (MANNENBERG) COETZEE

Figure 5.4 Basil (Mannenberg) Coetzee

Biography

Basil (Mannenberg) Coetzee was born in 1944 in District Six in Cape Town. He was a self-taught musician who started by playing *kwela* music on the pennywhistle and by the age of 14 was already playing with Abdullah Ibrahim. He later started the tenor saxophone and taught himself to play it within eighteen months. As a young boy he was influenced by the Cape Minstrels ('Hollandse Troepe') and *langarm* music, which he began playing, and later he played South African jazz. He was also influenced by Kippie Moeketsi. In a short film, directed by Erald Felix of the SABC (1992), Coetzee explained how he tried to produce his own sound. He said that he did not like to listen to too many other saxophonists because he wanted to be unique. However, he did in fact transcribe solos by well-known American saxophonists Sonny Rollins, Gene Ammons and Charlie Parker, and by British saxophonist Johnny Dankworth (Solberg 1996:50-55).

When his life was affected by Apartheid, Coetzee stopped playing for a few years until he realised that by playing South African jazz he had a part in preserving its heritage. He was a patriotic South African who aimed to be a unique player, yet paid tribute to his African roots.

Many musicians left South Africa and went into exile, yet Coetzee remained. He stopped playing music for six years while he worked in a shoe factory. In the early 1980s he started performing again, playing at numerous United Democratic Front (UDF) concerts and rallies. In 1986, he formed the band 'Sabenza'. Coetzee passed away on 11 March 1998 after a long struggle with cancer (Wallis, 2000).

Analysis

Figure 5.5 Basil (Mannenberg) Coetzee playing the tenor saxophone

Figure 5.6 Basil (Mannenberg) Coetzee puffing his cheeks

Coetzee makes use of a fast and wide vibrato. His use of scale patterns was influenced by Charlie Parker's use of arranging the pentatonic scale and modes, and rearranging the rhythms (Solberg 1996:54). Coetzee has a similar shape jaw, mouth and angle to Buddy Wells (see 5.1.6). His head appears to be angled down, however, he is still playing into the saxophone directly so that it continues in a straight line. His cheeks are not puffed in figure 5.5, but they are puffed in figure 5.6. This proves they he moves the cheeks in and out, which he confirmed in his interview (Felix, 1992). He has quite a rough sound similar to Gato Barbieri (see 5.3.7).

Description of the embouchure

- **Jaws:** long lower jaw, moves a bit
- **Teeth:** top teeth on mouthpiece
- **Lips:** relaxed, fat lower lip
- **Cheeks:** puffs a lots when playing, and they move in and out as well
- **Throat:** moves up and down when he plays
- **Tongue:** clear tonguing used quite a bit
- **Mouth placement on the mouthpiece:** 3/3

- **Mouthpiece placement in the mouth:** centre of the mouth
- **Mouth angle:** good
- **Head angle:** down.

Intonation: generally slightly sharp (more than Mankunku).

Use of expressive devices: scoops notes, makes use of altissimo.

Equipment used: metal mouthpiece and metal and at other times used a leather ligature.

Musical Education: self-taught.

Quality of Sound: rough sound.

5.1.4 ROBBIE JANSEN

Figure 5.7 Robbie Jansen

Biography

Robert 'Robbie' Edward Jansen was one of the Cape's most accomplished musicians. He was known internationally as 'The Cape Doctor' and was a local hero for his music and his involvement in the anti-apartheid campaigns (Ansell, 2004:212).

Jansen was born in 1949 in Claremont, Cape Town, into a mixed-race family. He had just celebrated 30 years in the music business before he passed away on 7 July 2010 of complications from a chronic respiratory disease he had suffered from for five years (Barron, 2010:5). At a very young age he started playing the mouth organ and the guitar, and by the age of 13 he was playing in two school bands. He was a self-taught saxophonist known for his alto playing as well as a flautist, singer, composer and an arranger. He played many different styles of music such as rock, pop and jazz. He recorded and performed frequently with other South African artists throughout his career, such as in the bands the 'Rockets' and 'Pacific Express', playing pop and rock music at clubs around Cape Town (Miller, 2008:57). He also worked and recorded with Abdullah Ibrahim (formerly Dollar Brand) and with Basil Coetzee, who both introduced Jansen to jazz. They performed on Ibrahim's 1974 album *Mannenberg – Is Where It's Happening*.

Jansen released his first solo album, *Vastrap Island,* in 1989. It showed that Jansen was influenced by South African history, as this album represented a sense of longing for freedom for him both socially and musically. Jansen continued to develop his interpretation of Cape Jazz with a fusion of musical influences, ranging from traditional Cape Malay *goema* and African rhythms to funk and salsa. In 2001, his band, 'The Sons of Table Mountain', released the album *The Cape Doctor* (Miller, 2008:57).

Analysis

Figure 5.8 Robbie Jansen playing the alto saxophone

Figure 5.9 Robbie Jansen

Judging from relatively recent photos (figures 5.8 and 5.9), Jansen's jaw appears to have been relaxed. In both pictures he has a lot of mouthpiece in his mouth. Jansen has his top teeth on the mouth piece and the bottom lip rolled out a medium amount. He has a single lip embouchure, and his chin appears to have been in a relaxed position. His cheeks are more relaxed in figure 5.8 than in figure 5.9. Neither picture indicates that Jansen's cheeks were puffed out. The angle of his saxophone is correct, and the mouthpiece enters the centre of his embouchure. His intonation should, based on this observation, be quite accurate or at least stable. However, recordings give evidence of him playing quite sharp at times. In performances it is possible to see how Jansen moves his lower jaw, and that the cheeks move in and out, proving that his jaw moves while he plays, which is probably the reason that he plays sharp at times. Jansen also utilised a variety of expressive devices that can be heard in *De ghomma call* (Track 9, *Vastrap Island*) where he plays in free time, making use of a lot of scooping in a singing style. In *Bokaap Kwela* (Track 4, *Vastrap Island*) he plays quite sharp. He used to play the flute as well and yet was able to adapt his embouchure accordingly. In the last few years of his life, Robbie Jansen played on a Cannonball alto saxophone (Davids, 2010). This is a relatively new make of saxophone which would have been easier for him to play with his weak lungs. He has a very soul jazz feel. He makes use of altissimo register, wide vibrato and sharp playing as in *Slow Slow* (Track 7, *The Wondergigs present a moment in Cape Town*, 2002).

Description of the embouchure

- **Jaw:** normal shaped lower jaw which moves back and forward slightly as he plays, especially in the upper register on the saxophone
- **Teeth:** top teeth on mouthpiece
- **Lips:** thin, relaxed lower lip
- **Cheeks:** tension in higher parts of cheeks
- **Throat:** It is difficult to see what is happening to Jansen's throat; however, it looks as though he is using it to scoop/bend the notes. He probably has a mostly open throat but is moving it constantly with his lower jaw to manipulate the sound the way he wants it.
- **Tongue:** He uses his tongue very lightly unless when repeating notes and then plays a clear quick tongue combination of light and sharp.
- **Mouth placement on the mouthpiece:** 2/3
- **Mouthpiece placement in the mouth:** The mouthpiece is mostly in the centre of his embouchure circle, but tends to lean towards the left side of his mouth at times.
- **Mouth angle:** good
- **Head angle:** His head is erect. He turns his head slightly to the left, especially when playing the altissimo register.

Intonation: mostly sharp.

Use of expressive devices: use of altissimo register, scoops and bends the pitch.

Equipment used: ebonite mouthpiece; metal ligature.

Musical Education: mainly self-taught.

Quality of Sound: bright and piercing.

5.1.5 ZIM NGQAWANA

Figure 5.10 Zim Ngqawana

Biography

Ngqawana was mainly known as a flautist and saxophonist, but he also played the bass clarinet, keyboards and the harmonica, and he was a composer as well. He created unusual sounds on a variety of instruments that he would play during one performance. He was born in 1959 in Port Elizabeth, South Africa. In his twenties he played the flute for a reggae cover band; he then became interested in jazz and joined the re-banded 'Pacific Express' in Cape Town in the early 1980s. He was one of the first students to graduate from Darius Brubeck's jazz studies course. He then went to the Max Roach and Wynton Marsalis jazz workshop and later attended the University of Massachusetts. There he studied with American saxophonists Archie Shepp and Yusef Lateef (Jacobson, 2003). Ngqawana sadly died on 10 May 2011, aged only 52, having suffered a stroke.

A man of controversial ideas, Zim Ngqawana played a role as a teacher in music education. He provided a platform for young musicians to learn and grow in his music school, 'Zimology Institute of Music', and in this way contributed to South African music. He had many influences to his playing as he had studied overseas. He had a noticeably different way of placing his embouchure on the saxophone compared to other South African saxophonists. He would put a lot of the mouthpiece in his mouth and have both the top and bottom lips protruding as can be seen in figure 5.11.

> Ngqawana's vision of a South African avant-garde jazz voice drawing deeply on traditional Xhosa roots has made him one of the top-selling jazz artists in the country. Back in Johannesburg, reedman Zim Ngqawana has achieved the remarkable feat of staying one of the Sheer label's top-selling artists, while encouraging his audience to accept jazz with poetry (with former '80s struggle poet Lefifi Tladi); big, splashy orchestral abstractions in the spirit of Charlie Haden; simple, minimalist traditional themes;

and ferociously abstract saxophone improvisation (Ansell, 2004:285).

Analysis

Figure 5.11 Zim Ngqawana playing the tenor saxophone

Figure 5.12 Zim Ngqawana with puffed cheeks

In Ngqawana's embouchure (figures 5.11 and 5.12), both upper and lower lips are pressed forward (pursed position). As a result of this, his lower jaw appears to be pushed slightly forward. Too much lip on the reed will dampen the sound, except that he takes in a lot of the mouthpiece. This may compensate for the 'fat' lip and allow the reed to vibrate more in his mouth, preventing the sound from being dampened. Ngqawana's mouthpiece probably has an open lay (bigger resistance curve) which might be the reason that he puts his mouth so far onto the mouthpieces. It makes it easier to produce a sound as the reed will be able to vibrate more quickly.

His cheeks appear to be in a relaxed position in figure 5.11, but in 5.12 his cheeks are puffed. Ngqawana does not have a typical South African sound in all the pieces that he plays. However, in his African sounding pieces *Mamazala* and *Chisa (Wedding Festivities)* he has a similar sound to Mankunku in *Abantwana Be Africa.* Rhythmically they are similar, his intonation is also sharp and he also makes use of scooping notes, especially scooping up.

Description of the embouchure

- **Jaws:** normal, lower jaw, moves
- **Teeth**: top teeth on mouthpiece
- **Lips:** relaxed fat lower lip and top lip
- **Cheeks:** puff out a lot
- **Throat:** moves up and down
- **Tongue:** a lot of hard use of tongue, some bebop tonguing, mainly heavy accented action
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of mouth
- **Mouth angle:** good
- **Head angle:** head is mostly straight.

Intonation: very Sharp.

Use of expressive devices: overtones and altissimo register, scoops up and down, blows harshly into the instrument all the time (similar to Gato Barbieri).

Equipment used: ebonite mouthpiece (may be a Eugene Roussow) and metal ligature.

Musical Education: mainly schooled.

Quality of Sound: rough, growl-like.

5.1.6 BUDDY WELLS

Figure 5.13 Buddy Wells

Biography

Wells is a saxophonist, flautist, composer and arranger and was born in Umtata, then the Transkei, in 1972. At an early age his father, an enthusiast of South African jazz and tenor saxophonist, encouraged Wells to take up the instrument (Miller, 2008:60). Throughout his years at high school, Wells studied music at the Beau Soleil Music School. During this time he played in two bands. He began his studies at the South African College of Music at the University of Cape Town in 1991, two years after the jazz department had opened. He graduated with a B.Mus. Honours in Jazz Performance (Wells, 2010). He has won many awards and performed and recorded with many well-known musicians. He has also been involved in many jazz festivals, promoting South African jazz.

Buddy Wells' contribution to South African music is ongoing. He is a part-time music educator and performs regularly throughout the country with various bands.

Analysis

Figure 5.14 Buddy Wells playing the tenor saxophone

Figure 5.15 Buddy Wells

Wells mainly plays the tenor saxophone, but he also plays soprano. He appears to have a very relaxed embouchure as his lower jaw is relaxed, his cheeks are not puffed and his chin shows no tension. His bottom lip is able to move independently of his lower jaw. This also shows that the lower jaw is relaxed and the supporting muscles are strong enough to work correctly. His lower lip is not very big, so it does not protrude. He makes use of the single lip embouchure and does not bite into the lower lip.

Wells' head is tilted at a 45 degree angle to his body, yet the saxophone is held in such a way that the neck of the saxophone comes into his mouth at the correct angle in relation to his teeth. Wells is a very tall man, so this angle may be related to his height. The mouthpiece is placed directly into his mouth.

Wells has very little movement of the supporting muscles while he is playing. His lower jaw does not change its position much, but his lower lip and throat move. He does not take in too much of the mouthpiece, about 1/3. He plays the altissimo notes softly, which indicates that he has excellent control of his embouchure, as some saxophonists struggle to get these notes and increase lower lip pressure, making them play at a high volume and impacting their intonation significantly (Shout, 2010). It is evident that Wells has spent a great deal of time working on his intonation as it is generally stable, even in the altissimo register. He is able to play with a big, warm, airy tone quality without compromising his intonation. Wells is highly influenced by South African music and is continually working on his sound (Wells, 2010).

Wells (2010) jokingly said in his interview that his own embouchure is 'probably terrible'. He says that he is always changing it according to the reed. He is sensitive to every reed and finds that each one is different. He adapts his reed according to what sound he wants to get from it in relation to the gig that he is playing. He will in turn adjust his embouchure slightly, specifically the lower lip pressure. In a smaller acoustic venue where the saxophone is playing against loud instruments such as the drums and double bass, he would want to be able to play loudly and thus clips his reed to make it respond quicker. Alternatively, if he plays in a setting where the band is expected to be

playing background music, he will then choose a reed that has not been clipped and allows him to play softly. His embouchure will adjust for this reed by him relaxing the supporting muscles (Wells, 2010).

> So, my embouchure will change according to every reed and then it would take me a little bit of practice to … be able to play that reed properly, to get that embouchure right, you know what I mean… And then as soon as I have moved onto another reed, then I'll have to find another embouchure (Wells, 2010).

These subtleties of movement that Wells mentions are not changing his embouchure to the extent that it is visibly different. This is an important aspect to recognize, as not all saxophonists are aware of these complexities or would be able to explain them, yet they are the techniques that control the intonation and finer qualities or nuances of the sound. Wells is very conscious of intonation while he is playing and continues to work at this. Wells also uses his throat to control the intonation. This was clearly demonstrated in the interview. While his basic embouchure will not change much externally, he is continually adjusting the pressure of his lower lip by moving only the lip, not the jaw. This pressure is largely related to the individual reed, as Wells will spend time working on each reed to find the best place to apply pressure.

Wells (2010) says the important thing about embouchure is where the bottom lip is placed on the reed. He has found that the angle at which one blows into the mouthpiece makes a difference, especially when playing on hard reeds, as it is easier to blow directly into the instrument as opposed to at an angle, which would cause the sound to change significantly. The angle at which the mouthpiece enters the mouth is largely affected by the length of the neck-strap. He says that there are many 'variables that go into the sound and each thing's got something nice about it'. He prefers playing directly into the saxophone and not at an angle as he is able to get a 'free flow of air going through'.

Wells has a very warm airy quality to his sound. In the recording of the album *Wondergigs presents a moment in Cape Town* (Track 9) Wells plays with the band 'Tribe'. In this piece his intonation is sometimes slightly flat but mostly good. His intonation goes flat when he makes use of expressive devices such as when he scoops notes down. In Wells' composition *Goema for Change* from the album *Jazzing & Jiving – The Cape Town Sessions,* his intonation is mostly very good. This is a very South African sounding piece with regards to the rhythm and harmonies, and Wells' sound is particularity South African sounding in this piece.

Description of the embouchure

- **Jaws:** long jaw, moves jaw a bit
- **Teeth:** top teeth on the mouthpiece
- **Lips:** thin relaxed lower lip
- **Cheeks:** relaxed
- **Throat:** moves when he plays
- **Tongue:** light tonguing
- **Mouth placement on the mouthpiece:** 1/3
- **Mouthpiece placement in the mouth:** centre of his embouchure circle
- **Mouth angle:** high
- **Head angle:** bends quite far down.

Intonation: good.

Use of expressive devices: soft altissimo notes, scoops.

Equipment used: Wells uses a 1927 Conn Chu Berry Tenor and a Francois Louis ML 350 (about size 11) metal mouthpiece and ligature with a Gonzales 4½ reed.

Musical Education: schooled.

Description of Sound: warm and bright.

5.1.7 SHANNON MOWDAY

Figure 5.16 Shannon Mowday

Biography

Shannon Mowday was born in South Africa, into a musical family. Mowday started playing music at an early age under the guidance of her father, a musician and teacher. She first learnt the clarinet and then the saxophone. She is greatly influenced by her African heritage, and her patriotism is shown in her musical style, especially in her album *African Eyes* (2006), recorded in Australia with various well known Australian musicians including trumpeter James Morrison (Mowday, 2010), where she makes use of typical African rhythms and orchestration.

She has contributed to South African music as an educator and performer as well as being involved in community jazz education projects such as Turfjamp, Edujazz and Sekunjalo, and she is in the process of establishing a youth jazz program in South Africa (Mowday, 2007). In the beginning of 2008, Mowday was announced the winner of the Standard Bank Young Jazz Artist award for 2007. Since then she has continued to play both locally and internationally.

Mowday has performed numerous times at the Cape Town International Jazz Festival, Grahamstown National Arts Festival and Cape Town Jazzathon. Recently she also performed at the Klein Karoo Kunstefees and has given workshops and performances at the Standard Bank Joy of Jazz Festival (Mowday, 2010).

Internationally Mowday has performed as soloist at the Silda Jazz Festival in Norway with various other musicians including her own band, and at the Leipzig Jazz Festival. She has also featured as the soloist of the newly formed 'North Sea Big Band' in Oslo, and together with previous young jazz artist award winner, Concord Nkabinde, she performed at the lord mayors appeal at Guildhall in London (Mowday, 2010).

She has recorded and performed alongside the likes of Sibongile Khumalo, Sylvia Mdunyelwa, Gloria Bosman, Thandi Klaasen, Abigail Kubeka and Tina Schouw, taking part in several concerts featuring some of the finest South African female voices in 'Sista's healing our Souls' (2007 and 2008) (Mowday, 2010).

Analysis

Figure 5.17 Shannon Mowday playing

Figure 5.18 Shannon Mowday playing

In figure 5.17 Mowday is playing the alto saxophone, and in figure 5.18 she is playing the baritone saxophone. In figure 5.17, Mowday's lower lip is rolled slightly and her face is quite tense. In footage of Mowday playing, she alters her mouth slightly when playing in the altissimo register. Her lip is usually more relaxed when she plays as is shown in figure 5.18.

African Eyes (Oz) is a very African sounding piece, even though not all the musicians are South African. In her solo, Mowday makes use of the altissimo register. Her sound is generally quite flat in pitch as a result of her scooping the notes. In *No Words* she also makes use of a lot of scoops and bending of the pitch. She also uses a lot of vibrato, and in this piece she has a very warm and round sound. In *Oasis of Bad Vibes,* Mowday makes use of slap tonguing and various other sound effects.

Description of the embouchure

- **Jaw:** normal shaped lower jaw**,** moves
- **Teeth:** top teeth on mouthpiece
- **Lips:** medium relaxed lower lip
- **Cheeks:** relaxed but move as she plays as a result of jaw movement (cheeks do not puff out)
- **Throat:** moves
- **Tongue:** light bebop tonguing
- **Mouth placement on the mouthpiece:** 2/3
- **Mouthpiece placement in the mouth:** centre of mouth
- **Mouth angle:** good
- **Head angle:** straight.

Intonation: slightly flat.

Use of expressive devices: slap tonging, growling and the use of the altissimo register for affect, scoop ups and down.

Equipment used: ebonite mouthpiece, metal ligature.

Musical Education: schooled.

Quality of Sound: She has a very warm and round sound.

5.1.8 RUS NERWICH

Figure 5.19 Rus Nerwich

Biography

Nerwich, born on 16 April 1976 in Johannesburg, moved to Cape Town when he was six years old. The first time he can remember hearing a live saxophone performance was when he was 16 years old, in his father's bar in Sea Point. After Nerwich finished school, he took a gap year and travelled. By this time he had never had any musical training and was not yet able to play much on the saxophone. While in Istanbul, he heard Joshua Redman play, and this was the deciding factor in his desire to be a saxophonist. When he came back to South Africa, he started frequently attending the Mannenberg Jazz Café where Robbie Jansen and his band 'The Sons of Table Mountain' used to play. Jansen would let Nerwich play with his band in exchange for the use of his saxophone for the gig. When Nerwich began playing there, he was not very adept, yet as he persevered, he continued to improve (Nerwich, 2010). He completed a Preparatory Certificate in music at the University of Cape Town and then registered for a B.Mus in Jazz Studies (Nerwich, 2010). He has performed at many South African festivals, and his album *Under the Poetree* was nominated for a South African music award (SAMA) (Nerwich, 2008).

Nerwich is very active in the South African music industry. He has already released five albums and is continuously traveling and playing with different musicians in South Africa and around the world. He is always undertaking new projects to help keep jazz alive in this modern world by introducing it into different styles of music. His song titled *For the love of jazz* pays tribute to this.

In Nerwich's interview, he demonstrated how he works and thinks of music. His sound is very different from Robbie Jansen as he plays with a big airy sound. His sense of playing is very bebop and hip-hop influenced, and he doesn't have a very distinctive South African sound. In his piece *Treblinka* from *Mantra 4 Modern Man* he sounds most South African. He scoops his notes in this piece and makes use of more vibrato than in his other pieces. However, he does not make use of many other

expressive devices in this piece. His piece *The Grove* (*Under the Poetree*) also has a bit more of a South African sound and is more expressive rather than rhythmical as are his other pieces. Nerwich's album *Beyond the Walls* is an important work that is dedicated to South African Jewish families and pays tribute to South African descendants of survivors of the holocaust. It is based on Jewish Klezmer music and has a different sound to Nerwich's other recordings.

Figure 5.20 Rus Nerwich with puffed cheeks

Figure 5.21 Rus Nerwich with relaxed cheeks

Nerwich plays both the tenor and soprano saxophones; however, his main focus is the tenor. He describes his sound as warm and dark, yet it is also big and breathy. 'I would like to consider it to be full, my upper register could do with some work' (Nerwich, 2010). His jaw appears to be in a relaxed position in figure 5.21. His neck muscles, throat and cheeks move as he plays. This can be seen in figure 5.21 where his cheeks are relaxed, and in figure 5.20 where his cheeks puff out. This change of the cheeks indicates that the supporting muscles are too loose which may affect his intonation, especially the lower notes which were flat. His lower lip moves while he plays, and he plays with a single lip embouchure. He bends his neck towards the saxophone and tilts his head at an angle to the left; however, this may have been because he was sitting while playing during the interview. He makes use of a little vibrato to colour the end notes of each phrase.

Nerwich devises exercises for himself that he uses in various ways while improvising, and he also regularly works on long tones with the intention of working on his breath support to help control his embouchure and intonation:

> … the importance of having like a consistent sound throughout your horn, and the way that that influences your tuning and the way that... I mean the sound must be strong you know, it must have body and be full and controlled and straight, and… So I always practice long tones...every single day (Nerwich 2010).

Nerwich describes his embouchure as 'a work in progress', and he practices in front of a mirror as he feels that his embouchure could improve

Description of the embouchure

- **Jaws:** long, moves slightly when playing
- **Teeth:** top teeth on the mouthpiece
- **Lips:** thin relaxed lower lip
- **Cheeks:** cheeks puff in and out a lot
- **Throat:** moves quite a lot with tongue and cheek movement
- **Tongue:** light, bebop tonguing
- **Mouth placement on the mouthpiece:** 1/3
- **Mouthpiece placement in the mouth:** centre of his mouth
- **Mouth angle:** good
- **Head angle:** down and to the left (he is sitting in the interview footage, but other pictures show him standing and his head is also tilted to the left in those).

Intonation: flat in the lower register and sharp in higher register.

Use of expressive devices: scooping and wide vibrato.

Equipment used: Old Mark VI Selmer tenor saxophone and an ebonite Otto Link 10* mouthpiece which has a very open lay. This mouthpiece is quite big and similar in size to the one that Buddy Wells uses. He was advised to change his mouthpiece, but he enjoys playing on it even though he finds that it requires a lot of breath support. He uses a 'medium-soft La Voz reed' and a 'Rovner

ligature', with the screws placed upside-down. A 'Rovner' reed responds much better. By using the ligature in this way he is able to manipulate the sound by biting the 'reed and it doesn't squeak' which gives him flexibility in his sound (Nerwich 2010).

Musical Education: schooled.

Description of Sound: warm, dark, big and breathy.

5.1.9 DAN SHOUT

Figure 5.22 Dan Shout

Biography

Dan Shout was born in 1981 in Bulawayo, Zimbabwe. When he was very young, he moved with his family to Cape Town, South Africa, for two years, and then to Oranjemund, Namibia, where he attended junior school. It was here that he began music lessons on the recorder and piano and soon progressed to the clarinet. In 1994, Shout moved back to Cape Town to attend high school and studied the clarinet and saxophone (Shout, 2009 & 2010). Shout did a Bachelor of Music in Jazz Performance at the University of Cape Town. He was part of the South African College of Music Big Band as well as many other South African groups during his studies, and in 2004 he graduated with a Master's Degree in Jazz Studies from the University of Cape Town. He has performed at many local and international jazz festivals and is presently touring and performing with the Johnny Clegg Band. He plays soprano, alto, tenor and baritone saxophones, clarinet, guitar and keyboard. In June 2010 he released his first album, *Greetings and Salutations* (Shout, 2010).

Shout plays the saxophone in various different styles. When he chooses to play in the South African jazz style, he manipulates the sound consciously to gain the desired quality. In his interview he demonstrated the various ways in which he changes his embouchure to bend the sound, mimicking other South African musicians before him.

Analysis

Figure 5.23 Dan Shout at a gig, cheeks relaxed and lips visible

Figure 5.24 Dan Shout with relaxed cheeks

In Shout's piece *Etosha* (*Greeting and Salutations*) one can hear that he has spent a lot of time listening to Winston Mankunku, as he stated in his interview. He makes use of similar rhythmical patterns such as repeated notes and the pentatonic scale. He generally has a good intonation and makes use of scooping and vibrato.

Shout plays on a soft reed to get a warm, bright sound, his jaw moves slightly, his cheeks are not puffed all the time, but do move in and out slightly as he plays and as his jaw moves. He uses a single lip embouchure. Shout (2010) describes his embouchure 'technically as single lip … some people play with quite a fat lip, I think I play with a medium lip'.

Shout has not always used his current embouchure. Shout, like Wells, de Kock, Jansen and Mankunku, started playing other wind instruments before he moved on to the saxophone. Shout first learnt to play the clarinet. The embouchure that he used when playing the clarinet is similar to that of the saxophone, however less of the clarinet mouthpiece is placed in the mouth, and the supporting muscles are usually tighter (Ross, 1992:455). The lip is rolled in further for the clarinet embouchure than on the saxophone, therefore less lip will be on the reed. The clarinet is also placed closer to the body, causing a smaller angle between the mouthpiece and the teeth. When this

position is transferred onto the saxophone, it can be problematic. The problem is that there will be too much tension of the lower jaw, which may cause biting into the lip. If there is too little saxophone mouthpiece in the mouth, the already tense lip will restrict the amount the reed can vibrate. The higher register note will end up being too flat. This may cause the player to bite more with the lower jaw in an attempt to play. However, this will just worsen the intonation and the pain the player will endure in the lip (Westphal, 1990:248). Shout found that this is what happened to him when he played the saxophone:

> … I used to play clarinet with my lip rolled over my teeth [indicates, pushing his lip over his teeth with his index finger], like that, and that gave it like a very, um, stifled, muffled sound [plays]. You can hear the difference between that and having the lip out like [plays] … I also used to get a flippin' sore lip from biting … I used to get a sore lip like cut in the back from my teeth. I used to put paper on my teeth or whatever (Shout, 2010).

Although Shout did have saxophone lessons at high school, when he went to university he began to struggle to produce the quality of sound that he was aiming for. It was under the guidance of one of his lecturers that he started to change his embouchure. He said that the lecturer had preferred not to change a student's embouchure but, as he was struggling, agreed to teach him his current position (Shout, 2010):

> … the classic thing though that teachers told me is just put it (the mouthpiece) in your mouth, I think Rossi told me, to put the mouthpiece on your teeth and just close your mouth like you're biting into a carrot or something [demonstrates and then plays] … (Shout, 2010).

He says that it was not easy to change his embouchure, and although he was not fully satisfied with the original position, he was reluctant to change it. Shout described the effects of changing his embouchure as making it easier for him to play and allowing him to play for long periods at a time. He explained that he would also not have been able play overtone techniques, as the embouchure position allows for the reed to vibrate accordingly.

The saxophone set-up which Shout uses on his alto Selmer Mark VI is a Brancher mouthpiece, a Rovner leather ligature and 2½ Vandoren reeds. On tenor he plays on an Otto Link 7-Star

mouthpiece and ligature, and a La Vozz medium hard reed. He plays a Yamaha 475 soprano and uses a Meyer VI mouthpiece. Shout also plays the baritone saxophone and uses a RPC mouthpiece.

Shout's sound has a bright quality; it is warm and easy to listen to, but filled with character and by no means boring or ordinary. Through interviewing Shout twice and listening to his album, it became evident to the researcher that he has spent a lot of time working on developing his sound. The sound that he produces is definably his, yet he is also able to imitate other South African saxophonists. He knows his music (material) well and is able to describe and explain what he is playing. He has put thought into his embouchure and worked on being able to have complete control of it.

Description of the embouchure

- **Jaws:** normal shape, moves slightly when he plays
- **Teeth:** top teeth on mouthpiece
- **Lips:** medium relaxed lower lip
- **Cheeks:** relaxed but move
- **Throat:** moves up and down
- **Tongue:** light bebop tonguing
- **Mouth placement on the mouthpiece**: 2/3
- **Mouthpiece placement in the mouth:** centre
- **Mouth angle:** good
- **Head angle:** slightly bent down.

Intonation: good.

Use of expressive devices: vibrato and scooping.

Equipment used: Alto: Selmer Mark VI Ebonite Brancher mouthpiece, Rovner leather ligature and 2½ Vandoren reeds. Tenor: Otto Link 7-Star mouthpiece and ligature, a La Vozz medium hard reed. Soprano: Yamaha 475 Meyer VI mouthpiece. Baritone: RPC mouthpiece.

Musical Education: schooled.

Description of Sound: warm, bright sound.

5.1.10 Byron Abrahams

Figure 5.25 Byron Abrahams

Biography

Byron Abrahams is a student at the College of Music at the University of Cape Town who has a very 'African' sound to his playing. He has been playing the saxophone since he was in high school and learnt through people in his church. He often played with Christmas bands and is now teaching part-time as well.

Abrahams' influences are Sonny Stitt, Cannonball, Parker and Mankunku. He maintains that he always wants to sound unique, but he studies their musical concepts and interprets them. He mainly plays on a 1952 King Cleveland saxophone, with a 6 star Otto Link with leather ligature and Vandorin java 3½, but during the interview he played on a Keilwerth saxophone and mouthpiece.

According to Abrahams, his embouchure changes when he plays different styles. He says that it is not only the shape of the mouth, but also the amount of mouthpiece that is placed into the mouth that affects the sound, and that the equipment used is not nearly as significant as the musicians themselves and how they work to produce the sound. He believes that the equipment is only relevant in terms of playing a role in the brightness of the sound and 90 percent of intonation. The rest is up to the player. 'If you are playing an instrument that's out of tune, you then adjust the lip to either raise the pitch of the note or lower the pitch of the note. I think it's more tighter - tension and release. It's like an elastic band' (Abrahams 2010).

Analysis

Figure 5.26 Byron Abrahams playing during the interview

Figure 5.27 Byron Abrahams playing during the interview

Abrahams has a rather big bottom lip which he rolls out quite a bit. He moves his bottom jaw a lot, but does not seem to move his bottom lip very much. It is possible to see his throat moving while he is playing, as he explained in the interview. He has much of the mouthpiece in his mouth and at times uses a lot of pressure and changes facial expressions to achieve the desired sound.

Description of the embouchure

- **Jaws:** underbite, moves lower jaw
- **Teeth:** top teeth on mouthpiece
- **Lips:** fat relaxed lower lip
- **Cheeks:** relaxed but move in and out
- **Throat:** Moves (mentions this in his interview, that it controls how much air goes out according to whether the throat is open or closed; if the throat is open, then there is an open sound, if it's closed, then it is a thin sound).
- **Tongue:** heavy bebop tonguing
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of embouchure circle
- **Mouth angle:** good
- **Head angle:** down (moves body back and forward when playing).

Intonation: mostly slightly flat.

Expressive devices: altissimo register; wide vibrato; scoop ups and down.

Equipment used: 1952 King Cleveland saxophone, with a 6 star Otto Link with leather ligature and Vandorin java 3½, but during the interview he played on a Kyleworth saxophone and mouthpiece.

Musical Education: schooled.

Description of Sound: open and warm.

5.2 SUMMARY OF SOUTH AFRICAN EMBOUCHURES

Jaw: With regards to the analysis of the jaw of the South African saxophonists, it is evident that they do not all have the same shaped jaw. Five of them have normal shaped jaws, two have long, pointed jaws, and one has a slight under-bite. All of them move their lower jaw while playing, some, such as Wells and Mowday, only subtly, while others, such as Coetzee and Nerwich, have bigger movement of the jaw.

Teeth: All of them play with the top teeth on the mouthpiece, thus they all use a single-lip embouchure. It is interesting to note that the schooled musicians who were taught the clarinet first or were taught by clarinet teachers would bite their bottom lip initially and later had to learn to roll the lip out more. The self-taught musicians did not appear to have this problem as they all had a relaxed lower lip.

Lips: The thinness or thickness of the lower protruding lip varies. There are three players who have a thin lower lip, three who have a medium lower lip, and three who have a fat lower lip. In spite of these differences, each of them has a relaxed lower lip with the pressure of the instrument on the top teeth. There is some movement at times as a result of the lower jaw moving. Coetzee's lip moves the most, but most do not move it independently.

Cheeks: The use of the cheeks vary. Two of the saxophonists' cheeks puff in and out as they play, two have relaxed cheeks that do not move as they play, two have relaxed cheeks that move a bit, but they do not puff them in and out. One has tension in the higher cheeks, and one moves the cheeks in and out slightly, but they mostly hold pressure in the higher cheeks. There is no common trend here.

Throat: The throat analysis reveals that each saxophonist moves their throat while playing.

Tongue: Four of the saxophonists make use of light bebop tonguing. Each of these saxophonists are musically trained. Three of them make use of hard/heavy bebop tonguing. One has clear tonguing (top bebop rhythm) that is used often, and one uses bebop tonguing but not all the time, and when it is used he makes quick accented tonguing action.

Mouth placement on the mouthpiece: Four of the saxophonists place the mouth over three thirds (3/3) of the mouthpiece, three over two thirds (2/3) and two over one third (1/3).

Mouthpiece placement in the mouth: The mouthpieces are placed in the centre of the embouchure circle in the mouth in seven of the saxophonists. One holds it slightly to the left in the mouth, and one holds it slightly to the right.

Mouth angle: The angle of the mouthpiece coming into the mouth for eight of the saxophonists is good and for one is slightly high.

Head angle: Four of them have their head angled down, three hold their head erect and two turn their heads slightly to the left.

Intonation: The analysis of the intonation is a very difficult aspect for a saxophonist as it can differ for various reasons. It can also vary on a broad spectrum; looking at it very scientifically, one person's sharpness can be much more drastic than the next person who is also playing sharply, but by only a few percent. The nature of expressive devises is that they are a manipulation of pitch, which alters the intonation. The general playing was examined here. Three musicians play sharply, two play slightly flat, two have good intonation and two play sharply on the higher register notes and flatter on the lower register notes.

Use of expressive devices: Expressive devises are used by each of the musicians and these vary. However, all of them use the altissimo register and scoop up and downs, making use of these techniques extensively.

Equipment used: Four of the musicians use metal mouthpieces; three of these use metal ligatures and one uses a leather ligature. The other five use ebonite mouthpieces, three using metal ligatures and the remaining two using leather ligatures.

Musical Education: Three of the players were self-taught and six were trained.

Description of Sound: Each of the players' sound has a different description. The sound of six of them have 'warm' in their description, two of which are also 'round' and two of which are also 'bright'. Another also has 'bright', and two others have 'rough'. None of the other descriptions are common, but all of the musicians have at least one of the above.

The use of the tongue is mainly bebop tonguing, but in some it is lighter than in others. Most of the saxophonists have a 'warm' quality of sound, all but one have a good angle of the mouthpiece entering the mouth. Although there are a lot of similarities, there is no common trend amongst all of these musicians. No two musicians have exactly the same embouchure.

The similarities are that all the saxophonists' throats move when they are playing, all of them have relaxed lower lips, all of them make use of a single lip embouchure, and all of them move their lower jaw while playing. They also all make use of expressive devices, especially the extensive use of scooping notes and playing in the altissimo register. These trends need to be compared to the international players before one can analyse whether they are different to other players or not.

5.3 INTERNATIONAL MUSICIANS

An analysis of nine international saxophonists will be presented in the next part of this chapter. A comparison of the embouchures of the South African and international musicians will be drawn at the end of this chapter. The choice of the international saxophonists was difficult as there are so many. However, two well-known Brazilian, four North American, one Argentinian and two saxophonists from Mozambique were chosen. All these musicians, except for the two from Mozambique who are currently playing, are roughly from the same era, i.e. the 1940s to the 1960s, as some of the South Africans analysed for this study. All are saxophonists that have made a large impact on the jazz idiom.

The embouchure of each of the international musicians are analysed on the basis of the same aspects that are explained in detail in Chapter Four and that were used for the South African musicians earlier in this chapter.

The international musicians that were chosen, are:

1. Hector Costita Bisignani (Brazil)
2. J.T. Meirelles (Brazil)
3. John Coltrane (USA)
4. Lee Konitz (USA)
5. Charlie Parker (USA)
6. Eric Dolphy (USA)
7. Gato Barbieri (Argentina)
8. Ivan Mazuze (Mozambique)
9. Moreira Chonguiça (Mozambique)

5.3.1 HECTOR COSTITA BISIGNANI

Biography

Hector Costita Bisignani was born on 27 October 1934 in Argentina. However, he has devoted most of his career to Brazilian music as he has lived in Brazil since the 1950s. He is known as an influential flutist and saxophonist in Brazil (Hector Costita Bisignani, 2011).

Figure 5.28 Hector Costita Bisignani

Description of the embouchure

- **Jaw:** pointed lower jaw, moves it while playing and also uses it for vibrato
- **Teeth:** top teeth on the mouthpiece
- **Lips:** lower lip is medium, very relaxed and resting on the teeth
- **Cheeks:** relaxed, do not puff out
- **Throat:** lots of pressure in the throat, moves as he plays
- **Tongue:** light bebop tonguing
- **Mouth placement on the mouthpiece:** 1/3
- **Mouthpiece placement in the mouth:** plays with the saxophone and mouthpiece slightly to the right side of his body and mouth
- **Mouth angle:** too high
- **Head angle:** moves his head from side to side as he plays, head bends down slightly towards the saxophone.

Intonation: slightly flat.

Use of expressive devices: some scooping of notes, but not overly used, wide vibrato.

Equipment used: metal mouthpiece and ligature.

Musical Education: schooled.

Description of sound: relaxed, airy tone, bright.

5.3.2 J.T. (JOÃO THEODORO) MEIRELLES

Biography

João Theodoro Meirelles was born on 10 October 1940 and died on 3 June 2008 in Rio de Janeiro, Brazil. He was a saxophonist and flautist. Meirelles is considered one of the creators of the samba-jazz rhythm. He studied at the Berklee School of Music in Boston, Massachusetts, USA. He started his musical career in 1957, playing in João Donato's group while in Rio de Janeiro, and joining the pianist Luís Loy. 1963 was one of the most important years in Meirelles' career. When he moved back to Rio de Janeiro, he created the group Meirelles e Os Copa 5 (Rogue Digital,2011).

Figure 5.29 J.T. Meirelles

Description of the embouchure

- **Jaw:** lower pointy jaw, moves while he plays
- **Teeth:** top teeth on the mouthpiece
- **Lips:** medium relaxed lower lip
- **Cheeks:** puffs cheeks in and out as he plays
- **Throat:** moves with lower jaw and opens up and puffs up dramatically when playing
- **Tongue:** light bebop tongue
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** slightly to the right of his mouth when he turns his head but mostly central
- **Mouth angle:** good

- **Head angle:** moves his head when he plays, head is erect as saxophone comes to him.

Intonation: slightly sharp.

Use of expressive devices: scoops some notes slightly at the end of phrases.

Equipment used: alto ebonite mouthpiece; leather ligature.

Musical Education: schooled.

Description of sound: round, warm and open sound.

5.3.3 JOHN COLTRANE

Biography

John Coltrane was born on 23 September 1926 in North Carolina. His influences were Lester Young and Johnny Hodges. He studied music in Philadelphia at Granoff Studios and the Ornstein School of Music. He later performed in the US Navy Band during World War II.

Coltrane is known to have had a passion for experimenting with different sound, and he moved from a bebop player to an avant garde musician later in his career (John Coltrane, 2008).

Figure 5.30 John Coltrane

Description of the embouchure

- **Jaw:** pointy bottom jaw which moves when playing
- **Teeth:** apparently had really bad sensitive teeth so did not feel comfortable using a single embouchure
- **Lips:** double embouchure, top lip is quite a lot further forward than bottom lip; not much movement of lower lip other than when he takes his mouth off the mouthpiece to breath and then replaces it slightly differently, and then moves it back into the same position; medium relaxed lower lip
- **Cheeks:** mostly relaxed, tension builds when he plays the altissimo register
- **Throat:** throat used to produce altissimo sounds, moves
- **Tongue:** not much tongue used, slurs most notes
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of his mouth

- **Mouth angle:** good
- **Head angle:** slightly bent down, not forward as saxophone comes to his mouth.

Intonation: flat in lower register and sharp in higher register.

Use of expressive devices: makes use of altissimo register.

Equipment used: tenor saxophone; metal mouthpiece and ligature.

Musical education: schooled.

Description of sound: dark, warm, rich.

5.3.4 LEE KONITZ

Biography

Lee Konitz was born on 13 October 1927 in Chicago, Illinois, and is an American jazz composer and alto saxophonist. He is known to be one of the first players of Cool Jazz, and also played bebop and avant-garde music. He had a distinctive sound of his own and aimed not to sound like Charlie Parker. Konitz was influenced by Art Pepper and Paul Desmond (Lee Konitz, 2011).

Figure 5.31 Lee Konitz

Figure 5.32 Lee Konitz

Description of the embouchure

- **Jaw:** pointy lower jaw moves a lot, up and down and forwards and backwards
- **Teeth:** top teeth on the mouthpiece
- **Lips:** thin relaxed lower lip, top lip is quite a bit further forward than the lower lip; lower lip does not move much independently when playing only as a result of the jaw moving; top lip looks tight
- **Cheeks:** puff in and out

- **Throat:** moves as he uses his tongue, quite tense
- **Tongue:** uses the tongue quite a bit, light bebop tonguing
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of his mouth
- **Mouth angle:** good
- **Head angle:** head relaxed and erect, saxophone comes to him.

Intonation: sharp.

Use of expressive devices: makes use of a quite a wide slow vibrato, altissimo register.

Equipment used: ebonite mouthpiece and metal ligature.

Musical education: schooled.

Description of sound: his sound is quite raw.

5.3.5 CHARLIE PARKER

Biography

Charlie Parker was born on 29 August 1920 and died on 12 March 1955. He was an American jazz saxophonist and composer and is known as one of the most influential jazz musicians in the world. He was one of the leading players of bebop jazz and is admired for being one of the first to play extremely fast, using extended chords and playing through the chord changes (Charlie Parker, 2011).

Figure 5.33 Charlie Parker

Description of the embouchure

- **Jaws:** normal shaped lower jaw, moves up and down a lot
- **Teeth:** top teeth on the mouthpiece
- **Lips:** thin, relaxed lower lip
- **Cheeks:** relaxed, do not move
- **Throat:** moves when he plays
- **Tongue:** heavy bebop tonguing
- **Mouth placement on the mouthpiece:** almost 3/3
- **Mouthpiece placement in the mouth:** slightly to the left of his mouth
- **Mouth angle:** good
- **Head angle:** erect.

Intonation: changes a lot (flat and sharp).

Use of expressive devices: vibrato, scoop-ups.

Equipment used: metal/plastic mouthpiece and ligature.

Musical education: self-taught.

Description of sound: bright and harsh.

5.3.6 ERIC DOLPHY

Biography

Eric Dolphy was born on 20 June 1928 in Los Angeles. He died on 29 June 1964 in Berlin, Germany, at 36 years of age. He was an American jazz alto saxophonist, flutist and bass clarinettist. He was known for playing extended techniques that produced very unique sounds.

To produce the altissimo notes, Dolphy used his throat as well as his lower jaw, which moves a lot when he plays. He moves it so much that it appears as if he is chewing the mouthpiece. As a result the pitches of the notes bend. He also produces a wide vibrato. Both lips are rolled out, and the bottom is especially fat. He moves the lower lip when he plays, especially when playing altissimo notes (Eric Dolphy, 2011).

Figure 5.34 Eric Dolphy

Description of the embouchure

- **Jaw:** normal lower jaw moves a lot when playing
- **Teeth:** top teeth on the mouthpiece
- **Lips:** relaxed fat lower lip; moves lower lip when plays, especially when playing altissimo notes
- **Cheeks:** relaxed
- **Throat:** moves a lot
- **Tongue:** light tonguing when used; makes use of bebop tonguing
- **Mouth placement on the mouthpiece:** 1/3
- **Mouthpiece placement in the mouth:** centre of mouth

- **Mouth angle:** mouthpiece is coming into his mouth slightly lower than it should, as one would play a clarinet

- **Head angle:** bends head forward quite a bit for most of his playing.

Intonation: all over the place.

Equipment: ebonite mouthpiece with metal ligature, looks like a classical mouthpiece.

Use of expressive devices: 'chews' mouthpiece, makes use of altissimo register.

Musical education: schooled.

Description of sound: bright and piercing.

5.3.7 GATO BARBIERI

Biography

Gato Barbieri was born Leandro Barbieri on 28 November 1932 in Rosario, Santa Fe Province, Argentina. He is a tenor saxophonist and composer who gained prominence in the 1960s and from his Latin jazz recordings in the 1970s. Born to a family of musicians, he was first influenced by Charlie Parker and later by John Coltrane, as well as other free jazz saxophonists such as Albert Ayler and Pharoah Sanders (Frentner, 2011).

Figure 5.35 Gato Barbieri

Description of the embouchure

- **Jaw:** normal, does not move
- **Teeth:** top teeth on mouthpiece
- **Lips:** thin, relaxed lower lip
- **Cheeks:** relaxed
- **Throat:** uses a lot to produce a rough sound, does not appear to move a lot externally but is very open
- **Tongue:** heavy accented tonguing uses it for affect
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of mouth
- **Mouth angle:** good
- **Head angle:** bent down, saxophone comes to him.

Intonation: slightly sharp

Use of expressive devices: altissimo, gradual scooping

Equipment used: metal mouthpiece and ligature (looks like a Berg Larsen)

Musical Education: schooled

Description of sound: rough, raspy, warm, growl-like.

5.3.8 IVAN MAZUZE

Biography

Mazuze hails from Mozambique. Although he studied in Cape Town, his Mozambican roots are prominent in his style of playing. Mazuze released his debut album *Maganda* in South Africa in 2009. He has performed with internationally acclaimed artists and at numerous international music festivals in southern Africa, South America, as well as in Europe. He has an Honours degree in jazz studies and a Master's degree in ethnomusicology from the University of Cape Town. Mazuze started an individual campaign to contribute towards enriching music libraries and research departments in southern Africa (Mazuze, 2011).

Figure 5.36 Ivan Mazuze

Description of the embouchure

- **Jaw:** normal shape lower jaw, moves back and forward a lot while playing
- **Teeth:** top teeth on the mouthpiece
- **Lips:** relaxed, fat lower lip
- **Cheeks:** relaxed, do not move
- **Throat:** moves, but is not always visible do to him moving a lot while he plays
- **Tongue:** sharp bebop tonguing
- **Mouth placement on the mouthpiece:** 3/3
- **Mouthpiece placement in the mouth:** centre of mouth
- **Mouth angle:** good

- **Head angle:** moves his body and head quite a lot while playing; when moving body up and down, he maintains his head position in relation to the mouthpiece, and on occasion he moves his head from side to side.

Intonation: slightly sharp at times (recordings), slightly flat at times (live performance video).
Use of expressive devices: altissimo and overtones in live performances but not in recording.

Equipment used: on alto and soprano, ebonite mouthpiece; on tenor, metal mouthpiece; on all three he uses a leather ligature.

Musical education: schooled.

Description of sound: warm and round.

5.3.9 MOREIRA CHONGUIÇA

Biography

Moreira Chonguica is from Mozambique. He graduated from the South African College of Music at the University of Cape Town with a degree in jazz performance, and an Honours degree in ethnomusicology in 2000. He has a smooth jazz feel and sound to his music and playing (Moreira Chonguica, 2011).

Figure 5.37 Moreira Chonguica

Description of the embouchure

- **Jaw:** normal shaped lower jaw moves back and forward
- **Teeth:** top teeth on mouthpiece
- **Lips:** medium lower lip, moves when playing
- **Cheeks:** relaxed
- **Throat:** difficult to see, but does move
- **Tongue:** makes use of a lot of tonguing, heavy action
- **Mouth placement on the mouthpiece:** 2/3
- **Mouthpiece placement in the mouth:** centre of mouth
- **Mouth angle:** good
- **Head angle:** straight, but leans body forward.

Intonation: slightly sharp in recording, flat in live performance

Use of expressive devices: leans body forward while playing altissimo notes; rhythm is different to bebop.

Equipment used: alto saxophone, ebonite mouthpiece, leather ligature.

Musical education: schooled.

Description of sound: bright.

5.4 SUMMARY OF INTERNATIONAL EMBOUCHURES

Jaw: Four of the international musicians analysed have pointed lower jaws that move while playing. One of them uses his jaw to make an obvious vibrato, and another one moves his jaw up and down and forwards and backwards in a chewing motion. Two have of them have normal shaped lower jaws and move up and down a lot. One has a normal jaw that does not appear to move. Two have normal shaped lower jaws that move back and forward a lot while playing.

Teeth: Eight of them place their top teeth on the top of the mouthpiece forming a single-lip embouchure, while only one folds his top lip over the top teeth, forming a double embouchure.

Lips: Three have a medium relaxed lower lip resting on the teeth. Two have a thin relaxed lower lip. However, one of them puts his top lip quite a bit further forward than the lower lip. One has a relaxed fat lower lip with a lot of movement in the lower lip when he plays, especially when playing altissimo notes. One has a double embouchure, with the top lip quite a lot further forward than the bottom lip; there is not much movement of the lower lip other than when he takes his mouth off the mouthpiece to breathe and then replaces it slightly differently, and then moves it back into the same position.

Cheeks: Seven have relaxed cheeks that do not puff out when they play. One has cheeks that puff in and out as he plays, and one has cheeks that are mostly relaxed, yet tension builds in the upper cheeks when he plays the altissimo register.

Throat: All of them use their throat. With three of them it does not move as obviously as with the others. One has a lot of pressure in the throat, while another one uses his throat when he plays his altissimo sounds. One moves the lower jaw, and as a result his throat opens up and puffs up dramatically when playing. For one of them the throat moves as he uses his tongue.

Tongue: Five use the tongue quite a bit and make use of light bebop tonguing. Three make use of heavy accented tonguing, and one does not use much tongue as he slurs most of his notes.

Mouth placement on the mouthpiece: Two players place the mouth over one third of the mouthpiece (1/3), one over two thirds (2/3) and six over three thirds (3/3).

Mouthpiece placement in the mouth: One plays with the saxophone and mouthpiece slightly to the right side of his body and mouth. One places the mouthpiece slightly to the right of his mouth when he turns his head, but mostly it is central. Six place the mouthpiece at the centre of their mouth. One places it slightly to the left.

Mouth angle: With one it is too high. Seven have a good angle of the mouthpiece entering the mouth. With one the mouthpiece is coming into his mouth slightly lower than it should, as one would play a clarinet.

Head angle: Four saxophonists bend their heads down while playing, one of these players moves his head from side to side as he plays, and one bends his head down more significantly than the other saxophonists. Five have the head straight in line with their spines. However, one leans his whole body forward, and two move their heads when they play; one of these moves his body and head quite a lot while playing. When moving his body up and down, he maintains his head position in relation to the mouthpiece, and on occasion he moves his head from side to side.

Intonation: One saxophonist plays slightly flat, three play slightly sharp. One saxophonist plays flat in the lower register and sharp in the higher register. Two change a lot (flat and sharp). Two are slightly sharp at times (recordings) and slightly flat at other times (live performance video)**.**

Use of expressive devices: Each player make use of different combinations: some scooping of notes, but not overly used, wide vibrato; scooping some notes slightly at the end of phrases; making use of altissimo register; making use of a quite a wide slow vibrato, altissimo register; vibrato, scoop-ups; 'chewing' of mouthpiece, making use of altissimo register; altissimo, gradual scooping; altissimo and overtones in live performances but not in recording; leans body forward while playing altissimo notes, the rhythm is different to bebop.

Equipment used: Three use a metal mouthpiece and ligature; two use an ebonite mouthpiece and leather ligature; two use ebonite mouthpieces and metal ligatures; one uses a metal/plastic mouthpiece and ligature; one uses an ebonite mouthpiece on alto and soprano, and a metal mouthpiece on tenor, and on all three he uses a leather ligature.

Musical Education: Eight were schooled and one self-taught.

Description of sound: Each person's sound was described slightly differently; the descriptions were: relaxed, airy tone, bright**;** round, warm and open sound**;** dark, warm, rich; raw; bright and harsh; bright and piercing**;** warm and round**;** bright; rough, raspy, warm, growl-like.

5.5 COMPARISON

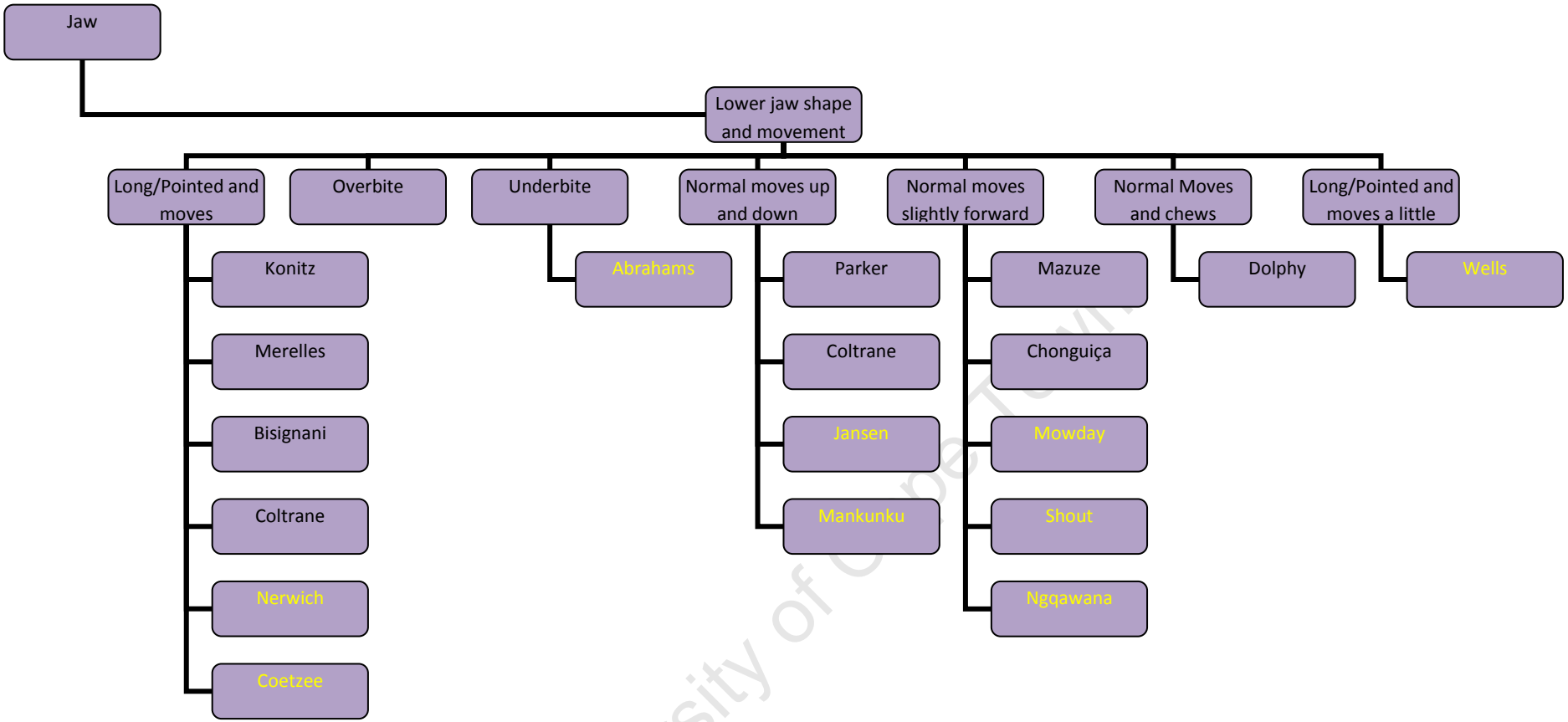
The comparison is shown below in form of diagrams, as it is easier to compare each section individually so that it becomes visible whether there is a trend or not. The assumption is that there will be some kind of trend revealed in the way the South African saxophonists play, as there will be more similarities between the South African players than the international players. The empirical evidence will show whether this is the case or not. If it is true, the outcome will show similarities in each component of the South African saxophonists as contrasted to the international musicians. If it is not the case, then the embouchure does not play as great a role as expected in contributing to the South African jazz saxophone sound.

In most of the diagrams, colours are used merely to highlight different sub-sections. Where colour is used to show something specific, this will be explained in the description relating to that diagram.

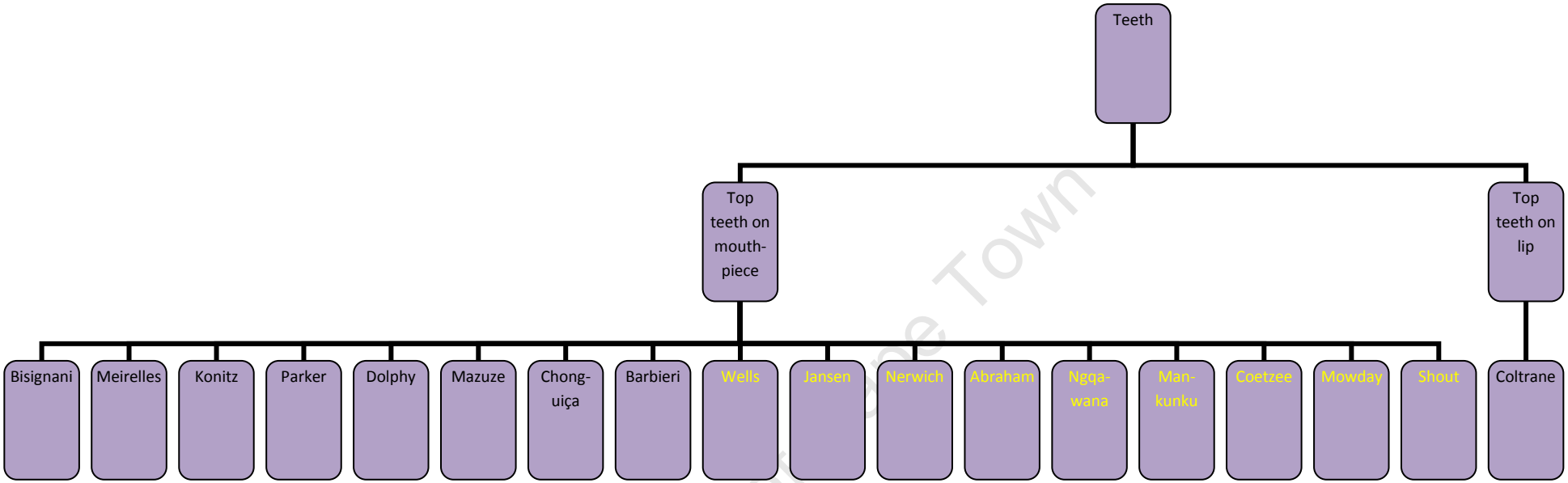
Yellow writing is used to indicate the South African musicians and to draw attention to any trend that may be identified.

5.5.1 DIAGRAMMATIC COMPARISON

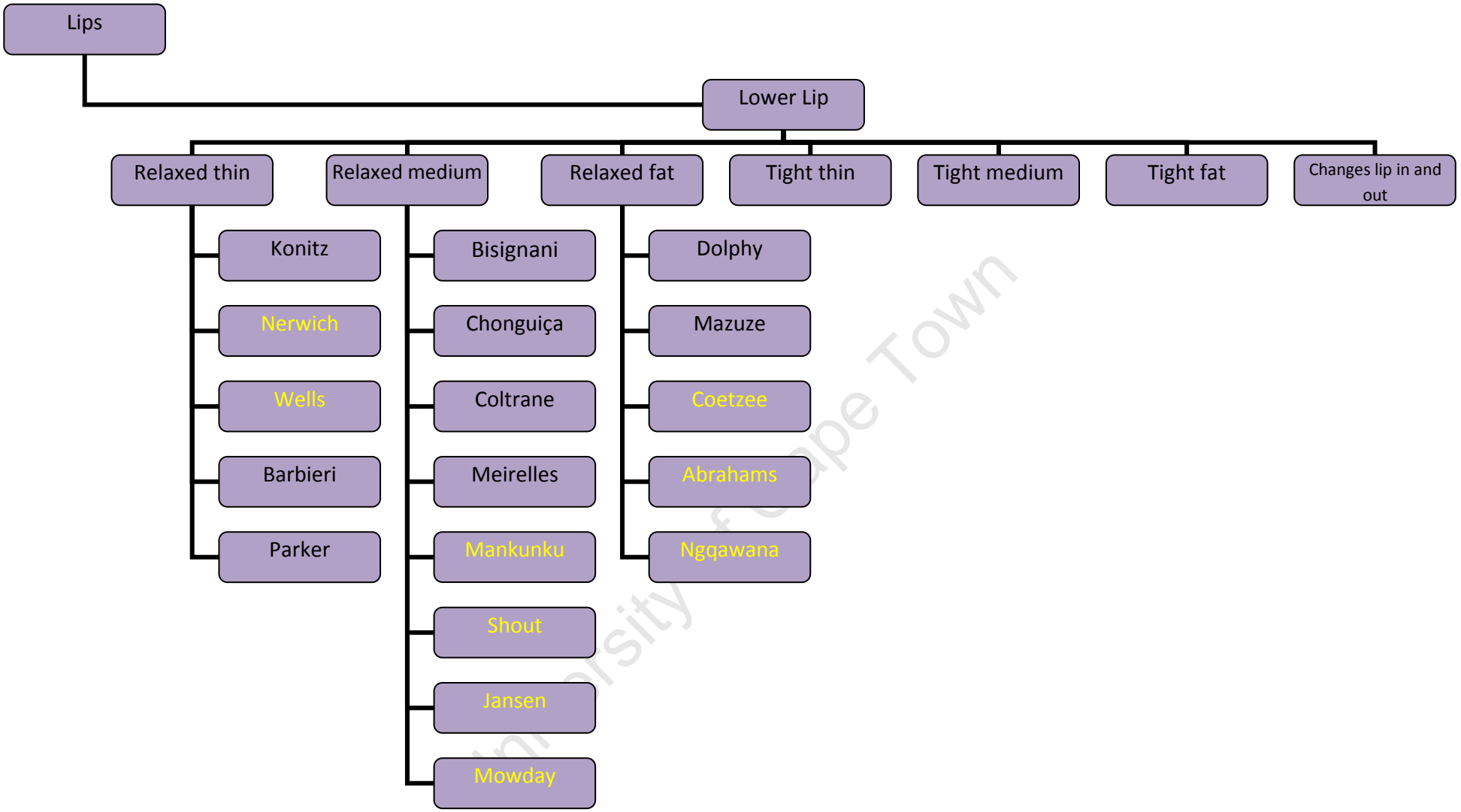
Although the shape of the jaw of course has nothing to do with the country of origin or habitat of the musicians, this aspect is included to see if the jaw movement or placement of jaw is a South African trend or dependent on the person's individual jaw shape. If there is no trend of position matching the shapes, then the shapes become irrelevant and the argument about the South African embouchure may be strengthened.



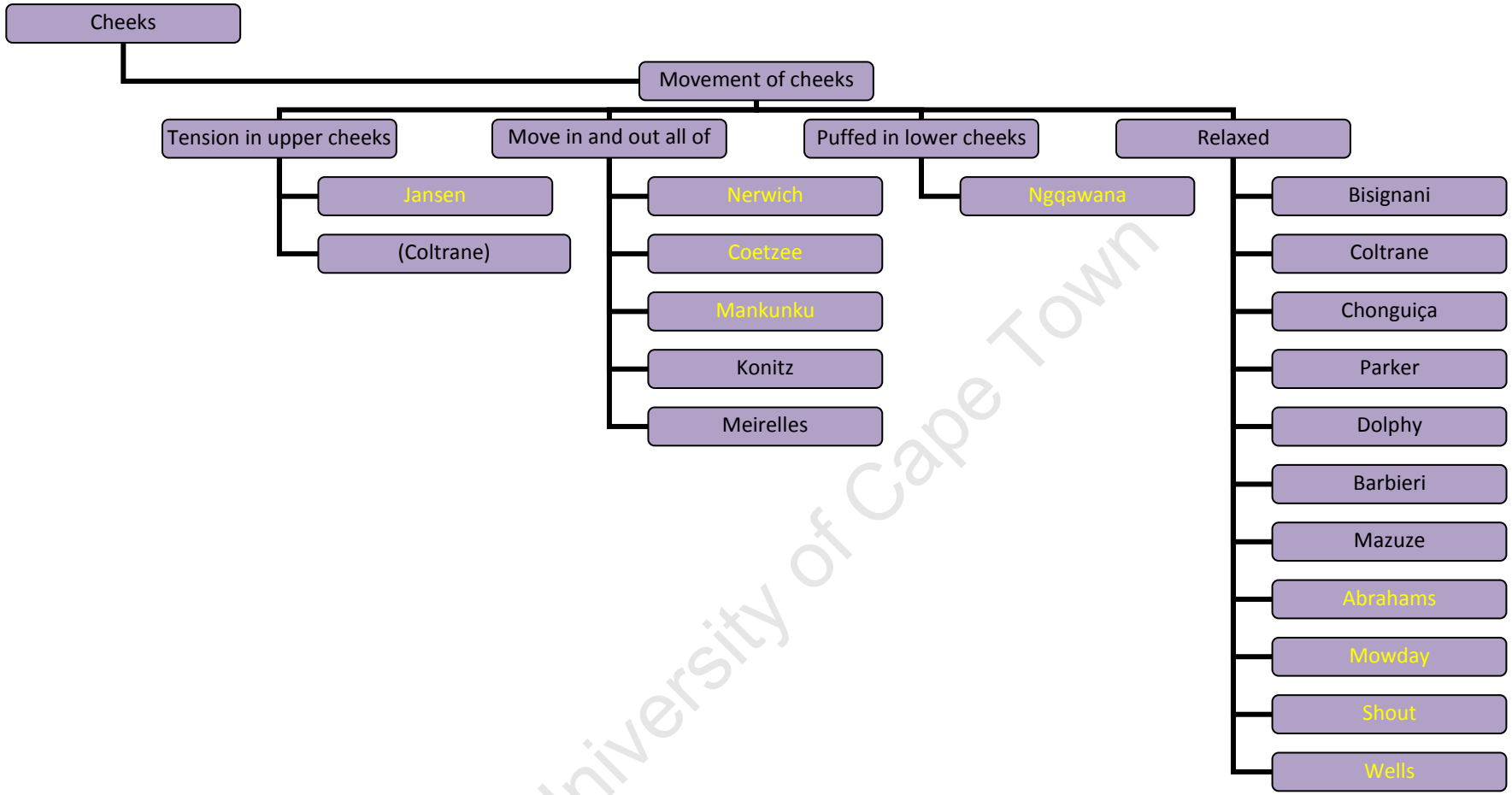
Jaw: Two of the South African saxophonists have long, pointed jaws. Four of the international musicians have pointed lower jaws that move while they are playing. One of them uses his jaw to make an obvious vibrato, and one moves his jaw up and down and forwards and backwards in a chewing motion. Five of the South Africans have normal shaped jaws, one has a slight under-bite. Two of the international saxophonists have normal shaped lower jaws and move up and down a lot. One has a normal jaw that does not appear to move. Two have normal shaped lower jaws that move back and forward a lot while playing. All of the South African saxophonists move their lower jaw while playing, some, such as Wells and Mowday, only subtly, while others, such as Coetzee and Nerwich, make bigger movements of the jaw.



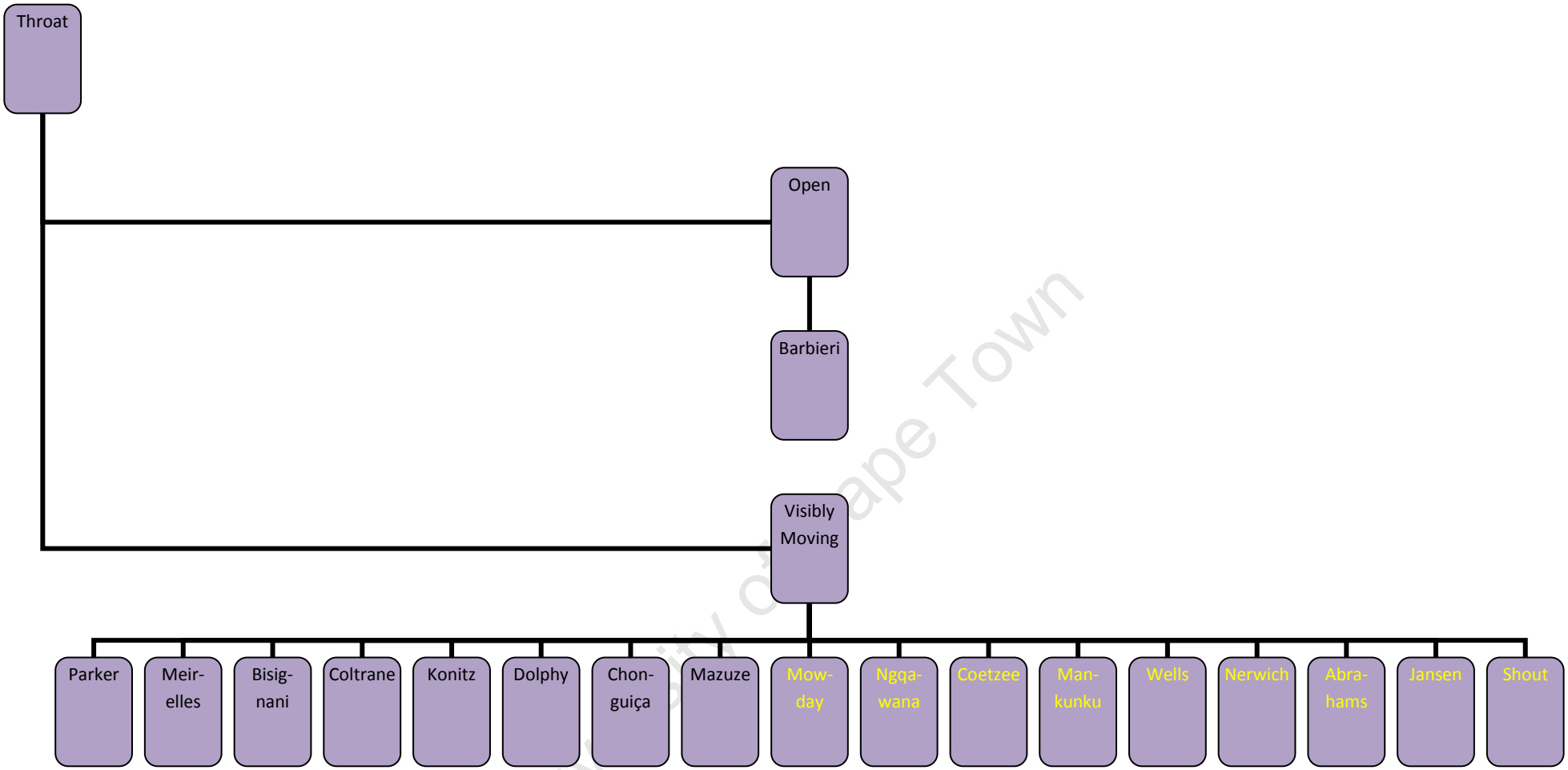
Teeth: All the South Africans play with the top teeth on the mouthpiece, thus they all use a single-lip embouchure. Eight of the international saxophonists place their top teeth on the top of the mouthpiece, forming a single-lip embouchure, while only one of them folds the top lip over the top teeth, forming a double embouchure.



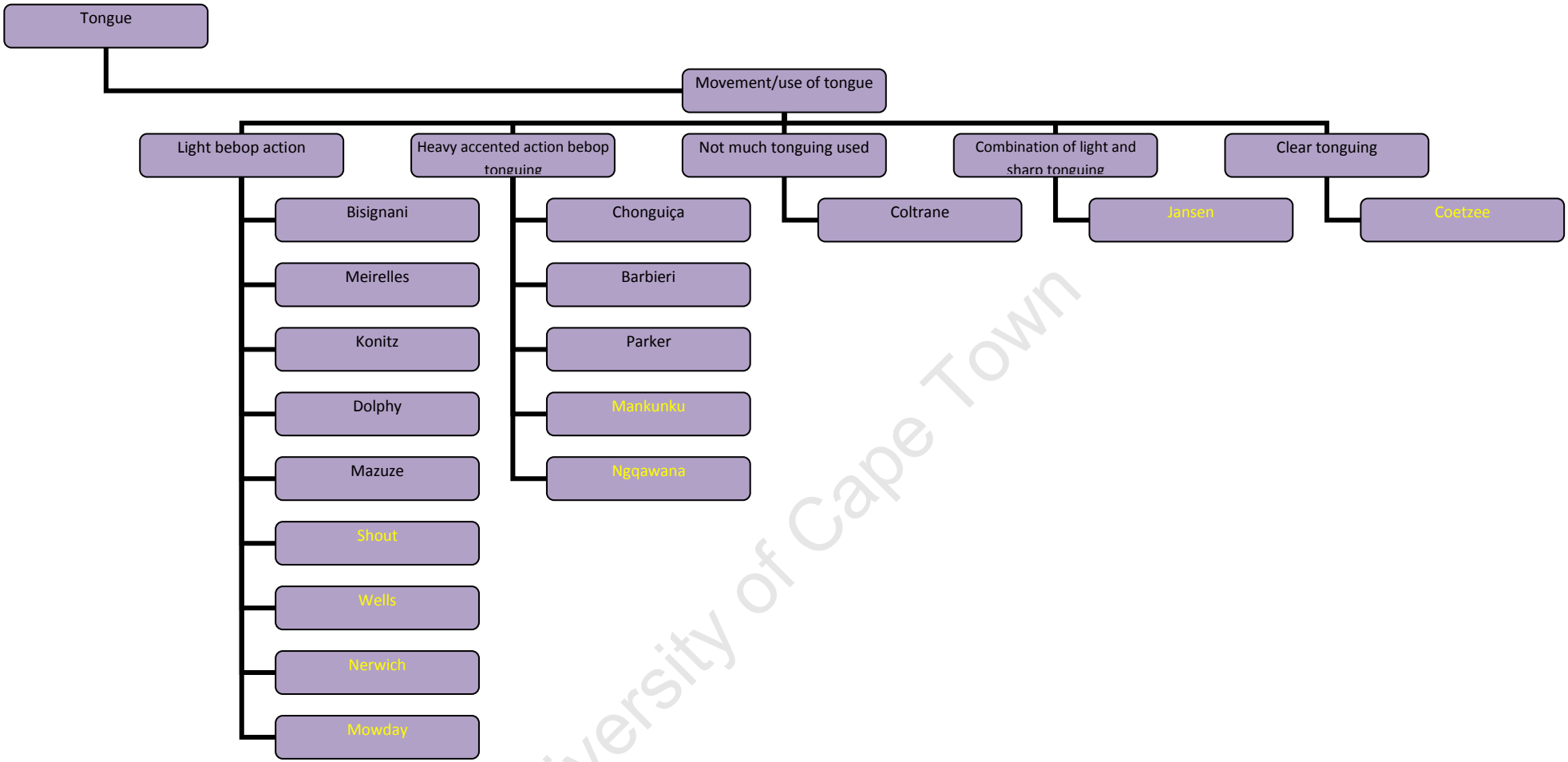
Lips: Three of the South Africans have a medium lower lip, and three of the international musicians have a medium relaxed lower lip resting on the teeth. Three of the South Africans have a thin lower lip, and two of the international musicians have a thin relaxed lower lip; one of them puts the top lip quite a bit further forward than the lower lip. Three South Africans have a fat lower lip, and one international musician has a relaxed fat lower lip with a lot of movement in the lower lip when he plays, especially when playing altissimo notes, and one international musician has a double embouchure.



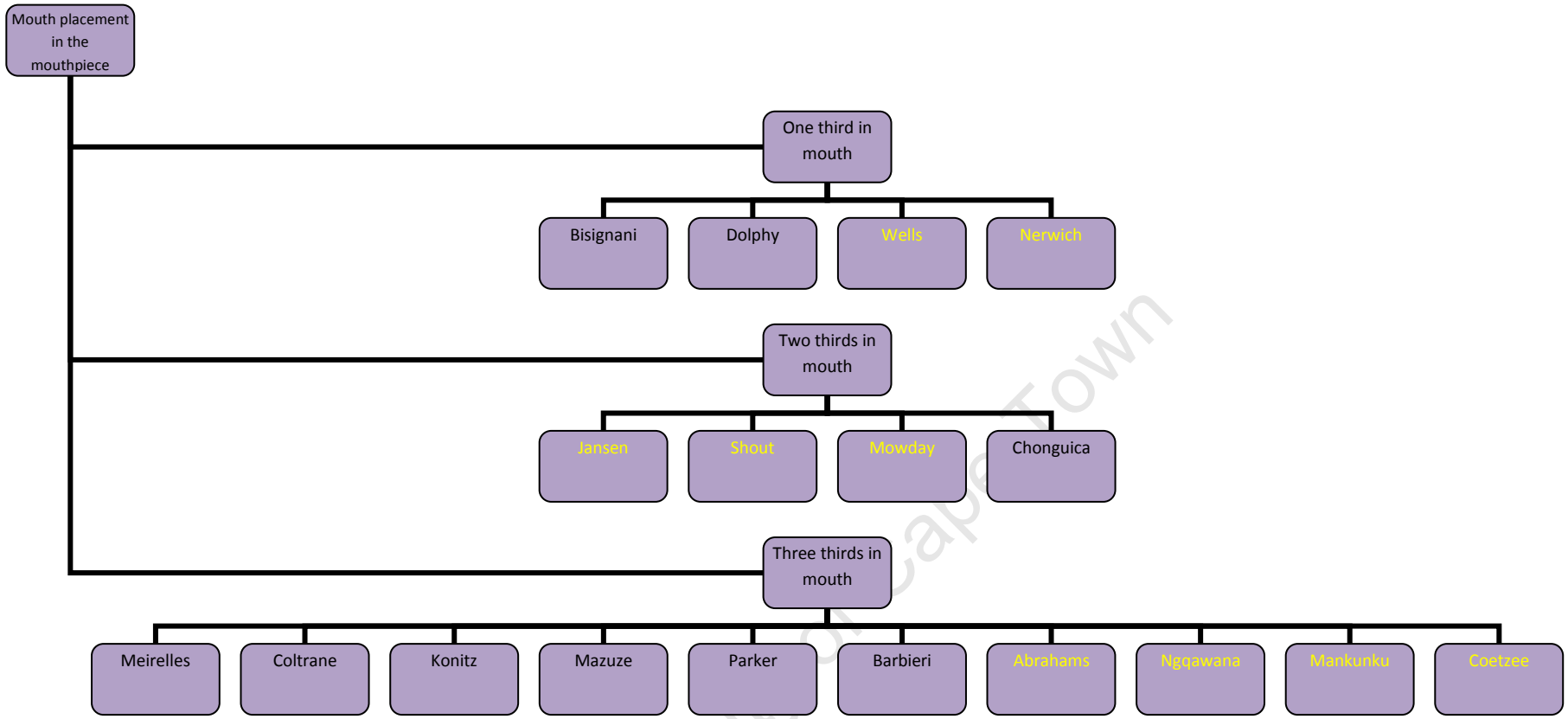
Cheeks: Of the South African saxophonists, two have relaxed cheeks that move a bit, but they do not puff them in and out, and two have relaxed cheeks that do not move as they play, while seven of the international musicians have relaxed cheeks that do not puff out when they play. Two of the South African saxophonists' cheeks puff in and out as they play, one has tension in the higher cheeks, and one moves the cheeks in and out slightly, but they mostly hold pressure in the higher cheeks. One of the international saxophonists has cheeks that puff in and out as he plays, and one has cheeks that are mostly relaxed, yet tension builds in the upper cheeks when he plays the altissimo register.



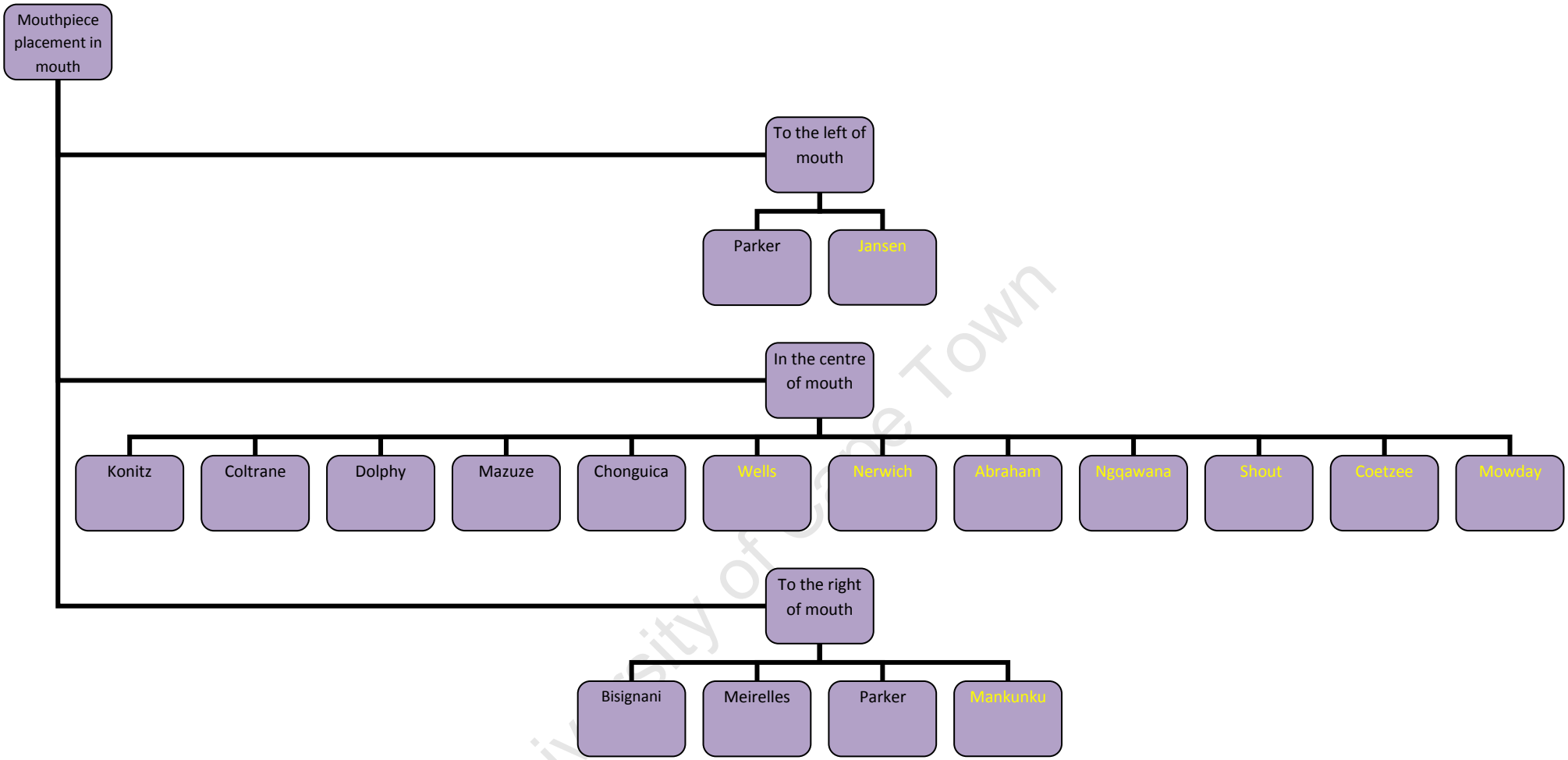
Throat: For both the South African and the international musicians the throat analysis reveals that each saxophonist moves their throat while playing. Three of the international musicians do not move as obviously as the others. One has a lot of pressure in the throat. One uses his throat when he plays his altissimo sounds. One moves the lower jaw, and as a result his throat opens up and puffs up dramatically when playing. For one of them the throat moves as he uses his tongue.



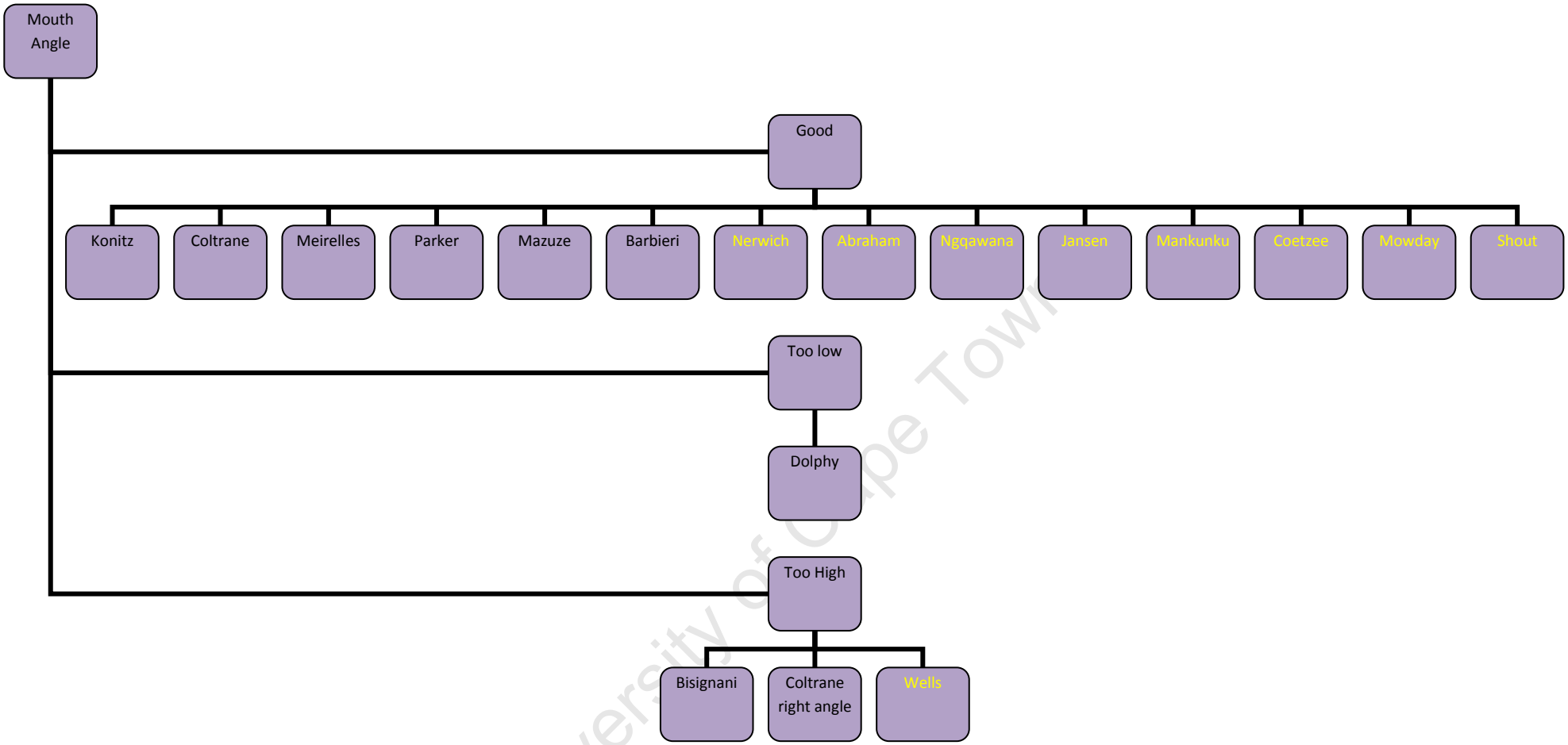
Tongue: Four of the South African saxophonists make use of light bebop tonguing. Each of these saxophonists are musically trained. Three of them make use of hard/heavy bebop tonguing. One has clear tonguing (top bebop rhythm) that is used often, and one uses bebop tonguing, but not all the time, and when it is used, he makes a quick accented tonguing action. Five of the international musicians use the tongue quite a bit and make use of light bebop tonguing. Three make use of heavy accented tonguing, and one does not use much tongue as he slurs most of his notes.



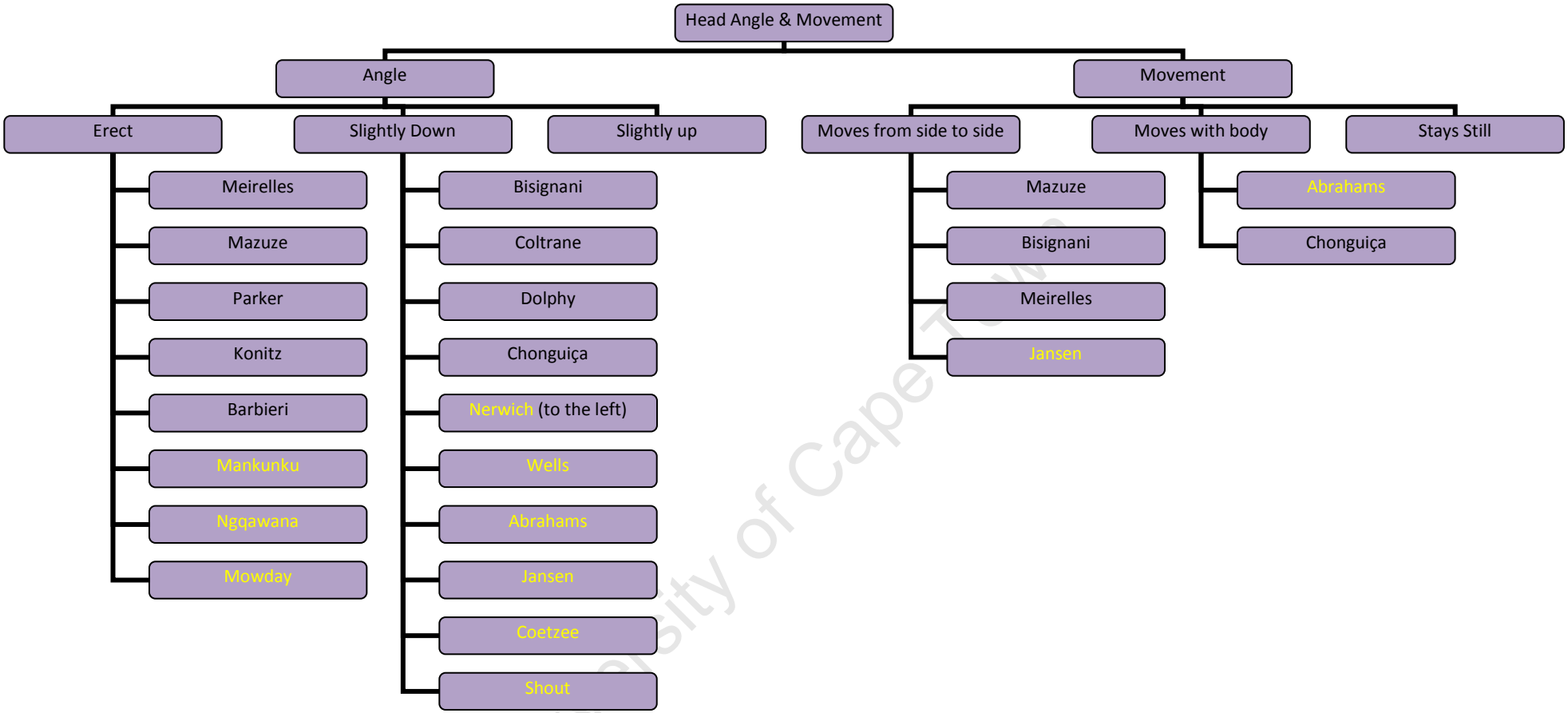
Mouth placement on the mouthpiece: Two South Africans have 1/3 of the mouthpiece in their mouth, and two of the international musicians have 1/3 of the mouthpiece in their mouth. Three of the South Africans have 2/3 of the mouthpiece in their mouth, and one international musician has 2/3 of the mouthpiece in his mouth. Four of the South African saxophonists have 3/3 of the mouthpiece in their mouth, and six of the international saxophonists have 3/3 of the mouthpiece in their mouth.



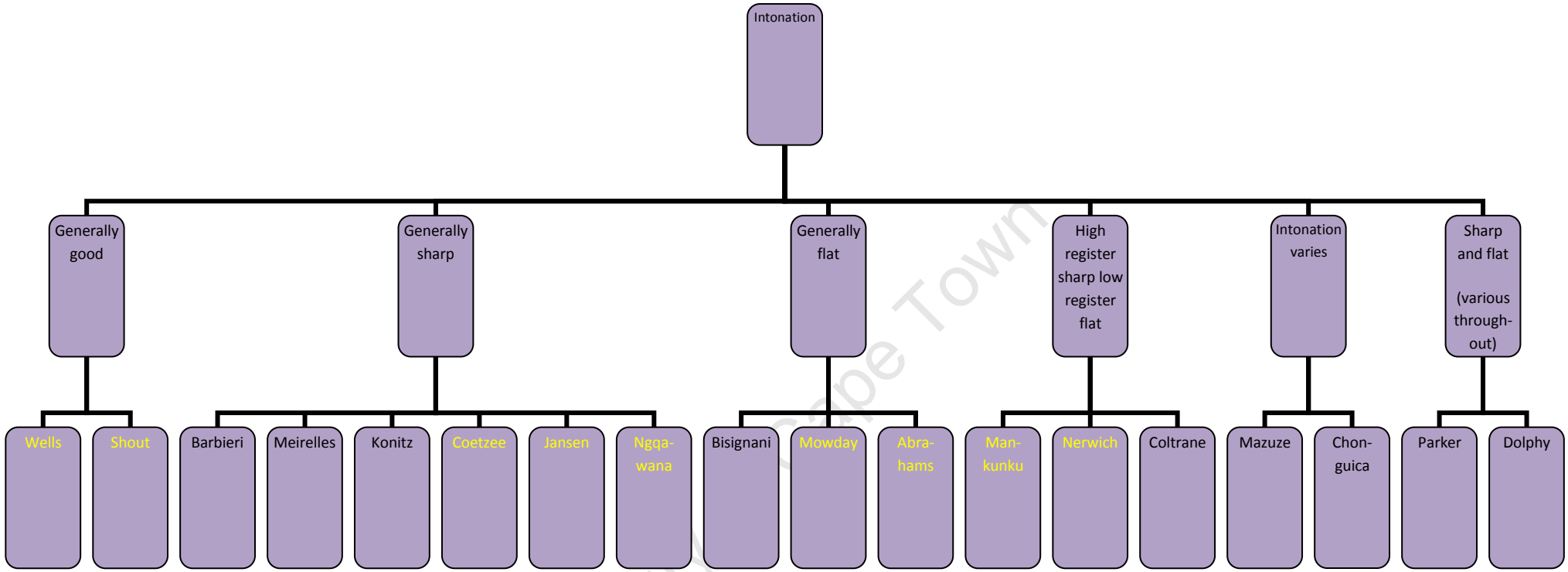
Mouthpiece placement in the mouth: Seven of the South African saxophonists have the mouthpieces placed in the centre of the embouchure circle, and six of the international players have it in the centre of their mouths. One South African holds it slightly to the left in the mouth, while one international player holds is slightly to the left. One South African holds it slightly to the right. One international places the mouthpiece slightly to the right of his mouth when he turns his head, but mostly it is central. One plays with the saxophone and mouthpiece slightly to the right side of his body and mouth.



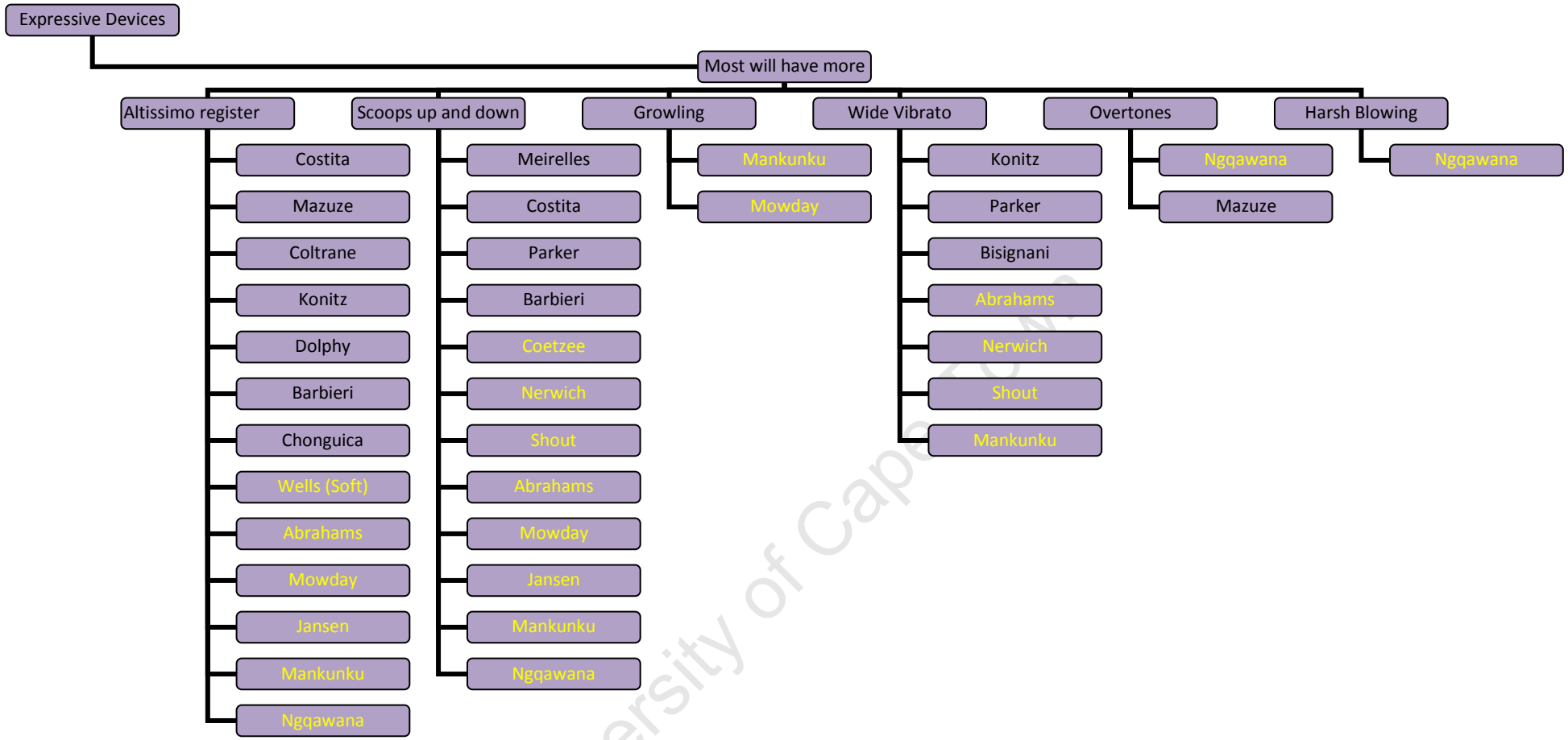
Mouth angle: The angle of the mouthpiece coming into the mouth is good for eight of the South African saxophonists, and seven international players have a good angle at which the mouthpiece enters the mouth. For one South African it is slightly high, and for one international player it is too high**.** One international musicians has it slightly lower.



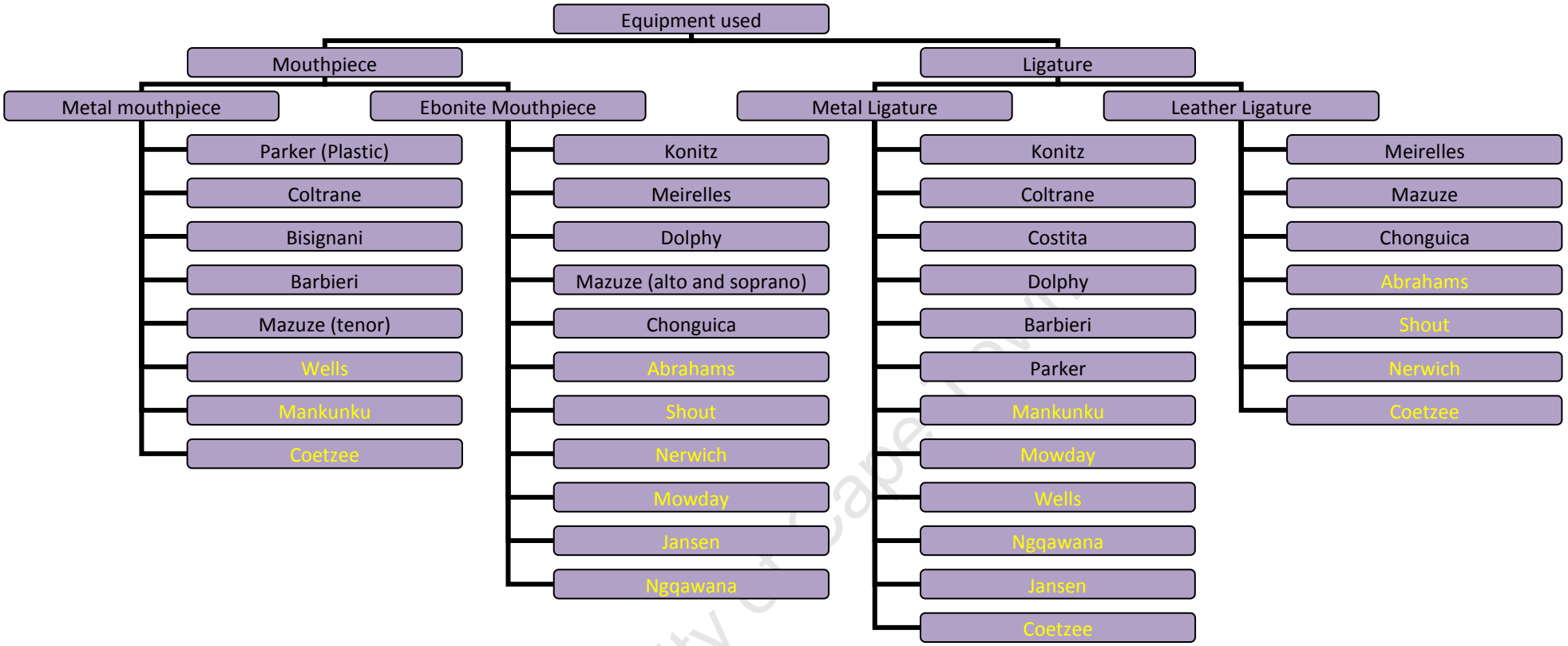
Head angle: Four South Africans have their head angled down, and two turn their heads slightly to the left. Four international musicians bend their heads down while playing; one of these players moves his head from side to side as he plays, and one bends his head down more significantly than the others. Three of the South Africans hold their head erect, while five international musicians have the head straight in line with their spines. One leans his whole body forward, and two move their heads when they play; one of these moves his body and head quite a lot while playing. When moving his body up and down, he maintains his head position in relation to the mouthpiece, and on occasion he moves his head from side to side.



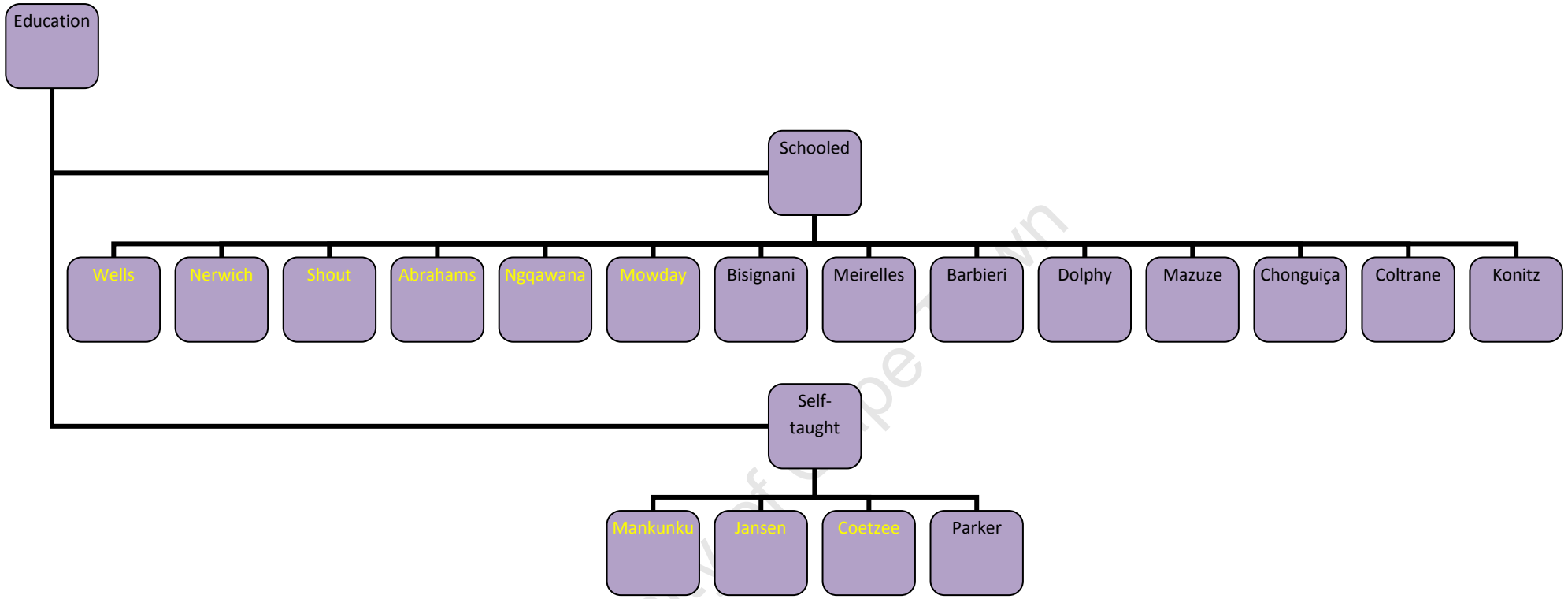
Intonation: Two South Africans play slightly flat, and one international musician plays slightly flat. Three South African musicians play slightly sharp, and three international musicians play slightly sharp. Two South Africans play sharply on the higher register notes and flatter on the lower register notes, and one international plays flat in lower register and sharp in higher register. Two international musicians change a lot (flat and sharp). Two international saxophonists are slightly sharp at times (recordings), and slightly flat at other times (live performance video). Two South Africans have generally good intonation.



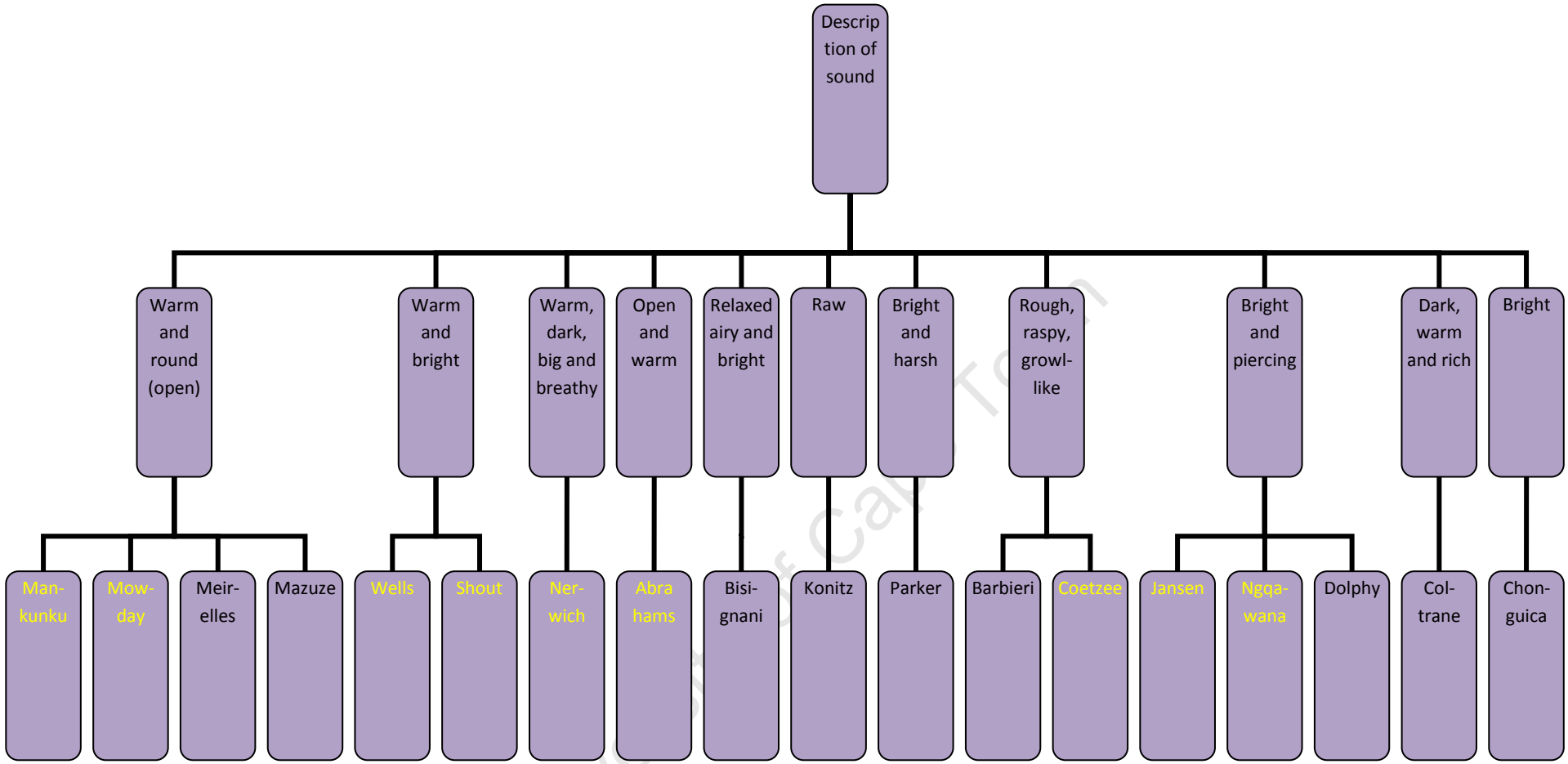
Use of expressive devices: All players make use of different combinations: some scooping of notes, but not overly used, wide vibrato**;** scooping some notes slightly at the end of phrases**;** making use of altissimo register**;** making use of a quite a wide slow vibrato, altissimo register**;** vibrato, scoop-ups; 'chewing' of mouthpiece, making use of altissimo register; altissimo, gradual scooping**;** altissimo and overtones in live performances but not in recording; leans body forward while playing altissimo notes, the rhythm is different to bebop.



Equipment used: Four of the South African musicians use a metal mouthpiece, and three international musicians use a metal mouthpiece and ligature. Two used an ebonite mouthpiece and a leather ligature. Five South Africans use an ebonite mouthpiece, three using metal ligatures and the remaining two using leather ligatures. Two international musicians use an ebonite mouthpiece and metal ligature**.** Three South Africans use an ebonite mouthpiece with metal ligature; one a metal/plastic mouthpiece and ligature, and one an ebonite mouthpiece on alto and soprano, and a metal mouthpiece on tenor, and on all three he uses a leather ligature. Three South Africans use metal ligatures, and one a leather ligature.



Musical Education: Six South Africans were schooled, while eight international musicians were schooled. Three South Africans were self-taught, and one international musician was self-taught.



Description of sound: Each person's sound was described slightly differently; the descriptions were: relaxed, airy tone, bright, round, warm and open sound; dark, warm, rich; raw; bright and harsh; bright and piercing; warm and round; bright; rough, raspy, warm, growl-like.

5.6 SUMMARY OF COMPARISONS

All the South African saxophonists move their lower jaw while playing; all the musicians, except for one, play with the top teeth on the mouthpiece, thus they all use a single-lip embouchure. The lip sizes and positions vary. Some of the musicians move their cheeks, while others have relaxed cheeks. All the musicians use their throat to help pitch the notes. The amount it moves and how varies from person to person. Most of the musicians use light bebop tonguing. However, some of the South African and some of the international musicians make use of hard/heavy bebop tonguing. The majority of the saxophonists have the whole playing piece of the mouthpiece placed in the mouth. Most of the saxophonists have the mouthpiece placed in the centre of the embouchure circle. Most of the musicians have a good mouth angle**.** More of the South African musicians have their heads angled down, and more of the international musicians have their heads erect.

Intonation varies from musician to musician. Although there are similarities, they are not sufficient to form a trend of either South African or international players. It is quite an individual aspect; however, most of the players do not play strictly in tune all the time. International musicians and South African musicians make use of expressive devices, yet the South African musicians use them throughout their playing. Scoops are often used continuously by South Africans such as Coetzee and Ngqawana.

There is no common trend in the equipment used by the musicians, as metal mouthpiece and ligature are used with about the same frequency as the ebonite and metal ligature. The international musicians have more variations. One can note from the comparison that most of the musicians that were analysed were musically schooled, and that those that were not still produce a beautiful quality of sound on their instruments. Their embouchures are different according to their education.

In the author's opinion there are many levels to a sound, the overall style and the finer qualities. It is the overall sound that the South Africans have that makes them sound South African. This sound is very different to that of the international musicians and can be clearly heard if one were to compare just by listening. Putting these differences into words can be difficult, especially as we can see by the results of the 'description of sound' that each player has their own personal finer quality in their playing, regardless of style. However, it is clear that South African saxophonists make more use of expressive devises than the international saxophonists throughout their playing. The embouchure is utilized to produce these sounds by movement in the lower jaw and lip, and by pitching the notes with the throat. All the South African saxophonists in this study make use of these techniques, and all of them use a single-lip embouchure. This single-lip embouchure is significant because the lower

lip needs to be relaxed enough to be able to manipulate the pitch. It is clear that each South African saxophonist in this study manipulates the pitch, even though it may not appear so from the outside of the mouth. This is explained further by way of Dan Shout's description in the next section. These finer qualities found within the overall South African jazz style are accompanied by other elements of music, such as rhythm, scales and playing with others, that help to create the overall impression. These other aspects will be discussed in the following section.

5.7 SOUTH AFRICAN JAZZ AS A GENRE?

The last section gave a summary of the analysis of nine South African saxophonists' embouchure and other aspects of their sound. This section provides a brief discussion of the influences on these musicians and what other styles they can play, to show that South African jazz could be regarded as a genre of its own.

Each of the South African jazz saxophonists were or are able to play various styles of music such as rock, pop, American jazz, South African jazz, *langarm* and dance music. The fact that they are able to change the styles that they play strengthens the notion that South African jazz is a style of its own, as are bebop, cool or Dixieland. It was developed by the fusion of many different significant traditions to form its own genre, yet it is a very important style and has played a significant role in all South African jazz saxophonists' playing.

Winston Mankunku played bebop, Basil Coetzee played *langarm*, Robbie Jansen played rock and pop, Zim Ngawana played free jazz, Buddy Wells has elements of bebop in his playing, Rus Nerwich plays a lot of funk and fusion, Shannon Mowday plays in swing bands, Dan Shout has played a lot of rock and bebop jazz, and Byron Abrahams plays soul and bebop music. Even though each of these musicians has had many different influences, when they play in the South African style, they sound South African.

When Dan Shout plays with a South African sound, he says (Shout, 2011) that he consciously changes and switches his embouchure to help him produce the sounds. In his interview he was filmed demonstrating this. On the outside of his mouth, he does not appear to change his lips in an obvious way. The movement of his lower jaw is very small, and his cheeks move slightly when he plays, but they do not puff in and out. Once he had pointed out to the interviewer what he was doing, it became more obvious, but he is quite subtle in how he moves his lower lip. He was able to create a scooping sound by moving his lower lip up and down, thus moving the reed. He also uses his

lower lip and jaw to make use of a wide vibrato. He makes extensive use of this technique when playing in a South African style. He makes use of pentatonic scales. He plays a riff up making use of this scale, then repeats a note with different rhythms before coming back down the scale.

Dan Shout and Buddy Wells both played the clarinet and then rolled their bottom lip in far and tightly on the saxophone. Both these musicians did not have the correct embouchure when they started to play the saxophone and changed their embouchures after they had been playing for a few years.

By looking at South African music history we can see that singing has always played a significant role for South Africans. It is also possible to recognise in the early *marabi* music how similar the saxophones sound to the singing. This similarity shows up both in the close harmonies of the singing and the saxophones as well as in the scooping of the melodies and the overall rhythmic feeling. It is thus safe to say that this early jazz has impacted on the way South Africans play jazz today, and that the similarity in the *marabi* saxophone sound and singing has remained part of the sonority of this music. Many current South African saxophonists are aware of this heritage. When the saxophone is played in the South African style, it is interwoven with South African heritage (de Kock, 2010). This is because South Africans are brought up to hear these types of sounds and mimic them. This is done by copying each other's melodies or well known traditional melodies and making use of rhythmical ideas with ostinato riffs, repetitive notes, extensive use of the pentatonic and blues scales, scooping the notes up and down to bend the pitch, and leaving a lot of space between notes at times. The chord patterns from *marabi* are utilised as well. These are the aspects that are used by the whole band to create the overall South African jazz sound.

> African and jazz music have always shared learning based on the oral tradition. It is no secret then that this vocal or 'human cry' aspect of performance is a central component of the South African saxophone sound (Rossi, 2001a:12).

In his study, Solberg (1996:84-86) mentions the use of various expressive devices used to create certain sounds in South African jazz saxophone playing. De Kock (2010), Shout (2010), Rossi (2010) and Abrahams (2010) all make mention of these expressive devices, namely scoops, fall-offs, bends, growling (buzzing), wide vibrato, and the use of the altissimo register. As these different concepts of pitch were also heard in *kwela* and sax-jive music, it is thus possible to deduct that these expressive devices have always been a part of the South African jazz saxophone sound.

De Kock (2010) explained the traditional South African jazz saxophonists' way of playing in comparison to international players. He compared their contrasting playing to that of European jazz saxophonists who, in his opinion, generally play with more accurate pitch as they play 'straight on the note'. Although this is not necessarily true about their intonation, the international musicians studied in this thesis do not scoop up or down to a note as often as the South African saxophonists do. They make use of these expressive devices, but more for specific effects. The South African saxophone players use expressive devises a lot of the time, which makes their overall style sound out of tune.

Most music in African culture has an interesting relationship with language, as the pitch of a word changes according to its meaning. The different tones that people use when speaking can be translated to melodies when set to music; the way people in many African cultures speak is related to how they sing, as they utilise the same concept. Solberg (1996:83-8) explains that native South African Nguni people change the pitch of their words while speaking, such that one syllable will not have one pitch, but will be raised or lowered according to the meaning of the word. The different use of pitch and the meaning behind this is translated into their singing and onto instruments. This indicates the significance behind the bending of pitch on the saxophone. It is not that these early musicians were not taught the 'correct' way to play on pitch, but that the change in pitch has significance in their language, in their way of singing and in the way they express sounds and relate them to life. This has become part of the saxophone sound. Shout explains his view of this:

> … that's pentatonic sort of stuff, but it's got such like distinct sound, you know. And it comes from the singing as far as I'm concerned, if you listen to Zulu singing and Xhosa singing. That's how they sing and it's not also in tune, it's in a different mindset [sings], like call and response. So the sax players actually copied singers, as far as I'm concerned, 'cause the ethnic music was clapping, drums, singing... It's not that they just (think) I'm going to bend stuff now, they're actually copying a sound they've got in their heads already... like Winston and Barney all got that different vibe (Shout, 2010).

Abrahams (2010) has a different view of what the South African saxophone sound is and why it came about. He feels that the only way he can explain how the South African saxophonists play is that

their sound is played with a 'lazy' feel. He played his interpretation of this in his interview. He believes that the reason for this 'lazy' way of playing is due to there being a lack of education for these musicians. Rossi (2010) is of the opinion that it is a combination of these two aspects, i.e. a lack of education of South African jazz saxophonists in the past, with having that specific sound in mind and then projecting it when they play. The sound that they make is thus done consciously.

Shout (2010) discussed that bending the pitch is done by relaxing and moving the bottom lip up and down. He demonstrates this, as well as a very wide vibrato that is used by these players. He explains what he is doing to achieve this:

> I'm going like wahwahwahwah like a very wide vibrato that's … controlled … and I'm bending up and dropping off as well … the one's coming up and the other one's falling off ... I might bend up and then do a thing and fall … (Shout, 2010).

When a saxophone scoops the notes, it is usually when the player starts below the intended pitch and then scoops to the intended pitch. Lip bends are normally done when the player starts on the pitch and then bends the note downwards below the intended pitch, or down and then back up again. Most of the South African saxophonists scoop their notes by applying more or less pressure to the bottom lip and bending the pitch of notes down and then up. The term 'scooping' is used when the players bend the pitch up or down by using the lip. Winston Mankunku made use of this scooping action to create the pitch-bending affect. He also made use of the altissimo register when he played. He utilized these expressive devises in his recording of *Yakhal' Inkomo.* In this recording he also made use of a growling expressive device. This is when the player sings into the horn from the back of his throat. Many other South Africans have since used these expressive techniques while playing.

Some musicians were self-taught and had no outside input in terms of how they should practice the saxophone. There was no one to teach them about practicing overtones or long notes, or to play on just the mouthpiece to strengthen the mouth and train the ear. As the available information has shown, saxophonists such as Mankunku, Coetzee and Jansen were never formally taught the concept of embouchure. De Kock (2010) said that Mankunku and Jansen are of the few self-taught saxophonist that really played well. It is evident from the analysis of their embouchures that, except for movement of the lower jaw, they do not veer too far off from the correct position. Coetzee, however, has been criticized for his poor intonation (Rossi, 2001b:46), and he puffs his cheeks a lot

while playing. Even though there are aspects that are different, each of them makes use of scooping the notes up and down, and they make use of the altissimo register.

Rossi (2010) said that most of the people that he first worked with in South Africa did not study music, and some of these players roll the lower lip far over the teeth. However, none of the musicians that were examined showed evidence of this.

Playing on just the mouthpiece is an important technique for a saxophone player, but would self-taught musician have thought to do this? Would they have spent hours trying to develop the sound in this way? How would they have known the importance of this and how the vocal cords need to be stretched and exercised, if no one taught them this? Most of the early South African saxophonists who were self-taught would not have known about these techniques. What they would have done due to the isolation of musicians during Apartheid would be to experiment naturally with forms of expression. It is this unique integration of different influences on South African playing in this country – a combination of American styles, formal training and African vocal traditions and traditional instruments (which of course musicians in America would not have had) that makes South African jazz different to jazz developed in other countries.

CHAPTER SIX: SUMMARY AND CONCLUSION

This study examined the role that South African jazz saxophonists' embouchures play in the production of the South African jazz sound, by analysing aspects of nine saxophone players' sound and embouchures. The findings were then compared to the embouchure of nine international saxophonists in order to discover whether there is a trend in the way South Africans use their embouchure. The aim of the study was firstly to pay tribute to some of the early South African saxophonists by preserving their contributions to South Africa's cultural heritage, secondly to pay tribute to current South African saxophonists for their input in terms of preserving South African jazz and developing it, and thirdly to provide guidance for saxophone educators and saxophonists in teaching students how to play the saxophone in a South African jazz style.

6.1 EMBOUCHURE FINDINGS

Although the results of this study did not reveal a trend of embouchure techniques that are unique to South Africans, they do show that elements of these aspects contribute to the South African jazz sound. This does not mean that when these elements are used in isolation that they produce a sound that is distinctly South African, but it means that when these elements are used in a certain context with other musical aspects such as rhythm, scale patterns and the use of expressive devices, the saxophone will sound South African.

6.2 CONTRIBUTION TO CULTURAL HERITAGE

As a musician it is important to understand one's own heritage, and to appreciate the heritage of others. Based on this study, as a South African jazz saxophonist one can appreciate the struggles that many of the musicians had to go through during the apartheid era. There is a recognition that many of the saxophonists during this time were trying to make a statement through their music. It is also of importance to recognise that in the process they used different techniques to create these sounds.

It is furthermore appropriate to look at the significant role the saxophone has played in shaping South Africa's musical heritage. It must be recognized that the musical influence of the saxophonists of the apartheid era is still huge today, and that current musicians are paying tribute to them in their

music. Although South African musicians are able to play various styles, South African jazz is still relevant and played today, and it can be appreciated that South African jazz saxophone playing is not a dying art, but is alive and well.

It is gratifying to note that jazz is increasingly being introduced at secondary schools. It is not yet lost, but as many of the iconic South African musicians are passing on (Jansen, Mankunku, Ngcukana and Vincent Kolbe have all passed away within the last year), it becomes increasingly important to ensure that South Africa does not forget these players or their style, as an integral part of developing young musicians. It requires historical knowledge to really appreciate this music and discover what the meaning behind the sound is and what has helped it to develop. For saxophonists living in South Africa it should be an essential part of their repertoire.

6.3 SOUTH AFRICAN JAZZ SAXOPHONE EDUCATION

In order to teach a student how to play the saxophone in a South African jazz style, it is important to recognize that the South African jazz saxophone sound has a lot to do with playing within the group context, surrounded by all the different aspects of harmony, scales and rhythm that makes the music sound South African. A saxophonist will truly sound South African when playing with others who are playing this style. However, the study of the embouchure will be of value to show that the emphasis in teaching should be on the sound that is produced. The best way to achieve this is by listening to recordings of the South African jazz saxophonists and trying to imitate these sounds. Included in this study is a discography that is relevant for anyone to listen to who wants to learn how to play in a South African style.

It is important that music teachers encourage South African saxophone students to learn this style, as we do not want to lose this heritage in future generations. There are musicians who are able to skillfully switch from any style of music they are playing to sound South African.

To make a typical South African sound, students should make use of scooping elements and pay attention to the rhythm (of the band, and of musicians repeating notes before moving), pitch, scale patterns and harmonies. Using their embouchure to produce lip bends, fall-offs, scoops, wide vibrato, and growling are all expressive devices will assist in creating the South African jazz sound. The sound is heavily influenced by African vocal traditions, and this is heard in the way the expressive devices are used. These expressive devices, as well as ostinato and polyrhythmic techniques, are central features of the South African saxophone style. It is the combination of these

that make it different to other styles played by international musicians. The basic chord structure of South African jazz comes from *marabi*, a three-chord four-bar pattern which is repeated over and over again. The most important aspect of playing South African jazz is how to play the notes and the meaning behind them.

It is evident that all the saxophonists that have been analysed are versatile players in that they are able to adapt to various genres. This is an important skill for a saxophonist in South Africa to be successful. Both Mankunku and Jansen were adept in more than one style. Even though Mankunku and Jansen played prominent roles in popularising the South African sound, both players were able to incorporate intricate bebop scales and 'licks' and make use of various expressive devices. The characteristics that have been examined for the South African saxophonists are also found in saxophonists throughout the world such as Hector Costita Bisignani from Brazil who scoops some notes slightly at the end of phrases, John Coltrane from the USA who makes use of the altissimo register, Eric Dolphy from the USA who makes extensive use of the altissimo register, Gato Barbieri from Argentina who scoops his notes and has a growl-like tone, and Ivan Mazuze from Mozambique who also makes use of the altissimo register.

Even though these musicians make use of the same expressive devices and embouchure positions, it is the combination of these, along with specific rhythms and simple chord progressions, that have created the South African jazz sound. It is the saxophone techniques played with African rhythms and chord progressions that have created this unique overall sound. Many South Africans are playing different styles, but they are still able to appreciate and play the South African jazz style which can be recognized as a sound of its own. Although South African saxophonists are playing many different styles, they will still carry something about them that is uniquely South African. Although it has been difficult to define, it could be said that just as one speaks a language with an accent, so does a South African jazz saxophonist have a South African accent.

GLOSSARY

Alternative fingering	Using a fingering technique which is different from the standard technique.
Altissimo	The highest harmonics which are produced when a musician overblows on a woodwind instrument.
Apartheid	A law of racial segregation enforced by the National Party government of South Africa between 1948 and 1994.
Articulation	The manner in which a note is played.
Beer halls	Official drinking places constructed by the white local authorities for blacks as an element of social control during Apartheid; bleak, men-only, and rigidly controlled, their profits were intended to finance township facilities and policing.
Blue-note	A flattened 3^{rd} or 7^{th} note of the key.
Chromatic	A sequence of semitone notes (of a musical scale).
Counterpoint	A melody played together with another.
Fife	Ancient side-blown instrument like a high-pitched flute, frequently used in military bands. Modern drum and fife bands include low-pitched flutes.
Flageolet	Late 16th-century instrument of end-blown flute type, with 4 finger-holes and 2 thumb-holes, 'invented' by Sieur de Juvigny of Paris, c.1581. The name has also been applied to earlier instruments of the end-blown fipple type of pipe.
Goema	A hand drum of the Malay community, with syncopated rhythms produced on it, and by extension the style of instrumental music played over the beat. The music of the Cape Town carnival that has its roots in the music of the Malay slaves shipped to the region by the Dutch East India Company.
Gumboot dancing	Refers to a dance by miners who wear gumboots.
Isicathamiya	'Step lightly': Zulu song and dance form, the direct descendant of *ingom' ebusuku*.
Langarm	Afrikaans term 'long-arm': characteristic of a Cape popular dance style for couples, employing elements of folk and ballroom dancing, including swooping turns with extended arms.
Matriculated	One who has completed the final year of schooling in South Africa called 'Matric'.
Embouchure for the oboe	Both lips are folded over the teeth.

Ostinato	A persistent musical phrase or rhythm.
Pitch	The location of the sound in the tonal scale, depending on the speed of vibrations from the source of the sound.
Polyphony	Many sounds. Music in which several simultaneous voice or instrumental parts are combined contrapuntally, as opposed to monophonic music (single melody) or homophonic music (one melodic line, the other parts acting as accompanying).
Royalties	Percentage payments supposed to be made to musicians or composers each time a copy of their recording is sold, or the recording is broadcast, under intellectual property provisions.
SABC	South African Broadcasting Corporation.
Shebeen	Irish slang, 'little shop': term for an unlicensed black drinking spot usually in a private home.
Skiffle	A name used only a couple of times in American Blues history, referring to a band-within-a-band in the early 1950s jazz.
Slumyards	Term for overcrowded, multiple-sublet, black urban residential areas in the early twentieth century; often associated particularly with Doornfontein in Johannesburg.
Tickeydraai	'Spin on a three penny piece': fast-paced, whirling Cape folk dance and music style.
Township	The title given by white local authorities to the residential areas designated for black citizens.
Vastrap or Hop Dance	Comes from the Khoi, who were admired for their singing, dancing and flute playing on reeds tuned to different pitches. 'Fast step': Cape folk dance and music style heavily influenced by Dutch rural music.
Vaudeville troupes	Theatrical companies that performed various acts that were often accompanied by bands.
Vaudeville	Eclectic touring variety shows, including drama, music, dance, recitation, and comedy; it combined elements from English music hall, African-American minstrelsy, high concert culture, and tradition.

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APPENDIX A - DIAGRAM OF THE SAXOPHONE

APPENDIX B - INTERVIEW QUESTIONS

1. Where are you from?
2. When you first heard the saxophone being played what effect did this have on you?
3. What and who inspired you to learn the saxophone? (If it was not your first instrument, how do they relate or what are the differences? The relevance of this question is to find out what sound they listened to).
4. How did you learn to play the saxophone?
5. What is your preferred style of music to play?
6. How do you feel your saxophone playing style has progressed over the years?
7. How would you describe your saxophone playing?
8. What set-up do you use? (mouthpiece/reed/ligature and saxophone)
9. Have you always used this set up, if not when and how did you come to use this?
10. How would you describe your embouchure? (How does it affect your sound?)
11. What is your view on mouthpieces and reeds?
12. How did you learn to improvise?
13. How did/do you practice?
14. Do you see a value in learning transcriptions of other people's tunes?
15. Can you tell me about the bands and people you have played with? (Your experiences of playing with others.)
16. What is your understanding of the influence of South African jazz saxophone playing in the 1960s on today's general style of playing?
17. Who comes to mind when you think of South African Jazz?
18. Who comes to mind when you think of international jazz?
19. How would you define the South African jazz saxophone sound? What are the distinctive elements?
20. Do you listen to South African 1960s players? Who do you listen to?
21. Is it necessary for today's saxophone players/learners to be able to play South African jazz?
22. How has South African jazz changed since it first began?