

Berklee College of Music

**-Innovators of the Saxophone Sound-
A Retrospective of the Saxophonists Who Popularized and Defined the Sound
& Style
1945 - Present**

Submitted in Partial Fulfillment of the Degree of
Master of Music in Contemporary Performance (Production Concentration)

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Valencia Campus, Spain

2018

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Abstract

My decision to focus this project specifically on the aesthetic qualities of the saxophone sound, was based on and inspired by my own reflections and experiences as a professional saxophonist for over 40 years. Having transcribed the artists, who are the subjects of my exploratory research, I can honestly say that I have learned my craft by borrowing from these masters. My method for displaying these aesthetics as they relate to the saxophone sound, is from 9 select videos set into an evolutionary timeline. Through a process of comparative analysis based on my chosen parameters, the videos were assembled into an audio-visual presentation. My use of sub-tones, vibrato, riff based motifs, false fingerings, flutter tonguing, overtone series and, harmonics, is all derived from players past as well as my peers. It would be fair to say that my life's work as a tenor saxophonist and multi-winds instrumentalist in many respects, is based on the codified vocabulary of gestures and sounds set forth by my predecessors. This language is inherently unique to the saxophone, and this is the focus of my research.

Keywords: aesthetic, qualities, saxophone, reflections, analyzing, language, gestures, masters.

Acknowledgements

I would like to thank and recognize the following musicians and people who have contributed to my education and experience of learning how to become a musician and performer. Their dedication, spirit and commitment to the craft is what inspired my passion to seek out and ask the questions for the answers that eventually revealed themselves over the course of my fantastic journey. For them, I am truly grateful as a human being, a father, a friend and a musician.

Murry Rose, Paul Jeffrey, James Spaulding, Saul Rubin, Thomas Chapin, Jerry Weldon, George Coleman, Steve Nelson, Victor Mendoza, Kenny Baron, Ted Dunbar, Phil Corner, Joshua Selman, Sonny Stitt, James Moody, Al Grey, Jay Anderson, David Newman, Joe Henderson, Bob Berg, Michael Brecker, Johnny Griffin, Jimmy Heath, Charlie Parker, Dexter Gordon, John Coltrane, Joe Allard, Sigurd Rascher, James Scott, Donald Byrd, George Garzon, Harold Mayburn, Jan Garbarek, my aunt Terry and cousin Frank Perowsky.

This project is dedicated to the memory of my parents:

Herman H. Harris

For paying for my music lessons and making me practice

Jacqueline I. Harris

For the great food that fueled my progress and the life force she passed on to me.

1. Introduction

My decision for choosing this project is directly related to and connected with my own personal development and evolution as a saxophone player. I learned much of my craft by watching, listening, analyzing copying and transcribing other players in both my generation and generations past. This was all part of my on-going explorations, discoveries and realizations as a student of the saxophone. In contemplating the focus and topic of study for my culminating project, I came to the realization that I could be the subject and the object of the study. The reason for me saying this is because I became a part of the history of tenor saxophone players in America. I'm not saying this because I'm in Wikipedia,¹ which I am, but I say this because my career flourished after I received my undergraduate degree at Rutgers University.

2. Background

As an undergraduate student from 1980 - 1982, my practice routine was seven hours a day. Early on in my development as a player, the one thing that several of my teachers and my peers told me, was that I have a sound on the tenor saxophone that was recognizable and signatory. For me, I attribute this to having one of my greatest saxophone lessons with tenor saxophone titan Johnny Griffin, as well as my hard work and persistence. Johnny Griffin was

¹ *Wikipedia*, s.v. "The Greatest Love World Tour," accessed June 15, 2018, https://en.wikipedia.org/wiki/The_Greatest_Love_World_Tour. Billboard magazine's Carlo Wolff said the following on his column for her show at Saratoga Performing Arts Center on July 28, 1986. During "Saving All My Love", Houston arranged the song into a bluesy jazz number that recalled Billie Holiday. Houston often scatted with sax player Josh Harris during the end of the song.

known as the “Little Giant”² from Chicago and was, as a legend has it, the only tenor player who made John Coltrane a little nervous when he came to town. He showed me how to practice long tones to establish my own sound on the horn. I spent the rest of my career paying attention to what he told me and practiced my long tones every day. For me, this proved to be a wise decision.

Johnny Griffin was short in stature, and the sound that he could produce had a wide dynamic range in volume as well as aesthetically achieving a beautiful tone quality in my opinion. His mouthpiece and reed set up was unusual in that he used a #5 reed, the hardest, along with a mouthpiece with a tip opening, (referring to the space between the end of the reed and the mouthpiece), between #9 and #10. To my knowledge, this was the largest reed and mouthpiece size available to players at that time. Most players could not and cannot overcome the pressure and resistance of this saxophone set-up to produce a tone using this size mouthpiece and reed.

In continuation of the story of my evolution, I remember when I played for saxophonist Sonny Stitt in a master class, he told me I have a nice and clear tone on the horn. When I played for saxophonist George Coleman in my lesson he told me I have a strong tone in the altissimo register. When I played in a big band as a member of the Rutgers University Jazz Ensemble alumni, sitting in the sax section next to Branford Marsalis at Symphony Space NYC, he told me I have a great tone. When I played for Whitney Houston in my audition for her band, I was hired because she liked my sound. I also showed up prepared by transcribing

² Tim Sendra, “The Little Giant Is Gone: R.I.P. Johnny Griffin,” [allmusic.com](https://www.allmusic.com/blog/post/the-little-giant-is-gone-rip-johnny-griffin), July 28, 2008, accessed June 15, 2018, <https://www.allmusic.com/blog/post/the-little-giant-is-gone-rip-johnny-griffin>. One of the great overlooked tenor saxophonists of the 1950s was Johnny Griffin. Billed as “the Little Giant” and the fastest player alive.

all the saxophone solos for which I would be responsible for if I got the job. I have honestly lost count of how many people have given me positive feedback and comments about my sound on the tenor saxophone. I've always expressed my appreciation to them with thanks and gratitude, leaving the attitude. It seems to be my gift in life for which I am grateful.

2.1 Personal Background

I grew up in Dover, New Jersey, a small hub town 36 miles west of New York City.

My first exposure to live music and dance started at age 4 and 5 when my mother took me with her on the bus to New York City. Four days a week she made the commute into the city where she studied modern jazz, tap and belly dancing. It was 1963, around the same time President Kennedy had been assassinated. (The Civil Rights Movement,³ that started in the 1950s in America was starting to coalesce in the form of peaceful marches and protests.) After arriving in New York, we would walk up 8th avenue to the dance studios located in and around Time Square, where most of the Broadway Theatres were located. We went to two studios for classes, the first being Jo Jo Smith's Dance Factory, then Luigi's School of Dance. Luigi was the father of modern jazz dance, passing away in 2016 the same year as my mother.

It was the early 1960's and dancers were working all the time in Broadway shows, and there were still some jobs available in film for them after the golden era of the fifties when musicals were being adapted for television viewers. At that time, there was no MTV⁴ video

³ *Encyclopedia-Britannica*, s.v. "American civil rights movement," accessed June 18, 2018, <https://www.britannica.com/contributor/clayborne-carson/5942199>. American civil rights movement, mass protest movement against racial segregation and discrimination in the southern United States that came to national prominence during the mid-1950s.

⁴ *Encyclopedia-Britannica*, s.v. "MTV music television network," accessed June 17, 2018, <https://www.britannica.com/topic/mtv>. MTV, in full Music Television, cable television network that began as a 24-hour platform.

channel and the digital age had not arrived yet. What I remember most from those days when I was 5 years old riding the bus to New York City, was the live music being played during my mom's dance rehearsals. Luigi used a pianist playing classical music on an upright piano and at Jo Jo's studio, there was live percussion to support the dancers as they practiced their routines. The one thing in common at both studios was the use of the long wooden dowel used by both Luigi and Jo Jo. They would use the wooden dowel to hit the floor as a count off with the following words, 5,6,7,8 to start the endless repetition of routines and combinations that went on for over an hour. In between the repetitions there was often yelling or shouting directed at the dancers who were missing their steps to the choreographed routines. Shifting ahead momentarily, my mother was also studying belly dancing and eventually started working professionally when I was a teenager. I remember watching her adorn her costume at home to practice. She would get her castanets and then dance to her record collection of belly dancing music. One time my father made me go and watch her perform when I was 17, which was pretty upsetting for me when I look back to that time, because I felt my being there was embarrassingly inappropriate. But, she was an inspiration for me as a positive spirit and lover of music.

When I was a teenager I knew where Jazz came from, I just didn't understand it or know how to play it. I remember telling my parents I wanted to study jazz, and they told me that during the 1950's through the 1960s, New York City was one of the most important cultural centers and considered to be the jazz capital of the world.⁵ I have an older brother

⁵ Robert Palmer, "Jazz Thriving in the City in Biggest Surge Since 40's," *New York Times*, 1982, accessed June 15, 2018, <https://newyorktimes.com>.

named Michael, and he being a big fan of music and culture in general went to see Jimmy Hendrix play the national anthem at the Woodstock Music Festival in 1969.⁶ A few years later in my teens, I remember when my brother told me that during that time, between the late 50's and 60's, New York was considered to have been on the cutting edge of a major paradigm shift in the aesthetic of new music, modern dance, art, film, jazz and rock and roll.

I think it is reasonable to say that this time in American history had an influence on the rest of the world. In my opinion, this shift was a result of the struggle for a social (ending the Viet Nam war and the fight against racism), economic (the struggle to end poverty), and sexual (the struggle for women's rights and sexual equality) revolution that was about to emerge. There was a gathering momentum amongst people who were feeling oppressed and exploited that turned into a movement that would become the Civil Rights era in the U.S. It was in my opinion a time when the spiritual awakening and physical struggle for the identity of the soul of America⁷ was starting to take shape in the form of a resistance that was being expressed in the culture through art, music, dance, literature and live theatre.

It was 1964-65, about the time I watched the Beatles on TV performing on the Ed Sullivan Show.⁸ I was seven years old then and began taking drum lessons with Muzzi Mazzone at our local music store just up the street from my Father's hardware store. My

⁶ Joseph Berger, "Town Is Weighing A Shrine to the 60's at Woodstock Site," *New York Times*, Jan. 26, 1997 www.newyorktimes.com The monument bears the names of the performers who were featured during those three days: among them Joan Baez; Crosby, Stills and Nash; Creedence Clearwater Revival; the Grateful Dead; Jimi Hendrix; the Jefferson Airplane; Janis Joplin, and Ravi Shankar.

⁷ LC Hon, "To Redeem the Soul of America," Public relations and the civil rights movement, November 19, 2009, *Journal of Public Relations Research* Volume 9, 1997 - Issue 3, accessed June 18, 2018. https://www.tandfonline.com/doi/abs/10.1207/s1532754xjpr0903_01.

⁸ Miss Cellania, "The Beatles on the Ed Sullivan Show," June 21, 2011, accessed June 20, 2018. <https://www.neatorama.com/2011/06/21/the-beatles-on-the-ed-sullivan-show/>.

older brothers were also taking lessons at the same time in the same studio. After about one year of drum lessons, I remember one day seeing my brother Daniel standing in the open doorway to one of the teaching studios holding a shiny horn called the saxophone. Right after my lesson I went straight to my father and told him I needed to switch to the sax. My new teachers name was Murray Rose and he was a Broadway⁹ musician. He had cataracts and wore glasses with lenses as thick as the bottom of a coca cola bottle. Mr. Rose remained my teacher throughout my teenage years until I was 18 years old. He taught me how to play the saxophone, flute, clarinet and bassoon.

During my junior and senior years in high school I was playing saxophone in a local R&B band called the Uniques. The lead singer of the group was Dennis Ray and he sounded just like American soul crooner Sam Cook.¹⁰ We called him the golden voice because he had one of the most beautiful singing voices we had ever heard. New Jersey and the east coast in general was the home of Doo-wop music¹¹ and many a cappella groups. I introduced Dennis to the vocal group the Five Satins who were from Connecticut. He stayed with them for about 5 years.

In the 1970's the local pastor from the Presbyterian church in my home town was recruiting people from Puerto Rico to join his congregation and work in the factories within our hub town community. In school, there were people from Columbia, Ecuador, Africa and

⁹ *The Cyber Encyclopedia of Musical Theatre, Film & Television*, s.v. "Theatre in NYC: History - Part IV," By John Kenrick, <http://www.musicals101.com/bwaythhist4.htm>.

¹⁰ Biography by Sam Eder, "Sam Cooke," Allmusic.com, accessed June 19, 2018. <https://www.allmusic.com/artist/sam-cooke-mn0000238115/biography> A seminal influence on soul music and R&B...

¹¹ *Encyclopedia-Britannica*, s.v. "Doo-wop," accessed June 22, 2018, <https://www.britannica.com/art/doo-wop-music>. The structure of *doo-wop* music generally featured a tenor lead vocalist singing the ... *Doo-wop* music. Written By: Frederick Dennis Greene. See Article *History. Doo-wop*, style of rhythm-and-blues and rock-and-roll vocal music...

Puerto Rico and some recent European immigrants. But in my home town there was an atmosphere of racism at our high school and a general distain for ethnic minorities. There was name calling and fighting as the lines were being drawn as to whom was a member of the minority and who was the majority. In 1984 I was 24 years old and just returning from playing in the Umbria Jazz Festival in Perugia, Italy¹² to visit my family. The local chapter of the KKK, also known as the Ku Klux Klan¹³ had come to our home town. They had specifically targeted my family, and with buckets of acid burned the images of a hammer and sickle, and a swastika on my father's hardware store window. The Klansmen also wrecked our family car by breaking into it and releasing the emergency brake, allowing it to roll down the street we lived on which was a very steep hill descending into town. They also painted the symbols of the hammer and cycle and swastika on the windows of the local peace center where my brothers were members. There is a three feet square cement base with a one foot square hole, used by the Klan to set giant crosses burning on top of the hill overlooking town, that is still there today. But my point and emphasis here is that the diverse cultural community I was growing up in had a strong influence on my musical tastes, as well as my lessons about the dark side of humanity.

It was the mid-seventies, and the radio played all the time in our house with the

¹² Peter Watrous, "For U.S. Jazz Players, Europe Is the Place to Be," *New York Times*, July 31, 1996, Accessed June 22, 2108 <https://www.nytimes.com/1996/07/31/arts/for-us-jazz-players-europe-is-the-place-to-be.html>. The tours also offer the chance to hear what other musicians are up to. At an event like the Umbria Jazz Festival in Perugia, Italy...

¹³ *Merriam-Webster*, s.v. "Ku Klux Klan," accessed June 22, 2018, <https://www.merriam-webster.com/dictionary/Ku%20Klux%20Klan>. 1: A post-Civil War American secret society advocating white supremacy. 2: a 20th century secret fraternal group held to confine its membership to American-born white Christians.

American Song¹⁴ book being broadcast by DJ Jonathan Winters. He often played singers Frank Sinatra, Mel Torme, Judy Collins, Pearl Bailey, Nat King Cole, Johnny Mathis, Joni Mitchell and many more that were on the play list roster. I have an older sister who also exposed me to another world of music during those formative years. Sister Miriam was and is a big fan of Doo-wop and R&B music. She played many of the hit songs of the times, from Frankie Vali, Ben E. King, The Spinners, The Drifters, The Shirelles, and her favorite, The Tokens singing “The Lion Sleeps Tonight”¹⁵ which was originally recorded in South Africa in 1939 and sung in Zulu. During that same period, I often went to the department store to buy the latest new music released on vinyl. When I got back home my sister and I would literally spend hours in the attic of my parent’s house playing music and dancing the hours away to all the great new music that was constantly being released.

Another big and important musical influence for me was the time I spent going to the synagogue with my father on Friday nights and Saturday mornings where I heard the prayers being sung to ancient Hebrew hymns. At the age of 13 I had my bar mitzvah. I learned to memorize the prayers to be sung so I could lead the congregation during the Friday night and Saturday morning prayer services. With the help of a reel to reel tape recorder that was given to me, I listened and learned the hymns sung to the prayers. One year later at age 14, I saw Miles Davis play at New York Philharmonic Hall.¹⁶

¹⁴ Michael Feinstein “*What is the Great American Songbook*,” Jeffrey C. McDermott, President/CEO-Michael Feinstein, Artistic Director, copyright 2016, accessed June 18, 2018. <http://thecenterfortheperformingarts.org/index.aspx>.

¹⁵ The Tokens, “The Lion Sleeps Tonight,” (music video). (Wimoweh) (Audio), published by tokenvideos, October 29, 2015, accessed June 18, 2018. <https://youtu.be/OQlByoPdG6c>.

¹⁶ John S. Wilson “Miles Davis and Group Play Philharmonic Hall,” *The New York Times*, October 1, 1972-page 66, accessed June 15, 2018. <https://www.nytimes.com/1972/10/.../miles-davis-and-group-play-philharmonic-hall.htm>.

At the age of 17, my older brother Michael introduced me to Jamaican artists Bob Marley and Peter Tosh. I did not like Reggae at first, but two weeks later I bought every record and knew the lyrics to every song. Brother Mike was also building an extensive Latin music record collection with artists from Cuba, Puerto Rico and the Dominican Republic. For the first time, I was hearing Dominican saxophone players performing merengue as well as Cuban and Puerto Rican folk music. The music was feverishly fast and heavily articulated. My brother loved Latin music and culture so much so that he moved to Puerto Rico. My girlfriend in high school was from Columbia and we danced to Latin music at her house, heavily supervised by her mother. My musical life was also enriched by going to visit my brother in Puerto Rico during the annual Festival Loiza Aldea.¹⁷ This festival is still celebrated today and is very much like carnival in Brazil. Born of slavery, I got to hear and see the Ayala culture¹⁸ of music and dance. There were salsa bands such as Caribe, Apollo Sound, La Selecta and a Calypso band, with music playing non-stop for about 8 days. During the festival, I happened to walk into a small club off the main square where I saw the legendary conga player Patato Valdez leading his ensemble of 5 conga players. Upon leaving I remember hearing gunshots ring out just a few blocks away. Some off-duty policeman in a bar found his wife with another man and killed him. The annual festival is a celebration of the cultural heritage of the island of Puerto Rico, being a mix of the indigenous Indians known as Borikens,

¹⁷ Gov. Carlos Romero-Barcelo, Delegate, “*Local Legacies Celebrating Community Roots*,” Festivities of St. James the Apostle, held at the town of Loiza in Puerto Rico, Library of Congress/The American Folk Life Center, October 29, 2010, accessed June 19, 2018. <http://memory.loc.gov/diglib/legacies/loc.afc.afc-legacies.200003485/default.html>.

¹⁸ César J. Ayala and Rafael Bernabe, “*Puerto Rico in the American Century, A History since 1898*,” (The University of North Carolina Press, 2007), accessed June 18, 2018. <https://muse.jhu.edu/book/21212>.

Spaniards and African slaves brought there in route to the mainland who never made it off the island.

In June of 1976 I was about to graduate high school and America was celebrating its Bi-Centennial, 200 years of a new nation's history. And juxtaposed next to this celebration was the impending demise of the revolution in culture that had taken place just a few years earlier. Martin Luther King, Medgar Evers, Malcolm X, both John and Robert Kennedy had been murdered, and the Black Panther party which had been infiltrated by CIA operatives, was being dismantled with the assassination and imprisonment of its members. The conservative movement in the U.S. was successfully and systematically subverting the movement that started in the early 60's. And for the first time in recent American history, the U.S. Marines were let loose on The Kent State College campus where 4 students were killed during a Vietnam War protest.¹⁹ White Americans were now also being killed to crush the resistance to the new war economy, the same one former president Dwight Eisenhower warned us about.

In my last year of high school, I was in the concert and marching bands, and still arguing with my father about having to practice one hour every day of which he forced me to do. I was not allowed out of the house until I did so. He was a 6'4", 145-pound former county champion wrestler, so there was not much I could say or do about that. In the spring of 1976, being a serious athlete, I qualified for the NCAA Junior Championships in Philadelphia after breaking the school record in the Javelin throw. I placed 4th in the U.S. at age 18. It was on a

¹⁹ John Kifner, "4 Kent State Students Killed by Troops: 8 Hurt as Shooting Follows Reported Sniping at Rally," *New York Times*, May 4, 1970, accessed June 20, 2018. <https://archive.nytimes.com/www.nytimes.com/learning/general/onthisday/big/0504.html#article>.

break from the competition at the New Jersey track and field championships held at Rutgers University, when a recruiter from Florida State University offered me a partial scholarship. I remember telling the recruiter, “no thanks, I’m going to music school.”

Earlier that spring while at my music lesson, my teacher Mr. Rose asked my father about sending me to Berklee College of Music in Boston. But that wasn’t going to happen just yet because in 1976 America was still recovering from the recession of 1972. My father’s hardware business was not doing well, especially after the new Rockaway Town Square Mall was built on 300 acres of land behind our high school. The building of that mall was the beginning of the end of our family business which eventually went bankrupt 10 years later. Our small family business could not compete with the new era of retail, supported by cheap labor and computerized inventories.

When I graduated high school, I worked in a stainless-steel pipe factory for a year to save money for college. At that time, I could not save enough money to pay for out of state tuition to attend Berklee, and my father did not give us money to further our education. We had to “make it on our own” as he often said. At that time my father discouraged me from wanting to be a musician telling me “I didn’t have what it takes,” and at the same time offered me a job in his hardware store. I declined the job offer and applied to Rutgers, the State University of New Jersey majoring in Jazz performance. I had no idea of what I was about to get into, or what my life was about to become.

At Rutgers, I studied saxophone with the late great Jazz educator Paul Jeffrey.²⁰

²⁰ *Wikipedia*, s.v. “Paul Jeffrey,” accessed June 18, 2018, accessed June 17, 2018. https://en.wikipedia.org/wiki/Paul_Jeffrey.

One of the techniques we were taught in our lessons was to practice our scales while holding pencils between our fingers at the base of our fingers nearest the palm of the hand. We learned this pedagogy by watching Charlie Parker videos. By observing Charlie's technique, we learned how to keep our finger tips close to the key pads on the horn while playing, to facilitate a faster technique. Legend has it that Charlie Parker was often seen playing while having a lit cigarette between his fingers.

Before coming to Rutgers, Paul Jeffrey was the conductor and arranger for Charles Mingus for 11 years, and he played tenor sax in Thelonious Monk's band from 1970 to 1975. When Monk died in 1982 the Rutgers University Jazz Ensemble was asked to perform at the funeral, and it was held at St. Peters Church²¹ on Lexington Ave in New York City. This church is famous for hosting most of the funerals for Jazz musicians who lived and worked in the New York area. Paul was a close and personal-friend of Sonny Rollins, and he was a student of John Coltrane. Paul used to sit on John Coltrane's and sometimes Sonny Rollin's doorstep on Sunday mornings, waiting for them to return home after their gigs so he could play duets with them.

During my time at Rutgers, Paul was still very connected to the east coast jazz scene. He brought many of the Jazz masters still living and playing to the school campus to play concerts with the Rutgers University Jazz Ensemble, every month. We performed with Frank Foster, Dexter Gordon, Johnny Griffin, James Moody, Benny Bailey, Philly Joe Jones, Joe

²¹ John S. Wilson. "Friends Pay Tribute to Monk with His Music," *New York Times*, February 1982, accessed June 18, 2018 <https://www.nytimes.com/1982/02/23/arts/friends-pay-tribute-to-monk-with-his-music.html>.

Jones, Benny Powell, Arthur Rhames, Sonny Stitt, George Coleman, Ornette Coleman, Jimmy Heath, Joanne Brackeen, Horace Arnold and others. Our student concerts always involved playing the guest artists music, including several of their transcribed solos. Paul worked so hard that he didn't have time to copy our individual parts, so we had to go to his house and copy our own from the scores. I'll never forget the first time we went to Paul's house. He took us into the basement where his studio was and I noticed that the entire floor, from wall to wall was covered with written out charts on manila paper. You literally could not see the floor.

During my freshman year in 1978, I went to study with saxophonist Jimmy Heath at the Harlem Jazz Mobile²² in Harlem, New York. In the summer of 1980, I switched from playing alto saxophone to playing the tenor saxophone. That same summer, I attended a weekend jazz workshop in Sandy Hook, New Jersey hosted by Rutgers University. It was there I received a lesson from tenor sax master Johnny Griffin. The focus of that lesson was long tone techniques.

During my junior year, I remember receiving positive feedback about my saxophone tone during school workshops from Sonny Stitt, Branford Marsalis and George Coleman. It was years later in 1986, while on tour with Whitney Houston as her soloist, I met Kenny G. Being label mates on Arista Records, Kenny G was Whitney's opening act for 6 months.

In my last year as an undergraduate I was practicing 7 hours a day as I was

²² George Gent, "Jazz Mobile Begins Season on High Note," *New York Times*, July 12, 1970, accessed June 20, 2018. <https://www.nytimes.com/1970/07/02/archives/jazzmobile-begins-season-in-harlem-on-a-high-note.html>.

contemplating a career in Jazz. Six months after graduation I got a call from Paul Jeffrey, offering me a job playing lead tenor sax in the Umbria Jazz Festival in Perugia Italy, with other graduates and former members of the Rutgers Jazz Ensemble. This concert featured George Coleman, Jimmy Cobb, Harold Mayburn and the late David Eubanks on bass, along with the Rutgers reeds section. We performed the entire transcription of John Coltrane's "Giant Steps"²³ record, arranged in four-part harmony. After the festival, I bought a eurail pass and went busking in Europe with a fellow sax player for three months. That experience of playing in the streets of Europe, for me, was a big lesson in how to be a performer. I was witnessing first-hand what an audience liked and didn't like, revealing my strengths and weaknesses as a musician. I would highly recommend to any student wanting real experience to do the same.

When I returned home from Europe, I decided to move to New York and pursue a career in Jazz. Wanting to continue improving my skills as a player on both sax, flute and clarinet, I began studying with Latin flute player Art Webb and Jazz flutist Lloyd McNeil. It was at that time I studied saxophone with Bob Berg who was on break from playing with the Miles Davis Band. In 1984-85, I took a trip up to Boston, Massachusetts to study with the legendary Joe Allard. Joe taught at the New England Conservatory for 17 years and was still teaching at the age of 82 when I met him. Joe Allard taught Mike Brecker and many of the great saxophone players in and around New York City. I was also studying clarinet with

²³ Stuart Nicholson, "Popular Jazz Artists: John Coltrane-Giant Steps," *Jazzwisemagazine.com*, December 2009/January 2010, accessed June 22, 2018, <http://www.jazzwisemagazine.com/artists/13818-john-coltrane-giant-steps/>.

Frank Perowsky. Frank graduated from the Julliard School of Music and was currently playing in several Broadway shows. He suggested I get my clarinet playing back together to start getting work playing in Off Broadway shows, but first I had to prove to him I could play classical music on the clarinet again before he would recommend me for any sub work. I spent the next six months practicing the clarinet. This was a good decision because I still wasn't getting enough work playing just saxophone. I did manage to get work playing in several off-Broadway shows.

Frank Perowsky once told me he used to go watch John Coltrane play at the Village Vanguard during the 1960's. He said in the mid-60's just a few years before his untimely death, John Coltrane began taking 45-minute solos that in his opinion sometimes sounded reminiscent of a person screaming. Coltrane was expanding the sound of his band with the embrace of the avant-garde²⁴ movement in Jazz music during the Civil Rights Movement. I think he was so emotionally distraught over the injustices he was witnessing and living through as a person of color, that he had to let his emotions out on the saxophone. I believe his playing on his later albums was an emotional reaction to what he was feeling at the time and what was happening in the world around him. The song "Alabama" was written and recorded by John Coltrane in reaction to the bombing of a church in Birmingham, Alabama where 4 little innocent black girls died. While hearing the recording for the first time and connecting the backstory with the song, I could hear Coltrane's sorrowful lamenting tone as he rendered the haunting melody. It had a chilling effect on me emotionally.

²⁴ Scott Anderson "John Coltrane Avant gard Jazz & the Evolution of My Favorite Things," thesis by Scott Anderson was completed as an independent research project for the Honors in Music History and Literature program at Gustavus Adolphus College, St. Peter, Minnesota, Spring 1996, accessed June 18, 2018, <http://coltrane.room34.com/thesis>.

It was 1984 and the economic climate in the U.S. was starting to change. From 1981 to 1989 Ronald Reagan was the President of the United States. He had introduced the term “trickle-down economics”²⁵ and drastically changed the way the tax laws were structured by lowering corporate taxes, reducing worker’s pay and busting up unions. The spirit of the unions in America was broken by, beginning with the dismantling of PATCO,²⁶ the Professional Air Traffic Controllers Organization. It was also the beginning of a period of deregulation and unregulated capitalism in America. This new era, which was the beginning of another shift in the centralization of power and wealth in America, was also effecting the global economy. In my opinion, this shift in values was responsible for the continuation of the war on culture. The proof was that privatization of profits and socialization of losses on Wall Street had created an unbearable burden on the middle class, leaving funding for culture devoid and flat. The National Endowment for the Arts²⁷ was defunded during those years. It was about this time that the best source for saxophone reeds, the cane fields of southern France, had all been cut down to accommodate suburban sprawl, which rhymes with mall, as in shopping. And right here at home it was starting to seem that in America there was no time for art and music, only making money to survive if you weren’t exceedingly wealthy. I remember one day going to have my saxophone repaired at Perry Ritter’s shop on 55th street

²⁵ Thomas Del Beccaro, “Trickle-down Economics Does Not Exist, The Benefits of Capitalism Do,” *Forbes*, January 14, 2018, accessed June 18, 2018, <https://www.forbes.com/sites/thomasdelbeccaro/#767e3do12321>.

²⁶ David Macaray, “Labor Day: Ronald Reagan and the Patco Strike,” *The Huffington Post*, August 30, 2017, accessed June 18, 2018, https://www.huffingtonpost.com/entry/labor-day-ronald-reagan-and-the-patco-strike_us_59a6d604e4bo5fa16286beb1?guccounter=1.

²⁷ *Encyclopedia Britannica*, s.v. “National Endowment for the Arts,” accessed June 19, 2018, <https://www.britannica.com/topic/National-Endowment-for-the-Arts>.

in New York City. He pointed out to me an article in the Wall Street Journal about the Mark VI Selmer saxophones being a worthwhile investment on the stock exchange. The Selmer Company stopped producing them after the 200,000 mark, and they were becoming scarce. Instrument buyers from around the world were coming to the states to buy up the horns because they were appreciating in value. I went and bought another Mark VI tenor saxophone right away, before the price eventually doubled and later tripled. The very same day I was buying my second horn as a back-up, the seller was going to JFK airport to pick up a buyer from Japan. The collector from Japan purchased 30 Mark VI saxophones, at roughly \$3,000 each. That's about 90,000.00 dollars.

In 1985 I got a call for an audition for a tour with gospel singer Jennifer Holiday. I spent the next six months touring the U.S. playing in a gospel opera written and choreographed by George Faison. George was the choreographer for hit makers Ashford and Simpson and the group Earth Wind and Fire. It was on that tour where I met John Simmons, Whitney Houston's then pianist and musical director who would sometimes conduct the show. After hearing me play he got me an audition for Whitney's upcoming world tour with the release of her new album. Making the audition, John told me I was hired because she liked my sound, becoming her saxophone and flute soloist for her first two world tours from 1986 to 1988. Kenny G was her opening act for 6 months of the tour. Kenny and I often used to get together and play backstage before the shows, until we had a falling out. I remember the incident. I showed him a lick used as a harmonic device that was passed on to me by a fellow sax player from New Jersey named Stanley Bielski. But when I refused his request to slow down a lick in the form of a pattern that I had composed, so he could have it, he got frustrated

with me. He never spoke to me again after that and instructed his band members never to speak with me. At another time during the tour, after the incident, we were riding the same plane to a gig when his road manager offered me a ride to my hotel and Kenny refused, saying “he didn’t have time.” What a nice guy I thought, not.

It wasn’t until years later I came to understand that Whitney’s manager and her record producer Clive Davis, wanted a white saxophone player to integrate the band racially, thinking she was about to become the biggest selling cross-over artist of all time. Her music appealed to both black and white audiences. Whitney was considered a sellout by the black community when she gained success because they wanted her to be the next Nina Simone, instead of going commercial with her music. I know this because I was riding the subway in New York, just one day after I got the call for the audition to be in her band. There were printed fliers scattered across the floor and seats that said “Whitney Houston, sell out to the black community and culture.”

A new genre of instrumental music was well established in the music industry starting in the 1980’s with the success of Ronnie Laws, Grover Washington, Kenny G and Najee. The new contemporary instrumental music market called smooth Jazz was starting to emerge, as more recording contract opportunities for saxophone players began to open-up. But at the same time in the U.S. with Ronald Reagan as our President, there was a new culture shaping up to be what I call the money culture. The values in our society were shifting, and this was effecting people’s jobs, their homes and their families. The price of renting an apartment in New York was increasing, and the cost of living was on the rise along with stress and less time for being creative. I had to spend more time making more money. In the early 1990’s many

artists and musicians of my generation, the 70's generation also known as the lost generation,²⁸ were no longer living in Manhattan, moving to Brooklyn, Queens and New Jersey where the rents were cheaper. It was also the same time the digital age in music was about to explode on the music production scene, putting more musicians out of work along with live performances being replaced by DJ's because of budget concerns.

In the 1990's there was another new era in music developing in the U.S. markets. Hip Hop music was exploding on the scene and the artists and producers making that music were starting to get real opportunities with bigger budgets and some control over record sales. In 1991, Michael Jackson renegotiated the terms of his record contract with Sony Records, raising his sales points for every album sold from about 3 percent to 12 or 13. This was unheard of at that time, and the artist Prince soon followed suite by starting his own label. New record labels were flourishing, and again it was also the beginning of the digital age and the power of computerized sequencers and synthesizers which were starting to replace real, live, flesh and blood musicians in some circumstances.

In the early nineties, I moved to Queens, New York with my wife and daughter Lenna, away from Manhattan for more space for the price. While living in Queens I started to write and record commercial sounding music for a solo cd project. It was the same time new digital music platforms were being created and the proliferation of pirated music was just a few years away. I bought a synthesizer, a four-track cassette player, a drum machine and a Mac Plus computer running Performer 3.0 to begin learning how to write and record music using midi.

²⁸ Paul Krugman "The Lost Generation," *The New York Times*, November 5, 2009, accessed June 20, 2018, <https://www.krugman.blogs.nytimes.com/2009/11/05/the-lost-generation/>.

The word “midi,” stands for musical instrument digital interface. I was specifically thinking about this new market and decided to try to write commercial music on the same level as other sax players at that time who were incorporating Jazz harmony in their writing with a back-beat rhythm. There were bands like the Brecker Brothers playing fusion who were still making records, Grover Washington from Philadelphia, Najee, Stanley Turrentine, David Sanborn and Kenny G.

In 1991, I regularly attended a weekly jam session at The China Club in New York City. Looking for work, I got to jam with artists like Rock-a-Billy musician Charlie Sexton and the new guitar player with the Allman Brothers Band, Warren Haynes. This club was an industry hang out for players who were on and off the road from touring, looking for new connections and playing opportunities. One night at the club while jamming I met the keyboard player in Hiram Bullock’s band. He was going out on tour with Freddie Jackson and asked me to join the band. I took the job, playing a Roland D-50 synthesizer, Yamaha DX7 wind-controller, tenor and alto saxophones and percussion. Just before the tour started, after 3 weeks of rehearsal, my verbal contract agreement was re-negotiated to a lower amount by the director of Hush Productions, Freddie’s management company on 58th street in Manhattan. Apparently from what I understand, Freddie’s sister cut herself in on the tour budget by taking money from the musician’s salaries.

It was December 1993 when I returned to New York from the 3-month tour in Europe and the U.K. I had a friend in New York named Johnny Young, who is blind. He was writing and producing music for a TV soap opera funded by Proctor and Gamble called the Guiding

Light.²⁹ Johnny recommended me to the producer as a sub for Blue Lou Marini, saxophonist with the Blues Brothers Band. Lou was out of town and on tour at the time. The recording session was at Clinton Studios on 10th Ave in New York. I also recorded several sessions for the Geraldo Rivera Show and a few more television jingles at the same studio.

Needing more playing work, I spent 3 months of that year learning the repertoire of the modern version of the Klezmer³⁰ bands in Crown Heights and Williamsburg Brooklyn, New York. The traditional use of the clarinet was replaced by the alto sax. I was not given any music to learn so I recorded several performances using my small cassette tape recorder. I felt like I was doing field work, like a scientist or musicologist. It took me about 3 months of practice to memorize dozens of songs in the Hebrew repertoire. Many of the tunes are very similar melodically, but different at the same time by just a few notes. In the performance, if you missed notes or made any mistakes while on the job, you were yelled at. This was New York.

During my first audition in that market, I almost got into a physical confrontation with another saxophone player, whom I found out later was given all the music to learn when he entered the business. At different times in the performance he kept pulling the microphone away when it was my time to solo. We literally got up and faced off at each other in the middle of the gig. The incident did not escalate, except for a few exchanges of some harsh language, of which I will not mention here. Tensions were high for me having just been

²⁹ Peter Bradfield, "Guiding Light 1952-2009," Plot, IMDb, date unknown, accessed June 18, 2018, https://www.imdb.com/title/tt0044265/plotsummary?ref_=tt_ov_pl#summaries.

³⁰ Walter Zev Feldman, *Klezmer Music, History and Memory* (Oxford: Oxford University Press, 2017).

divorced by my wife, and losing access to my daughter who was taken from me by the New York Family court system. I was trying to survive and pay my child support.

In November, 1995 I was invited to record in Stockholm, Sweden for a friend's CD project and I ended up moving to Stockholm where I lived for 5 years. I signed a publishing contract with EMI Scandinavia, aka Entertainment Music Incorporated. There I began working with artists from North Africa and Sweden, writing and recording at Breaking Bread Studios. The studio was built in a factory on a shipping wharf outside of town and I rode the bus there just about every day of the week.

During my time in Sweden, I did not get to see my daughter back home or in Poland, where my ex-wife would take her every summer. This tragedy went on for 4 years, as my ex-wife emotionally black mailed me for more money by keeping my daughter from me every time I tried to see her, both in the U.S and in Poland. I was constantly threatened with arrest when I proposed a meeting with Lenna. The justice system did not respond to my written requests for implementation of my visitation rights. It seemed to me that my rights and freedoms as a tax paying citizen were being stripped away, and no one cared. In my opinion, there should not be a monetary value put on a parent's right to see his or her child. It's a double negative for the child and parent.

I returned to the U.S. in 2001, ten days before 9/11.³¹ Several weeks after the tragedy I started working as a designated substitute in a Broadway show at the Eugene O'Neil Theater in NYC. I played alto saxophone, tenor sax, flute, clarinet and recorder. The show closed

³¹ Serge Schmemmann, "U.S. Attacked: Hijacked Jets Destroy Twin Towers and Hit Pentagon." *The New York Times*, September 12, 2001, accessed June 22, 2018, <https://archive.nytimes.com/www.nytimes.com/learning/general/onthisday/big/0911.html?scp=2&sq...st>.

after four months so I had to take a non-music related job to supplement my income to stay in New York. I never stopped playing and practicing during my struggles, as I often referred to what my professor had told me once after graduation from Rutgers. “Stay on your horn.”

3. The Saxophone: Origins – Innovation – Evolution

The first saxophones were invented somewhere between 1838 to 1846 by Belgian born instrument maker and musician Adolph Sax.³² Most of my research on this subject has revealed that there are numerous accounts regarding the actual dates of when the saxophone was originally invented. The record shows that in 1846 he finished his designs, manufactured and patented 14 different saxophones. During my time as an undergraduate, I learned in my Jazz History class that the first generations of saxophones manufactured were shunned by the classical orchestras of Europe because of inherent technical problems with pitch and the ability to play in tune. I’m not sure if this is entirely true. We know that some of the earlier horns produced did have flaws with regards to certain notes that were out of tune when played. One such saxophone is the Selmer super balanced action tenor saxophone and another being the C melody saxophone. This rejection of the saxophone by the established orchestras in Europe maybe was due to the fact that the saxophone, being the newest member

³² *Encyclopedia Britannica*, s.v. “Sax, Adolph,” accessed June 18, 2018, <https://www.britannica.com/biography/Antoine-Joseph-Sax>.

of the woodwind family, did not fit the character, style and sound of classical music that had been established over centuries.

During the Big Band Era in America, roughly 1910 through the mid 1940s, the standard Jazz orchestra had saxophone sections, brass sections, rhythm sections and sometimes a singer leading the band. The reeds section consisted of two tenors, two altos and a baritone saxophone. Many of these bands had tenor saxophone players who were not only ensemble players, they were also soloists. The tenor saxophonist was often featured as the soloist on a particular song in the set.

During that era and the ones that followed, many of these soloists would go and play at gatherings of what became traditionally known in American Jazz as the jam session. Jam sessions were formed by musicians for musicians as a platform to display their playing style and craft to and for each other, as well as serving as a means for musicians to further develop their ideas, and have fun. In my opinion, this tradition of meeting to play, often after they had finished working that very same evening, fostered a fierce competition amongst the players. There is a history that shows that this frequent meeting up of musicians to jam gave rise to what is commonly known as the cream of the crop, or the best of the best. I think it's fair to say that this evolution from one generation of saxophone players to another resulted in the writing, playing and recording of some of the most beautiful, complex and sophisticated music. It also literally shows that the popularity of the saxophone helped to define the very sound and definition of jazz, as well as eventually evolving and establishing a voice in R&B, Funk, Rock and Pop music.

4. Special Note

For the aspiring saxophone student or anyone else who is curious about this history, understand that my study focuses on the period between the mid 1940's up until the present. There is more history to the tenor saxophone that pre-dates the scope and analysis of this document, starting with soprano saxophonist Sidney Bechet. He was known as one of the earliest and most important soloists. In 1930, another monumental player emerged by the name of Leon Brown, AKA Chu Berry, who was a member of Fletcher Henderson's Orchestra.³³ His soloing style was bluesy with a raucous sound on the tenor. Also during the 1920s into the 1940s tenor saxophone player Coleman Hawkins emerged as one of the most popular practitioners on the horn. All of these players I mentioned are equally responsible for contributing to the very sound that defined the saxophone and the idiom known as Jazz.

5. Objective(s)

My intention is to use a process of exploratory research to create a platform as the basis for showing and exhibiting the evolution of the modern tenor saxophone sound, from 1945 to present. The main objective is to bring awareness of the oral tradition and history to an audience that may or may not have an idea or understanding of how artists learn from one another. By displaying and demonstrating what is in my opinion, the obvious link between the players of today with players past, it is my hope the audience will have a better idea of how

³³ Biography by Scott Yanow, "Fletcher Henderson," Allmusic.com. accessed June 20, 2018, <https://www.allmusic.com/artist/fletcher-henderson-mn000152490/biography>.

musicians and artists learn their craft. With the results of my exploration into this subject matter, I have supported my arguments. For example, a discerning listener can easily hear that John Coltrane was heavily influenced by Dexter Gordon. The presentation of this study is intended to serve the purpose of existing as a workshop - masterclass that is informational, educational and entertaining.

5.1 Sub-Objective(s)

I have created a project that will serve the purpose of illuminating and bringing an educated awareness of the saxophone and its brief history to a willing audience. Using my results of this study, it is my hope to use this source material to enter other markets in education, such as master classes, seminars, saxophone workshops and clinics to be taught at colleges and universities. The sourced materials and findings and results contained in my thesis, can and could be part of any Jazz curriculum at a college or university. It is also my intention to work towards gaining a wider recognition for myself as a player, composer and producer of mine, and other artists music. If this project serves as a vehicle for the purpose, of getting that exposure and opportunity to educate, meet and collaborate with other musicians on their projects, then the plan will have succeeded.

6. Methodology

The methodology I used to create my constructs and arguments to formulate my thesis was through a process of watching, listening, comparing and analyzing, with the use of 9 videos I have collected, out of approximately 14. These videos in my opinion are representative of the artists who contributed and impacted the aesthetics, knowledge and craft of playing the tenor saxophone. Unfortunately I could not include all the artists who deserve mention here. My criteria for choosing and deciding which videos to use is based on a specific set of parameters, as applied to my process of comparative analysis. This method is the basis for my work, the aesthetic achievement in sound, style and technique. These videos represent a visual, audio and living proof of the contributions and legacy we have been gifted by these masters and innovators of the tenor saxophone sound.

The videos I have chosen as the platform for my presentation have been edited, timed and formatted to approximately one minute each, using the iMovie program in my Mac. Before each video there is a slide with the name of the artist about to be shown, including the name of the technique being displayed in the video. In the following section titled video comparison and analysis, I have described in detail which techniques the artist used to produce and articulate the sounds of the various playing styles, from one generation of player to the next. To see the complete list of video resources see section 7.

7. The Source

1. Billy Holiday with Lester Young: tenor sax solo - “Fine and Mellow”
2. Ben Webster: tenor sax - “Chelsea Bridge”
3. Charlie Parker: alto sax & Dizzie Gillespie: trumpet - “Hot House”
4. Dexter Gordon: tenor sax - “Night in Tunisia”
5. John Coltrane: tenor sax - “On Green Dolphin Street”
6. John Coltrane: tenor sax – “Impressions”
7. David “Fathead” Newman: tenor sax - “I Got A Woman”
8. Junior Walker: tenor sax - “Shot Gun”
9. Michael Brecker: tenor sax - “African Skies”

8. Video Comparison and Analysis

Video #1 Lester Young soloing on “Fine & Mellow”

(false fingering technique)

The false fingering technique used here (0:31 to 0:36) by Lester is produced by establishing the fundamental note, then fingering a note a perfect 5th below. With the added keys, the player then overblows the fundamental to produce the overtone and harmonic equivalent. In this video Lester is playing a false fingering off the fundamental note “B” above middle C and the note “C” natural. By holding down the fundamental and simultaneously pressing and releasing the false fingering a 5th below, the player is altering the velocity of air passing through the column of the horn. This disruption to the velocity of air in the column has the effect of altering the pitch, tone and volume of the note. This technique is typically

not used for long held out notes because when false fingerings are used, there is a slight change in pitch upwards.

Both Lester Young and Billie Holiday were members of the Count Basie Orchestra.³⁴ I think Lester's smooth and velvety tone was a good match and complement to Billie Holiday's voice. You might say their musical connection was obvious from watching and listening to this video. In this video Lester plays his solo with long held out notes, often placing them behind the beat, which seems to have carried on into the next generation with Dexter Gordon. Dexter Gordon was notorious for playing well behind the established beat. In addition, Lester was a big influence on Charlie Parker. I learned from my undergraduate professor and saxophone teacher Paul Jeffrey, that early on in Parker's career, he spent a summer transcribing and playing along with Lester's recordings. By adjusting the speed on his record player, Charlie could play his Eb alto along with Lester's Bb tenor.

Video #2 Ben Webster, playing "Chelsea Bridge"

(The vibrato)

Vibrato is produced by a release in pressure on the reed which is facilitated with a momentary drop of the jaw. This momentary release in pressure on the reed can be controlled by increasing and decreasing the pressure, or loosening and then tightening the embouchure. The lips and jaw fluctuate back and forth, creating a wavering or oscillating

³⁴ *Encyclopedia Britannica*, s.v. "Count Basie, American Musician," accessed June 18, 2018, <https://www.britannica.com/Count-Basie>, by name of William Basie, born August 21, 1904, Red Bank, New Jersey, U.S. - died April 26, 1984

effect on the column of air passing through the horn. If you watch the video closely, you can see and hear that he uses the technique throughout the entire video to curtail the end of each held note as he renders the melody. Ben Webster had a beautiful rich tone and a style to match.

Video #3 Charlie Parker, Dizzie Gillespie playing “Hot House”

(technique)

Parker was an alto saxophone player. I am showing this video clip because of what I call the seemingly unintentional consequence of his personal life style, which may or may not have affected his playing technique. This video is one of the few and good examples of his playing that reveals his flawlessly flowing technique, his beautiful tone and his talent as a virtuoso. His hands and fingers seem to fit the alto saxophone perfectly. Amongst jazz musicians and any serious student of the saxophone Charlie Parker was and is considered, to be a ground breaking musician who influenced generations of saxophone players as well as musicians in general.

Charlie Parker was a cigarette smoker, like most of his peers. He was often seen and heard playing with a lit cigarette, either between his fingers or wedged onto the horn between the keys.

If you watch his hands closely in the video (2:17 to 2:21) as the camera focuses on his left hand, you can see that his fingers barely move off or away from the keys. His hand is wrapped around the horn with his fingers relaxed over the keys. I think it's fair to say that he is basically motionless, except for his eyes. Charlie's habit of keeping a lit cigarette between

his fingers, (which has never been documented on film as far as I know), may have had the unintentional consequence of contributing to a unique teaching method. There is a school of thought that I come from that uses this pedagogy of placing unlit cigarettes, pencils or straws between the fingers while practicing scales. This practice teaches students to achieve a better fingering technique. If the student allows the palm of the hand to open and the fingers move away from the keys, the objects fall out. Training the fingers to relax with a proper bend in the knuckles, keeps them in a close position over the keys for a better, smoother, faster and more ergonomic way of playing. With a good hand and finger position over the keys, the player can reduce the amount of motion it takes to press down on the keys.

Video #4 Dexter Gordon/ Dexter Gordon Live 1963-64, “A Night in Tunisia”

(Clear & open sound, sub-tones, the metal mouthpiece)

Dexter used sub-tones in his playing extensively with one example displayed here in this video (2:55 to 2:30). Sub-tones are produced with a sustained release of the embouchure, again facilitated by a drop of the jaw. This decreases the pressure on the reed, while the player maintains a steady flow of air moving through the column or bore of the horn. This technique relates to the vibrato technique but different, in that the player maintains the release in pressure on the reed without any fluctuation, or back and forth motion of the jaw. This embouchure technique produces a quiet, yet full and velvety subdued quality to the tone, like a whisper.

Another aspect to Dexter’s playing exhibited here in this video (3:33 to 3:36) is what I think is his undeniable and clear connection as a major influence in sound on the next

generation of saxophone players, most notably John Coltrane. In the video Dexter is playing a cadenza, and you can hear him play a phrase that Coltrane in my opinion absolutely mimicked or copied from him, as you will hear in the next video of John Coltrane playing.

It is a known and historical fact that Coltrane transcribed many of Dexter's solos. Again, this I learned from my teacher and late great Jazz educator, professor Paul Jeffrey. Paul played tenor saxophone in Thelonious Monk's Band³⁵ from 1970 to 1975, and as I said earlier in my introduction played duets with Coltrane on Sundays. Dexter's sound on the saxophone was unique because of his sonically full, open and clear tone quality, unlike any other saxophone players of his generation. Dexter brought the sound and technique of playing the horn to a new dynamic level with his beautiful full rich tone that was consistent throughout his more than 3 octave range. He used a variety of sound colors from sub-tones in the bottom range of the horn to an extended range with the use of harmonics.

Dexter was in my opinion like no other saxophone player in his ability to play in the altissimo range of the saxophone while maintaining a clear, bright, full and open sound. In this video (3:43 to 3:44) he extends his range above the third octave with a high concert C. The tenor saxophone being a Bb transposed instrument, plays the note D with the use of an alternate fingering to overblow and produce the harmonic in the altissimo range. When playing above the practical fingered range of the saxophone, being from a low Bb to a high F on the tenor saxophone, encompassing a two and half octave range, the player uses alternate fingerings to produce harmonics. These harmonics, also known as upper partials, are the

³⁵ Biography by Scott Yanow, "Thelonious Monk," accessed June 19, 2018, <https://www.allmusic.com/artist/thelonious-monk-mn0000490416/biography>.

components of the overtone series.

I will mention the use of the metal mouthpiece here because I am almost certain that Dexter used one all the time. The invention of the metal mouthpiece for the saxophone had an impact on tone quality because of its hard, dense surface. By comparison, there is a noticeable difference in the sound produced using either a metal or hard rubber mouthpiece. In my opinion, a metal mouthpiece has a quicker playing response when articulating a note, as opposed to a hard rubber mouthpiece. The difference in tone quality is generally noticeable to even the non-player, and most saxophonists recognize the difference in the way the horn sounds and feels while playing. It allows for greater volume and projection of sound, and in some cases, improved intonation.

The use of the metal mouthpiece proved to be a technical achievement and asset for modern saxophone players I think, and here's why. Commercial music production in America was progressing with the use of electronically powered instruments, most notably the electric guitar. The sound of Rock and Roll music was changing rapidly in the 1960s as the electric guitar drove up the volume in the overall sound of the bands at that time. This new genre was coming from a tradition of American folk music and the music of the black church that had gone secular, all churning out a rebel yell in the name of humanity. In these musical settings, the tenor sax being an acoustic instrument was often too low in volume to be heard within the overall spectrum of sound produced by the other musicians. The saxophone being an acoustic instrument, players had to use microphones when soloing to match the volume of the rest of the band. In my opinion, the metal mouthpiece had a prolific effect on the overall dynamics and volume it could produce, as well as being able to project more sound, both live

and in the studio.

Video #5 John Coltrane, playing “On Green Dolphin Street”

(Tone and Technique)

Knowing that Coltrane transcribed Dexter Gordon’s playing, and having made my comparison and analysis of both players thus far, it seems a natural progression that Coltrane would take his predecessors accomplishments to a new level of aesthetic beauty and technical achievement. John Coltrane’s sound at times is almost a carbon copy of Dexter Gordon’s. The proof is here in this video where he plays the same lick (video 4:38 – 4:41) as Dexter does in his video at (3:33 to 3:36) with the almost identical sound and phrasing.

It has been said by his peers who survived him, as well as jazz historians, that Coltrane’s sound in the late 1950’s when this video was made was so unique and distinct that most listeners could recognize his playing after hearing him play just a few notes. Nobody sounded like him, as he was constantly working to improve his tone, and he practiced incessantly.

Coltrane’s technique is remarkable in this video. At one point in the middle of his solo, he executes 1/16th note phrases (video 4:52 – 5:02) that almost sound like water spilling out of a flask, or what was described by the critics as “sheets of sound.”³⁶

³⁶ Patrick Skene Catling, “Nothing Sounds Like John Coltrane: The Story of a Sound by Ben Ratliff,” *The Telegraph*, November 22, 2007, accessed June 20, 2018, <https://www.telegraph.co.uk/culture/books/.../Nothing-sounds-like-John-Coltrane.html>.

It is a well-known and established fact that Coltrane was a clarinet player first before he switched to the saxophone. The open holed clarinet is difficult to play and that technique is easily transferrable to playing the saxophone, and here is why I believe this to be true. The clarinet has open holes and is more difficult to play than a saxophone I think. A clarinet player's fingers must cover all the tone holes required to sound a note. If one finger misses even the slightest from covering the tone hole, the instrument can squeak or fail to produce the desired note. The saxophone is different in that it uses a closed hole system, making it easier to sound the notes without missing the mark. In my experience as a student, player, teacher and observer, most saxophone players who started out playing clarinet first, and then switched to saxophone most often develop a very good technique on the saxophone. I believe this step up in technique is due to the strict technical demands of playing a clarinet. I am a clarinet player and have worked on Broadway in New York City.

As a side note, no pun intended here, if you are a reed player on Broadway you are a multi-reeds instrumentalist. A multi-winds or reed player on Broadway is required to do the work of 4 or 5 people. What do I mean by that? What I mean is, if you want the job, you must be able to play the soprano, alto, tenor and baritone saxophones, flute, piccolo, alto flute, Bb clarinet, bass clarinet, bassoon, or oboe and English horn. A Broadway pit musician is typically semi-classically trained to be able to play at a level that is necessary to be in a Broadway Show. On Broadway, you cannot miss or flub a note, and there are no second chances. That's New York City, where the competition is fierce. The work I did on Broadway required me to play alto sax, tenor sax, clarinet, flute and soprano recorder.

Video #6 John Coltrane, playing "Impressions"

(altissimo fingerings, overtones - harmonics)

This second video of Coltrane playing his own composition with his band for me, clearly represents a major shift in his sound and playing style. The video shows John Coltrane's highly developed use of upper partials in the harmonic or overtone series to extend the practical range to reach the fourth octave (6:28 to 6:35). Overtones and harmonics are produced by overblowing the fundamental note to produce the upper partials in a series of intervals. When playing chord extensions ascending, and the limits of the practical range of playing the saxophone are reached, the player accesses or uses the harmonic series to play in the altissimo and upper ranges of the instrument. With the use of specific altissimo or alternate fingerings, a player can also overblow the harmonic as well, to produce even more notes in the overtone series. Again, these specific alternate fingerings on the tenor saxophone are used to create overtones to reach and play the altissimo register. The first interval over the fundamental is the octave, followed by a 5th, 4th, 3rd, then another octave. With practice, a player can reach even higher notes in the piccolo range of the tenor saxophone.

I will mention here that Coltrane also used and incorporated patterns into his playing style as he exhibits throughout this video. With his use of patterns in conjunction with false fingered notes and harmonics, Coltrane produced a revolutionary sound and style of playing, not to mention his ground breaking harmonies he invented and used to compose his music. I think his style of combining rhythmic and harmonic patterns along with his extensive use of the altissimo register, characterized his playing in the early 1960s. Another aspect of his

evolution as a player during that time was his shift in tone from clear and sinewy to an intense and edgy sound with overtones swirling the fundamental.

It seems to me after watching and listening to his solo in this video that his emotions were on fire. With a burning heat in his belly, he exposed his soul on the outside, letting his true self and spirit come out of his horn. He was now revealing a raging fire within and without that was in my opinion his own reflection of the unjust world around him that was, and still is America. Here, he was clearly setting a new standard in the level of playing amongst his peers with his highly developed use of harmonics within a three to four octave range. (6:12 to 6:20). In this video, I hear and sense a feeling of despair and urgency together, in his tone quality and style of playing. For me it sounds and feels like he was searching and trying for a way to reach the outer limits of the universe *aka*, the cosmos, through his horn. His saxophone playing was beginning to transcend all the normal boundaries of Jazz, both harmonically and structurally as it relates to musical form.

It has been said that John Coltrane's music had a profound effect on generations of saxophone players as well as modern music in general, because of his ground breaking contributions as a player and composer.

Video #7 David "Fathead" Newman, soloing on "I Got a Woman"

(the lyrical jazz and rhythm & blues sax solo, and the blue note trilled riff)

The blue not trilled riff he is playing in this video (7:12 to 7:16) is produced by trilling upwards by a half step interval between the minor and major 3rd of the chord. There is a

variation of this phrase as well, not displayed here, where the player can, again starting with the minor 3rd trill upwards in half step intervals to the 5th of the chord. Not too complicated, but easier said than done. I use the term blue note³⁷ here to describe what is known in jazz as the flat third or minor 3rd of a scale or chord. David's remarkable solo exhibits highly articulated phrases and his style incorporates elements of jazz and blues. This musical phrase I call the "blue note trilled riff," became one of the most copied and widely used gestures in the modern lexicon of popular saxophone motifs. I don't know exactly who invented this idea, but it has been played by generations of Funk, R&B, Jazz and Rock and Roll saxophone players. For me, David Newman was a master of the lyrical R&B style of playing saxophone.

Because of the design of the saxophone and its inherent technical challenges, this lick or phrase is very difficult to play in every key signature. Again, this is due to the mechanics of playing the saxophone. Let's just say in the words of the late great Mike Brecker, "some licks are not playable in certain keys," as he was heard saying in a master class I attended at Long Island University in Brooklyn, New York in 1983.

David "Fathead" Newman as he was known, was a tenor saxophone soloist and sideman in both the R&B and Jazz traditions. He played in Ray Charles's Band³⁸ during the 1950's and 1960's in America. I once met David after playing a gig in New York City. We spoke briefly and unfortunately, I never got to hear him play live.

³⁷ Gunther Schuller, *Early Jazz: Its Roots and Musical Development* (New York: Oxford University Press, 1968) quoted in Bruce Benward and Marilyn Nadine Saker, *Music: In Theory and Practice*, Vol. 1 (Boston: MA, McGraw-Hill, 2003), p. 39.

³⁸ Ben Ratliff, "David (Fathead) Newman Saxophonist, Dies at 75: *The New York Times*, January 22, 2009, accessed June 18, 2018, <https://www.nytimes.com/2009/01/23/arts/music/23newman.html> David (Fathead) Newman, a soft-spoken, sweet-toned jazz and rhythm-and-blues saxophonist who made his name in Ray Charles's bands ...

Video #8 Junior Walker and his All-stars, playing “Shot Gun”

(The flutter tongue technique)

The flutter tongue technique is articulated by holding the fundamental note and allowing the tongue to shake rapidly in a flitting motion at or on the tip of the reed. The oscillating column of air that leaves the players mouth, moves across the point of entry into the horn where the tips of the reed and mouthpiece meet. Not exactly comfortable to do or sustain, the flutter tongue technique is easier to articulate using a mouthpiece with a small to medium tip opening in combination with a softer reed. This is not true for some players, but in general, it is easier for me to execute with the use of a softer reed.

In the video, (minute 7:45 – 7:51) we can clearly hear Junior Walker playing with the use of the flutter tongue. This technique adds to what I think is an edgy and gritty texture to the notes tone quality and overall character. The question I still have is who first played the saxophone using the flutter tongue technique. It may have been first used and developed during the earlier days of R&B music in America in the mid to late 1950s. Through my research and explorations, I have not been able to come up with a definitive answer as to the origins of this articulated style of playing. We know that some of the history of saxophone playing was not documented in its early stages. I believe it would be fair to say that the oral tradition of playing one is what made it possible for these licks, gestures and phrases to be passed on from one generation of player to another.

Junior Walker and his All Stars gained commercial success with the release of the song “Shot Gun.” I think it is fair to say that his sound and style was a big influence on what would

eventually be defined as funk, r&b and rock and roll saxophone. Junior Walkers use of an extended harmonic range, along with his full, gritty, edgy, tone and flutter tonguing technique for me, came to define the sound which influenced generations of saxophonists to come.

Video #9 Michael Brecker, playing “African Skies”

Assimilated Coltrane’s playing style into a modern context

(Over-tones - harmonics, false fingering, technique, note bending)

In this video, right from the start and at (9:20), Mike is playing harmonics to produce upper partials in the overtone series. Again, harmonics are produced by over-blowing the fundamental note to produce upper partials in the overtone series. Mike was also a master of the false fingering technique (8:36 to 8:41) & (9:15 to 9:20) as exhibited here. In my opinion, he had a beautiful tone as well which he could maintain with consistency throughout the range of the horn, which for me brings Dexter Gordon to mind. With regards to tone quality, I think it is true and fair to say that Mike’s sound was directly influenced by John Coltrane, who was influenced by Dexter Gordon.

Another element to his vocabulary and expression was his masterful use of the note bending technique. This technique is produced by playing and articulating the fundamental note, and then immediately releasing the pressure on the reed with a drop of the jaw. This allows the note to curve or bend downwards. Simultaneously, the player then quickly increases the pressure on the reed to curve or bend the note back up and into the fundamental pitch again. Another aspect and component to this technique is to simultaneously press down gradually on the keys or notes one or more half steps below the fundamental in conjunction

with the movement of the jaw and fluctuation in the embouchure. This gradual pressing and then releasing of the key or keys produces a sliding or bending down and up effect, by allowing the note to dramatically drop in pitch momentarily before reversing the process to re-establish the fundamental pitch. Ben Webster and alto saxophonist Johnny Hodges were masters of the note bending style and technique.

It is a shared and common knowledge among saxophone players that Michael Brecker transcribed Coltrane's work extensively. In doing so, he developed a remarkable technique that he consistently used when he performed in a variety of musical genres from Jazz, R&B to Funk and Pop. Michael, who left us too early, also developed and established a mastery of the use of the overtone series, often using harmonics to expand his dynamic range of colors and tones while playing. He also mastered the altissimo register of the horn and had a full 4 and more octave range.

Mike studied privately with Joseph Allard who taught at the Boston Conservatory for over 17 years. Mr. Allard's book "Three Octave Scales and Chords: A Two Octave Range in Any Scale, Twelve Scales in Every Key, Fingerings Above High F, Unusual Chords," was a major influence and contributor to advancing the technical range and playing style of saxophone players in America. Mr. Allard was a breathing, embouchure and overtone series guru. I know, I studied with him. Another book I believe had a major impact on students and professional saxophone players in America and around the world, was written by anthroposophist Sigurd Rascher. Still in print today the book is titled "Top-Tones for the Saxophone: Four Octave Range." The book focuses on the concept of playing the extended harmonic range in the altissimo register of the saxophone with the use of specific fingerings

used to create upper partials to access the 3rd and 4th octaves.

Michaels mastery of saxophone technique was apparent. After knowing and watching him play live on many occasions, I could see his fingers clearly were almost straight with a minimal bend of his knuckles over the keys as he played flawlessly. He was a tall person and had long fingers like left handed guitarist Jimmy Hendrix. Mike would sometimes let his fingers overlap the keys as if resting them there, requiring even less movement to press them down as it would seem. I remember one time by chance, meeting Mike at a saxophone shop on 48th street in Manhattan. He asked me to come into a tryout room with him to listen for comparisons between two different Mark VI saxophones he was trying out. I was standing right in front of him when he flawlessly played a cadenza ascending and descending before finally slipping into the chorus of a song. That experience left me mesmerized for several days afterwards. I told a friend about it later who said, “it was like listening to a machine play, in terms of his technique, right?” And I said “yes, your right about that.”

Mike, being a master of tone and the harmonic series on the tenor saxophone, had great facility and consistency over a 4-1/2 octave range which he used to play in multiple genres and styles of music. Michael Brecker was the most sought after tenor saxophone soloist of his generation.

9. Conclusion

This project is a result and culmination of my experience as an American saxophone player, an experience that continues to influence who I am as a tenor saxophone player and musician today. My career started over 45 years ago and I’ve had the good fortune of being

able to hear and in some instances, study with some of the players mentioned here. This culminating experience project has reinforced my belief that much of the vocabulary and language of gestures, licks and motifs that the early saxophone players used, was directly influenced and copied through their imitations of the singers they heard and worked with, as well as each other. Through my studies of these players and the analysis of their work, I can clearly define the connection between players past and present.

Much of what we learn as saxophone players is from and based on an aural tradition, in some cases as much so as the written and documented works found in the literature. It is of my opinion that the results of learning and establishing a proficiency as a player and purveyor of the language of gestures and sounds on the saxophone, is mostly acquired through the same aural tradition and process just mentioned. The player develops their own personal playing style and sound by watching, listening, and copying to affect the final outcome. Through practice the player interprets and incorporates that result into one's own vocabulary of licks, gestures, sounds and techniques. All artists work comes to fruition by a method of process, no matter what the idiom, genre or medium.

Having seen, heard, met and studied with some of these musicians mentioned here, I feel justified in making the case and argument for the purpose of this project. I am part of that history that is unique to American sax players having lived through some of those moments in the evolution of Jazz, Blues, Rock, Funk and Pop music in the United States. The process I used to combine video clips, audio files and performances into my presentation, has helped me to provide a clear account and understanding of the historical events that shaped today's modern sound and style of saxophone playing.

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