AN ANALYTICAL APPROACH TO VIBRAPHONE PERFORMANCE
THROUGH THE TRANSCRIPTION AND ANALYSIS OF GARY BURTON’S
SOLO ON BLUE MONK

A Monograph

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ABSTRACT

The purpose of this study is to gain an insight into the realm of solo jazz vibraphone performance through the transcription and analysis of Gary Burton’s improvised solo on "Blue Monk" by Thelonious Monk, recorded on the Album *Face to Face* with pianist Makoto Ozone.

Gary Burton is the inventor of the "Burton grip," a four-mallet grip used for vibraphone performance. His individual approach to playing the vibraphone and highly developed technique seem unattainable for many students of percussion. Nonetheless, many vibraphonists, including Burton, have published method books about his grip and its application. In order to emulate his style diligent study and practice are required. His grip revolutionized the world of keyboard percussion performance and is now part of the standard curriculum in many university percussion studios. This study will aid the percussion student in the discovery and development of the necessary tools required to develop an approach to vibraphone performance through the analysis of Burton’s musical style and technique.

Chapter 1 outlines the history of jazz vibraphone performance in the United States, beginning with the earliest recordings and progressing through various stages of jazz history to the present. This chapter also contains a brief biography of Gary Burton and the impact of his mallet grip on the percussion world.

Chapter 2 begins with an introduction explaining the selection of Burton's recording of "Blue Monk." It then proceeds with a musical analysis of Burton’s improvised solo, elaborating on his development of rhythm and melody.

Chapter 3 is a technical analysis with musical examples from his improvised solo, discussing origins of the techniques used and how the Burton grip applies.
In the world of jazz vibraphone performance there are several important musicians who are responsible for elevating the status of the instrument, both through their technical prowess and also their musical creativity. An overview tracing the lineage of these performers, their musical foundations, and their place in jazz history is imperative in obtaining a deeper understanding of jazz vibraphone performance in its current state. This overview will be set forth chronologically around the performers’ lives and landmark recordings on which they appear either as sideman or bandleader.

TRADITIONALISTS

Lionel Hampton was born in Louisville, KY on April 20, 1908. Hampton’s father left for World War I shortly after Lionel’s birth. His mother did not want to be alone, so she took the family to her hometown of Birmingham, AL to live with relatives.\(^1\) As a young boy, Hampton learned to play drums, performing on them at the church he attended on Sunday mornings. In 1919, the family relocated to Chicago where young Hampton joined the Chicago Defenders, a military band under the direction of Major N. Clark Smith, from whom he received an introduction to pitched percussion instruments.\(^2\)

After high school graduation Hampton left the Defenders to begin his professional career as a drummer, performing all over Chicago. Through these engagements he gained wide recognition as an exciting performer and was eventually invited to join the Les Hite Big Band under the direction of Louis Armstrong. This group recorded an album in 1930 entitled *Memories of You* on which Hampton performed a short improvised vibraphone

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solo during the introduction to “Confessin’,” composed by Louis Armstrong. Before this recording was made, the vibraphone was restricted to use in vaudeville acts or as a novelty instrument. This brief introduction serves as the first documented use of the vibraphone as a solo instrument in a jazz setting.

Hampton played with the Les Hite Big Band until 1934. By this time his reputation was such that he had obtained a weekly engagement at the Cotton Club, an establishment known for showcasing pivotal jazz performers. At one of these performances accomplished clarinetist and bandleader Benny Goodman heard the vibraphonist and promptly offered him a position with his orchestra. As a sideman for Goodman, Lionel Hampton defined jazz vibraphone performance until the emergence of vaudeville entertainer Red Norvo.

Norvo was born in Beardstown, IL on March 31, 1908 and died in Santa Monica, CA on April 6, 1999. His musical education began with piano studies at the age of eight. During high school he was active in his school’s music program, adapting what he learned at the piano to xylophone performance. In 1925 he formed a marimba septet called The Collegians and earned a spot as a staff musician at the NBC television studios.

Norvo was a competent improviser, firmly rooted in two-mallet performance on xylophone. Over time, he gradually began to use the vibraphone in his performances. By 1943 he was leading several small ensembles, performing exclusively on the vibraphone. This change led to regular engagements with pivotal jazz musicians Benny Goodman, Dizzy Gillespie, Charlie Parker, Charles Mingus, and Red Mitchell. He formed his own

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group in 1944 and recorded an album entitled *Hallelujah! Slam Slam Blues*. This is the first album to feature the vibraphone as a lead instrument for an entire album, thereby establishing it as a viable jazz medium.6

The roots of Hampton’s and Norvo’s styles lie in formal percussion techniques. Their jazz vibraphone performance skills are directly affected by this fact, so much so that, viewed retrospectively, their styles can seem stiff. They used hard mallets, executing fast melodic two-mallet solos. To ensure clear harmonic motion they relied solely on the instrument's pedal, otherwise the ringing tones of one chord would interfere with the notes of the upcoming chord.7

Example 1 is taken from the last two measures of Hampton’s solo on “Moon Glow,” and is indicative of his improvisatory style.”8 His note choices reflect simple, straightforward decisions based on tones that outline the chords.

![Ex. 1 Measures 31-32 of Hampton's solo on “Moon Glow”](image)

Example 2 is taken from measures 30-32 of Norvo’s solo on “Ain’t Misbehavin,” recorded in 1930 with the Teddy Wilson Quartet.9 These three measures demonstrate the type of arpeggiated improvisation typical of ragtime and vaudeville music, which permeates Norvo’s musical style. His note choices are slightly more sophisticated than

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7 Notes performed on the vibraphone can be sustained for long intervals of time by depressing the pedal. This pedal operates in the same manner as the piano damper pedal.
9 Roger Schupp, “Ain’t Misbehavin; An Analysis of Red Norvo’s Solo,” Percussive Notes vol. 32, no. 1(February 1999); 44.
Hampton’s. He uses sixths, and chord extensions such as the ninth as well as altered fifths and ninths.

Ex. 2 Measures 33-34 of Norvo’s solo on “Ain’t Misbehavin’”

The percussive sound and improvisation style created by Hampton and Norvo became the standard for jazz vibraphone performance before the emergence of Milt Jackson.

Milt Jackson was born in Detroit, MI on January 1, 1923 to a religious family. Jackson performed at his church every Sunday, first on guitar beginning at age seven. By the time he was eleven he switched to piano. During his high school years he was active in the band, playing timpani and xylophone. In 1939 Jackson enrolled at Michigan State University to study music, leaving after one year to join the armed forces, serving from 1940-1944. In 1945 Dizzy Gillespie hired him to play with his band in New York City. There he earned widespread recognition and subsequently gained more work as a sideman with Howard McGhee, Tadd Dameron, Thelonious Monk, Charlie Parker, and Woody Herman.

In 1952 Jackson teamed with John Lewis, Percy Heath, and Kenny Clarke to form one of the most important jazz groups in history, The Modern Jazz Quartet. With this group, Jackson gained recognition as a skilled jazz vibraphonist. He redefined the sound of jazz vibraphone established by Hampton and Norvo. After earning a reputation as a master vibraphonist he would record his first album as a leader entitled Plenty, Plenty, Soul, released in 1957. This album firmly established him as a leader in the world of jazz.

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vibraphone. On this recording Jackson collaborated with many major jazz performers such as Art Blakey, Cannonball Adderly, Jimmy Cleveland, Joe Newman, Lucky Thompson, Horace Silver, Oscar Pettiford, Percy Heath, and Connie Kaye.

As did his predecessors, Jackson applied techniques acquired through performance experience on instruments other than the vibraphone. Since Jackson’s earlier musical experiences were as a singer and a guitarist, he desired a softer, more voice-like sound on the vibraphone. To accomplish this he used larger, softer mallets and employed the instrument’s vibrato capabilities more extensively. These two features combined with his sensitive touch to create a smooth sound that hadn't been explored by his predecessors.

Example 3 is a passage from the first chorus of Jackson's solo during "Bag’s Groove," and demonstrates Jackson’s vocal approach to vibraphone. The repeated F’s with the single lower neighbor E-flat combined with half-pedaling implies a voice-like gesture. As Jackson develops this motive he adds tones from the blues scale in a sequential pattern, in which the second note of every sequence becomes the first note of the next.

Ex. 3 Measures 24-29 of Jackson’s solo on “Bag’s Groove”

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15 Half pedaling is a technique in which the performer depresses the pedal of the vibraphone in order to make slight contact with the bars, allowing them to resonate with minimal sustain.
A lesser-known contemporary of Milt Jackson is vibraphonist Terry Gibbs. Gibbs was born in Brooklyn, NY on October 13, 1924. By the time he was ten, he received formal percussion education on xylophone, timpani, and drum set. In 1936 he competed on the Major Bones Amateur hour, a popular television variety show. Shortly afterwards he joined the army and served for three years, playing drum set in service bands. After he was discharged from the military in 1946 he moved to New York City to work as a professional musician. He gained recognition performing with groups led by Buddy Rich, Woody Herman, Louie Bellson, Mel Torme, Benny Goodman, and Tommy Dorsey. In 1961 Gibbs moved to California and earned a position in the orchestra on the Steve Allen television show, remaining there until the early 1980’s.

Hampton and Norvo laid the foundations for jazz vibraphone performance by applying their own musical techniques to the instrument. Gibbs continued this style with little alteration. All three were grounded firmly in xylophone and traditional percussion practice, whereas Milt Jackson refined his sound by imitating the human voice. These players performed with two mallets and rarely employed mallet or hand dampening techniques. The results were solos that contained rhythms that resemble snare drum rudiments, melodies that employ polyrhythms and little or no chordal accompaniment during solos.

FUSION

Hampton's and Norvo’s formal percussion training established the two-mallet technique used for jazz vibraphone performance. Jackson applied his background as a guitar player and singer, softening the short, percussive sound favored by his predecessors. This style of keyboard percussion improvisation defined the sound of

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vibraphone performance until fusion jazz emerged during the 1960’s, combining elements of rock and roll with jazz. The development of a new musical style requires that performers search for new and creative techniques to help define new parameters of performance practice. With the advent of fusion, jazz vibraphonists began to adopt a four-mallet approach. This was necessary both to provide harmonic support for other solos and also to add volume.

The inclusion of rock elements in jazz resulted in the addition of electric instruments with seemingly limitless volume. The vibraphone is an acoustic instrument that does not possess natural amplification and, as a result, can be overpowered in such situations. To compensate for this, performers were forced to be innovative in order to produce a larger sound. The advent of four-mallet vibraphone performance in a jazz setting grew out of this need.

The emergence of fusion jazz helped spawn the careers of three jazz artists: Roy Ayers, Bobby Hutcherson, and Mike Mainieri. Roy Ayers was born in Los Angeles, CA on September 9, 1940. He studied traditional harmony in high school and attended Los Angeles City College to pursue further study. Ayers worked professionally as a sideman but did not gain notoriety until his tenure with the Herbie Mann Group. After leaving Mann’s ensemble he led many of his own groups throughout the 1960’s and 1970’s. These ensembles played material that incorporated elements of rock music and jazz.18

Bobby Hutcherson was born in Los Angeles, CA on January 27, 1941. He is a self-taught musician who gained notoriety during the late 1950’s and early 1960’s as a freelance musician in the Los Angeles area. Hutcherson is best known for his work with

the Timeless All Stars performing ensemble.  

Ayers and Hutcherson applied the sound created by Jackson, each incorporating techniques to help define his own individual musical voice. Both performers play with four mallets when accompanying soloists. However, their solo or lead performance is restricted to traditional two-mallet technique.

The following excerpt is taken from the last four measures of Bobby Hutcherson’s solo on “If I Were a Bell” from his album Four Seasons. In this passage, Hutcherson outlines the chord progression as the traditionalists would, using basic chord tones to reflect harmonic changes, but with a few notable expansions such as 9ths, 6ths, 4ths, and a major 7th against a minor chord. Also, Hutcherson is rhythmically more daring, applying syncopated rhythms to anticipate the next harmonic shift. Because of these two factors, his solos tend to be more dissonant than those of his predecessors.

Ex. 4 Measures 31-34 of Hutcherson’s solo on “If I were a Bell”

Mike Mainieri was born in the Bronx, NY on July 4, 1938 to a musical family that encouraged formal music study at an early age. At the age of ten he began to study the vibraphone as part of his classical percussion studies with Phil Klaus. By the time he was fourteen he earned his first professional engagement, playing in the Paul Whiteman orchestra. He entered Julliard to study music and worked in New York as a freelance

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20 Performance of melody or improvised solo thereafter is considered to be the lead voice or lead performance.
21 Roger Schupp, “If I were a Bell; An analysis of Bobby Hutcherson’s Solo,” Percussive Notes vol. 32, no. 3 (June 1994): 49.
musician. From 1956 to 1962 he was a member of the Buddy Rich Orchestra and recorded as a sideman for many jazz artists including Billie Holiday, Benny Goodman, Coleman Hawkins, and Wes Montgomery.22

While working as a studio musician Mainieri met and befriended many musicians who performed in a wide variety of styles. He drew from this pool of colleagues to form his first group, White Elephant. White Elephant became a significant force in the evolution of fusion jazz, performing and touring together until 1972. Mainieri continued to work professionally in studios and as a freelance musician. In 1979 he formed his most important group, Steps Ahead, with pianist Warren Bernhardt and drummer Peter Erskine. This group received critical acclaim for its sophisticated integration of jazz and rock music.23

Mainieri’s innovations were not limited to forming special ensembles. He is one of the first jazz vibraphone performers to play exclusively with four mallets. He devised his own grip that facilitated the execution of horn-like lines. His improvisations combine techniques used by his predecessors with techniques derived from performance practices of various instruments outside the percussion family. The results are improvised solos based on tertian harmonies with quartal spacing that resemble voicings used by jazz arrangers in wind section settings.

The following excerpt is taken from Mainieri’s original composition “An American Tale.”24 Using simple melodic cells he connects large chord voicings of fourths and fifths and chord clusters of seconds stacked over thirds.

To compete with the volume of electric instruments, Mainieri devised a system of

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Ex. 5 Measures 1-4 of “An American Tale” by Mike Mainieri

amplification for the vibraphone. He used guitar pick-ups strung together and attached to the resonator just under the keys of the instrument. Each pick-up connected to the next in a series, meeting at the end of both manuals of the vibraphone. Mainieri connected the ends of each set of pick-ups, routing both into one quarter-inch input. This enabled him to plug into an amplification system and allowed him to achieve the desired dynamic balance within the ensemble.

GARY BURTON

By applying his own unique musical approach, each of the aforementioned musicians made significant contributions to the evolution of contemporary jazz vibraphone performance. No performer, however, has had a larger impact in this area than Gary Burton. He is acclaimed by many as the world’s preeminent jazz vibraphonist and has enjoyed a performing career spanning more than fifty years. In particular, his approach to playing the instrument has set new standards in the area of four-mallet performance.

Burton was born in 1943 in Anderson, IN. As a percussionist, he is self-taught. He

25 All percussion keyboard instruments are arranged to simulate the black/white key arrangement of the piano. The term manual as applied to percussion refers to either the "black key" or "white key" keyboard equivalent.
began playing the marimba at age six and switched to the vibraphone by age eight. He received formal music lessons from a local piano teacher during his teens. Due to a lack of literature for mallet percussion he adapted light classical piano transcriptions and popular tunes of the period to the vibraphone. A large portion of his music lessons was devoted to learning compositional techniques and traditional harmonic practice. In addition, instruction in reading and understanding jazz chord symbols and the harmonies they represent was common at almost every lesson. Burton then transferred his formal music education to vibraphone performance by adapting the light classical pieces and improvisation skills.

Burton learned to improvise introductions and small transitions to popular tunes and light classical pieces. This type of improvisation and the skills involved were emphasized early in his development and sparked an interest in other types of music that require these techniques. Jazz provided a creative outlet in which Burton could apply the tools he acquired during the early stages of his musical development.

These experiences proved fruitful during the course of his early musical development. They exposed him to a vast assortment of musical styles and sharpened his sight-reading skills. As his facility to play the instrument improved he acquired performing engagements in Evansville, IN. On many of these performances he doubled as pianist, accompanying soloists, while performing his own solos on vibraphone. Burton gained recognition throughout the Evansville area as a talented musician with a significant amount of potential. This led to a recording date with country guitarist Hank Garland in Nashville, TN for RCA records. Garland was then recording a jazz album for RCA and wanted a vibraphonist for the session. The saxophone player Garland used for

the recording date was Boots Randolph. He informed Garland about Burton and his vibraphone performances in and around the Evansville area. Randolph was a native of Evansville, so on his next trip home he located Burton and offered him a chance to audition for Garland. After a brief audition, the guitarist was so impressed that he asked Burton to record the album with him.  

In the summer of 1960 Gary Burton moved to Nashville and began his recording career. Performing with him on Garland’s album, *Jazz Winds from a New Direction*, were respected jazz drummer Joe Morello and bassist Joe Benjamin. At this session Burton met two other important men who would propel him to the forefront of jazz, Steve Sholes and George Wein. Sholes was a record executive for RCA and was present on the recording date with Garland. George Wein is a talent agent known for representing gifted jazz musicians. Sholes and Wein, along with famous country guitarist Chet Atkins, recognized Burton’s emerging talent and offered him a recording deal of his own. Wein offered to represent him on the spot and does so to this day. Burton agreed to the terms on the condition that he be allowed to attend Berklee School of Music in Boston.  

Burton attended Berklee on a full scholarship from *Down Beat* magazine, earning him national recognition at an early age. While attending Berklee he furthered his formal music training, studying the rudiments of counterpoint, music theory, arranging, and harmony.  

Burton lived in Nashville during the summers, recording for RCA and performing at local clubs on the weekends as a vibraphonist, and as a piano player on weekdays. In 1962 he left Berklee to move to New York. He joined pianist George Shearing’s group.

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and stayed with him for two years. Working as a sideman with Shearing helped Burton gain more recognition as a prominent jazz artist, so much so that, in 1964, Stan Getz used him on a three-week tour of Canada as a substitute for his regular piano player. Recording with Garland and touring with Getz and Shearing earned him Down Beat magazine’s "Talent Deserving of Wider Recognition" award in 1965.

The combination of Burton’s formal musical training, development of advanced technique, and appreciation for many forms of music and how they interrelate provides the foundation by which he integrates various musical traditions to create his original compositions. For this reason, performers in his ensembles must have similar backgrounds so that Burton’s compositions are interpreted effectively. In 1967 Burton formed his first group as a leader with guitarist Larry Coryell, bassist Steve Swallow, and drummer Bob Moses. Two albums resulted from this collaboration, Duster and Fake Lofty Anagram. These recordings fused principles of jazz with influences of rock and roll, making Burton and his group progenitors of jazz/rock fusion.

The time Burton spent in Nashville would give birth to the idea of fusing other forms of music with jazz. He spent a great deal of time with country musicians and their music, experiences that would lead him to incorporate country elements into his playing Tennessee Firebird and Country Roads are products of this influence.

Burton experimented with various styles of music, incorporating them into his vocabulary. His original approach led Down Beat magazine to award him Jazz Man of the Year in 1968. During the 1971 Montreux Jazz Festival Burton gave a solo concert that was recorded, entitled Alone at Last. The album won a Grammy award for best solo

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31 DeMichael, 20.
jazz album of the year. After conquering the solo format, Burton returned to the duo format, collaborating with various jazz artists including Ralph Towner, Steve Swallow, and Chick Corea. He earned two more Grammys, one each with Swallow and Corea.

Beginning in the early 1980’s he recorded for the GRP record label. During this era he worked with pivotal figures such as John Scofield, Michael Brecker, Peter Erskine, Eddie Daniels, B.B. King, Jim Hall, and Pat Metheny. He recorded another duo album with pianist Chick Corea in 1998, *Native Sense*, which won yet another Grammy award. The same year he received still another Grammy for his contribution to an album entitled *Like Minds* featuring Corea, Metheny, Dave Holland, and Roy Haynes.

In 1971, Berklee School of Music named him Instructor of Percussion and Improvisation studies. Since then he has risen through the ranks at Berklee, was appointed Dean of Curriculum in 1985, awarded an honorary doctorate in 1989, and named Executive Vice President of the institution in 1996.34

**BURTON GRIP**

Burton worked out the rudiments of a personal style that was to become the standard point of departure for most mallet players who followed him. Formal music lessons focusing on the analysis of classical piano music and the ability to comprehend chord symbols in popular music acted as a catalyst in his development. He applied his training to jazz vibraphone performance, solving performance problems by using piano, horn and voice-like techniques facilitated by his new four-mallet grip.

In 1961 Burton devised a new four-mallet grip that would revolutionize multi-mallet performance, influencing virtually all vibraphone players to come.35 At the time the only four-mallet grip widely accepted was the cross-stick grip. Burton found that the

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35 DeMichael, 21.
conventional cross-stick grip limited the potential to execute fluid, melodic lines with simultaneous chordal accompaniment. In order to achieve this he altered the cross-stick grip to suit his own needs. By placing the right outside mallet over the right inside and moving the grip point to the center of the hand, Burton is able to play fast melodic lines with simultaneous harmonic accompaniment. Another benefit achieved through development of the Burton grip is the freedom to apply independent mallet and hand dampening. Using the fingers or fleshy side of the hand to mute a ringing bar allows the performer to make smooth harmonic transitions without using the pedal. Before Burton introduced his grip the technique of mallet and hand dampening remained largely unexplored.

Burton’s professional career spans more than fifty years. During that time he has mastered a vast repertoire of music in a wide range of styles. In order to gain deeper insight into Burton's playing it is important to examine examples of his performances and the origin of techniques he applies to mallet percussion performance. This study will focus in detail on a recording of the landmark blues composition “Blue Monk” by Thelonious Monk from Burton’s duo album with pianist Makoto Ozone *Face to Face*, with particular attention given to Burton’s improvised solo.

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36 Using the cross stick grip the performer places the outside left over the inside and the inside right over the outside mallet. The contact point where the shaft touches the hand is in the back of the hand so that the pinky and ring fingers control the mallets.
CHAPTER 2

MUSICAL ANALYSIS

Gary Burton’s influence in the development of jazz and keyboard percussion performance is unquestioned. Over the course of his career he has discovered, performed, influenced, and recorded with many major artists who have contributed significantly to the development of jazz. He has written two method books describing his four-mallet technique, respectively titled *Four Mallet Studies* and *Jazz Vibraphone*. The application of his style of vibraphone performance unlocked the expressive capabilities of the instrument not only in a solo setting, but also as a viable voice for contemporary percussion ensemble, wind ensemble, and orchestra, giving contemporary composers the opportunity to expand the literature of the instrument.

During his illustrious career, Burton’s brightest musical moments have occurred in the duo or solo setting. As noted earlier, in 1973 he won a Grammy award for Best Solo Jazz album for *Alone at Last*, a live recording of Burton performing at the Montreux Jazz festival. Following this he recorded a number of albums that resulted in awards in the duo format. He favors this format because it allows certain musical freedom not attainable in a large ensemble setting.

Burton extracts and applies various techniques, adapting them to his musical needs. The ability to do this requires extensive knowledge of that particular style and the ability to evoke it convincingly. His treatment of the blues composition “Blue Monk” by Thelonious Monk demonstrates this ability. Taken from the duo album *Face to Face*, recorded with pianist Makoto Ozone, Burton’s solo embraces traditional blues performance technique while also utilizing contemporary performance techniques that characterize his sound and approach.
Recorded in 2000, *Face to Face* is the last album recorded by Burton in a duo setting. The entire album displays Burton at the peak of his performance skills. When studied in its entirety, the album displays a range of genres and styles that showcase Burton’s and Ozone’s versatility. Ozone is also an internationally renowned musician who is comfortable performing classical and jazz piano in a solo or ensemble setting. He has composed enough music to record eight albums of his own, plus three compositions for *Face to Face*.

In order to obtain a clear understanding of Burton’s performance of "Blue Monk," it is necessary to study his solo through the process of transcription. This allows musicians to emulate, ensuring that the stylistic interpretation of the performer is preserved. Although transcriptions prove valuable in the pursuit of knowledge, the process does have some limitations. The traditional western European notation system is too limited in some instances to accurately represent complex musical phrases and rhythms. Therefore, contemporary notation techniques will occasionally be used to depict the contour of musical phrases that defy traditional notation.

**RHYTHM**

The concept that governs rhythmic notation in Western music is that of various equal sub-divisions of the beat resulting in our standard system of whole notes, half notes, quarter notes, etc. However, some rhythmic patterns, particularly in Burton's solo on "Blue Monk," require contemporary notation techniques to ensure an accurate portrayal of certain rhythmic contours. Therefore a soloist may choose to play a rhythm that traditional notation cannot effectively represent.

Example 6 illustrates the use of contemporary notation to convey acceleration and deceleration of rhythmic time during a single phrase. In this excerpt from "Blue Monk,"
Burton squeezes six notes into a temporal space that defies representation using traditional notation. The feathered beams indicate notes that progress from longer to shorter duration. Burton creates a sense of acceleration while actually maintaining a steady musical pulse. This figure contains six notes wedged into a confined rhythmic space. Burton then releases this tension by using a figure comprised of equal note values, creating a sense of deceleration.

Ex. 6 Rhythmic acceleration and deceleration

In this performance the manipulation of rhythm and musical space are essential tools for Burton. Example 7 is taken from measures 19 and 20 of the solo. He further develops the rhythmic idea introduced in Example 6 by adding a five-note gesture to the six-note idea. By combining these gestures Burton implies a gradual acceleration of rhythm that reaches its high point on the G. Burton then descends in the same amount of time used to ascend, using conventional rhythmic values to create a sense of deceleration that creates balance within the phrase.

Ex. 7 Elongated acceleration and deceleration by note value
Melodic phrasing characterized by a sort of "behind the beat" effect is referred to as “lag phrasing,” as seen in Example 8. Burton places the G and F highlighted in the excerpt between beats four and one, creating a melody that indeed "lags" behind the pulse. In order to depict the rhythmic shape of the excerpt, the beams are placed across the bar line.

As shown in Example 9, rhythmic acceleration denoted by the feathered beams is used to create a sense of momentum. In this instance the acceleration occurs in mid-phrase rather than at the beginning as in examples 6 and 7. Burton uses the quickening of rhythm to make up for the time taken to perform the grace notes on beat two of measure 38. Because of its location within the phrase the acceleration creates symmetry between the groups of four sixteenth notes that precede and follow, resulting in a balanced phrase.

Example 10 displays the use of feathered beaming to illustrate acceleration on a larger scale, displaying a gesture containing twelve tones that fit into a confined rhythmic space. Here, Burton uses over half the measure to unfold the phrase and gives each note
progressively less rhythmic space. He plays this figure toward the end of his solo, measure 55, having foreshadowed it in various forms at earlier points of his solo. Example 10 illustrates an acceleration that spans two entire pulses, creating the largest gesture of its kind in the entire solo.

Ex. 10 super acceleration

In Example 11 Burton reverses the rhythmic tension by beginning with a fast scalar passage in which each note value becomes larger through the temporal space, creating a sense of deceleration through the phrase.

Ex. 11 deceleration of rhythmic time

Although a series of contemporary notation devices has been used, traditional notation used in unconventional ways can also allow for a more accurate portrayal of musically complex patterns. Example 12 illustrates measure 36, a series of seemingly irreconcilable rhythms conveyed here through conventional notation. Because the original note values that have been augmented by dotting contain three equal divisions, the dotted rhythm imitates a triplet feel. Due to the amount of time given to the first three gestures, Burton uses grace notes to imitate the beginning of the phrase. He further
solidifies the melodic and rhythmic idea by grouping the motives into divisions of three and linking them together in one long pattern.

Ex. 12 Notation grouped in irregular divisions of three

The following excerpt displays a series of variations of the opening statement of the solo linked together. Although Example 12 is rhythmically more complex than Example 13 shown below, the concept is similar: division of the original pulse into three parts in which certain notes are grouped into three equal subdivisions linked together. From the beginning of his solo Burton begins to introduce triplet figures combined with the sparse use of 32nd notes. As the solo progresses he begins to use the devices in combination with greater frequency.

Ex. 13 Notation grouped in three

Illustrated in Example 14a and 14b are examples of a characteristic 32nd note device, here a short "cell." Example 14a illustrates the next occurrence of 32nd notes presented in the same manner. Both examples show the use of 32nd notes to approach a larger note value to which Burton wishes to draw attention. He develops this rhythmic
device by introducing small cells that become progressively larger with more elaborate gestures.

Ex. 14a 32nd note development

Burton further increases the rhythmic intensity by adding more notes to the groups of 32nd note bursts. Example 15 is taken from measures 25 and 26, the first four measures of the second chorus of his solo. Both sets of 32nd note figures are arranged in four-note groups, whereas examples 14a and 14b utilize two note groups.

Ex. 15 32nd note device in groups of four

As his solo unfolds, he begins to insert acceleration and deceleration devices to foreshadow the eventual complete presentation of a 32nd note figure. He presents it over the course of an entire beat without ornamentation. Burton waits until the last chorus to
reveal the rhythmic device in its simplest form, eight evenly paced 32\textsuperscript{nd} notes, as illustrated in figures 16a, 16b, and 16c.

Ex. 16a Full presentation of 32\textsuperscript{nd} note device

Ex. 16b Full presentation of 32\textsuperscript{nd} note device displaced an eighth note

Ex. 16c Full presentation of 32\textsuperscript{nd} note on downbeat

All three excerpts contain fully developed 32\textsuperscript{nd} note motives, each encompassing an entire beat. Example 16a displays the figure beginning on the second half of beat one. Shifting the idea over one-eighth note (as in 16b) creates rhythmic diversity and prepares the listener for 16c where the 32\textsuperscript{nd} note device appears on the third beat of the measure.

Example 17 contains the original triplet statement that Burton develops throughout his solo. It is the first important rhythmic idea of the solo and its simplicity allows the perceptive listener to follow its manipulation as the solo unfolds.

The second triplet entrance and the first variation of the rhythmic device are
Ex. 17 Triplet introduction to improvised solo

shown in Example 18. This time Burton uses the triplet device in faster note values, presented here in a sixteenth-note setting.

Ex. 18 Sixteenth note triplet setting

He achieves rhythmic variety by combining eighth-note and sixteenth-note triplet values.

Ex. 19 Combination of eighth note and sixteenth note triplets

To further develop the rhythmic device Burton combines it with the 32\textsuperscript{nd} note device discussed previously. With the triplet device in a 32\textsuperscript{nd} note setting, the figure mimics the 32\textsuperscript{nd} note bursts previously heard, while simultaneously creating a new rhythmic figure.

Through the use of acceleration and deceleration, triplet figures, 32\textsuperscript{nd} notes and
combinations of the two along with more conventional rhythmic figures, Burton is able to construct a rhythmically complex solo. He begins by stating each cell simply and sparsely, using space to separate the devices so that each one is clearly defined. As the solo proceeds, so does the complexity with which Burton manipulates each rhythmic device. Small cells of 32\textsuperscript{nd} notes appear near the beginning of the solo as ornamentations, slowly developing by means of acceleration and deceleration of note values until the last chorus in which larger gestures of 32\textsuperscript{nd} notes appear. He begins the solo with a simple triplet statement and gradually transforms that rhythm into a complex structure. To further embellish these devices, he connects them either through combinations of techniques or simple statements in a series of rhythms.

**MELODY**

A master improviser has at his disposal a vast vocabulary of motives that are derived from many different styles of music. These gestures are constructed using certain approaches based on the melodic traditions of a particular style. In his book, *Listening to Jazz* Jerry Coker outlines various approaches to improvisation in the blues idiom and traditional practices of improvisation concerning jazz blues performance.\textsuperscript{37}

Coker describes a scale that has its roots in African, European, and American cultures that combine to form what is known as the blues scale. The blues scale contains

tones that are altered, or lowered one half step from their major scale tone counterparts. Example 21 outlines the scales that can be applied to a dominant seventh chord. Jazz performers refer to these as the Mixolydian mode and the blues scale, both of which are used in melodic material accompanied by major-minor seventh chords.

According to Coker, the Mixolydian mode can be a primary melodic resource for improvising over a dominant seventh chord, as shown above. The tonic blues scale is the optimum choice for the blues progression, whether the chord being played is the tonic (I), sub-dominant (IV) or dominant (V), which are the basic chords heard in most blues tunes.

Example 22 contains the opening statement of Burton’s solo. To create a simple blues gesture, he introduces the flat third (D-flat) of the blues scale on B-flat combined with notes that can be found in the both the blues scale and the Mixolydian scale on B-flat.

Following the measure in Example 22, Burton restates the cell with slight variation. In Example 23 the original idea that began the solo reappears in varied form and with the addition of one new note "G" that appears twice in the excerpt. Otherwise, both examples use the same melodic resources.

38 Coker, 60.
The melodic seeds planted in the opening measures of Burton’s solo develop gradually, steadily gaining intensity and momentum. He accomplishes this through a blues device traditionally practiced when performing the blues, the alternation between minor third and major third. The first complete occurrence of the minor and major third as a combined device is presented on beat four of measure 15 and beat one of measure 16. Represented in Example 24 is the development of material referenced in Examples 22 and 23 using both the blues and Mixolydian scales. Burton uses this slightly extended melodic statement to signal the end of the phrase.

After a brief reiteration of the triplet figure Burton presents yet another variation, displayed in Example 25. The notes in measure 19 can be found in either the B-flat Mixolydian mode or B-flat blues scale. It is worth noting the II7-V7-I7 progression over which Burton performs the melodic gesture. Jazz musicians frequently substitute or insert chord progressions to tonicize a certain area within the chord structure. Here Burton and Ozone have inserted a ii-V-I progression with altered seventh chords in place of the
minor chords typically heard in this progression. In standard jazz practice, an altered chord is any major-minor seventh chord in which the 5th or 9th is raised or lowered one-half step. This allows for harmonic variety while simultaneously remaining within the traditional melodic blues ideas established earlier in his solo.

Ex. 25 Overlapping of chord/scale application

Ex. 26 Development of opening statement

Variation of the opening statement with major third and flat third becomes a central focus throughout the first and second choruses. As shown in Example 26 Burton elongates the initial statement and varies it by using the major third, followed by connective material that leads to a flatted third gesture, recalling the solo's opening statement. Further development occurs when Burton uses other resources for note choices such the pentatonic scale, which resembles closely the blues scale. The major pentatonic on B-flat is illustrated in Example 27.

As shown below in Figure 28 Burton presents a major pentatonic scale gesture followed by a blues scale figure and finally an arpeggiated figure outlining the E-flat seventh chord to end the phrase.

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The grace note in Example 29 represents the first appearance of the flatted fifth in measure 34. Up to this point in the solo he develops his ideas by hinting at the Mixolydian mode, using chord tones and the flatted or "blue" third and major third. This is the first appearance of a note that can be explained only through application of the blues scale.

The following example illustrates the second occurrence of the blue fifth and another vehicle Burton uses to develop his solo. Example 30 demonstrates borrowing of blue notes from a separate blues scale, thus leaving the tonality of the original key area if only for a brief moment to connect three similar melodic cells. Burton uses this technique by applying the C blues scale to the Cm chord change at the beginning of a ii-V-I
progression. He reverts back to the B-flat blues scale on the F7 chord, thus arranging his note choices according to the harmonic shifts.

Ex. 30 ii-V-I Chord scale application

In Example 31 Burton borrows from another blues scale, this time in E-flat. Certain notes that occupy a position within a given scale can also function in other scales in different capacities. For instance the D-flat in Example 31 is the seventh of E-flat seventh chord, but it is also the flatted third from the B-flat blues scale. By using this tone Burton creates connecting material that allows him to fluidly move from one modal mixture to another. Burton has more time to manipulate his idea here because the duration of time occupied by one chord is significantly longer than in the previous example.

Ex. 31 Modal Mixture; blue third and natural third

As shown in Example 29 the inclusion of the flatted fifth is significant because it is a defining factor in establishing the characteristic blues sound. Previously the blue note had been employed as a grace note to approach a particular tone within the harmonic
change. Example 32 contains part of measure 39 and the first half of measure 40. Burton combines blue notes with tones from the Mixolydian mode against a sustained B-flat to create yet another blues gesture.

\[ B^b7 \]

Ex. 32 Blues device

The final chorus of Burton’s solo incorporates all the melodic ideas introduced previously, focusing particularly on the development of the opening triplet figure. To introduce this chorus, he restates the original melodic cell with complex rhythmic variation, as illustrated in Example 33.

Ex. 33 Original melodic cell within blues device

Prior to the final chorus of the solo, ideas are introduced as small melodic cells with ample space between each. Note that in measure 50 (Example 34 below) Burton constructs a longer line using the entire pitch collection of the blues scale.

Example 35 illustrates a short motive heard in measure 51. In this instance the small cell is based on the major pentatonic scale with a blue note inserted during the last triplet gesture to prepare for the elongated phrase in Example 36. Burton uses this small melodic cell to introduce a longer phrase that contains notes shared by the blues and the Mixolydian scales.
An artful combination of melodic approaches is crucial to an improvised solo of quality and substance. Example 38 illustrates the final measures of Burton’s solo, where a myriad of melodic approaches can be observed. He begins with a gesture on the B-flat blues scale in an elongated line. After a brief eighth-note rest Burton inserts a "vocal-like" gesture in scalar form that barely fits into the temporal space in which it is presented. The last section of the phrase contains tones from the B-flat blues scale that emphasize the harmonic changes. Further, Ozone outlines the C7 harmony in the bass by moving away from the root in stepwise motion with tones from the B-flat blues scale to approach the F7 harmony at the end of the chorus.
Ex. 37 Extended phrase with fully developed thematic ideas

The original melodic triplet cell shown in Examples 17 and 22 becomes a more expanded compositional tool by the end of Burton’s solo through the development and combination of rhythmic and melodic devices. In the beginning of the solo he presents each idea simply and creates clearly defined musical gestures that seem to expand, each one a little longer than the last. He develops these ideas slowly and at an even pace through the use of space inserted between each gesture. As the solo unfolds the amount of space he inserts between gestures diminishes. The last chorus displays every musical idea in long flowing phrases with little or no space separating them.

HARMONY

Using three chords, the blues form is a twelve bar strophe that is repeated indefinitely. In a given key area these chords are referred to as I, IV and V. As the history of the blues unfolded, jazz musicians begin to experiment with chord additions, substitutions and harmonic shifts within the twelve-bar form. One of the most common set of substitutions places the IV and V chords in locations they did not necessarily occupy in the traditional twelve bar blues. During the Bebop era, i.e. jazz circa 1945-

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40 The blues progression can be performed using minor i and iv chords with a major-minor seventh chord as the V for resolution. This is referred to by jazz performers as a "minor blues".

41 Levine, 220.
1950, the use of chromaticism and chord substitution techniques became even more prevalent. In current jazz blues performance, players commonly insert chords not common to the traditional form such as the ii-V-I progression. This is the most frequently used chord progression employed by jazz musicians. Commonly in this progression the "ii" chord is minor; however, through the application of modal mixture it can be altered to form a major-minor seventh chord, thus transforming it into a secondary dominant that allows for more melodic choices for the soloist.

Burton and Ozone begin the improvised solo with the traditional 12 bar pattern common in blues performance. As the solo progresses they occasionally insert chord substitutions that reflect common jazz practice. Refer to Appendix B for blues progressions used in this performance.

In his extraordinary solo on "Blue Monk," Burton creates a solo that contains rhythmically diverse melodic structures based on common blues progressions used by jazz musicians in blues performance. Burton begins his solo with a simple, straightforward melodic idea. From there he applies intricate rhythms and techniques common in jazz blues performance to elongate his phrases. By the end of his solo he displays the original melodic thought in several elaborate phrases firmly rooted in traditional blues performance practice.

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42 Jerry Coker, 85.
44 Modal mixture in jazz performance practice uses various chord scales or "modes" to re-harmonize a particular chord change.
CHAPTER 3
TECHNICAL ANALYSIS

In order to clearly understand the independence and versatility the Burton grip offers, a percussionist must spend a significant amount of time operating the vibraphone with four mallets in this style. There is no substitute for actual practice time spent at the vibraphone; however, through this chapter a percussionist may gain additional insight into an area of four-mallet performance that may otherwise seem intimidating.

An understanding of Burton's technique alone is not enough to emulate his sound. One must consider also his musicality and versatility. He was encouraged from an early age to learn music, particularly piano music, with attention to historical considerations, style, and proper technique. Applying this broad-based knowledge to the vibraphone gave Burton a springboard from which to elevate its status as a solo instrument.

Even though he would eventually achieve a level of virtuosity seldom matched, Burton would realize early on that the vibraphone had some limitations in expressive qualities. The essential sound of the instrument cannot be altered, its range is only three octaves, and the only four-mallet grip in use prior to the 1960's was too awkward to effectively adapt piano techniques. He wanted to devise a technical approach that allowed for smooth execution of melodic lines with simultaneous accompaniment. He spent the summer of 1961 experimenting with existing four-mallet grips to find new technical solutions for vibraphone performance. After much diligent work and study he developed his now famous grip. His application of four-mallet technique revolutionized keyboard percussion performance in all musical genres, not just jazz. By applying his

45 DeMichael, 21.
grip, solo vibraphonists can use the full range of the vibraphone in a wide variety of styles.

**IMPLIED PHRASING**

As noted earlier, Burton has released a number of albums in a variety of styles including country, fusion, rock, jazz, solo, duo and classical genres. On these recordings Burton collaborated with some of the most respected artists in these various fields. This exposure gave him the experience necessary to develop a fundamental approach that functions in any given situation. The cornerstone of this approach is the borrowing of performance techniques specific to a certain instrument and applying them to the vibraphone. Burton refers to the emulation of other media as "implied phrasing."

Throughout his performance of "Blue Monk" Burton uses techniques derived from both vocal blues as well as blues instrumental traditions. Utilizing his idea of "implied phrasing" Burton effectively suggests the sound of the human voice as well as the piano, guitar and wind instruments.

The blues began as a vocal medium that developed over time in field labor during the slave-holding era. In its earliest form the blues is referred to as a "holler" or "ballad."

46 The adaptation of vocal sounds to instrumental performance by jazz musicians includes such techniques as bent notes, blue notes, and the alteration of the natural timbre of the instrument.47 The use of bent notes in vibraphone performance is impractical because of obvious technical limitations.48 The timbre of the vibraphone can be altered in

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48 In order to “bend” notes on the vibraphone the player must use a hard rubber mallet in place of one of his yarn or cord mallets. The hard rubber mallet is placed over the node just after striking the bar with a proper vibraphone mallet then pressed toward the middle of the bar. In regular performance, the hard rubber mallet has no practical qualities. If used in common vibraphone performance it results in a weaker sound within the four mallets. To switch back and forth in real time requires too much inefficient movement.
two ways. Using the motor at various speeds turns the fans inside the resonators faster or slower, as desired, thereby creating a "wah-wah" effect when a note is struck. By using mallets that are constructed of different sizes and varying degrees of hardness, a performer can elicit a subtle array of different musical colors from a seemingly limited sound source. Burton chooses to turn the motor off and uses mallets constructed by the Vic Firth percussion company. Burton designed these mallets himself, using a hard rubber core, triple-ply yarn, and rattan mallet shafts. The composition of these mallets allows a large spectrum of technical flexibility, particularly when he desires to emulate the sound of non-percussion instruments.

Burton draws from resources that emulate traditional blues performance as well as jazz blues performance practice. In both realms the blues scale is the collection of choice for improvisation. The origin of this scale is found in the hollers or ballads that formally stabilized the blues as a vocal medium in the United States. It is not the fact that Burton uses blue notes in his solo, but how and where they appear that is of significance.

STICKING

For the discussion of sticking technique the mallets will be referred to, from left to right, by the numbers 4-3-2-1. For fast scalar passages in the Burton grip the right hand opens fully to place mallets 1 and 2 at a 90-degree angle with mallet 1 stretched over the keyboard. This allows mallet 1 to move freely about the keyboard using a motion that resembles a percussion stroke. Mallets 2 and 4 may remain either neutral (silent), be used to dampen tones, or be used to supply harmonic support for the melody. Such a grip ensures greater dexterity and smoothness of attack and is the only grip that offers vibraphonists such flexibility.49

Since it is impossible to know for sure which mallet Burton is using to strike certain notes without witnessing the live performance, logical conclusions can be drawn based on the author's personal experience and knowledge of Burton grip and its application. Burton states in his method books that mallets 1 and 3 are reserved for fast, linear passages that demand maneuverability around the keyboard. Mallets 2 and 4 are used for supplying harmonic support or for dampening. This function is of particular importance since it is one of the defining characteristics of Burton grip. Mallet dampening allows a performer to smoothly transition between harmonies or phrases and execute fast scale-like passages that change harmonies without raising the pedal. The sticking patterns in this chapter are derived from the logical conclusions that were drawn after the completion of the transcription, based on the contour of each musical excerpt.

BORROWING VOCAL TECHNIQUES

An experienced blues singer manipulates the voice to better convey the message of the lyrics by using falsetto, shouting, whining, moaning, speaking or even growling. Burton frequently emulates the vocal style of blues singers as shown in Example 38. Note that Burton surrounds the G with its lower neighbor F and upper neighbor A-flat. The first F appears as a grace note used to imply a “sliding” upward to the G. The A-flat is represented by a 32nd note on the last half of the beat, creating another slide effect back down to the G before he ends the phrase firmly on F. This process gives the listener the implication of sliding around the G, using its closest upper and lower neighbors, a technique common in blues vocal performance.

Blues musicians often incorporate the "sliding" technique discussed in Example

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50 Burton, 5.
51 Southern, 370.
52 Southern, 370.
38 in more extensive melodic gestures. These vocalizations extend melodic thoughts and create dramatic tension. Burton extends this technique to form the musical phrase shown in Example 39. Through manipulation of temporal space, Burton uses acceleration to increase rhythmic tension briefly, landing on a more precise rhythmic pattern that fits more naturally in the musical space, creating a vocal-like contour.

A seasoned keyboard percussion performer will have at his command the knowledge of a wide variety of sticking patterns for various musical situations, much the same way a pianist uses various fingering patterns to maneuver about the keyboard. These patterns are based on the most efficient path a performer can find while traveling up or down the keyboard. Example 40 illustrates an alternate sticking pattern that uses all four mallets. The pattern is derived from the contour of the melodic line and its relationship to the keyboard. The upper manual of notes, which correspond to the “black
notes” on a piano keyboard, are played by the left hand only with mallets 3 and 4. The “white notes” are struck with mallets 1 and 2. This allows the hands to lie naturally on the keyboard with the left hand striking the "black" notes and the right hand striking "white" notes, thereby minimizing physical movement. The sticking shown in Example 39 offers more speed and intensity than the sticking in Example 40. In live performance it is possible that Burton produces a sticking pattern that combines principles of both sticking approaches. However, since the premise of the Burton grip is the use of mallets 1 and 3 to execute fast melodic passages, it is the author's belief that the sticking pattern in Example 39 is a closer representation of what actually occurred.

Ex. 40 Alternate Sticking of vocal slur

Example 41 illustrates an expanded vocal-like slur that lasts for two beats. Note that the first slanted beamed figure has more space between each note than does the second. This of course indicates another rather sophisticated acceleration pattern, and by the time the second figure occurs (on the downbeat of measure 20) the momentum has increased considerably. By stretching the melodic line over two beats with none of the durations being equal, Burton imitates the melismatic, improvised ascension that blues singers or instrumentalists frequently employ. Note that the sticking for this excerpt rotates around mallets 1 and 3. Here mallets 2 and 4 dampen tension tones as the line ascends.
After developing his ideas, Burton will often isolate an approach within a phrase that contains combined techniques. Example 42 illustrates the placement of a vocal-like technique between melodic cells that are more instrumental in character. Here Burton elongates the technique through repetition of a single note, exploiting a common vocal device.

BORROWING INSTRUMENTAL TECHNIQUES

In an interview with Don DeMichael in Down Beat magazine, Burton states that playing the vibraphone presents a series of issues for the performer. The keyboard of the vibraphone is fixed, and its basic timbre can not be altered; however, as discussed regarding Burton's imitation of vocal models, the idea of "implied phrasing" can also encompass instrumental models as well. Burton's earliest musical training occurred at the piano keyboard and he has performed at the piano occasionally during live performances. He has recorded albums with a number of key jazz pianists who were influenced by

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55 DeMichael, 20.
musicians responsible for elevating the status of solo jazz piano performance. During the fusion era he adopted the role of chordal accompaniment for other soloists, a role usually reserved for piano or guitar players. Burton's insight and knowledge of a wide array of musical and technical approaches to improvisation is directly affected by these experiences.

As a keyboard instrument, the vibraphone is linked to the piano, most obviously in its "black and white key" arrangement. As a result, many techniques employed in piano performance are applicable to vibraphone performance. Example 43 demonstrates a gesture commonly heard in instrumental blues performance with a possible piano fingering. During the sixteenth-note septuplet, mallet one plays all the tones of the upper manual or "black notes" while mallet three plays the "white notes," thus allowing the performer to move with ease and fluidity over the vibraphone keyboard.

Ex. 43 Instrumental Approach

Example 44 displays material commonly heard in jazz piano performance.\(^56\) The tonic note of the blues scale is juxtaposed against a chromatic stepwise gesture. This chromatic walk-up begins on the "blue" (minor) third and ends on the natural fifth before dropping and changing direction. After a one-beat rest, Burton presents another piano-like figure that highlights the harmonic combination of the flatted third and seventh,

immediately followed by the major third, creating a classic blues figure that emphasizes
the clash between “blue” and major third.

Ex. 44 Isolation of piano technique m. 39-41

The passage in Example 45 contains the final measures of the second chorus of
Burton's solo. It displays a melodic gesture that draws on a more instrumental rather then
vocal source, resembling a horn-like contour.

Ex. 45 Horn-like approach

Example 46 is a sticking pattern for the previous figure based on Burton's
approach to four-mallet performance. The sticking pattern typically used in Burton grip
for scalar passages alternates between mallets three and one. In his approach, mallets
three and one are responsible for performing the melodic passages while two and four
execute dampening techniques.

Ex. 46 Sticking pattern
It is worth noting that the first collaboration in Burton's professional career was with famous country guitarist Hank Garland. His first two solo recordings included guitarist Larry Coryell. Burton also used guitarist Pat Metheny in his touring ensemble and has collaborated with him on many projects throughout his career. It is not surprising that such exposure to guitar performance techniques has influenced his approach to the vibraphone.

Example 47 illustrates how Burton mimics the guitar. It is common in blues performance for guitar players to use patterns based on the minor pentatonic scale, both because of its similarity to the blues scale and also because of the shape it outlines on the instrument's fret board, regardless of key. Guitar players refer to this position as playing "inside the box" because of the rectangular shape outlined by the hand on the fretboard when playing a minor pentatonic scale. Burton gives weight and emphasis to certain notes to emulate the articulations that naturally occur when guitarists play inside the box. By placing an accent on the first 32nd note of the two groupings and using the B-flat minor pentatonic scale, Burton effectively mimics a typical blues guitar phrase.

Ex. 47 Guitar imitation

COMBINING TECHNIQUES

Examples 48 and 49 illustrate melodic figures contained in measures 25-29. Burton is able to emulate the sound of a blues singer by repeating two adjacent notes in rapid succession. By using half pedal during this phrase Burton imitates the sliding effect
discussed earlier. Using half pedal means to hold the pedal in a position so as only a portion of the dampening felt touches the keys. This allows for longer sustain without mixing harmonies. Example 48 displays his 32nd note rhythmic device. Example 49 illustrates the triplet motive combined with the 32nd note rhythmic device.

Ex. 48 Combination of vocal and instrumental imitation

Ex. 49 Combination of vocal and instrumental imitation

Following the phrases displayed in Examples 48 and 49, Burton again utilizes both instrumental and vocal techniques in combination. In Example 50 Burton introduces a lyrical, or vocal, sound at the end of the instrumental phrase both to unify the previous measures and to prepare for the next melodic idea. This seemingly pre-meditated thought process applied to improvisation allows for smooth transitions between melodic ideas and creates continuity between them.

Ex. 50 Predominately instrumental phrase with vocal ending
Burton's concept of implied phrasing was the driving force behind his desire to create his now famous grip.\footnote{Harold Howland "Gary Burton: The Enfant Terrible at Forty," \textit{Percussive Notes} (April, 1983): 61.} By experimenting with existing grips and altering them, Burton was able to refine an approach that allowed him to emulate other instruments. Improvisation techniques at Burton's disposal are the result of formal music training, keen intellect, and fifty years of experience as a performer. His extensive contact with other virtuoso musicians has inspired him to adapt techniques from non-vibraphone idioms to enrich his own vocabulary.

Using the Burton grip in vibraphone performance is daunting to many percussionists, and for those who desire to study it years of vibraphone performance must be logged before one can be adept at using this grip. The player must control four mallets with tiny muscles inside the hand and forearm that are seldom used. This means it takes much longer to build the strength needed to control the mallets properly. Thus it takes years of practice to attain comfort and flexibility using Burton grip. The mallets are employed in different manners than any other four-mallet grip currently accepted by keyboard percussion players, whether supplying harmonic support, executing melodic lines not playable with two mallets or dampening tones to better define a harmony. To perform in the style of Gary Burton one must use four mallets as he does or run the risk of an unconvincing performance with inefficient technical results.
CONCLUSION

There is little doubt that Gary Burton's early musical education and experiences had a positive and profound impact on his artistic development. Formal training in classical piano from a teacher who incorporated improvisation, theory and composition as a regular part of lessons instilled in Burton the ability to make independent musical decisions. The support of his family allowed him access to keyboard percussion instruments at an early age. During Burton's formative years, jazz vibraphone performers like Lionel Hampton, Red Norvo, Terry Gibbs, and Milt Jackson began to emerge as his own musical interests developed. These influences, combined with his own artistic vision, enabled Burton to set new standards in the area of vibraphone performance, establishing him as one of the greatest artists in jazz history.

A desire to make the vibraphone a more expressive instrument led him to develop his four-mallet grip. Its application allows the vibraphonist to be expressive on an instrument that has seemingly limited expressive capabilities. Its impact on the world of percussion is so significant that learning vibraphone technique through the Burton grip is part of the standard curriculum in studios across the nation and around the world.

Throughout his career Burton has surrounded himself with some of the world's greatest musicians, performing in many ensemble configurations and in a variety of styles. These diverse experiences led him to borrow techniques from media that he believed had direct application to the vibraphone. Musical events are constructed throughout his improvised solos in a manner that he describes as "implied phrasing." This means simply that his improvisations may suggest vocal, piano, wind instrument or guitar models. His exposure to musicians of varying styles and genres led him to adapt non-percussion techniques to establish his vocabulary; a defining characteristic of his
approach. Burton performs the blues in a manner that calls on the techniques of traditional blues performance practice, drawing on a number of sources to create his melodic vocabulary. Through clever manipulation of rhythm and melody, Burton is able to construct a solo that recalls traditional blues performance in its earliest form. Through brilliant use of rhythmic development Burton is able to construct a solo that begins with sparse, voice-like melodic cells that gradually grow into large, dense phrases with many tones compressed into tight musical spaces. All of these factors considered together supply the melodic, harmonic, and rhythmic composition of a jazz blues solo steeped in traditional blues performance practices. His keen musical intelligence gives him the insight required to add techniques outside the area of traditional keyboard percussion practice to vibraphone performance. Burton's four-mallet grip and expert technique give him the physical tools to achieve a level of musicality difficult to match. Gary Burton's approach to vibraphone performance creates new avenues for technical devices in an area of percussion unexplored by many percussionists. He has indeed raised the standards of keyboard percussion performance to unprecedented heights in his long and brilliant career.
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I. BOOKS


II. Articles


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APPENDIX A: TRANSCRIBED VIBRAPHONE SOLO

BLUE MONK

Thelonious Monk
As played by Gary Burton
and Makoto Ozone
Album: Face to Face
APPENDIX B: BLUES PROGRESSIONS

A) Traditional Blues Progression

B) Chord Substitution

raise root one half step to create fully diminished chord

C) Progression used for original melody of Blue Monk

raise root one half step to create fully diminished chord

D) Possible Chord Substitutions
E) First Chorus of Vibraphone Solo

F) Second Chorus of Vibraphone Solo

G) Third Chorus of Vibraphone Solo

H) Fourth Chorus of Vibraphone Solo
APPENDIX C: GARY BURTON DISCOGRAPHY

After the Riot at Newport, 1960, Bluenote.

Afterglow, Movie Soundtrack by Mark Isham, 1998.

Alone At Last, solo, 1971, RCA.

Artist’s Choice, compilation, 1989, RCA.


Benny Rides Again, 1992, GRP.

Brookmeyer and Friends, 1964, Bluenote.

Carnegie Hall, 1968, RCA.

Charity of Night, 1997, Bluenote.

Chick Corea/Gary Burton Tokyo Concert, 1981, Pioneer Laserdiscs/VHS.

Collection, compilation, 1997, GRP.

Cool Nights, 1991, GRP.

Country Roads, 1969, RCA.

Crystal Silence, duet with Chick Corea, 1972, ECM.

Departure, 1997, Concord Jazz.

Dreams So Real, 1976, ECM.

Duster, 1967, RCA.

Easy as Pie, 1979, ECM.

Face to Face, duet with Makoto Ozone, 1995, GRP.

For Hamp, Red, Bags, and Cal, 2001, Concord Jazz.

Gary Burton and the Berklee All-Stars, 1986, JVC.


Genuine Tong Funeral, 1968, RCA.
Getz au Go Go, 1964, Bluenote.

Getz/Gilberto #2, 1965, Bluenote.


Groovy Sound of Music, 1964, RCA.

GRP Big Band, 1992, GRP.

GRP Big Band Live, 1993, GRP.

GRP Christmas Album, 1988, GRP.

Hotel Hello, duet with Steve Swallow, 1974, ECM.

In The Public Interest, 1972, Atlantic.

Ingenue, K.D. Lang, 1992,

It’s Another Day, 1994, GRP.

Jazz Winds From A new Direction, Hank Garland, 1960, RCA.

Kieth Jarrett/Alone at Last, compilation, 1997, Atlantic.

Last Date, Floyd Cramer, 1960, RCA.

LIBERTANGO, 2000, Concord Jazz.

Like Minds, 1998, Concord Jazz.

Live at Cannes, 1981, ECM.


Lofty Fake Anagram, 1967, RCA.

Lyric Suite, with Chick Corea, 1986, ECM.

Matchbook, duet with Ralph Towner, 1974, ECM.

Music Stories, with Kamerata Orchestra, 2003, Concord Jazz.

Native Sense, duet with Chick Corea, 1997, Sonor.

New Quartet, 1973, ECM.
New Tango, 1986, JVC.

Nobody Else But Me, with Stan Getz, 1996, GRP.

Norwegian Wood, compilation, 1972, RCA.

Out of the Woods, George Shearing, 1963, RCA.

Paris Encounter, 1972, Atlantic.

Picture This, 1980, ECM.

Rarum, compilation, 2002, ECM.

Real Life Hits, 1985, ECM.

Reason to Believe, duet with Tim Harden, 1967, RCA.

Reunion, 1989, GRP.

Right Place, Right Time, duet with Paul Bley, 1994, Sonor.

Ring, 1975, ECM.

Seven Songs, 1974, ECM.

Six Pack, 1992, GRP.

Slide Show, 1985, ECM.

Something’s Coming, 1963, RCA.

Symphonic Bossa Nova, 1996, GRP.

Tennessee Firebird, 1966, RCA.

The Time Machine, 1965, RCA.

Three in Jazz, 1963, RCA.

Throb, 1969, RCA.

Times Like These, 1988, GRP.

Times Square, 1978, ECM.

Treasure, duet with Makoto Ozone, 2002 Bluenote.
*Turn of the Century*, compilation, 1975, Atlantic.

*Virtuosi*, duet with Makoto Ozone, 2002, Concord Jazz.

*Whiz Kids*, 1987, ECM.

*Who is Gary Burton*, 1962, RCA.

*Works*, compilation, 1987, ECM.
VITA

Charles Brooks was born in Lexington, Kentucky. His father was a high school music teacher and trumpet player. Through his influences Charles would be exposed to various forms of music and arts. Brooks began to play the drums at the age of five. During middle school he performed with the high school jazz band as well as the concert band. While in high school he was active in every ensemble offered. When he graduated Brooks entered Western Kentucky University, where he pursued a Bachelor of Arts degree and studied percussion with Dr. Christopher Norton. Upon graduation Brooks worked for an instrument repair company for a year and a half. Austin Peay State University accepted Brooks as a Master of Music candidate and newly appointed graduate assistant in percussion. In 2000 Brooks entered Louisiana State University as a candidate for the degree of Doctor of Musical Arts, with a minor in composition. Through his collegiate career Brooks has studied composition with Dr. Dinos Constantinides, Dr. Jeffery Wood, and Dr. Charles Smith. Currently Brooks is an active freelance musician and pedagogue in Nashville, Tennessee.