Extemporized or Memorized? Methods of Improvisation Across North American, Indian, and African Musical Traditions

by

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Introduction

Improvisation is an enrapturing component of most musical traditions around the world. Many music lovers view spontaneous creation as the zenith in music making. While each tradition that uses improvisation will have normative values for a target sound, can we connect the rules for and approaches to improvisation between many starkly different traditions? This thesis compares six musical practices involving improvisation to search for common features of lauded improvisors across cultures. Amalgamating the work of ethnomusicologists knowledgeable in early and modern jazz, North and South Indian classical music, Highlife music, and Afrobeat music, this exploration asks the following questions: What characteristics of improvisation are considered desirable across a diverse selection of musical genres? What influences each tradition’s target sound? Are there any elements to improvisation that are innately valued by humans regardless of the culture in which they were raised? Which skills are most important for a musician attempting to become an expert improvisor across North American, South Asian, and African musics?

The methodology used to evaluate the features of improvisation that each musical tradition values will be primarily via literature review. By summarizing the performance practice within each tradition laid out by prominent scholars in the field, this study will familiarize readers with the
context and logistics of improvisation. Then the techniques and strategies for improvisation will be examined by analyzing quotes, transcribing improvisations, and summing the explicit and implied opinions of the genre’s experts to form an operating “state of improvisation” for each tradition. Ultimately, each tradition utilized improvisation in such a unique manner that generalizations about the role of improvisation in each culture would be inaccurate. However, connections were found between sub-elements of improvisations which may be made more robust upon analysis of a greater number of traditions.

I evaluate books, articles, and interviews that directly explain the performance context for each tradition and various approaches to improvisation. For the recordings I transcribed and analyzed I especially sought out performances that had not had their transcriptions published for common use online already (with the exception of Wayne Shorter’s “Children of the Night” solo which I amended and transcribed to its original key) and that included as many elements of a typical performance (as defined by the literature) from the genre as possible. Each transcription was notated in MuseScore and will be made publicly available online upon submission of this thesis. Throughout the description of each tradition and during the comparative analysis section, jazz is used as a reference point. With a cross-cultural examination that introduces information by scaffolding each
genre, referring back to my home field of jazz makes organizational sense and plays to the strengths of my background.

The term "improvisation" in this thesis refers to any time a musician takes an action in one performance that they would not necessarily intentionally take the same way in another performance of the same piece. The term “solo” in this thesis refers to one performer’s improvisation that is featured; it is a showcase of an individual’s improvisation intended to hold the audience’s attention. The term “accompaniment” in this thesis refers to an aspect of the performance either improvised or pre-composed that supports the featured member(s) of the ensemble without intending to attract most of the audience’s focus.
Swing Era Jazz


Song forms: A typical piece would be performed in an arrangement that presents the song’s melody (and then possibly variations of the melody), dedicates a certain amount of time to soloists’ improvisations, and then returns to a restatement of the melody. A few examples from this era that follow this format include Billy Strayhorn’s arrangement of “Take the ‘A’ Train” from Ellington’s 1941 Victor recording, Count Basie’s arrangement of “Cherokee” from his 1939 recording on the Decca Label, and Glenn Miller’s arrangement of “In the Mood” from his 1939 recording on the BlueBird label. These compositions were often restructured or extended versions of tin pan alley songs or American musicals often in an AABA form (two eight-measure sections with the same harmonic structure, followed by an eight-measure section of a different harmonic structure, concluded by an eight-measure section of the original harmonic structure). A defining feature of swing era jazz
arrangement was how the brass, woodwind, and rhythm sections interacted to conversationally unfold the arranger's ideas. While a composer is the creator of a song's melody and harmonic form, an arranger adapts a composition for a performance context. This often involves writing a through-composed presentation of the song's melody and form, delegating variations on the song's theme to instruments that achieve a target sound, and sequencing each section of the performance to create drama and intrigue. For example, James F. Hanley composed the song “Back Home in Indiana” in 1917, which Duke Ellington arranged for his 1946 Bluebird recording with a variety of sectional tuttis and transitions to keep the performance of the song fresh. Harmonies were dense and arrangers frequently utilized every member of a section to present a lush blend of sound.

**Tradition:** Swing era jazz was the most popular American music of its time. This era is defined roughly as 1930-1945 (Tucker and Jackson 2001: 14). A shifting landscape saw many of jazz’s world-class players end up in New York city after earlier periods of jazz migrated the genre’s hub from New Orleans up the Mississippi river to Chicago, ending in NYC (Stowe, 1992: 53). While there were also active jazz cultures throughout these original jazz hubs as well as Memphis, Washington D.C and the American west, New York became an influential location for the lineage of jazz during the Swing era. Jazz
performances were typically held either in concert halls for “theater engagements or dances,” or in smaller scale contexts intending to create a formal jam session (Devaux, 1989: 15). There was an accompanying dance culture that bolstered the mainstream popularity of the music. During this era the jazz repertoire was enriched with innovative harmonies, compelling new improvisation and a tremendous growth in recordings and venues. Despite the heterogeneous appeal of jazz in the swing era, bandstands were segregated during the swing era (Monson, 2007: 80). This constricted the exchange of ideas in a way that would be gradually improved during following eras in jazz history. Swing jazz gradually fell out of popularity due to an unfortunate mix of economic and social factors including an amusement tax, gas shortages, performers getting drafted to WW2, increased racial tensions and many others (Hussain, 2019, paragraph 5).

**Improvisational techniques**: Instrumental soloists were typically accompanied by rhythm section instruments (guitar, piano, bass and drums), which provided improvised accompaniment (though horns often played pre-composed accompanying lines). Accompanists would improvise monophonic contrapuntal lines (bass) or chordal voicings (piano) accenting key beats to cue the place in the song form to other band-members and audiences (Johnson-Laird et al, 2002: 416). Accompanists also sought to build the intensity of the performance by listening to the featured
instrument(s) and interacting with their ideas (most commonly during the gaps or silences of the featured soloists.) Soloists aimed to improvise lines that were expressive, logical, physically virtuosic, and memorable. Soloists drew inspiration from a host of influences including peer musicians, other songs’ melodies, muscle memory from practicing, anticipating pre-composed “fills” or “hits”, and more. Soloists were also guided by the number of choruses the arrangement instructed them to play for, which informed their long term planning.

The context for improvisation was typically in a big band (a 12-17 piece orchestra) or later and less commonly in smaller ensembles. The featured improvisation in this era would occur in a pre-set order within the arrangement, sometimes with a specified duration and other times up to the discretion of the improviser or band leader. While each member of the big band had their own contribution to the collective sound (a first trumpet part would usually play the highest notes and the second or third trumpet would save their chops for improvisation,) improvisation (particularly soloing) played a crucial and highly prestigious role in the music. Nearly every great jazz musician was recognized for their improvisatory skills. Here are a few quotes reflecting the attitudes towards improvisation of some successful improvisers of this era.
“They’re not particular about whether you’re playing a flatted fifth or a ruptured 129th as long as they can dance to it.” – Dizzy Gillespie (Anonymous [JazzQuotes,] 2019)

“The most important thing I look for in a musician is whether he knows how to listen.” – Duke Ellington (Anonymous [JazzQuotes,] 2019)

“You can have tone and technique and a lot of other things but without originality you ain’t really nowhere.” – Lester Young (Anonymous [JazzQuotes,] 2019)

“I kept thinking there’s bound to be something else? I could hear it sometimes, but I couldn’t play it.” – Charlie Parker (Anonymous [JazzQuotes,] 2019)

“Wrong is Right” – Thelonious Monk (Jazz Quotes, 2019)

These quotes each address a component of 1930’s-40’s jazz culture. The Gillespie quote references culturally permitted improvisatory vocabulary available to the improvisors, both suggested and forced by definition. Ellington’s quote articulates a virtue that began in jazz’s conception and has been ever-present throughout jazz history: real-time interaction. There is also an element of respect shown to a jazz musician by communicating that you heard and retained their idea. Lester Young’s quote speaks to the growth of jazz as a genre through the personal expression of each performer. With improvisation at the focal point of a jazz performance, listeners yearned for a
performer to showcase emotion and personality while propelling the tradition forward by taking risks. As bridges into the next chapter of jazz history, Parker and Monk refer to the curiosity that led jazz artists to explore new improvisatory and compositional ideas at a quicker rate than any lineage to that date.

There are three primary types of improvisation in jazz music of this era. First, soloists improvise in predetermined sections of the arrangement. This form of improvisation had few restrictions beyond acknowledgement of jazz vocabulary and harmonic form; it was an opportunity for the musician to express themselves and enrapture listeners with a creative narrative. The second type of improvisation was among rhythm section or “comping” instruments when they spontaneously composed accompanying lines to support the soloist. Improvisatory accompaniment had a more focused objective than solo improvisation. When an improviser is “comping,” they are focused on outlining the harmonic shift from measure to measure by filling space according to the capability of their instrument. Bassists improvised a consistent stream of (mostly) equal-duration tones to develop a contrapuntal line that soloists can use for reference. Drummers marked the passing of each measure by emphasizing key beats through distinct sounds on the drumkit while improvising hits to interact with the soloists and add their personal ornamentation to the sound. Chordal instruments such as piano and guitar would place each passing chord in different areas of the bar and
choose voicings and inversions that highlighted colorful pitches within each chord. The third type of improvisation concerned personal interpretation of the melody of the composition. No two jazz musicians would perform the same composition the exact same way. Such personal stylizations such as vibrato, variable note duration, dynamics, ornamentation (via added notes), articulation, cadenzas, scoops, shakes and growls are just a few adjustments a musician can make to the notated material. This is the most restricted form of improvisation in jazz as the musician needed make most of the melody audible to the listener.

In an era when jazz had its widest mainstream appeal, musicians fed off of the desires of their audiences. With so many untrained ears listening to enjoy the dance culture that jazz supported, consonant anticipatable harmonic choices were normatively valued among dancers (Tucker and Jackson, 2001:16). Improvisors sought to showcase their lyricism and technical virtuosity over a solo arc that inspired movement and emotion from the vast host of listeners. In this era of jazz history, harmonic song forms typically revolved around a single home key, possibly moving to a related tonal center for the bridge. The “rhythm changes” harmonic form of George Gershwin’s “I got rhythm” and other forms, such as Duke Ellington’s 1931 composition “It Don’t Mean a Thing If It Aint’ Got That Swing,” showcase how a series of contrafacts from this era can all function in a single key for the majority of their song form.
In Duke Ellington’s “Take the ‘A’ Train” (a quintessential snapshot of the times) the tonal center of concert C is a consonant note to play over any chord in the song form. The only measures where the notes in a C major scale wouldn’t match the chord changes are in the third and fourth bars of the A section (where only the F# and G# deviate) and the first six measures of the bridge (where only one note in each of the Fmaj and D7 chords are different.)

Figure 1, “Take the ‘A’ Train,” composed by Duke Ellington. From Dean, 2018
When considering strategies for improvisation, jazz musicians tend to fall under one or multiple of four archetypal buckets as outlined by Lawrence Gushee (1991): motivic, formulaic, schematic and semiotic. Motivic playing involves organically forming a short rhythmic or melodic passage and developing this passage over the duration of the song form. While the pitches or rhythm of this phrase or “motif” may change, the improviser holds a defining quality of the motif constant to indicate motivic playing. Formulaic playing involves combining previously learned melodic patterns into new sequences to make a musical statement. Many “formulas” or known patterns among improvisers are drawn from existing compositions and past improvisors’ solos. This means that formulaic playing often cites vocabulary that listeners recognize. Schematic playing is a method of advancing the vocabulary and signaling virtuosity by “transforming fundamental structures” through rhythmic, harmonic or melodic ideas that merge the repertoire with a new form of dissonance. Simply put, in schematic playing an improviser identifies the structure of the song and makes conscious musical decisions to disrupt it. Semiotic playing involves transcending the hierarchical structure of a composition with a musical interpretation that is of a different type altogether. Kühl showcases these semiotic interpretive differences in how different jazz musicians structure the chord changes of blues compositions. John Coltrane, for example, could hear a blues and superimpose changes on the blues form in an improvisation or composition that showcased what blues
meant for him. This was shown to be different than the superimpositions that Charlie Parker or Charles Mingus would make (Kühl, 2007: 5). A combination of approaches is another common strategy among jazz improvisers. This may involve oscillating between two techniques segmented by section in the song form or merging two or more of the techniques (Berliner, 1994: 233).

Let’s examine the first of two solos taken on Duke Ellington’s February 15th 1941 recording of “Take the ‘A’ Train” by trumpeter Ray “Showtime” Nance:
Gushee (1991: 239) provides an informative perspective on the aim of jazz soloists when he wrote that a soloist’s “goal is to demonstrate ‘chops’ (technique), ‘soul’ (expressivity), and ‘ideas’ (originality, and to some degree, logic).” I would also posit a fourth category falling somewhere between chops and soul: paying homage to the tradition. This includes quoting iconic jazz
vocabulary and emulating inspirational jazz figures. These will be the primary
methods of evaluation that I will use to categorize Nance’s intentions
throughout his solo. Johnson-Laird et. al devise a system to segment the
layers of creativity that comprise the ideas criteria. They call it the NONCE
method: Novelty for the individual, Optional novelty for society,
Nondeterministic, bound by Criteria, and founded in Existing elements.
Reworded, this means the improvisor plays something fresh and exciting, has
autonomy of choice and uses a framework for evaluation and appreciation.
While Nance was assigned one chorus in the arrangement of this
performance, jazz soloists who were able to choose how long they played
may have structured their solos differently for recordings and performances
intended to entertain a live audience. This was because recordings during the
swing era were captured on 10-inch 78 rpm discs which only stored three
minutes of audio. Clearly there is a difference in narrative and explorative
capability between Ray Nance’s 45-second solo and Paul Gonsalves’
27-chorus solo in Ellington’s band 15 years later (Perkins, 2014).

The history of the genre and influences available to Nance as he stood
up to improvise were also consequential factors in his soloing. Important
preceding jazz trumpeters included Louis Armstrong, Bubber Miley and King
Oliver. All three goliaths had unmistakably characteristic tone, heavy use of
vibrato, and signature phrases they used across a variety of solos.
In the transcription we can see that Nance references the song’s melody: directly in measures 3, 4, 27, and 28; and indirectly in measures 5 and 6 of his solo. This strategy can serve as a starting point for solos (since the beginning idea is one of the most challenging components to the narrative of a jazz solo) and also gives audiences a familiar reference to draw their ear. Another choice Nance made in his improvisation was to play a chord tone almost every time he began a phrase on a downbeat. This can be seen in measures 2, 4, 10, 12, 16, 21, 26, 30, and 32; most of the extensions began on a note in the C major scale (measures 4, 6, 17, and 31). These all fit within the C major scale in addition to being either the tonic, mediant or dominant of the chord they land on. This was likely a byproduct of the incentive that swing era musicians had to guide the attention of audience members towards a familiar sound. These downbeats reaffirm the improvisor’s place in the song form as well as the song form itself. The third clear improvisatory tactic employed by Nance was repetition. Throughout the bridge (measures 18-25), Nance repeats the following two-bar phrase three times:

![D7](image)

Figure 3, Measures 18-19 in Ray Nance’s solo on Take the “A” Train (1941.) Transcribed by Sam Anschell.
Deviating only the final note of each phrase, Nance creates an anticipation and expectation for this recurring line. This helps dancers and accompanying instruments better interact with his solo, encouraging participation and captivating listeners' attention. Nance also uses an inexact form of repetition in measures 14-16, holding rhythm mostly constant and adjusting the notes to reflect the changing harmonic contours of the song form.

Other elements of Nance’s improvisation that don’t come through on the written transcription include his tone, vibrato, interaction with the pre-composed orchestral accompaniment, and his propensity to decrescendo and taper off the ends of phrases. His tone draws from the muted sounds of King Oliver (paying homage to a tradition) rather than a heralding pure tone of Armstrong. Nance’s vibrato was fast, wide and began almost immediately after a note was struck. This reflects a mixture of Nance’s influences, audience demand, and how he personally interprets the music and its meaning. Nance also knew where the short background hits were in the solo form and either consciously or subconsciously built his improvisation to compliment them. For example, in measures 5, 9, and 27 Nance begins the pickup to his phrase exactly after the background winds have finished theirs so that both parts could be heard clearly. These “audio obstacles” function as extensions of the harmonic form, a suggested rest of sorts.
Improvisation in 1930-45 jazz music was characterized by danceable lines, outlining the song form, consonant harmonies, and lyricism/originality. These traits were driven by mainstream appeal, a large market for dance music, and an opportunity to create long-lasting vocabulary in an exciting new tradition.
Hard Bop Era Jazz (1955-1965)


Song Forms: In the hard bop era, jazz composers experimented with a wide range song forms. Form length, meter, harmonic structure, mood, and melody were more unique from composition to composition in the hard bop era than in any preceding period of jazz’s history. While certain compositions from this era adopted the harmonic progression of prior jazz compositions, many compositions introduced revolutionary harmonic ideas to jazz. Notable innovations included the Coltrane matrix of cyclical ascension by perfect fourths and minor thirds and a turn toward modality (rather than functional harmony,) popularized by Wayne Shorter, Miles Davis and John Coltrane (Spitzer, 2015).

Tradition: Jazz began to fade from popular tastes and tended to be played in clubs for listening, including those in black neighborhoods and in arts centers, such as downtown New York. As audiences no longer danced to jazz, harmonic dissonance, jarring rhythmic diversity and long-form solos became more prevalent. Recording technologies improved in the 1950’s and 1960’s
with the advent of microgroove LP’s) and hard bop musicians were able to record 40 minutes of music per album.

**Improvisational Techniques:** In the hard bop era, improvisors primarily drew from the bebop vocabulary that had been established in the previous decade (1945-55). Improvisors often fell upon patterns that came automatically to satiate cognitive ease and play to the strength of their muscle memory (Potter, 1990: 65). Berliner expands this concept by explaining the models jazz improvisers use in their playing. A target sound for a composition or composition archetype to any given improviser will naturally manifest in their playing. This means that improvisation may not necessarily be an exercise in spontaneous composition, but one of original organization. “Some musicians view improvisation as a process with the goal of creating an original but relatively fixed solo particular to the piece… they deliberately consolidate their most successful patterns from previous performances into a fully arranged model.” (Berliner, 1994: 241)

Players also recognize melodic phrases that will fit the contours of a cluster of passing chords and may choose ideas that have natural resolutions to upcoming chord changes. Another technique employed by jazz artists is quoting popular melodies from all eras of jazz, either playing a portion of a
melody unmistakably if not verbatim or by reducing them to an ascending/descending motion towards key target tones (Potter, 1990: 68).

There are also parallels between hard bop vocabulary and language that showcase how an improvisatory idea holds different meaning to those who know the influence of the idea and those who don’t, like how a spoken phrase bears different meaning to those who understand the language and those who hear it as a collection of sounds. A soloist may consider their audience when deciding the songs they reference, the expressive extended techniques (such as growls or multiphonics) played by past musicians, and the tone and phrasing they use to convey their interpretation of the music. The meat of the content in hard bop solos are primarily derived from motivic development (Brownell, 1994). Soloists can base these motifs from sections of the melody or an original idea that is repeated and expanded throughout the duration of the solo. Hard bop soloists performed in this manner to give their improvisations coherence, structure and narrative. Soloing through motifs also helped soloists enrapture audience members and create a memorable musical statement.

Here’s what improvisation meant to a few successful improvisers of the hard bop era:

“Go on and play, and if you make a mistake, make it loud so you won’t make it next time.” – Art Blakey (Anonymous [JazzQuotes,] 2019)
“Improvisation is the ability to create something very spiritual, something of one’s own.” – Sonny Rollins (Anonymous [JazzQuotes], 2019)

“I start in the middle of a sentence and move both directions at once.” – John Coltrane (Anonymous [JazzQuotes], 2019)

“I'll play it first and tell you what it is later.” - Miles Davis (BrainyQuote, 2019)

These quotes each emphasize the change in jazz improvisers’ mentality between big band jazz and hard bop jazz with smaller ensembles consisting only of a rhythm section and 1-3 horns. With so many new compositions expanding the limits of the sound jazz could assume, artists sought to contribute to the music in a community that was receptive to innovation. A driving factor behind the fast exchange of ideas jazz witnessed between 1955 and 1965 was the geographic clustering of great jazz musicians. With so many iconic players residing in New York, Detroit, and Philadelphia, jazz composers and performers enjoyed powerful positive spillovers.

One similarity between swing era and hard bop jazz are that both styles draw from the same parent influences and vocabulary of blues, tin pan alley, and American musicals. Saxophones, trombones, trumpets were featured instruments in both eras. In the latter era, the guitar, piano, organ, and vibraphone became increasingly featured as solo instruments, while still providing accompaniment through comping. During the hard bop era
musicians drew from a wide array of African American musical traditions to concentrate emotion, harmonic sophistication, and breakthroughs in jazz theory to explore with longer solos (Monson, 2007: 98). Two musical devices brought to the forefront of jazz tradition during the hard bop era were riffs and vamps: each short repeated figures with different musical roles. While riffs are more general figures with multifaceted uses, vamps serve the function of setting a harmonic context for a section of the arrangement. These textures added another component to the music for performers to anticipate and interact with (Monson, 2007: 99-101).

As has been the case in every chapter of jazz history, listening and reacting was crucial among band members to give the ideas of each improvisor multi-dimensionality. Additionally, certain elements of swing era arrangements remained present in some jazz performances of 1955-1965. “Shout” choruses or riffs could be used in hard bop as a transitional device between the melody of the composition and the first solo (as in Hank Mobley’s 1959 recording of “Dig Dis”), from one solo to another (as in the Jazz Messengers’ 1956 recording of “Nica’s Dream”), and the final solo to the ending statement of the melody (as in the Jazz Messengers’ 1955 recording of “Lady Bird” or 1956 recording of “The End of a Love Affair”. This practice was continued in later-era combo performances such as Chick Corea’s 1971 recording of “Spain.” Finally, the cultural climate of jazz was different but familiar. In both eras jazz was predominantly performed by African American
musicians, and many of these musicians dealt with racial prejudice in their work environments, and in critiques of their musicianship. Jazz served as an outlet for musicians to make social statements and express themselves by developing their own sound.

One of the main differences between the swing and hard bop is the size and expectations of the audience. In the hard bop era, jazz made up a decidedly smaller portion of record sales and radio airtime, and the audience, listeners rather than dancers, may have had different expectations. This encouraged composers to write more harmonically complex or dissonant songs without disengaging listeners. A few of the harmonically innovative compositions stemming from this expansion of creative potential are “Con Alma” (Gillespie 1956), “Naima” (Coltrane 1959), “Giant Steps” (Coltrane 1959), and “Inner Urge” (Henderson 1964).

In addition to this freedom to experiment with advanced harmonies and shifting key centers, the hard bop era normalized modal jazz within the repertoire of jazz standards. Modal jazz is a reconceptualization of the way improvisors approached their solos. Modal songs use as few as one or two chords for an extended period, and musicians treated these chords to their fullest extension to construct a palate of intervallic colors to improvise with. Modes are made up of scales implying melodic behaviors that offered new moods. Modal compositions acted as conduits for musicians to experiment with the greatest deal of harmonic freedom jazz had witnessed to that point.
Let’s explore how a modal visionary, Wayne Shorter, navigates a composition with both harmonically dense and harmonically sparse (modal) sections:

“Children of the Night.”
Wayne Shorter takes a rhythmically and harmonically complex solo with a greater emphasis on expression and variation than on lyricism. The
beginning line of Shorter’s improvisation alludes to a theme throughout his playing: emphasizing target tones rather than assigning each note equal importance. Shorter phrases his lines with a dynamic accent and sustained duration of the highest-pitched notes. While listeners hear every note played in the solo, the memorable and quotable substance of Shorter’s ideas may be the target tones. These high-pitched long tones are played in measures 2, 6, 9, 10, 12, 14, 16, 19, 38, 39, 49, 51, and 77, and are all either the tonic, supertonic, or dominant of the chord they rest on. Shorter may have felt that these intervals best communicated the emotion of the composition and returned to them for continuity in his improvisation.

The composition (“Children of the Night”) presents a harmonically complex vehicle for Shorter’s improvisation. The song utilizes a rare 48-measure long ABCAB song form. The first eight measures of the form (A section) oscillate between the keys of C# minor and A major, each sharing six scale tones. Since the two keys are so closely related, improvisors may think of playing modally in C# Phrygian while they play over each of these chords. The following twelve measures (the B section), however, rapidly move through a variety of tonal centers with ii-V-I patterns descending by minor thirds. These A and B sections showcase two new compositional advents of the Hard Bop era: intense drone-like modality for extended development of ideas and quickly changing key centers that require intense focus. For the following eight measures in the song form (the C section), the chord
progression reaches a compromise between completely static or dynamic harmonic motion. The first three measures of the C section stay in E minor before using a ii-V-I to arrive at B minor, then a series of fourths and minor thirds transports the progression to the consonant key of F major for just one measure. After another ii-V-I segueing back to C# minor, the A and B sections of the compositions are repeated to finish the song form. With such an unpredictable and quickly changing form (both in tonal center and in harmonic tempo) listeners and performers have a difficult experience anticipating where the composition will go without having the composition internalized.

Shorter’s solo itself employs virtuosic technique, quick harmonic mobility and potent rhythmic variety. Shorter appears to primarily use a schematic and formulaic (Gushee, 1991) approach to his solo development. The schematic element to Shorter’s improvisation lies in his ability to transport existing structures to a new harmonic context. Shorter takes patterns such as the bebop scale in measure 60 and applies it to a ii-V-I leading from D major to B major. This existing vocabulary functions as a vehicle to introduce a harmonic innovation of the composition. Since “Children of the Night” was composed and recorded for the first time on this 1961 Mosaic album, Shorter may have felt it necessary to accentuate the chord changes to help audiences hear harmonic nuances of the piece as they quickly passed by. While the ii-V-I chord progression was a staple in previous jazz compositions, it was rarely used in the sequence that Shorter organizes in the “B” sections of
“Children of the Night.” In many earlier jazz standards, the ii-V-I was used to navigate the circle of fifths in a free-flowing progression that utilized the tonic of one ii-V-I as the supertonic of the next. Take the iv-VII-iii-VI-ii-V-I progressions of the beginning of “Tune Up” and “Autumn Leaves” (reproduced below) for example:

![Tune Up](image1)

Figure 5, “Tune Up” composed by Miles Davis. From Leonard, 2005. Copyright Prestige Music

![Autumn Leaves](image2)

Figure 6, “Autumn Leaves” composed by Johnny Mercer. From Leonard, 2005. Copyright Prestige Music
In “Children of the Night,” the ii-V-I pattern descending by minor thirds had not been used at length in any previous jazz standards, breaking new ground. Shorter was contributing dissonance to the ii-V-I structure, not only by using it to connect a new type of harmonic relationship but also in how he added color tones in his improvisations over ii-V-I chords. In measures 60, 66, 73, 86 and 88 Shorter uses major thirds and natural sevenths over minor chords, and flat ninths and tritones over dominant chords. While Shorter used many of these pitches as passing tones, these cacophonous harmonic choices were rarely used in preceding eras of jazz. Harmonically, both in composition and improvisation, Shorter schematically advances jazz by merging existing repertoire with new dissonance. With exposure to this tune or others like it, listeners could develop a heightened understanding and appreciation for harmony that future composers may explore.

Shorter appears to use formulas throughout this improvisation to clarify the song form and quicken his thinking via pattern heuristics. Whereas Ray Nance used a few motifs that were explored and expanded throughout his solo, Shorter begins his solo with a blistering pace and dives straight into complex material that utilizes intervallic parallelism indicative of formulaic playing. In measures 1-8 of his solo, Shorter explores the full scale of C# minor and A major chords sequentially ascending and descending. The rhythmic variation Shorter is able to assign to these rapid series of scales is indicative of how Shorter may have formulaically memorized this pattern.
Shorter also plays the exact same sequence of notes in measures 31, 35-36 and 54-56 over A major and C# minor chords, suggesting this scale could be subconsciously recalled when Shorter anticipates the A major and C# minor chords. Shorter may also know formulaic ideas in every key and insert the formula to inject excitement or to transition between ideas. This could be why Shorter uses this same scalar pattern to punctuate the end of the densest section of his solo (measure 75). Other formulaic elements of Shorter’s improvisatory conception include his arpeggiation F major and C minor chords in measures 9, 12, 20, 56-57, 67 and the way he addresses each chord individually rather than as a collective form. By phrasing his lines to begin and end in the span of two measures with little melodic material connecting each line, Shorter telegraphs his thought process to address each passing chord change individually. However, the solo attains its continuity by the rhythmic development of these phrases.

Listeners can follow the flow of Shorter’s solo by the evolving rhythms that he outlines for each change in tonal center. One example of this is in measure 96 where Shorter outlines a C# major chord through descending arpeggios. The \(8^{\text{th}}-16^{\text{th}}-16^{\text{th}}\) pattern provides a constant among the varying intervallic leaps and also highlights the eighth note as a prominent tone. Another example of rhythmic development occurs between measures 54 and 58. Shorter escalates to climactic target tones through a repeated rhythmic phrase: two beats of \(16^{\text{th}}\) notes/\(16^{\text{th}}\) note triplets and a quarter note rest. The
flurries of notes between target tones build momentum to the target, particularly once Shorter establishes that a target tone must be reached every three beats. Five measures later Shorter uses a different rhythm to showcase the harmonic progression of the composition. Between measures 63 and 66 Shorter uses an 8\textsuperscript{th}-16\textsuperscript{th}-8\textsuperscript{th}-8\textsuperscript{th}-8\textsuperscript{th}-8\textsuperscript{th}-8\textsuperscript{th}-8\textsuperscript{th}\ rhythmic pattern to highlight the major second of the chord (or major sixth of the home key that the chord progression leads into.)

Shorter’s final half-chorus beginning on measure 77 provides an unexpected dénouement to what has been a high-octane solo. There is vague reference to the melody of the composition from measures 77-85 and a nearly tongue-in-cheek underlining of the harmonic form from measure 89-93. A clarity emerges from Shorter’s sparser usage of notes at the end of his solo and this highlights the diversity of narrative arcs among hard bop jazz solos. In the hard bop era jazz improvisers were given a new liberty with the shape of their solos. actors such as new recording technology, differing audience expectations, and new conventions all permitted more exploratory development of improvisational ideas compared to earlier eras. Solo length was no longer regularly pre-determined as it was in big band music and soloists found greater freedoms.
Hindustani Instrumental Music

Sample ensemble: Tanpura, tabla, sitar. Gathered from Ravi Shankar’s 1963 album *India’s Master Musician* from the Liberty Label.

Musical Forms: Most Hindustani ragas (modal structures that have associated compositions) utilize the following process in performance practice: alap (pulseless improvisation showcasing the melodic colors of the raga), jor (when the melodic soloist establishes a pulse, but no meter), and jhala (rapid strumming ending the large alap section), gat (ornamented performance of a pre-composed melody in a meter with percussion accompaniment), vistar (expansion of the raga through improvisation), and often at the end, a grand tihai (signature precomposed phrase signaling the end of the performance.)

Tradition: It is estimated that Hindustani classical music became a genre all its own sometime in 1200 AD. The tradition split from Carnatic music due to a greater presence of Persian influence in Hindustani music stemming from the Islamic conquest of Northern India (Nettl, 2014). The rich tradition has traditionally been transmitted orally between a guru (teacher) and student over the course of many years. Within the last century there have been increased outlets for the music to be taught to wider bases of students in a
classroom however many of the Hindustani instrumental masters learned through private lessons (Ruckert and Widess, 2000: 66). Ragas are thought to embody emotions or scenic characteristics which are learned culturally. The music is highly interactive between performers, and audiences often keep time along with the tala.

**Improvisational techniques:** The two primary types of improvisation in Hindustani instrumental music are in the tabla rhythmic accompaniment and the melodic solos. In improvised accompaniment, the percussionist retains a firm understanding of the tala as it repeats. With this frame of reference in mind, the percussionist matches the energy and ideas of the soloist while marking the pulse and filling space with improvised patterns of strokes. The soloist’s approach to improvisation varies by what section of the large-scale form they are in, however, the soloist always uses foresight to pace the improvisation to grow in excitement throughout the performance. Improvisors will employ a variety of rhythmic strategies to present melodic sequences in compelling ways.

Hindustani instrumental music is a tradition with roots in North India and a complex strict structure for performance. The repertoire is made up of hundreds of ragas that musicians learn by oral tradition. Ragas are recognized by musically educated audiences and outline a set of notes and a
grammar for improvisors to utilize in performance. The music draws excitement from pitch ornamentation (known as gamaka), complex rhythmic accompaniment, and intimate interaction between the instrumentalist and percussionist.

“When I perform live, 95% of the music is improvised: it never sounds the same twice.” – Ravi Shankar (Anonymous [Quotetab.] 2019)

“I firmly believe that the primary role of the tabla is saath-sangat (company for another instrument.) Which is why I enjoy being on stage with Shivji (Pt Shivkumar Sharma), Amjadbhai (Amjad Ali Khan) or Birju Maharaj. Unlike a solo concert where I am my own boss, here I have to strike a dialogue in the music-making process.” – Zakir Hussein (Anonymous [Wikiquote.] 2016)

“Singing instrumental music is most important because, while you play an instrument, you are singing through the instrument... actually, you are singing inside.” -Ali Akbar Khan (Anonymous [Azquotes.] 2019)

“First of all I choose a raga that gives me musical satisfaction… When I get the structure then I can enjoy playing it. When I play a few beautiful notes, the spirit of the raga feels happy and comes and blesses me. Then the real music comes.” -Hariprasad Chaurasia (Anonymous [Wikiquote.] 2019)

Shankar’s quote alludes to the holistically improvisatory nature of Hindustani classical music. Each section within a performance includes some
level of ornamentation and encourages instrumentalists to personalize their approach to the music. Hussein’s quote references how this tradition relies on listening, interactivity and awareness at the highest level. The rhythmic accompanists must not only internalize the time cycle, they also must be able to add variation and intrigue subconsciously to free their minds to engage with the soloist. Khan’s quote describes the process by which many Hindustani musicians learn a breadth of ragas and develop the tools to navigate through each raga: by singing. The importance of voice to the genre’s history is apparent in the construction, tone and capabilities of prominent instruments. While dazzling technique is valued in instrumentalists, Hindustani instruments are built intended to emulate a voice. Lastly, Chauriasia’s quote references the innate curious and explorative quality to this music. With single compositions regularly lasting an hour or more, the opportunity for musicians to tour each alcove of their ideas is unprecedented. Ragas are deceptively complex and players who have an interest in dedicating years of their lives to becoming fluent in a raga’s vocabulary have the greatest chance of personal fulfillment and audience acclaim.

A raga is a set of melodic boundaries, which have accrued over the centuries, and compositions that capture those boundaries. Ragas are comprised of multiple sections escalating in tempo, note density, and emotional intensity (Jairazbhoy et al, 1995). The first section in a raga’s performance already introduces improvisation and is called alap. An alap is
the vehicle by which an instrumentalist introduces the playable pitches of a raga to the audience, gradually revealing the nature of the raga. This process is accomplished through only the use of the soloist and the drone; there is no pulse, meter, or tempo-generating instrument involved. The soloist’s aim during the alap is to slowly and mysteriously move from the middle-octave tonic down to the lower octave tonic or fifth and into the upper register of pitch ranges (Jairazbhoy et al, 1995). A soloist will perform the alap a different way every time the raga is played, making alap the first improvised section in the music. Improvisation during an alap utilizes a different technique than improvisation in later sections of the piece. In the vocal Hindustani tradition, vocalists aren’t permitted to use meaningful text that would detract attention from the tones being exposed. This is indicative of the importance given to pitches and their sequence in an alap. The soloist is also discouraged from phrasing notes in any kind of a steady pulse in the first part of an alap. Both of these rules of the genre serves to guide soloists towards a target sound for the alap and free their mind to concentrate on intonation, ornamentation, note length, and note order (Bor et al, 1999).

After the pitches used in the raga are presented, pulse enters the performance. An instrumentalist will continue to improvise, but clearly make a conscious shift to add a steady pulse to their playing in a section called jor (Bor et al, 1999). After jor, and in some performances followed by a rapid string strumming called jhala, there is a pause before the second part of the
performance of a classical raga, which introduces meter or tala. Tala represents the rhythmic pattern of sounded and muted beats on the tabla within a time cycle. In Hindustani vocal music, a tabla or pakhawaj accompanist will cue in the beginning of the composition, which is called bandish; in instrumental music the composition is called gat. The percussionist introduces the second improvisatory component of a performance by keeping tala through guided improvisation. The percussionist knows that they need to mark key beats by playing appropriate strokes (or bols) for the piece's specific tala, however the space between beats can be filled in any way the percussionist chooses. A jazz drummer tends to outline the strong beat and song form by playing the high-hat on beats two and four, but involves their other three limbs by playing hits that interact with the occurring melody or improvisation. Using this same mindset, Hindustani percussionists will keep the music fresh and interesting by playing extra filler strokes beyond what’s required to signal the rhythmic cycle to the audience and instrumentalist. This extra activity can be busier or sparser given the intensity level of the piece, the percussionist’s virtuosity, and the percussionist's familiarity with the phrases played by the soloist.

The composition allows for creative liberty in a soloist’s interpretation of precomposed material. Vocalists still must sing the text and instrumentalists must present the composition in a manner that is recognizable to audiences, but a normative aim within Hindustani music is for
musicians to embellish the music with their own personality. Audiences attend performances to celebrate the performer of the piece rather than the composer of a piece (Slawek, 1998). A composition will contain memorable phrases which the soloist may quote in their improvisation, however there is one refrain in every composition that will necessarily be replayed as the improvisation leads back into the composition. This highlighted line (known as the sthayi) is understood as a quotation to reference the entire composition (Bor et al, 1999). A sthayi becomes a critical tool for improvisors to utilize in the next stage of the composition: a long form improvisation (known as vistar) taken by the featured soloist. This is usually the longest portion of a raga performance. Soloists utilize the sthayi in their improvisations by tagging on the phrase to the end of each improvised idea of a predetermined length. While this may appear to restrict the improvisor from creating extended ideas, great soloists will find a way to anticipate the sthayi so that it feels natural and provides a building block for inspiration (Slawek, 1998).

The last improvised component to Hindustani traditional music is an optional solo by the percussionist. In this rhythmic improvisation (known as a layakari), a percussionist aims to present complex, disorienting and compelling vocabulary while holding the tala unquestionably constant (Bor et al, 1999). Percussionists train to achieve unbelievable facility over their instrument and the sounds it can generate so that they are able to seamlessly translate difficult ideas to their hands. It’s common for a percussionist to
spontaneously superimpose an elaborate unrelated rhythmic framework onto the existing tala and keep track of each cycle independently for minutes. Finally, the vocalist/instrumentalist will re-enter upon the conclusion of the percussion solo to replay the composition, signaling the end of the performance. Since the audience has already heard the text of the piece earlier, a vocalist can reiterate the composed material via text, a long “ah” sound, or with Indian solfege (known as sargam). Similar to a jazz group’s “head out” in a standard, this repetition communicates the end of the improvised section and the piece itself.
"Raga: Tilak Shyam" from Ravi Shankar's 1966 Album  
"Pt (Pandit) Ravi Shankar" 0:07-1:26  
Transcribed by Sam Anschell
Figure 7, “Raga Tilak Shyam” composed by Ravi Shankar, gat section. Transcribed from the record Pt. Ravi Shankar released in 1966 on the Saregama India Ltd label. Transcribed by Sam Anschell.
Figure 7 is a transcription of “Raga Tilak Shyam,” a composition of Ravi Shankar’s influenced by Rag Tilak Kamod and Rag Shyam Kalyan (Nandgaonkar, 2018). Here we can see Shankar perform the gat (composition) to this raga and begin his improvisation within the cyclical song form. The tala for this composition is teen tal, a 16-beat cycle. Based on this excerpt from the raga, we can infer that the ascending notes of the raga are S (1) Re (2) Ga (3) Ma (4) Pa (5) Da (6) Ni (7.) In the transcribed key of Eb, this translates to Eb, F, G, Ab, Bb, C, D. The descending notes to the raga are S (1) Ni (7) Da (6) Pa (5) Ma (4) Ga (3) Ni (2) or Eb, D, C, Bb, Ab, G, F. Shankar will also quickly touch on flat (komal) Ga (b3 or Gb) both in ascent and descent and can play sharp (shuddha) Ma (#4 or A) when ascending to Pa.

Rhythmically, Shankar differs from most Hindustani instrumentalists in that he uses metric periodicity (Slawek, 1998: pp 362). Metric periodicity concerns repetition of phrasing length even if the phrases themselves differ. This is present in measures 8-9 and 15-19, not precisely but generally. In his analysis of a variety of improvisations that Shankar has performed, Slawek found a trend of subtractive diminution among many. This is the concept of an evolving melodic idea within metric periodicity gradually shortening. The basic subdivision of the beat that Shankar uses in this improvisation is the 16th note.
While not notated above, the rhythmic improvisation and interaction of tabla player Kanai Dutt is ever-present.

Dutt will also generate a drum roll to build intensity while Shankar is playing a fast passage and end the roll by striking both drums when he anticipates Shankar will finish his phrase. Another form of interaction is when Dutt merges Shankar’s rhythmic ideas with how Dutt had been keeping tala to strengthen the rhythmic idea. A great example of this in the section transcribed is in measures 21 and 22 when Dutt superimposes a ternary feel over the binary tala.

The gat is heavily embellished, though it occurs between measures 1 and 5. Shankar is quick to dive into expanding with blistering fast and dense ideas. While Hindustani music is procedural and demands reverence with regards to a raga’s melodic syntax and sectional acknowledgement, the genre encourages ample ornamentation and inclusion of original material along the way. The culture of the genre has dictated these qualities via listeners and performers. Audiences are knowledgeable in a plethora of ragas and will notice inconsistencies with the grammar as well as motivic references to other ragas. Performers undergo such a rigorous practice and lesson schedule in their youth that these seemingly impossible regulations come second nature. This culminates in a highly improvised music within a surface that is loosely structured by a composition.
Carnatic Instrumental/Vocal Music


Musical Forms: Carnatic music begins with an alapana. The duration of the alapana depends on the pacing that the performer anticipates for the subsequent elements of the composition, however Viswanathan explains that all alapanas in Carnatic music share four traits. Improvisors use the same characteristic phrases at the beginning and end of their alapana, mold their ideas to gradually hasten until the alapana’s conclusion, showcase the identity of the raga through motivic development, and explore multiple imprecise tempos to capture the mood of a melodic styling (Vishwanathan, 1977: 55-66). Garrett Field interprets Vishwanathan’s raga analysis to means specifically: “Approach to the octave, development in higher octave, fast passages in any range, and approach to conclusion” (Field, 2008: 46). Next comes the kritis which are the individual compositions being performed. There will be multiple kritis performed in any one given concert and each kriti is
segmented into a Pallavi theme (which functions as a refrain), an Anupallavi secondary verse, and a Charanam. Once the final Kriti is played, the performance concludes as well.

**Tradition:** While Carnatic music was separated from Hindustani music by name in the 13th century, Carnatic classical repertoire shares many similarities to ancient Indian music from 500 B.C as it wasn’t influenced by Persian culture as was Hindustani music. Carnatic music has both a rich history and strong modern development; instruments such as violin, tambura and mridangam have been in use since the 1700’s or earlier, while new instruments are used in performances every year such as saxophone and piano. In performance practice the ensemble will sit on stage situated to be able to see one another for ease of interaction. The roles of featured members and accompanists are clearly defined and accompanists constantly echo and modify phrases of their lead counterparts. An additional duty of the accompanying musicians is to track the “intricacies of the composition” as Carnatic pieces may begin outside the downbeat and demand special attention to percussive nuances. The participatory nature of the music extends to audiences who will clap for compelling solos, keep tala along with performers and submit requests for kritis they want to hear.
**Improvisatory Techniques:** Improvisation is used in five different contexts throughout the performance of a raga, however throughout each form of improvisation performers are cognisant of the raga’s musical grammar. Starting in the alapana of a performance, improvisors will gradually and originally explore the melodic contour of the raga in a similar fashion to the way alapana is performed in Hindustani compositions. Like with the alapana section of a Hindustani performance, improvisors of Carnatic music won’t integrate pulse into their playing and will methodically navigate their lower register then higher register before beginning the precomposed material. The second context that performers improvise in is a vocal tradition known as Kalpanaswaram. This is a sequence of notes selected by improvisors that manipulates strong and weak beats ending with the first note of a kriti (Field, 2008: 77). Kalpanaswaram is taught to Carnatic musicians at a young age as a fundamental improvisatory technique. A third context for improvisation is by improvising using lines of the composition themselves. This is known as Niraval. After a vocalist sings the lyrics of the composition, the vocalist can build their improvisation by fixing the rhythm of the text from a line of composition and engage in melodic improvisation with the text (Field, 2008: 121). Finally in the freest form of improvisation in Carnatic music, the vocalist can add extra vocables of their choice to communicate their interpretation of the raga, mirroring alapana in development (Field, 2008: 129). This process is called thanam. The most common organization of improvised techniques is
called Ragam Thanam Pallavi. The Pallavi is a composition in with text that is sounded through varying rates of pulse, inducing fascinating rhythmic interplay (Field, 2008: 134). This sequences the alapana improvisation first, followed by the thanam, the Pallavi verse, a Niraval interpretation of that Pallavi line, a return to the Pallavi line in three different speeds (holding tala steady) concluded by the Kalpanaswaram (Field, 2008: 134).

Carnatic performers and audiences will use two physical aids to assist with keeping track of tala. First, they will use hand motions to follow the tala either by alternating between claps and waves of their hand to represent strong and weak beats or by tapping their fingers on their alternate palm to track each beat of the cycle. Second, performers will occasionally recite solkattu (syllables corresponding to drum strokes that synchronize with the tala). The vocables used in the solkattu repertoire are designed for ease of recitation even at quick tempos, making certain solkattu sections compelling performances in their own right (Viswanathan, 2004: 37).

As in Hindustani music, Carnatic ragas are made up of distinct intervals related to a system tonic with sargam (Carnatic solfege) used to describe phrases. The quality of each pitch (svara) in relation to the drone and tonic pitch bears specific meaning to rasikas (knowledgeable listeners.) While there is no formal interpretation of the meaning of intervals in jazz, Carnatic music literature has associated certain svaras in each raga with specific functional characteristics including: indicating the start or end of a melody,
infusing life/soul into the music, featuring a highly-used note in the composition, and many others (Viswanathan and Allen 2004: 51). Distinct phrases known as prayogas (similar to the sthayis in Hindustani compositions) are a critical component to each raga. Older ragas in the Carnatic tradition place greater importance on the integration and mastery of distinctive phrases than modern compositions, which emphasize scalar exploration (Viswanathan and Allen, 2004: 49). Some of the older ragas elicit powerful emotional responses from audiences due to their historical importance in dance and cultural longevity (Viswanathan, 1977: 42).

With such a broad shared repertoire of material for improvisers of both Hindustani and Carnatic music, the differences in musical form and rhythmic improvisation give the Carnatic tradition a sound of its own.
West African Highlife Music

Example Ensemble: Alto saxophone, upright bass, bongos, vocals, congas, drumset, electric guitar, maracas, trombone, trumpet, tenor saxophone.

Gathered from E.T Mensah’s album *E. T. Mensah And His Tempos Band on the Decca label in 1958.*

Song Forms: Highlife music typically utilizes simple harmonic structures in a verse-chorus structure. With the emphasis of compositions on key melodic phrases, the song form serves to compliment the melody of the composition with consonant chord progressions to guide the ear of performers and listeners.

Tradition: Originating in the 1920s, highlife music was first played by the Akan people of Ghana when they experimented by combining long-standing Ghanaian musical features with Western instruments used in American jazz. Highlife music was originally performed for affluent audiences, but later split
into two subgenres: one for the rural poor and one for the urban rich. These genres differed in their featured sound. The rural highlife community was familiar with the sounds and playing techniques of stringed instruments so they adapted the genre to highlight the guitar, with percussion and voice as supporting sounds. The other subgenre features the blended brass and winds sound of American big bands. Throughout its history highlife music has been shaped by a variety of music around the world, particularly Afro-Cuban and calypso music. The clave, or rather a 3-stroke pattern on the offbeats of 2, 3, and 4 is usually present in modern highlife music and the genre continues to evolve; highlife musicians shape the genre with a receptive attitude toward new influences.

**Improvisatory Techniques:** Highlife musicians improvise in accompanying and featured roles similar to how jazz musicians of the swing era approached these improvisations. Accompanists improvise monophonic contrapuntal lines or chordal voicings accenting key beats to provide context to a soloist’s idea and remind performers and audience members where the performance is with respect to the song form. Accompanists also sought to build the intensity of the performance by listening to the featured instrument(s) and interacting with their ideas (most commonly during the “gaps” or silences of the featured sound.) Soloists emphasized the melody of the composition in their improvisations. The signature phrases of the composition are regularly
repeated, transformed and used as the starting or ending points in featured improvisation of highlife music.

A common attitude towards musical creativity in Africa is that it is a gift from god (Locke, 1980: 132). As in jazz, highlife musicians push to break from convention and expand their repertoire with spontaneous compositions that are both melodically and rhythmically interactive (Locke, 1980: 130). There are designated areas within the song form for improvisation and a clear harmonic framework for the improvisation to fall in. Syncopation at the beginning of phrases, call and response, and instrumental harmony by thirds and sixths are three such ways in which these simple lines are developed through the precomposed sections of a tune (Smith, 1962). Song form in highlife music is similar to much western-influenced popular music around the world. There is an A (verse) and B (chorus) section to almost every highlife composition. Most just have an AB form, though some utilize an AAB or AABA form (Smith, 1962).

In his PHD dissertation at the University of Ghana, Stephen Aidoo found that common harmonic movement among representative compositions of the highlife genre typically centered around tonic-supertonic-dominant-tonic (I-ii-V-I) progression or a tonic-subdominant-dominant-tonic (I-IV-V-I) progression. Aidoo also found that the tonal center rarely changed throughout the composition and that the B sections of pieces deviated only slightly from
the A sections in harmonic movement even if the melodic content shifted dramatically. After parsing through interviews from many of the top-selling highlife groups like the Tempos Band, Aidoo concludes that jazz is one of if not the most crucial influence on instrumentation and arrangement in highlife. Other notable influences were folk traditions of West African countries like Ghana and Nigeria, Calypso, Afro-Cuban music and some Christian Gospel. While the highlife genre underwent great evolution throughout its century-long history, early highlife pieces are still played and appreciated just as new compositions are.

Structurally, featured improvisation plays a very similar role in highlife music to jazz. Once the melody has been performed within the arrangement, an improviser will spontaneously compose within the harmonic framework of the song form. Improvised solos in highlife music serve as a compliment to the composition as opposed to the other way around. Soloists will usually play once through a song form, possibly twice if the tempo is fast and the form is only 12 measures long. Because soloists aren’t able to branch out and flesh out a thought to the magnitude a jazz musician could in a 1960’s quartet, soloists will often expand a motif written for one of the sections in the ensemble (almost a type of “theme and variations.”) Instrumentalists often use techniques such as repetition, staccato attacks, and suspension of pitches across chord changes to quickly build the intensity of their solos and emphasize their focal ideas (Aidoo, 2014).
The highlife composition transcribed in Figure 7 is a modern adaptation of the tradition in a fusion context. The group is made up of members of multiple bands collaborating, and they feature many elements of highlife and its influences. The instrumentation includes a guitar section of two acoustic players and one bass guitarist (common in all iterations of highlife, especially between 1920 and 1960), a percussion section of a drum-set, cowbell, two congas, jam block, shekere (used in many west African traditions), and shaker (used in many Afro-Cuban performances), a chorus of vocalists, and an atenteben (a flute used in Ghanaian folk music, associated with the Akan ethnic group). This group resembles a small ensemble that would perform highlife music at local gatherings and omits the horn section necessary to construct one of the large ensembles that enjoyed more international recognition. The arrangement of the performance involves an unmetered introduction, a jazz ballad-type introduction of the melody with liberty for embellishment and harmonic patterns using dense extensions, a change in tempo infusing the composition with the life of the clave, and a short cadenza to conclude the piece.
Sammy Nupkese's Atenteben Solo
Live at the Ghana National Science Museum, 10/26/2012

Transcribed by Sam Arschell
Figure 8, “Untitled” composed by Kwame Yeboah & the OBY Band. Transcribed from the video [https://www.youtube.com/watch?v=1dakjDts9vl](https://www.youtube.com/watch?v=1dakjDts9vl) (2013) by Sam Anschell
Nupkese develops the song’s melody with such attentive pacing and
tasteful phrasing that it’s difficult to analyze where the pre-composed material
ends and his improvisation begins. It appears that the pre-composed A theme
is the heavily ornamented series of lines between measures 34 and 60. This
is alluded to by its placement at the beginning of the song form and its
repetition between measures 104 and 123. The B section of the composition
is sung by the musicians and uses suspension of a “pedaled” pitch to outline
different intervals in the chord changes:

![Figure 9, “Untitled” composed by Kwame Yeboah & the OBY Band. Vocal parts, measures 59-66.](image)

Rather than a featured solo within a composition, this transcription
notates the techniques that Nupkese uses to ornament the piece in his unique
interpretation. Nupkese regularly uses grace notes to lead into his phrases,
likely a manifestation of playing to the atenteben’s strengths and the
emotional vocal quality that these scooping grace notes have. Nupkese also
uses overtones to quickly transition through the register of his instrument.
Particularly with flutes not constructed using pads and keys, quick intervallic
leaps necessitate risk in that a performer must completely cover multiple holes at once. In the video of this performance the viewer can observe this technique in measures 28, 29, 48, 49, 116 and 117 of the transcription. After the tempo change in measure 97 we can see Nupkese include more improvisational lines that are independent of the composition’s melody. Nupkese utilizes both repetition and scalar line construction (likely heard in jazz music) in the passage from measures 134-138 leading up to his performance’s climax.

Other distinctive characteristics of Nupkese's improvisations are his tendency to increase his dynamics on longer pitches (measures 23, 85, 121,) use of rhythmic displacement (measures 48, 124, 147-149,) implied polyrhythms (measures 83, 134), and emphasis on the leading tones of the current chord (throughout.) Overall Nupkese’s improvisatory approach was similar to that of many highlife artists in a multiple-chorus solo. While channeling the many influences of highlife’s lineage, Nupkese and his bandmates showcase the meticulously arranged structure of a highlife composition. The harmonic freedom a highlife improvisor is given to sidestep and re-enter the chord changes is similar to what improvisors are allowed in modern jazz. Still, many of the most celebrated highlife musicians utilize lyrical consonant phrases to build musical excitement.
Afrobeat Music

**Example Ensemble:** drumset, 3 congas, maracas, bass guitar, 3 guitars, piano, 1 lead and 8 supporting vocalists, two trumpets, tenor saxophone, alto saxophone, baritone saxophone. Gathered from Fela Kuti’s 1976 album *Fela and Africa 70-Zombie* released on the label Coconut.

**Song Forms:** Afrobeat compositions follow a cyclical groove-focused approach, and so many compositions are relatively harmonically stagnant (Oikelome, 2009: 47). These harmonies may revolve around a sparse collection of chords based in a minor mode that the musicians explore throughout a performance (Oikelome, 2009: 48). While the harmonic framework for many Afrobeat songs is simple and straightforward (likened to modal jazz by Inayatullah), rhythmic activity in Afrobeat is diverse and vitalizing. Afrobeat drumming references grooves such as boogaloo, a modified symmetrical clave, tumbao, and a variety of one-measure and two-measure soul grooves (Stewart, 2013: 108-109). Many of the melodies to Afrobeat compositions reference Yoruba traditional music or the tonal inflection within the Yoruba language (Oikelome, 2009:44).

**Tradition:** With roots in west African traditional music (particularly the Yoruba tradition of Nigeria), Afrobeat also serves as a melting pot for funk, jazz,
highlife, Cuban, and European dance band music (Oikelome, 2013: 83).

Visionaries such as Fela Kuti (the most influential pioneer,) and his drummer Tony Allen, Sonny Okosun, and William Onyeabor concocted different combinations of each of the aforementioned stylings to set Afrobeat in motion. Afrobeat music has been a platform for social activism throughout its history, addressing injustice in Nigeria and beyond. The messages of Afrobeat compositions shift from praise of Yoruba classical tradition to calling attention to slavery, corruption, and political inefficiencies. This political motivation is explanatory for the use of Pidgin instead of Yoruba or English in many Afrobeat song lyrics, the content of the lyrics themselves, and musical devices such as fast tempos, abrasive horn hits and minor keys popular in the genre (Falola, 2016: 232). Pidgin both renounces the colonial language and makes the message of Afrobeat compositions accessible to a greater audience worldwide. This all sums to a performance context with passionate performers and animated audiences who receive a high-octane call to action.

**Improvisatory Techniques:** Improvisation in Afrobeat utilizes musical vocabulary from Afrobeat’s influences, but aims to capture an aesthetic all its own. Afrobeat improvisation centers around a percussive attack to both comping and soloing. Accompanists align in an interlocked polyrhythm of staccato phrases. This culmination of groove centers not only around the percussionists but also around the rhythm guitarists who are considered so
vital to Afrobeat groove that they don't usually solo (Inayatullah, 2016: 534). While some drums repeat patterns deemed to be necessary ever-presents, other designated drums could vary the phrases they play, contributing a "hypnotic, mesmerizing, and propulsive effect" to Afrobeat music (Inayatullah, 2016: 534). Another element to improvisatory accompaniment is the reactionary nature of Afrobeat's frequent use of call and response. From the soloist's perspective, Afrobeat offers ample improvisatory freedom as a genre that is quickly evolving. Soloists will match the development of their solo and the tone of their sound to the thematic energy of the composition. This often means a rough but intense sound with angular rhythms developing an improvised idea or a part of the melody, or engaging in interplay with the groove.
Horn Parts and Saxophone Improvisation from the Title Track of Fela’s 1976 Album “Zombie”

Fela Kuti transcribed by Sam Anschell

Solo Saxophone

Horn Parts
In a solo over his composition *Zombie*, Fela Kuti improvises in a way that compliments the attitude of the composition. Fela’s improvisation can be fruitfully defined in Gushee’s framework of improvisation as motivic and
semiotic. The motivic element of Fela’s playing is apparent through his repetition and expansion of numerous short phrases. These phrases are introduced in measures 1-4, 6-7, 8-9, 13-14, and 36-40, and recur throughout this solo. Fela dedicates so much of his solo to replaying phrases that it’s difficult to discern whether these themes were a part of the composition or improvised. It would take an impressive amount of memory to recall these five motifs if they’re improvised in the way that Fela does, however only one of these lines is arranged for the ensemble (the section from measures 1-4 is played by the ensemble in measures 24-35). Regardless of whether these motifs were improvised, Fela ornaments and elongates them as plays through his solo.

The semiotic element to Fela’s improvisation comes from his personal experience with the subject of the composition. The lyrics of the composition criticize the Nigerian army by describing it as a thoughtless, stupid and heartless entity. Fela makes connections to the lyrics of the song by interpreting these thematic overtones of anger and disappointment by using jarring rhythmic displacement, coarse tone and frequent selection of the minor third and minor seventh. The composition “Zombie” doesn’t have a defined harmonic form beyond the two-measure modal ostinato played by electric bass pictured below:

\[ \text{\includegraphics[width=0.5\textwidth]{image.png}} \]
As with many solos in Afrobeat music, Fela explores a dorian scale (here it’s A dorian) extensively. In the first 35 measures of his solo Fela only uses notes from this mode, establishing the consonant pitches within this minor groove. This gives context to the dissonance Fela creates when introducing the tritone and major 7th to his improvisation. After this nearly stop-time groove with a reduced percussion section between measures 36 and 40, Fela expands the melodic motifs that were exposed in measures 1-35. The motif from measures 6-10 is explored and extended in measures 46-53, the motif from measures 53-55 is developed in measures 91-93 and the motif from measures 1-4 foreshadows the precomposed horn hits of the entire section.

Fela’s solo begins with high-intensity expressive phrases that are sustained throughout the improvisation, resulting in a level, unyielding solo arc. Fela’s articulation and many of Fela’s lines throughout this solo appear to have jazz or funk influences. While Fela may reference these influences because they match his semiotic interpretation of his lyrical message, he also may be considering the sounds that will most compel audiences to listen to his message at all. This motivic development of musical content might be chosen as a catchy device to appeal to wider audiences because a strong purpose of this music was to share Fela’s political statement with as many
people as possible. Ultimately, Fela merges these inspirations and others with his own ideas to build an Afrobeat repertoire to use as a conduit to communicate lasting social commentary.
Conclusion

The six musical traditions examined in this thesis each integrate improvisation in a unique manner. Improvisation can be used in similar manners across certain traditions, including intended desired effect of spontaneity on listeners, narrative arc, strategic approach, sequence in an arrangement, interaction among the ensemble, or cultural significance. Ultimately however, each tradition had a wholistically unique integration of improvisation to the way it achieved its target sound.

One unifying trait across these musical traditions is that improvisation is used both in solos and accompaniment. The degree to which the improvised accompaniment deviates from the rhythmic and harmonic prescription of the song form varies from tradition to tradition. It appears, however, that the ability to spontaneously compose a sound that energizes the music and assists audiences and performers to track the song form without pulling focus from the featured individual or section is normatively valued across a diverse sample of cultures. Specific comparisons have been made between jazz accompaniment and accompaniment across a variety of African musics surrounding the generation sounds that create a buzzing wash of noise. Such muggy tones as a ride cymbal ringing or a bass slap are likened to the African cultural appreciation of a “timbral liaison” in the decay of an instrument. These
vibrations generate a contrasting sea of sound for the crisp distinct pitches of the soloing instrument to shine through (Gushee, 1991: 238).

The approach that soloists took to planning their improvisation had high variation from one tradition to the next. In swing era jazz, improvisers facilitated a prevalent dance culture through their solos. This caused a tendency for improviser to forge buoyant danceable lines, outline the song form, choose consonant harmonies, and produce a sound that is lyrical, original and memorable. In hard bop era jazz, improvisers were keen to take advantage of technological advances in recording, musical advances in jazz vocabulary and theory, and a geographical clustering of influential peer musicians. These factors led performers to dedicate a greater portion of performances to long solos, reference the rapidly expanding vocabulary of jazz, innovate in an era that welcomed exploration, and sidestep or deviate from the harmonic progression (particularly when soloing over the popular modal framework). In Hindustani instrumental music, the development of a raga is crucial to the success of a performance. With this in mind, soloists dedicate special focus to planning the long term arc of their improvisation. Since the performance of ragas is segmented into predetermined sections, improvisers are aware of the change in intensity that accompanies each new section, and use the sthayi phrase to cue these transitions while improvising. In the vistar section of Hindustani improvisation, soloists will present melodic
sequences in rhythmically compelling ways using dissonance in . Carnatic music has a rich metric grammar and a variety of outlets for rhythmic improvisation. Experienced improvisers are fluent in subdividing an idea into triple, quadruple, quintuple, septuple and nonuple meters, assisting them in Solkattu solos and long-form percussion solos. Rhythmic independence amongst various meters in Carnatic music is especially valuable in the Niraval and when physically keeping tala in one meter while improvising in another. Highlife music makes use of recurring simple phrases, syncopation, and frequent interaction amongst the ensemble. Highlife soloists use vocabulary referencing the diverse collection of musical traditions that inspired highlife music to construct lyrical motifs that can be transformed through a solo’s development or echoed from a responding member of the ensemble. Finally, in Afrobeat music the themes of political unrest in many compositions surface with expressive parts meshing to create a percussive, modal groove. Soloists explore the composition’s mode with techniques from funk, jazz, highlife, and Cuban music and an unmistakable passion.

Among these traditions there is not a technique for improvisation that reigns as unanimously paramount. For an improviser to achieve the target sound in any improvised tradition they must understand the musical culture of that tradition individually. However the ability to engage with the ideas of fellow improvisors in real time plays a part in each tradition examined in this thesis.
So too is planning a potent solo arc to build excitement and drama over the course of the improvisation. Virtuosic speed (of play and thought) is prevalent among performers of hard bop jazz, Hindustani instrumental, and Carnatic musics. Motivic development is a technique regularly used in swing era jazz, hard bop jazz, Highlife and Afrobeat musics. With more traditions examined, common improvisatory features across world music could be documented more robustly. Improvised music from Latin America, East Asia, South Africa, and Mali seem to be fruitful subjects of further study to expand our understanding of the role of improvisation both historically and in the years ahead.
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