

How to Write a Jazz Composition's Chord Progression

BY PATRICIA JULIEN

I am writing this pedagogical article for two reasons, both of which are motivated by my experiences with Dr. Mary Arlin, while I was an undergraduate music student at Ithaca College. The first is that no detail was too small or basic for her scrutiny and her dedicated attention and instruction. The second is that one of my most enduring memories was working on an assignment from her class with a singer classmate. I remember his joy at partwriting a I-IV-V-I progression. It was as though he had never before experienced those chords or that progression, and it was partly his involvement in creating the harmonies and being responsible for those sounds and relationships that felt so gleeful and new to the singer. This resonated with me (I recognized that feeling of delight and fascination), I think, because as a flutist able to produce just one note at a time, I, too, regularly encounter harmony as a rich, captivating enterprise. Thus began my continuing love of harmony (of its chord progressions, voice leading, and voicings) and it is ever present in my work as a composer. In the spirit of Arlin's steadfast pedagogy, one that honored the basics (partly exemplified by not presuming previous knowledge, and treating everything with seriousness and respect), this essay offers an overview of jazz composition concerns related to creating the harmonic foundation of a piece.

INTRODUCTION

When I teach the Advanced Jazz Composition and Arranging course at the University of Vermont, students often express trepidation about composing the chord progression of an original piece. Although they have studied harmony in their undergraduate theory classes, are adept at analyzing chord progressions, and have had some experience with arranging, the responsibility for creating the chord progression is often daunting. Composing the melody does not seem to cause students distress and I suspect the chord progression anxiety is amplified by the awareness of needing to write a chord progression that will not only support the theme but also serve as a vehicle that inspires improvisation. This essay is a primer on how to help students conceive and write a stylistically appropriate jazz chord progression.

Of course, there is no single way to write a piece. One may compose a melody first and then harmonize it, one may compose the chord progression first and then craft the melody, or one may simultaneously create the melody and harmonic setting. To sharpen the focus of this vast topic, this essay concentrates on the second approach—chords first. Many excellent texts are available on jazz composition and arranging,¹ but none seems to cover the topic of writing a jazz composition from scratch and being attentive to large-scale architectural concepts such as form, phrase lengths, and harmonic rhythm, along with more local issues that occur within a phrase and include the basic chord progression plus chord substitutions and harmonic embellishments. Those existing texts, when discussing harmony, chiefly address voicings (i.e., chord spellings, the distribution of pitches registrally, spacing, instrumentation, doublings, and the intervallic basis of chord structures such as tertian, quartal, or cluster), reharmonization of existing pieces, and homorhythmic harmonizing of the chord tones and nonchord tones of a melody for an ensemble (as in a big band sax solo). This essay begins with an overview of large-scale concepts and then focuses on the local issues.

FORM

A good starting place for writing any piece is to decide on its form. Students can envision the large-scale structure of the piece and work from a plan they design. They should become well acquainted with the features of the three most frequently utilized forms in jazz: AABA; ABAC; and the 12-bar blues. AABA forms normally consist of four 8-bar phrases or eight 4-bar phrases. The A sections present the main thematic material and establish the home key of the composition. The B section, known as the bridge,

¹See, for instance, Tom Boras, *Jazz Composition and Arranging* (Belmont, CA: Thomson Schirmer, 2005); Andrew Charlton and John M. DeVries, *Jazz and Commercial Arranging*, vols. 1 and 2 (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982); Bill Dobbins, *Jazz Arranging and Composing: A Linear Approach* (Advance Music, 1986; reprint Delevan, NY: Kendor Music, Advance Music Publications, 2005); Henry Mancini, *Sounds and Scores* (Northridge Music, Inc., 1973; reprint Northridge Music, Inc., 1986); and Rayburn Wright, *Inside The Score* (Delevan, NY: Kendor Music, 1982).

is important to the form not only for its contrasting melody but also its change of tonality. This 8-bar section typically ends on the home dominant.²

²In some pieces in AABA form, the first two A sections are in an antecedent-consequent relationship, often making use of a first and second ending. The first A ends with a half cadence and the second with an authentic cadence, forming a parallel period. The B section typically has a contrasting melody, is in a different key, and ends on the home dominant making the bridge roughly analogous to the digression in binary forms. In this configuration, the AA' BA' form is a match for sectional rounded binary (with neither part I, AA, nor part II, BA, repeated). See, for example, "Confirmation" by Charlie Parker.

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Example 1, "Satin Doll" lead sheet (reprinted with permission)

For example, "Satin Doll" by Duke Ellington and Billy Strayhorn clearly establishes the home key of C major with the 8-bar phrase of its A section (expressed in two-measure segments). The contrasting B section consists of two 4-bar phrases, employing longer melodic figures (phrase-length four-measure lines, rather than the two-measure segments of the A section). The start of the bridge modulates to the subdominant; indeed, the first four measures of the bridge are generally considered fully in the key of F major.

Although in most classical contexts additional confirmation, beyond a single phrase, would be needed to consider this a fully-established contrasting key, jazz practice tends to consider more compact portions (sometimes requiring only a ii-V-I progression) to establish a key. Also, in a 32-bar piece, four measures is a fairly substantial portion (comprising nearly 13% of the composition).³

The ABAC (sometimes ABAB') form is essentially a 16-bar AB form repeated, with the final measures modified to create a 32-bar form.

³From the abundant number of pieces in AABA form, other examples include "Body and Soul" by Johnny Green, Edward Heyman, Robert Sour, and Frank Eyton, "God Bless the Child" by Billie Holiday and Arthur Herzog, Jr., "Have You Met Miss Jones" by Richard Rodgers, "Stormy Weather" by Harold Arlen, and "Take the 'A' Train" by Billy Strayhorn.

MY ROMANCE — RICHARD RODGERS / LORENZ HART 289

MEDIUM OR BALLAD

Chords: G- G- (maj7) G-7 G7 C-7 F7 Bbmaj7 D7

Chords: Ebmaj7 Ab7 Bbmaj7 Bb7 Ebmaj7 Ab7 Bbmaj7

Chords: E-7b5 A7b9 D-7 Ab7 G-7 C7 C-7 F7

Chords: Bbmaj7 Bb7 Ebmaj7 G7 C-7 C-7b A-7b5 D7

Chords: G-7 Gb7 Bbmaj7 F G-7 C-7 F7 Bb6

(C-7 F7)

FINE

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Example 2, "My Romance" lead sheet (reprinted with permission)

"My Romance" by Richard Rodgers provides an excellent example of ABAC form. Its A section, in two 4-measure phrases, is in the home key of Bb major. The B section (mm. 9-16) first tonicizes the subdominant Eb and then, in its second phrase, involves various tonicizations to arrive at F7 and signal the return of the A section. The C section also demonstrates various tonicizations and

firmly concludes in the home key. We will revisit this piece later to consider the melody and more closely examine additional features of its chord progression.⁴

The 12-bar blues, a three-phrase aab form, is a common vehicle for jazz composition and improvisation.⁵ While there are many variations on the harmonic pattern, a basic version is:

I	IV	I	I
IV	IV	I	I
V	IV	I	I

KEY AREAS

Once students have decided on a formal design, they can diagram their plans for the large-scale key areas. Especially in their early work, students should practice modulating to the recognized, characteristic key areas found in jazz literature. For example, as seen in "Satin Doll" (Example 1), it is quite common for a contrasting key area to be the subdominant.⁶ For a piece in a major key, modulation to the submediant also is common.⁷ A piece might modulate from minor to its mediant.⁸ Students also could

⁴ Additional examples of pieces in ABAC (or ABAB') form are "A Foggy Day" by George Gershwin, "All of Me" by Gerald Marks and Seymour Simons, "Fly Me to the Moon" by Bart Howard, "Four" by Miles Davis, "Groovin' High" by John Birks "Dizzy" Gillespie, "Like Someone in Love" by Jimmy van Heusen, and "Someday My Prince Will Come" by Frank Churchill.

⁵ A few 12-bar blues examples are "Blue Monk" by Thelonious Monk, "Blue Train" by John Coltrane, "Blues for Alice" by Charlie Parker, and "Freddie Freeloader" by Miles Davis. "West Coast Blues" by Wes Montgomery is an example of a 24-bar blues which follows the general 12-bar chord progression but each chord lasts for two measures.

⁶ As models for listening and study, examples of pieces that modulate to the subdominant include "Bemsha Swing" by Thelonious Monk, "Misty" by Errol Garner, and "Take the A Train" by Strayhorn.

⁷ Exemplary pieces include "Georgia On My Mind" by Hoagy Carmichael and "There Is No Greater Love" by Isham Jones.

⁸ For instance, "My Funny Valentine" by Richard Rodgers, and "You Don't Know What Love Is" by Gene de Paul.

consider modulation up or down by half step.⁹ Less common are chromatic third modulations, but examples can be found, such as “When Sunny Gets Blue” by Jack Segal (which is in F major with a D major bridge), as seen in Example 3.¹⁰

PHRASE LENGTHS, CADENCE TYPES, AND HARMONIC RHYTHM

A good next step is to plan phrase lengths, cadence types, and harmonic rhythm. Overwhelmingly, the standard phrase length in jazz composition is either four or eight measures.¹¹ (Greater variability in phrase lengths is found following the bebop era [roughly 1945-1950s] as composers experimented with all aspects of jazz composition and as jazz moved further from its origins as music for dancing.) Almost without exception, cadence types are either half cadences or authentic cadences. The plagal cadence, sometimes with mode mixture, is occasionally added spontaneously by performers to prolong the final harmony of a piece. An exceptional example of a conventional, notated plagal cadence can be found at the end of Ellington’s “Come Sunday.” There is also an interesting cadence in jazz practice that is not typically found in classical music: the two-chord cadential pattern $\flat$ VII7 followed by I. The $\flat$ VII7 is a major-minor seventh chord and although its chord quality might suggest dominant function, it more compellingly exhibits plagal attributes because, as seen in Example 4, the $\flat$ VII7 chord contains the root and the third of the minor subdominant (thus evoking mode mixture if in a major key).

⁹For example, “Body and Soul” by Green, Heyman, Sour, and Eyton (in the key of D $\flat$ major with a D major bridge).

¹⁰Chromatic third relations also form the basis for the key areas (E $\flat$ major, B major, and G major) of John Coltrane’s “Giant Steps” and the key areas (A major, D $\flat$ major, and B $\flat$ major) constituting roughly the second half of “Peace” by Horace Silver.

¹¹A notable exception is the jazz standard “Alone Together” written by Arthur Schwartz in 1932. This AABA’ piece has a six-measure phrase for the second half of its first two A sections.

4/4
(BALLAD) **WHEN SUNNY GETS BLUE** - MARVIN FISCHER/
JACK SEGAL

A G-7 C7 Bb-7 Eb7 Fmaj7 G-7

A-7 D7 B-7b5 Bb-7 Eb7 A-7 Ab-7 Db7

G-7 C7 Bb7 A7 D7(b9) E-7 A7

B Dm7 E-7 F#-7 B7 E-7 A7 Dm7

D-7 G7 Cmaj7 A-7 Fmaj7 D-7 G7 G-7 C7

A G-7 C7 Bb-7 Eb7 Fmaj7 G-7

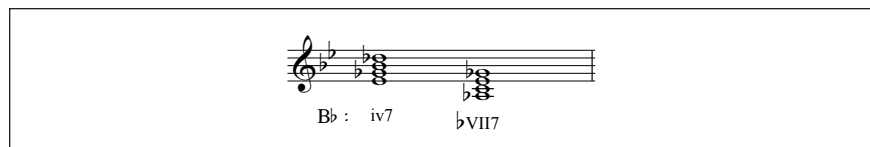
A-7 D7 B-7b5 Bb-7 Eb7 A-7 Ab-7 Db7

G-7 Gb7 Fmaj7 (A-7b5 D7)

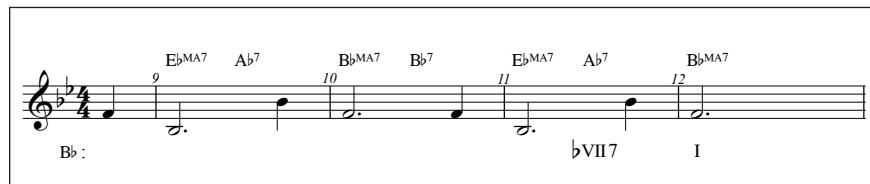
RIT. (LAST TIME)

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Example 3, “When Sunny Gets Blue” lead sheet (*reprinted with permission*)

Example 4, iv and $\flat$ VII7

The $\flat$ VII7-I cadence is essentially a minor plagal cadence as heard in mm. 11-12 of "My Romance." (See Example 5.)



Example 5, "My Romance," mm. 9-12

Harmonic rhythm is another component to consider when planning the structure of a composition. Choosing a mostly consistent harmonic rhythm throughout a piece contributes to establishing the character of that particular composition (and avoiding a hodgepodge of harmonic rhythm which could lead to a muddled compositional style).¹² A consistent harmonic rhythm, of course, does not necessarily mean unchanging—a change of harmonic rhythm, for example, may help define a contrasting section. As part of harmonic rhythm, remind students that chord changes help to express the meter and should occur on the strong beat(s) of the measure. Do not contradict the meter by beginning a new chord, say, on beat four in quadruple meter and then carrying this chord across the barline into the following measure.

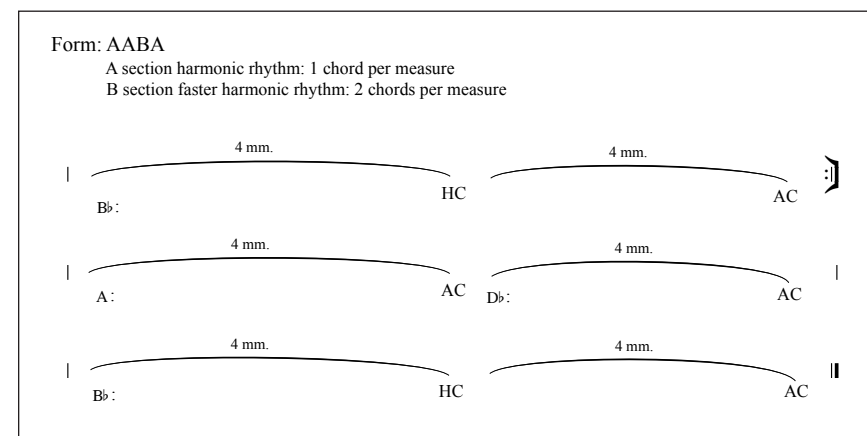
To summarize the discussion thus far, return to Example 2 ("My Romance"). This piece, in ABAC form, is constructed in 4-bar phrases. Each of the two A section phrases ends with an authentic cadence; the first phrase of the B section ends with a modified plagal cadence as described above, followed by a phrase that ends with a half cadence.¹³ The first phrase of the C section ends with a modified

¹² Steven Strunk remarks that "... the importance of harmonic rhythm in different styles of jazz is decisive and easily identified." (Strunk, *The New Grove Dictionary of Jazz* [1994], s.v. "harmony," 489.) He refers to the accelerated harmonic rhythm of bebop (compared to, for example, the preceding era of swing) and observes the characteristic of static harmony in later modal jazz.

¹³ The chord progression momentum here in preparing the return

authentic cadence as vi serves as a substitute for I, and is followed by the final phrase which ends with an authentic cadence. Of all the authentic cadences in "My Romance," this final phrase ending is the only perfect authentic cadence of the piece. The C-7 F7 pair in parentheses, m. 32, is used to help the return to the beginning of the form for the ensuing choruses of improvisation.¹⁴ The harmonic rhythm throughout is almost entirely two chords per measure.

At this point in the compositional process, students should add to their sketch cadence types and the desired harmonic rhythm. The sketch may look something like that shown in Example 6.



Example 6, sample compositional process sketch

This sketch specifies the home key of $\flat$ B major, AABA form, four-measure phrase lengths, key areas, cadence types, and harmonic rhythm. In the bridge, the first phrase (mm. 17-20) modulates down by half step to A major, followed by chromatic third modulation to $\flat$ D major for the second phrase (mm. 21-24). The final A section modulates again by chromatic third to return to the home key (mm. 25-32).¹⁵

of the A section is called a turnaround. The most common turnaround progression is iii vi ii V.

¹⁴ Each improvised chorus is a full statement of the form, using the composed chord progression and creating new melodic and rhythmic ideas.

¹⁵ Although presented in a different form here, the large-scale key relationships are drawn from "Peace" by Horace Silver. (Silver's composition is a ten-measure through composed work.) Even for their original compositions, students should study and imitate the form and chord progressions in jazz standards. They should consider pieces (or phrases from pieces) they particularly like and use them as models which might then be varied or modified.

CONTRAFACIT COMPOSITION AND CHORD EXTENSIONS

Next, ask students to set aside the large-scale plan they have just completed. Armed with their knowledge of form, phrase lengths, key areas, cadence types, and harmonic rhythm, have them compose a new melody to the chord progression of an existing piece. This will illuminate the ideas studied thus far, serve as an introduction to common jazz chord progressions, and engage students in the time-honored jazz composition practice of the contrafact, a procedure of crafting a new melody to the chord changes of an existing composition.¹⁶

After selecting a piece to serve as the harmonic underpinning, it is helpful to begin the process by notating the prominent pitch or pitches of each measure, creating a contour for each phrase, specifying the phrase-ending melodic goal, and considering personal preferences for particular sounds (such as chord tones, chordal extensions, chromatic alterations, and so on). The melody should reflect the underlying harmonies, and students must play their notated ideas at the piano to aid in decision making. (At this stage, there is not yet a need to address rhythm or embellishing non-chord tones.) This brings us to two questions: what is a chord tone in jazz practice, and what additional melody notes can help color the chords. The answer to the first question is the root, third, fifth, and seventh of the chord because in jazz, the normative harmonic unit is the seventh chord. The answer to the second question is the various seventh chord extensions such as the 9th, 11th, and 6th or 13th. Extensions must be selected carefully because chord quality affects whether a particular extension can serve as a melody note. Although other four-note structures are used in jazz, we will address the basic seventh-chord qualities that are fundamental: the

¹⁶ This practice has provided the foundation for every 12-bar blues and every piece based on “rhythm changes.” (Rhythm changes pieces employ the chord progression from George Gershwin’s original composition “I Got Rhythm.” We will look at “Oleo” as an example of rhythm changes.) A few contrafact examples are “Bird of Paradise” by Charlie Parker (based on Jerome Kern’s “All The Things You Are”), “Dig” by Miles Davis (based on “Sweet Georgia Brown” by Ben Bernie and Maceo Pinkard), “Hot House” by Tadd Dameron (based on Cole Porter’s “What Is This Thing Called Love”), and “Ornithology” by Charlie Parker (based on “How High the Moon” by Morgan Lewis).

major-major seventh chord, the major-minor seventh chord, the minor-minor seventh chord, the fully-diminished seventh chord, and the half-diminished seventh chord.¹⁷

Example 7, extensions during various chord qualities

As can be seen in Example 7, the major 9th can be used as the melody note above any of the listed seventh chords. In addition to the major 9th as a possible melody note, the major-major seventh chord may also support a #11 (augmented eleventh above the root) or a major 6th (the term “13th” is usually reserved for dominant chords); the major-minor seventh chord may support the major 9th or the altered b9 and #9 (minor ninth or augmented ninth above the root, respectively), the #11, and either the major 13 or the b13 (minor thirteenth above the root); the minor-minor seventh chord can support the major 9th or the unaltered 11th (perfect eleventh above the root); the fully-diminished seventh chord can support any note that is a whole step above one of its four basic chord tones;

¹⁷ For details on chord symbol nomenclature, see Leslie M. Sabina, *Jazz Arranging and Orchestration* (Belmont, CA: Wadsworth/Thomson Learning, 2002), 2-7; and Rayburn Wright, *Inside The Score* (Delewan, NY: Kendor Music, 1982), 188-190. Many undergraduate theory texts also contain information on chord symbols.

the half-diminished seventh chord may support the major 9th or the unaltered 11th. For major-minor seventh chords, the fifth itself may be altered to $\flat 5$ or $\sharp 5$ (diminished fifth or augmented fifth above the root, respectively).¹⁸

The image displays a musical score for a four-measure phrase in B-flat major. The top staff shows the chord progression: B $\flat$ MA7, D-7, C-7, and F7. Below the chords are Roman numerals: I, iii, ii, and V. The bottom staff shows the sample melody notes: B $\flat$ (9th of B $\flat$ MA7), D (7th of D-7), C (11th of C-7), and F (7th of F7).

Example 8, sample melody notes for a given phrase

Example 8 illustrates a basic chord progression for a sample four-measure phrase in B $\flat$ major, ending with a half cadence. On the second staff, the half notes and whole notes represent initial melodic pitches as a possible skeletal structure of the melodic line for this phrase. The sample melody begins on the 9th of B $\flat$ MA7 and steps up to the chordal third. The same two pitches are repeated in m. 2, now the 7th and root of D-7. Measure three features the 11th of C-7, and m. 4 issues the 7th of F7. Distinctive rhythmic ideas and use of embellishing pitches (such as passing and neighboring notes, including nonchord tones) will help in personalizing the contrafact melody and strengthening the character and mood of the piece.¹⁹

For the contrafact project, the basic “rhythm changes” chord progression (the chord progression from Gershwin’s composition

¹⁸ If the melody is composed first, this same set of extensions can help guide choices for harmonization. Students can try each melody note as the basic root, third, fifth, or seventh of a chord, and consider the possibility that the melody note could be a ninth, eleventh, or thirteenth. Once the student weighs all the options, he or she must think not only about the colorful character of various chord possibilities supporting the written melody note but also choosing chords to generate a logical chord progression.

¹⁹ Although it lies beyond the scope of this paper, helpful advice for crafting jazz melodies can be found in Tom Boras, *Jazz Composition and Arranging* (Belmont, CA: Thomson Schirmer, 2005), 17-38; Andrew Charlton and John M. DeVries, *Jazz and Commercial Arranging*, vol. 1 (Englewood Cliffs, NJ: Prentice-Hall, Inc., 1982), 71-90; and Leslie M. Sabina, *Jazz Arranging and Orchestration* (Belmont, CA: Wadsworth/Thomson Learning, 2002), 123-125.

“I Got Rhythm”) is a challenging yet manageable choice, and it is historically informative because numerous jazz compositions are based on rhythm changes. Examples of rhythm changes contrafacts include “Cottontail” by Duke Ellington, “Oleo” by Sonny Rollins, and “Shaw ‘Nuff” by Charlie Parker.²⁰ All rhythm changes pieces are AABA. A few of the defining characteristics include a clearly established tonic in mm. 1-4, tonicization of the subdominant in mm. 5-6, and, typically, a harmonic rhythm of two chords per measure in the A sections. The bridge is often, but not always, improvised (with no melody composed for this section) and is based on a circle of fifths progression of major-minor seventh chords starting on III7.²¹ This chord functions as V/V/V/V, moves to V/V/V then V/V and finally V. The much slower harmonic rhythm, each chord lasting for two measures, contributes to the contrasting nature of this section.

²⁰ An extensive list of rhythm changes contrafacts can be found in David Baker, *How to Learn Tunes*, vol. 76 (New Albany, IN: Jamey Aebersold Jazz, Inc., 1996).

²¹ For an example of a rhythm changes piece with a composed melody for the bridge, see “Anthropology” by Charlie Parker and Dizzy Gillespie.

OLEO —SONNY ROLLINS 309

A B $\flat$ G $^{-7}$ C $^{-7}$ F 7 B $\flat$ G 7 C $^{-7}$ F 7

F $^{-7}$ B $\flat$ E $\flat$ A $\flat$ E $\flat$ D $^{-7}$ G 7 C $^{-7}$ F 7

B C $^{-7}$ F 7 B $\flat$

A B $\flat$ G $^{-7}$ C $^{-7}$ F 7 B $\flat$ G 7 C $^{-7}$ F 7

F $^{-7}$ B $\flat$ E $\flat$ A $\flat$ E $\flat$ D $^{-7}$ G 7 C $^{-7}$ F 7 B $\flat$

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Example 9, “Oleo” lead sheet (reprinted with permission)

“Oleo” by Sonny Rollins is a standard rhythm changes piece. It is in the key of B $\flat$ major and its A sections are comprised of two 4-bar phrases. Notice that the chord progression for the first phrase is essentially I vi ii V played twice (in “Oleo” the submediant has been modified the second time to function as V/ii). The second phrase begins with ii V I of E $\flat$ major, tonicizing the subdominant, which is then modally inflected to become iv. This is followed by iii vi ii V (the common “turnaround”—the progression that helps

initiate the return to the opening), with the iii VI pair functioning as ii-V to tonicize the C minor supertonic. The bridge issues the classic circle-of-fifths progression ending on the home dominant, followed by the final A section. For cadence types, in the first A section both the first and second phrases end with a half cadence in the home key; upon the repeat, the second phrase concludes with a perfect authentic cadence before moving to the bridge. The bridge is generally understood as one long 8-bar phrase (in two-measure phrase segments) ending with a half cadence. The two phrases of the final A section are structured again as a period with a half cadence followed by a perfect authentic cadence.

After composing a contrafact melody (even a skeletal one), students can return to their planned original composition having had some hands-on experience. They will bring a heightened capacity for apprehending the next subject: generating the chord progression content of each planned phrase.

PHRASE CONTENT DETAILS

In general, phrases in jazz repertoire rely on the steadfast tonic-predominant-dominant-tonic (T-PD-D-T) phrase model. Phrases with inconclusive (i.e., half) cadences tend to comply with T-PD-D. Remind students that each phrase should convey a musical idea and move with purpose toward the cadence, the goal of that phrase. For idiomatic chord progression vocabulary, jazz uses the supertonic chord in the predominant position much more frequently than the subdominant. In fact, the most common chord progression segment in jazz is ii-V, with or without resolution to its following tonic. Unlike much classical literature (in which the tonic is generally prolonged and embellished to occupy the largest expanse of time in the phrase, while the predominant and dominant serve more briefly to help articulate cadences), in jazz literature, phrases are characterized by the tonic, predominant, and dominant functions being relatively evenly distributed.

Example 10, "Satin Doll" A section (reprinted with permission)

Let's return to the A section of "Satin Doll" (Example 10) to study its chord progression details. This composition begins with the primary supertonic-dominant pair (D-7 G7) repeated.²² The same material (melody and harmony) is then heard sequentially, up a major second (E-7 A7). As the second half of the 8-bar phrase arrives, the ii-V pair of mm. 3-4 can also be understood to function as a secondary supertonic-dominant to tonicize D7 in m. 5. The D7 (V/V) in m. 5 is itself treated as part of a ii-V pair because it is preceded by the supertonic A-7. The listener expects resolution to the primary dominant (G7) in m. 6, but instead encounters the most common substitution in jazz practice—the tritone substitute dominant.

Example 11, tritone substitute dominant

²²I am using "primary" to refer to the predominant and dominant of the prevailing key, as opposed to "secondary" or "applied" chords involved in tonicization.

In general, substitutions in jazz replace a tonic-, subdominant-, or dominant-functioning chord with another chord that executes the same function. The tritone substitute dominant replaces a primary dominant seventh chord with another major-minor seventh chord whose root is a tritone away. As can be seen in Example 11, this substitution preserves the pitch classes that are the third and seventh in the primary dominant and swaps their position to seventh and third in the tritone substitute dominant. Resolving to the tonic, the substitute dominant replaces root movement by fifth (descending P5 or ascending P4) with root movement by descending half step.²³

In "Satin Doll," the dominant substitution in m. 6 accomplishes a few things: it introduces colorful non-diatonic pitches; it generates some surprise and variety because the expected G7, which has already been heard twice, has been replaced with another sonority; it is part of a ii-V pair whereby D $\flat$ behaves like a primary dominant and is preceded by the chord that would be the primary supertonic, A $\flat$ -7; and it allows for a more interesting and linear bass line. Because it functions as a V chord, the D $\flat$ 7 resolves to the tonic CMA7 and participates in the imperfect authentic cadence.

Before departing from our analysis of "Satin Doll" to continue the topic of chord substitutions, let's also study a few of its melodic details. Each A section (Example 10) begins with the fifth of D-7 and toggles back and forth between A and G, its lower neighbor. The return to the pitch A in the second half of the measure finds the melody supported as the ninth of G7. These relationships are duplicated in the sequential material of mm. 3-4. Measure 5 features the melody note D, also briefly decorated by a lower neighbor, which is the eleventh of A-7 and the root of D7. It is easy to see that both basic chord tones and extensions are important to the melodic character of this piece. In m. 6, supported by the substitute ii-V pair, the featured melody notes are the ninth of the supertonic followed by the fifth of the dominant (swapping the melodic/harmonic relationships of mm. 1-4). The phrase ends with a turnaround progression and the long-held melody note G begins as the chordal fifth of CMA7, then becomes the eleventh of D-7, the third of E-7, and the seventh of A7. It was the decorative lower neighbor of mm. 1-2 but now, in mm. 7-8, is the basic, featured pitch.

²³In some instances, the chord quality of a tritone substitute dominant is changed to a major-major seventh chord. Rayburn Wright names this an "upper chromatic MA7." (Rayburn Wright, *Inside the Score*, [Delevan, NY: Kendor Music, 1982], 57.)

SUBSTITUTIONS

Many of the substitutions found in jazz are familiar to classical musicians.²⁴ For example, vi and iii can serve as tonic-functioning chords, substituting for I.²⁵ The supertonic, often considered a substitute for the subdominant in classical music, is itself the most common predominant chord in jazz, whether a primary or secondary supertonic. The infrequent $\flat$ VII7-I combination (discussed earlier as a possible cadential chord progression) can substitute for iv-I, depicting plagal motion within a phrase.²⁶ While the tritone substitute dominant is the most common substitute for V, it is equally important to note that leading tone seventh chords (half- or fully-diminished) typically are not used as substitutes for the dominant in jazz.

²⁴For additional reading on the use of substitute chords in jazz, see Steven Strunk, *The New Grove Dictionary of Jazz* (1994), s.v. "harmony." See also Strunk, "The Harmony of Early Bop: A Layered Approach," *Journal of Jazz Studies* VI (1979): 4-53; Rayburn Wright, *Inside The Score* (Delewan, NY: Kendor Music, 1982); Tom Boras, *Jazz Composition and Arranging* (Belmont, CA: Thomson Schirmer, 2005); and David Baker, *Arranging and Composing for the Small Ensemble*, revised edition (Harlow, Essex, U.K.: Alfred Publishing Co., Inc., 1988).

²⁵As in classical music, these options also can be used to prolong an area. For example, I might be followed by vi as a means of prolonging the tonic area.

²⁶This chord progression can be found linking two phrases in mm. 7-10 of "Cherokee" by Ray Noble, and within a phrase in mm. 10-11 and 26-27 of "There Will Never Be Another You" by Harry Warren.

Example 12 displays six staves (a-f) illustrating various chord substitutions in C major. Each staff shows a four-measure progression with chord names above and functional labels below.

- Staff a:** CMA7 (C: I), FMA7 (IV), G7 (V), CMA7 (I).
- Staff b:** CMA7 (C: I), D-7 (ii), G7 (V), CMA7 (I).
- Staff c:** CMA7 (C: I), A7 (V'/ii), D-7 (ii), G7 (V), CMA7 (I).
- Staff d:** CMA7 (C: I), Eb7 (V'/ii), D-7 (ii), Db7 (V'), CMA7 (I).
- Staff e:** CMA7 (C: I), Eb7 (V'/ii), D-7 (ii), Ab-7 (ii'), Db7 (V'), CMA7 (I).
- Staff f:** CMA7 (C: I), Eb7 (V'/ii), D-7 (ii), A7 (V'/ii'), Ab-7 (ii'), Db7 (V'), CMA7 (I).

Example 12, sample substitutions

To illustrate the use of substitutions, take a look at Example 12. Staff *a* provides a basic, functional T-PD-D-T chord progression in C major. In staff *b*, the supertonic D-7 replaces the subdominant FMA7. There is now stepwise root movement between the first and second measures and circle-of-fifths root movement starting at m. 2. A secondary dominant chord, A7, is added in staff *c* to tonicize the supertonic chord of m. 2. This introduces a new chord with nondiatonic pitches and slightly quickens the harmonic rhythm at the start of the phrase. In staff *d*, A7 of m. 1 is replaced with its tritone substitute dominant, Eb7, and the primary dominant, G7, in m. 3 is replaced with its tritone substitute dominant, Db7. This creates a linear bass line that moves mostly in half steps. In staff *e*, a predominant chord is added in m. 3 to create a substitute ii-V pair. In staff *f*, a tritone substitute dominant is added in m. 2 to tonicize the following Ab-7. This staff exhibits an accelerated harmonic rhythm and reveals a bass line that moves by half step into each downbeat. Example 12 is but one set of possible realizations using substitutions (and adding chords through tonicization) to modify the given basic chord progression, and any one of these variations (*b-f*) could be selected to serve as the chord progression.

APPLIED AND EMBELLISHING CHORDS

There is one more topic concerning the chord progression content of a phrase. In addition to the options chord substitutions provide, chords can be added as applied chords (secondary predominant and dominant), as seen in Example 12, and as connecting or embellishing chords (such as passing and neighboring chords). The most common passing chord is a fully diminished seventh chord built, for example in an ascending fragment, on the root that is a step above the root of the preceding chord and a step below the root of the chord that follows (vice versa for a descending fragment). See the first phrase of “My Romance” in Example 13.

Example 13, “My Romance,” mm. 1-4 (reprinted with permission)

In mm. 2-3, the $D\flat^{\circ}7$ serves as a connecting passing chord between the diatonic $D-7$ that prolongs the tonic $B\flat MA7$ and the following diatonic $C-7$ that is the predominant of the ii-V pair leading to the imperfect authentic cadence at m. 4.²⁷ Both passing and neighbor chords may be diatonic to the prevailing key. Example 13 also illustrates a diatonic passing chord ($C-7$) in m. 1, connecting the tonic $B\flat MA7$ and the following tonic substitute, $D-7$. Embellishing chords also may exhibit parallel structure to the decorated chord(s). For example, the $D-7$ $E\flat-7$ $D-7$ chord progression (organized as 16 mm., 8 mm., 8 mm.) for solos in the modal composition “So What” written by Miles Davis in 1959.²⁸

²⁷ For additional examples of fully-diminished seventh chords as passing chords, see mm. 3-4 of “Isn’t It Romantic?” by Richard Rodgers (ascending passing chord) and mm. 31-33 of “All The Things You Are” by Jerome Kern (descending passing chord).

²⁸ This nonfunctional neighboring motion is the harmonic structure of the piece. The departure from the emphasis on ii-V pairs of the bebop era and the number of successive measures on a single harmony (sometimes referred to as “static harmony”) are characteristics of modal jazz. In the

RHYTHM CHANGES DEVELOPMENTS

Developments in the rhythm changes chord progression in different eras provide a useful format to summarize and review the phrase content items we have been discussing. The basic chord changes are shown in Example 14.

Example 14, Basic rhythm changes

The original piece, “I Got Rhythm,” was written in 1930 and it was not long before jazz musicians began to experiment with ways to make the diatonic mm. 1-4 more challenging for improvisation.²⁹ One popular swing era (roughly 1935-1945) variation, seen in Example 15, had A sections that featured fully-diminished passing chords.³⁰

head (the composed theme—melody plus chord changes), the $D-7$ of the A sections and the $E\flat-7$ of the B section are themselves embellished by notated neighbor voicings of parallel structure, $E-7$ and $F-7$, respectively.

²⁹ Steven Strunk points out that “[t]he development of jazz harmony from early styles through the 1950s may . . . be characterized as a general movement from simple to complex chord progressions and from a relaxed to a rapid rate of harmonic change.” (Strunk, *The New Grove Dictionary of Jazz* [1994], s.v. “harmony,” 494.)

³⁰ The m. 1 $B^{\circ}7$ and m. 2 $C^{\#}7$ could be considered substitutes for $G7\flat 9$ and $A7\flat 9$, respectively, with the roots omitted.

Example 15 shows a sample swing era A-section. The first staff contains the following chords: BbMA7, Bb7, C-7, C#o7, D-7, G7, C-7, and F7. The second staff contains: BbMA7, Bb7, Eb, Eo7, Bb/F, F7, and BbMA7. Roman numerals are provided below each staff.

Example 15, Sample swing era A-section

The Bb/F chord symbol in m. 7 indicates that F is to be played in the bass (i.e., in second inversion). Also, the swing era at times used triads rather than four-note seventh chords.

As swing began giving way to bebop (roughly 1945-1950s), A sections included chord extensions and tritone substitute dominant chords. See Example 16.

Example 16 shows a sample bebop A-section. The first staff contains the following chords: BbMA7, G7b9, C-7, F7b9, D-7, Db7(9), C-7, and B9. The second staff contains: BbMA7, Bb7, EbMA7, Ab7, D-7, Db7(9), C-7, and B7. Roman numerals are provided below each staff.

Example 16, Sample bebop A-section

Notice that some of the dominant chords use altered extensions (e.g., b9 or #9, rather than the unaltered major 9th above the root).

The basic rhythm changes bridge (as seen in Example 14, and “Oleo” studied previously) is a secondary dominant sequence in which each seventh chord acts as the dominant of the chord that follows, leading to the primary dominant to prepare the return to the final A section. Bebop musicians liked to add a supertonic chord before each dominant (see staff *a* of Example 17). Musicians also employed tritone substitute dominant chords (see staff *b* of Example 17) and sometimes preceded those with supertonic chords (see staff *c* of Example 17).

Example 17 shows sample rhythm changes bridges. Staff *a* contains: A-7, D7, D-7, G7, G-7, C7, C-7, and F7. Staff *b* contains: D7, D7, Db7, Db7, C7, C7, B7, and B7. Staff *c* contains: A-7, D7, Ab-7, Db7(9), G-7, C9, F#-7, and B9.

Example 17, Sample rhythm changes bridges

CHORD PROGRESSION PROCESS

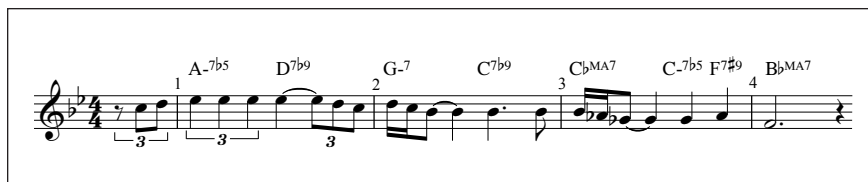
Now that students have studied many of the essential aspects concerning composing a chord progression for an original jazz piece, they should return to their earlier sketch and flesh out and notate each phrase. For the chord progression, it is often constructive to begin with the cadence and work backwards, preceding each chord with a functional chord that will contribute to generating a sense of direction when the phrase is played forward. For example, consider the first four measures of Horace Silver's “Peace” in Example 18.

Example 18 shows the first four measures of Horace Silver's “Peace” (modified). The chords are: A-7b5, D7b9, G-7, C7b9, C-7b5, F7#9, and BbMA7. Measure numbers 1, 2, 3, and 4 are indicated above the staff.

Example 18, “Peace” mm. 1-4 (modified)

As in this composition, to arrive at the tonic chord at the end of the phrase (here, m. 4), the student could work backwards, preceding this tonic with, in m. 3, a ii-V pair. This particular pair makes use of mode mixture (e.g., C-7b5 is the supertonic chord quality in Bb minor rather than Bb major). The F7 of m. 3 is tonicized, preceded by its ii-V pair (G-7 C7) in m. 2. G-7, the secondary supertonic of m. 2, is itself tonicized by its ii-V pair (A-7b5 D7b9) in m. 1.³¹

³¹ Another alternative, for example, would have been to tonicize C7, the secondary dominant in m. 2, by preceding it with its ii-V pair (D-7 G7). This would not work if the melody were already fixed because the minor-minor seventh chord D-7 cannot support a b9 (Eb) as an extension.



Example 19, "Peace" mm. 1-4 (actual)

The student could then add an embellishing lower neighbor chord ($C\flat MA7$) at the start of m. 3, connecting the preceding $C7\flat 9$ and the following $C-7\flat 5$.³² This chord progression (seen in Example 19) matches Silver's.



Example 20, "Peace" mm. 1-4 (alternate)

Alternatively, the student could work forward from the start of the piece and initially consider beginning the piece (as shown in Example 20) with the primary supertonic-dominant pair in m. 1 and presenting the tonic in m. 2. Then, for variety (and as seen in the actual composition in Example 19), the student could substitute the submediant ($G-7$) for tonic in m. 2 and exchange the primary ii-V of m. 1 for the secondary ii-V tonicizing vi. Proceeding forward,

The $A-7\flat 5$ $D7\flat 9$ tonicization of $G-7$ fits interestingly with the melody ($E\flat$ is the flat 5 and the flat 9 of those chords). If tonicizing $C7$ had been vital, Silver could have used the tritone substitute dominant and predominant pair, $A\flat-7$ $D\flat 7$, which would effectively support the main melodic pitch of m. 1: $E\flat$ as the chordal fifth of $A\flat-7$ and unaltered ninth of $D\flat 7$.

³² Particularly due to its strong metric placement at the start of the measure, it is worth considering whether the $C\flat MA7$ chord of m. 3 might instead be a major seventh chord one half step above the $B\flat MA7$ goal chord of m. 4, essentially modifying the chord quality of a tritone substitute dominant to a major-major seventh chord (Wright's "upper chromatic $MA7$ "). This interpretation is not as persuasive as considering $C\flat MA7$ a nonfunctional lower neighbor because, in m. 3, it is followed with a conventional, functional ii-V of $B\flat$ and general practice is to increase tension by moving from conventional to substitute relations (rather than the reverse) to heighten the sense of resolution that follows. It is quite possible, though, to hear the $C\flat MA7$ simultaneously as both an embellishing lower neighbor and an upper chromatic major seventh.

the m. 2 submediant can then be reimagined as the secondary supertonic of V, paired with the secondary dominant of V ($C7$), to move into the primary dominant ($F7$) as part of the cadence. This shows that there are numerous possible chord progressions and alternate ways to arrive at the same chord progression, whether working backwards or forward.

SUMMARY

If you are a jazz musician and composer, no doubt you are already integrating this material into your classes and I hope this essay may help as a summary of several fundamental topics. If you're not a jazz musician and composer but would like to incorporate some jazz chord progression work into your classes, you can do this in three class meetings. It is an ambitious undertaking, given the amount of material to cover, and the benefit to students is that of getting exposure rather than developing expertise, but the exposure to this work can open doors for further investigation and enjoyment. The material covered in this essay works well following the study of binary forms and can be treated as another unit on small forms.

During the first class, you can illustrate the three most common forms (AABA, ABAC, and the 12-bar blues) while viewing lead sheets and listening to recordings (your students may have a few favorites to share). For some pieces, listen to the head only; for others, help students keep their place in the form while listening to the improvisations (rhythm changes pieces, with their AABA form, are particularly easy to follow). You also can talk about cadence types, phrase lengths, and common modulations. For homework, have the students create a sketch of the form for a planned original composition, making explicit decisions about all those items (as in Example 6).

In the second class meeting, cover chord qualities and their eligible extensions, and examine one or two rhythm changes compositions. Undertake a Roman numeral analysis of the basic rhythm changes chord progression and talk about harmonic rhythm. The assignment can be for students to compose a melody to a basic rhythm changes chord progression (you provide the key and chord progression from which students should not deviate). The melody can involve rhythmic and melodic details or it can simply be two half notes per measure as a melodic sketch for further development. Remind students that the melody should help express the chords by using chord tones and appropriate extensions as the featured pitches.

In the third class, you can return the sketches you collected previously and collect the newly completed rhythm changes assignment. During class, talk about ii-Vs, chord substitutions, and connecting and embellishing chords. Revisit lead sheets and recordings from the previous two classes to apprehend the chord progression details of each phrase. The assignment is for students

to use their sketch and compose a chord progression to depict the form, modulations, and cadence types they had specified. Ask them to fill in their phrases with basic chord progressions and then elaborate upon (to a greater or lesser degree, for example you can specify that they must use at least one instance of a tritone substitute dominant) the progression. The harmonic foundation should be fully realized. Students would also sketch at least some portion of the melody—perhaps one or two featured pitches in each phrase, along with cadential goal pitches, or perhaps a motivic idea they would then develop throughout the piece (as in “Satin Doll” with its melodic lower neighbor and the rhythmic motive introduced in m. 2). If they have time, they should compose the complete melody. You might also have students write a brief paragraph, to hand in with their composition, describing a feature of their composition they are particularly happy with and why.

CONCLUSION

As a composer, the student should have a reason for every chord used in a piece. Students should think about large-scale form and how it will be manifested in a particular work. They will benefit from considering T-PD-D-T relations and planning phrases so that the choice of cadence can communicate the desired degree of tension or rest at particular points in the piece. With so many opportunities to vary and enhance a basic chord progression through the use of substitute, applied, and embellishing chords, it is important for the teacher to help students appreciate the features of each of the myriad possibilities and to help them focus their choices on the most musical options.

As an educator, Mary Arlin was in some ways conservative in stressing the importance of fundamentals in her theory classes, but she was also cutting-edge. For example, she embraced the use of technology to assist instruction, creating cassette tapes to help students drill intervals, among other ear training exercises, long before CAI became common. And I believe she was broad-minded in other ways, too, for she did not disparage my interest in jazz. In Professor Arlin, I found a commanding presence, someone who expected excellence and supported exploration. I am grateful to her for those very attributes, which contributed to my becoming the composer, flutist, and educator that I am today.



