

PUTTING SKILLS TO WORK: AN AURAL ANALYSIS PROJECT

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At the end of the required undergraduate music theory course sequence, the student should be able to look back on two or three years of hard work with the sense that all of the various skills and techniques interrelate, reinforce one another and, as a whole are, like good gestalts, worth more than the sum of their parts. While many programs integrate skills and written theory, either by teaching them in the same classes or, at least, by doing some singing and listening in literature and analysis courses, aural skills often end up a separate compartment of the program. And when the final aural-skills test focuses on isolated details such as identifying the nationality of augmented sixths in a block-chord progression played on the piano, the student may question the connection to other aspects of music study and doubt the value of years of effort.

The project presented here, starting with heard music, is recommended for use near the end of aural-skills studies to demonstrate their usefulness in approaching an understanding of music and to emphasize the interrelationship among various aspects of the theory curriculum. It is offered to theory teachers to use in totality or in part, but also in the hope that its goals and some of its methods might be incorporated into similar, multifaceted projects in which sound leads into analysis.¹ The project, an aural approach to the analysis of a classic jazz performance—*Django* by the Modern Jazz Quartet—can be recommended on several grounds:

1. It deals with an entire piece of music. Too often aural-skills courses work with phrase-length patterns to the exclusion of longer musical spans.
2. It begins with sound itself and leads into notation. Approaching a complete piece through listening is inherently musical and apt to be more meaningful than starting from a score.
3. It uses recorded music, which the student can start and stop at will. While there is certainly a place in aural-skills courses for the three-hearing dictation test, transcribing music at one's own pace is a valuable skill as well, one that allows study of longer spans.

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4. It integrates skills with written theory on several levels. It includes music writing, singing, keyboard work, analysis, and dictation. Composition and improvisation may also be included.

5. The student's listening is organized and guided by pointed questions and step-by-step tasks that lead into the music.

6. While this kind of approach can be taken with any piece of music (and I recommend approaching literature aurally whenever possible), this particular project introduces students to a piece in the jazz idiom to which they might otherwise never be exposed. Most theory students welcome the change of pace a fine jazz piece affords. Yet this piece is quite understandable in non-jazz terms; one need not possess esoteric jazz knowledge to accomplish—or teach!—this project. And since there is no complete score for this piece, an aural approach is not only appropriate but necessary.

Django, written by Modern Jazz Quartet pianist John Lewis, is a piece with immediate appeal to jazz- and non-jazz-oriented listeners, unlike some jazz that can be all but unfathomable to the uninitiated. Its delicate instrumentation, sequential themes, and formal balance suggest a classical chamber work; yet jazz writers praise its inventive improvisations and subtle swing. For a sophomore or junior class with experience in the analysis of Romantic composition, there is much in *Django* to notice: a) its form is more interesting than most jazz pieces; b) harmonically static pedal-point sections contrast with unusual chord progressions and modulations involving inversions, secondary dominants, and altered tertian chords; and c) composed and improvised sections balance and complement one another. The recording is readily available in the *Smithsonian Collection of Classic Jazz*, a fine recorded anthology found in virtually all college libraries.

This aural-analysis project can be accomplished in 1 1/2 or 2 class periods with perhaps a week in between for individual student work. The remainder of this article presents an outline of the introductory class period or half-period, the Listening Guide for individual out-of-class work (presented here in its entirety), and an outline of the final class period in which the individual work is discussed and conclusions are drawn. Solutions to the Listening Guide problems can be found at the end of the article.

INTRODUCTORY CLASS (INSTRUCTOR'S OUTLINE)

1. Introduce the project and its goals. Go through the Listening Guide.

2. Introduce the Modern Jazz Quartet, pianist John Lewis, *Django*, and perhaps also Django Reinhardt whom the piece eulogizes.²

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3. Explain jazz-chord symbols, reviewing at least the symbols used in the piece.

4. Define two jazz-specific terms: a) the *head* is the non-improvised ensemble section that begins and ends the piece; and b) *swing eighths* are written eighth-note pairs that are performed more like quarter-plus-eighth triplets than even eighths.

5. Focus attention on the model harmonic progressions (Listening Guide, Figure 1) that need to be understood clearly before continuing with the project. They are presented here in either C minor or E-flat major; in *Django* they do not appear in these keys or in this order. Jazz symbols, Roman numerals, and simplified keyboard voicings are given. Each progression is labeled according to its role in the context of the piece. Note the similarities among 3a, 3b, and 3c, but also note the different roles they play in the scheme of the piece as a whole. The class might sing roots as the progressions are played. The six progressions may be performed without pause in sequence although, again, they do not appear in this order in the piece.

To verify student's understanding and ability to distinguish among the model progressions, play individual progressions, either unchanged or modified by transposition or otherwise, and have students identify by progression number. Encourage students to play the progressions at the keyboard before continuing with individual work.

The instructor may wish to show similarities between some of these progressions and passages from art music literature. For example, Progression 1 is similar to the first five measures of Schubert's *Schwangesang* No. 4, "Ständchen"; VI is used in place of #vi^ø7. The circle-of-fifths progressions have numerous non-jazz counterparts (e.g., the first seven measures of Beethoven's Piano Sonata, Op. 2, No. 1).

6. Students should hear the entire piece, which is about 5 1/2 minutes in length. The instructor may wish to discuss the instruments and their roles, to identify improvised and non-improvised sections, or otherwise prepare the out-of-class project; most of this can be left to individual listening.

7. Tell students how to obtain the tape for outside study and a machine they can start and stop as they choose. The tape should also contain a half-speed version of the first piano solo chorus as an aid to transcription (it will, of course, sound an octave lower). In the best of situations, students should also have access to a piano as they listen.

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LISTENING GUIDE (FOR INDIVIDUAL STUDENT WORK)

1. At a keyboard play through the Model Progressions several times before proceeding (see Figure 1).

Figure 1. Model Progressions.

1. Establishes key.

Chords: Cm, A $\emptyset$, D $\emptyset$, G $\emptyset$ (sometimes D $\emptyset$)

Bass line: c: i, øviø7, iiø7, V $\emptyset$

Treble line: [V $\emptyset$ /V]

2. Dominant pedal. Prolongs the dominant alternating V $\emptyset$ and i6/4.

Chords: G $\emptyset$ -9, Cm/G, G $\emptyset$ -9, Cm/G

Bass line: c: V $\emptyset$ (-9), i $\emptyset$ 6/4, V $\emptyset$ (-9), i $\emptyset$ 6/4

3a. Circle of fifths to half cadence.

Chords: C $\emptyset$ 7, Fm, B $\emptyset$ 7, E $\emptyset$ 7, A $\emptyset$ 7, G $\emptyset$ 7

Bass line: c: V $\emptyset$ 7/iv, iv, bVII $\emptyset$ 7, V $\emptyset$ 7/VI, VI (dom.7)=Ger.+6, V $\emptyset$ 7

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3b. Circle of fifths to authentic cadence.

c: V^7/IV iv $^bVII^7$ V^7/VI VI (dom.7) V^7 i

3c. Circle of fifths modulating to relative minor.

c: V^7/IV iv $\rightarrow 5 \rightarrow E^b:I$

4. Bass riff. Blues-related cadence pattern; resolution is plagal (IV to I) with both chords being dominant-seventh sonorities. When this harmonic pattern occurs in *Django*, the bass plays an old blues “riff” adding to the traditional blues quality of this section.

E^b : IV (dom.7) I (dom.7)

2. Obtain a tape and play the piece several times. Construct a simple chart showing the overall formal layout of the piece. (The chart is begun for you in Figure 2). Include these elements, although not in this order: a) opening head; b) closing head; c) interlude (clearly related to the head); d) piano solo; and e) vibes solo. Both soloists play more than one “chorus,” which is a fairly long harmonic progression repeated an indefinite number of times for each solo improvisation.

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3. Listen several times to the opening head and transcribe the melody, starting and stopping the tape as necessary. The first four measures have been completed for you in Figure 3. Space has also been provided for bass notes; complete the string bass line and add chord symbols above the melody, if possible. Notice that several dominant-seventh-type chords have minor ninths as well. You may need to verify your transcriptions frequently at the piano. Converting the jazz symbols into Roman numerals is optional; that process may help you see the progression “in a key” better than you can from the symbols alone. Notice the use of sequence and step progression in the head.

4. The opening head is 20 measures. Conducting at a constant tempo, count the measures in each large section: a) vibes solo; b) interlude; c) piano solo; and d) closing head. Add these lengths in numbers to the form chart of Figure 2. Also indicate the *rallentando* and the vibes cadenza in their proper locations.

5. Unlike most jazz pieces, the harmonic progression used for improvisation in *Django* is not the progression of the head. The solo chorus is not even the same length as the head, as you may already have discovered. *Django's* solo chorus progression has fairly long areas in three different keys; most jazz pieces are in one key with brief hints at a variety of other tonics. Referring as often as necessary to the Model Progressions, listen to the improvised solos. Determine the length of one chorus, the keys through which it moves, and eventually write out the harmonic progression in jazz chord symbols. Notate the roots in bass clef. The first two measures have been completed for you in Figure 4. Use the “Bass Riff” and “Dominant Pedal” sections as clear points of reference. Note that most of the first vibes chorus features the bass playing “in two” (beats per measure); roots are played almost exclusively. When the bass goes “into four,” roots are played on beats one and three of almost every measure. Given this information, sing along with the bass to identify the roots. You may notice slight variability in individual chords from chorus to chorus; for example, the third chord in several sections can be either $ii^{\flat}7$ or $V7/V$.

Figure 2. Form Chart to Complete.

Opening Head | |

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Figure 3. Head Transcription to Complete.

Figure 3 shows a musical score for a head transcription. The key signature is one flat (F major), and the time signature is 4/4. The score is divided into three systems. The first system contains four measures with the following chords: Fm, Bbm, C⁷⁻⁹, and Fm. The second system contains eight measures, with the final chord being Fm (Maj⁷). The third system contains two empty measures.

Figure 4. Solo Chorus Progression to Complete.

Figure 4 shows a musical score for a solo chorus progression. The key signature is one flat (F major), and the time signature is 4/4. The score consists of three measures with the following chords: Fm, D^ø, and G^[7orø] C⁷.

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Figure 5. First Piano Chorus to Complete.



6. Space is provided for you to transcribe the first piano chorus, single-line right hand only (see Figure 5). Play the tape of this chorus a number of times until you can sing along with the solo line. Listen to the half-speed version of this solo as well, if it is available. Halving the speed lowers the pitch one octave. Transcription of rhythm in many jazz solos is problematic. Some particularly complicated passages have been done for you. Notice that written eighth notes represent the swing eighths you hear. In some cases the soloist's rhythmic pattern does not agree precisely with the notated version. The transcription should be relatively simple to read, even though some of the flexibility and subtlety of a vital jazz performance is rounded off in the process. Keep your place in the chorus as you transcribe by relating the solo to the root pattern and by tapping or conducting.

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7. Write the jazz symbols for the chorus above the transcription. Prepare for class discussion of the piano solo as follows:

a. Note the fluctuation in both piano choruses between fast and slow rhythmic patterns. How does this variety in rhythmic density contribute to the solo's effectiveness?

b. Does the solo use range effectively?

c. Consider the degree to which the solo pitches agree with the operative chord symbols. Sometimes the relationship is close, sometimes not.

d. Search your transcription for recurrent motivic patterns. Notice root-fifth-root chord outlining, chromatic scale fragments, triad outlining, the A-flat-G-F motive, and circling melodic patterns (such as G-flat-E-F), which are common features in jazz.⁴ To what degree do these patterns lend coherence to the solo? Listen to the second piano chorus, paying attention to continued use of the same patterns.

e. Do the two choruses form one large unit? Why does the solo seem to flow smoothly rather than giving the impression of successive melodic fragments? Other than recurrent motivic patterns, what creates the sense of coherence?

FINAL CLASS (INSTRUCTOR'S OUTLINE)

1. Go over form chart (see the Solutions to Listening Guide Problems: Figures 6-9).

2. Check transcriptions of the head. Discuss harmonic progressions, noting prominent tonic-subdominant-dominant-tonic patterns and the circle-of-fifths in measures 4-13. Roots progress according to the diatonic circle in which D-flat (VI) leads to the B^b m6 chord (ii^o5 with root G) by tritone root motion. Note the use of step progression and sequence. Sing melody and bass line.

3. As a group listen again to the piece, singing chord roots along with the solos. Then focus on the first piano chorus, singing as a group along with the half-speed version. Discuss student transcriptions and the slight rhythmic variability acceptable among "correct" versions. Then discuss the elements of the solo itself as suggested in the Listening Guide. This could lead into a discussion of aesthetic criteria appropriate for evaluating an improvised solo vis-a-vis a composed one.

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OPTIONAL ADDITIONAL PROBLEMS

1. Write out the head with figured-bass symbols.
2. Write out a solo chorus melody as if it were an improvisation. Play it on your instrument—or sing it—accompanied by a student on piano, by a small group, or by the class singing the four-voice version of the solo progression found in Figure 10, adjusting octaves in the bass as necessary.
3. Improvise a solo chorus, or part of a solo chorus, along with keyboard, instrumental group, or vocal background.
4. Transcribe the second piano chorus or portions of the vibes solo. Write a brief essay discussing the features that make these solos effective.
5. Do additional library research on the Modern Jazz Quartet, John Lewis, or Django Reinhardt.
6. Compare this recording of *Django* (originally from *European Concert*, Atlantic Records #1385) with other versions of the piece also recorded by the Modern Jazz Quartet or by others.
7. With your instructor's help, choose a piece or portion thereof from the (non-jazz) repertoire for your instrument. Listening to a recording without referring to a score, notate portions of the music that lend themselves to transcription, and study as many aspects of the music as possible from this aural perspective. Use this *Django* project as a model. Then confirm and extend your study of the piece with score study.
8. Work through aural-analysis projects presented in the books referred to in Note 1.

SOLUTIONS TO LISTENING GUIDE PROBLEMS

Figure 6. Form Chart Completed.

Opening Head		Vibes Solo		Interlude		Piano Solo		Closing Head
(20mm.)		(96 mm.)		(4 mm.)		(64 mm.)		(20 mm.)

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Figure 7. Head Transcription Completed.

The musical score is presented in four systems, each with a treble and bass staff. Chord transcriptions are placed above the treble staff. The key signature is B-flat major (two flats).

System 1: Chords: Fm, B^bm, C⁷⁻⁹, Fm, F⁷⁻⁹, B^bm⁷.

System 2: Chords: E^b7-9, A^b, D^b, B^bm⁶, G⁷.

System 3: Chords: C/E, C⁷, Fm(Maj⁷), Fm, B^bm¹¹, B^bm, C⁺, C⁷, C⁷/F, Fm, Fm(Maj⁷), Fm.

System 4: Chords: B^bm¹¹, B^bm, C⁺, C⁷, C⁷⁻⁹/E, Fm.

DJANGO by John Lewis

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Figure 8. Solo Progression Completed.

The musical score is written in F minor (two flats) and consists of three staves. The first staff contains the following chords: Fm, D^ø, G^[7 or ø], C⁷, F⁷, B^bm, E^b7, A^b7, followed by a first ending bracket over D^b7 and C⁷, and a second ending bracket over D^b7 and C⁷, ending with Fm. The second staff contains: F⁷⁻⁹, B^bm/F, F⁷⁻⁹, B^bm/F, F⁷⁻⁹, B^bm/F, F⁷⁻⁹, B^bm, G^ø, C^[7 or ø], and F⁷. The third staff contains: B^b7, E^bm, A^b7, D^b7, G^b7, D^b7, (D^b7), G^b7, D^b7, and C⁷.

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Figure 9. First Piano Chorus Completed.

Fm D^ø G^[7 or ø] C⁷ F⁷ B^bm E^b7 A^b7

D^b7 C⁷ Fm D^ø G^[7 or ø] C⁷

F⁷ B^bm E^b7 A^b7 D^b7 C⁷ Fm

F⁷⁻⁹ B^bm/F F⁷⁻⁹ B^bm/F F⁷⁻⁹

B^bm/F F⁷⁻⁹ B^bm G^ø

C^[7 or ø] F⁷ B^b7 E^bm A^b7 D^b7 G^b7

D^b7 G^b7

D^b7 C⁷ (∞)

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Figure 10. Solo Progression, Four-Voice Version.

The musical score is organized into three systems, each featuring a four-voice setting of a specific chord progression. The key signature is B-flat major (two flats), and the time signature is common time (C).

System 1: The chord progression is Fm, D^ø, G^ø, C⁷, F⁷, B^bm(7), E^b7, A^b7, D^b7, and C⁷. The first system of notation shows the four-voice setting for these chords, with the first two measures grouped by a brace labeled '1.' and the last two measures grouped by a brace labeled '2.'

System 2: The chord progression is D^b7, C⁷, Fm, F⁷⁻⁹, B^bm/F, and F⁷⁻⁹. The second system of notation shows the four-voice setting for these chords, with the first two measures grouped by a brace labeled '2.'

System 3: The chord progression is B^bm/F, F⁷⁻⁹, B^bm/F, and F⁷⁻⁹. The third system of notation shows the four-voice setting for these chords.

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Figure 10. con't.

The musical notation consists of three staves. The first staff contains a sequence of chords: B^bm, G^ø, C^ø, F⁷, B^b7, E^bm, A^b7, D^b7, and G^b7. The second staff continues with D^b7 and G^b7. The third staff shows D^b7 and C⁷⁻⁹, ending with a D.C. (Da Capo) instruction.

NOTES

¹ Books with projects similar in approach to this one include John Rahn, *Basic Atonal Theory* (New York: Longman, 1980); Gary W. Wittlich and Lee Humphries, *Ear Training: An Approach Through Music Literature* (New York: Harcourt Brace Jovanovich Inc., 1974).

² See Leonard G. Feather, "Lewis, John Aaron," "Modern Jazz Quartet," "Reinhardt, Jean Baptiste (Django)," *The Encyclopedia of Jazz* (New York: Horizon Press, 1960), pp. 311-312, 336, 394-395; Ralph J. Gleason, "John Lewis and the Modern Jazz Quartet," *Celebrating the Duke* (Boston: Little Brown and Co., 1975), pp. 109-116; Martin Williams, "John Lewis and the Modern Jazz Quartet," *The Jazz Tradition* (New York: Oxford University Press, 1970), pp. 131-139; and Martin Williams,

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booklet accompanying the *Smithsonian Collection of Classic Jazz* (Washington, DC: Smithsonian Institution, 1973), p. 40.

³Some less-common chord symbols found in *Django* include:

$$F7-9 = F A C E^b G^b$$

$$B^b m6 = B^b D^b F G = G\flat 5$$

C/E = C-major triad with E bass = C triad in first inversion

Most instructors will probably not want to discuss jazz chord symbols in great depth or sort through the numerous inconsistencies. The symbols with their notational equivalents in Figures 1 and 10 of this article should suffice for most classes. On the other hand, some classes might profit from a discussion about the "idiocy of a system" (in the words of one writer) that includes the concept of "added ninths," and some instructors might wish to introduce Rameau's "double employment of dissonance" when pointing out the persistent confusion in jazz symbols between $B^b m6$ and $G\flat 7$. Interested instructors and students can find symbol/notation equivalence charts in Allen Winold, *Harmony: Patterns and Principles*, Volume II (Englewood Cliffs, N.J.: Prentice-Hall, 1986), Chapter 27; in Bruce Benward, *Music in Theory and Practice*, Volume I, third edition (Dubuque, Iowa: Wm. C. Brown Co. Publishers, 1985), Chapters 19 and 20. Numerous jazz pedagogy texts discuss symbols, and their lists exhibit inconsistencies and contradictions that exist despite attempts at standardization. *Standardized Chord Symbol Notation* by Carl Brandt and Clinton Roemer (Sherman Oaks, California: Roerick Music Co., 1976) attempts systematic standardization. The book's practical value, however, derives from the completeness of its lists of "unacceptable" symbols; a working musician can use these lists to become familiar with the variety of symbols actually in use.

⁴Traditional theory texts refer to similar decorative melodic patterns as "neighbor groups" or "changing tones." David Baker refers to these specific patterns as "enclosures" in which a chord tone's arrival is delayed by the insertion of its two "leading tones" respectively a half-step above and below the chord tone. See David N. Baker, *How to Play Bebop* (Bloomington: Frangipani Press, 1985), p. 7.