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Zen and the art of motorcycle maintenance: Score and analysis

Justin DeAngelo

Eastern Illinois University

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ZEN AND THE ART OF MOTORCYCLE MAINTENANCE:
SCORE AND ANALYSIS

DEANGELO

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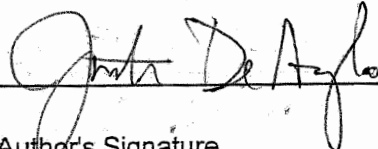
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**Zen and the Art of Motorcycle Maintenance:
Score and Analysis**

BY

Justin DeAngelo

THESIS

SUBMITTED IN PARTIAL FUFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Master of Music

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

2008

YEAR

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Zen and the Art of Motorcycle Maintenance FULL SCORE— Available in a separate volume

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ABSTRACT

ZEN AND THE ART OF MOTORCYCLE MAINTENANCE:

SCORE AND ANALYSIS

by Justin DeAngelo

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Master of Arts in Music

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Zen and the Art of Motorcycle Maintenance is a composition for alto saxophone, baritone saxophone, trumpet, French horn, trombone, tuba, piano, acoustic bass, drum set, and string quartet.

The 1974 Robert M. Pirsig novel of the same name is the primary source of inspiration for many aspects of its composition. Elements of plot, setting, theme, tone, form, and imagery of the novel are intended to be expressed, and in some cases, directly alluded to, through corresponding musical elements.

The accompanying analysis dissects the mechanics of the composition as it unfolds. Each chapter discusses a section of the composition by reducing it to its elements of form, pitch content, melody, harmony, and rhythm, as well as its orchestration, use of different textures, and dynamics. The piece's literary implications are then discussed in a following chapter, citing both specific and general aspects of the completed analysis. As the piece has some characteristics of "third-stream" music, a

chapter discussing its place in a historical context follows. A form graph of the entire composition is available in the appendix.

CHAPTER 1

INTRODUCTION

The analysis of *Zen and the Art of Motorcycle Maintenance* is intended to demonstrate several aspects of its composition and how they relate to the programmatic basis of the novel by the same name. Each section of the piece will first be isolated within each of the next four chapters. The sections will then be discussed first by overall form, followed by an inspection of pitch content, melody, harmony, rhythm, orchestration, and texture, proceeding in a chronological fashion according to the progression of the piece. Correlations between specific musical elements and their relationships with elements of the novel will then be drawn as a result.

Zen is a composition scored for alto saxophone, baritone saxophone, trumpet, French horn, trombone, tuba (with bass trombone doubling), piano, acoustic bass, drum set, and string quartet. This unique instrumentation is a combination of the jazz nonet¹ and string quartet.

As the 1974 Robert M. Pirsig novel is the primary source of inspiration for many aspects of the composition, it seems warranted to give a brief synopsis of the plot prior to the description of the parts of the musical work. *Zen* is based upon the story of a father and son taking a motorcycle trip across America. The publisher continues the summary:

While they ride, the narrator delivers a Chautauqua, "an old-time series of popular talks intended to edify and entertain, improve the mind and bring culture and enlightenment to the ears and mind of the hearer." The Chautauqua covers a wide range of topics, from motorcycle maintenance through and inquiry into "what is best" to the creation of a philosophical system capable of reconciling science, religion and humanism.

¹ This nonet instrumentation is based upon that of the landmark recordings of Miles Davis's group of the late 1940's, compiled onto the album released under the title, *Birth of the Cool*, 1949.

On another and connecting level, the book is the story of the narrator's confrontation with the past and with Phaedrus, the ghost of his former self — a brilliant, questing, questioning man who went mad under the burden of his pursuit of ideals, underwent shock therapy, died and has now returned.²

A major structural element of the book intrinsic to the form of the composition is the structure of the individual chapters. Within each chapter, the narrator first gives a detailed account of the journey in which the characters are involved, then ventures into a discussion, or "Chautauqua," and, after reaching a short-term conclusion, reverts to talking about the trip. This structure gives the book a unique pacing and, piece by piece, builds upon itself with surprising regularity with each passing chapter.

The four individual sections of the music attempt to mirror these four facets of the chapters (travelogue/discussion/conclusion/travelogue) in order to build a microcosm of the narrative in an alternative artistic genre. Unifying the work throughout, though, is the concept of painting musically the Zen experience of motorcycle riding through the use of certain recurring textures, specific melodic and harmonic elements, and orchestrational effects. These characteristic attributes will appear throughout the first section and also reappear as the dominant attributes for the final section.

In further overview, the second section of the music involves the author's continuing discourse on the relationship between "Classical" ideals (those of technology, science, and Western empirical thought in general) and "Romantic" ideals (those of anti-technology, beauty, and Eastern religion). Here, several musical ideas with separate textures, treatment of *tempi*, and separate harmonic palettes are introduced in an alternating manner, then are reconciled later by juxtaposing elements of both ideas.

² Pirsig, Robert, *Zen and the Art of Maintenance* (Morrow Quill Paperbacks, New York: 1974), a summary presented on the back of the first paperback edition.

A third section follows, more serene and introspective in character (as self-discovery is another theme of the book). Unlike the earlier sections, this section explores more chromatic intricacies within the harmonic/formal framework. It juxtaposes a classical formal structure and a tonal melody with more ambiguous harmonies, creating a familiar yet novel bridge to the fourth section.

A fourth and final section initially presents new material before ultimately recapitulating and combining some of the ideas of the preceding three sections. This time, though, the material is presented in some new ways, both by using new timbres and a more varied rhythmic palette. Melodic and rhythmic material from the preceding sections also reappears here. As a coda, a sub-section of this fourth part, an orchestral decrescendo mirrors the arrival of the travelers at end of the road, as well as the end of the story. However, the musical inertia suggested by a slow fade gives the impression that the story and the travel do not definitively end at the conclusion of the work.

CHAPTER 2

Section I

The first section of *Zen* encompasses mm. 1–307. It is comprised of three subsections of contrasting rhythmic frameworks and instrumental timbres. The first subsection (mm. 1–34) is written for piano alone in a freer rhythm than at any point during the rest of the work. The ensuing subsection (mm. 35–267) utilizes the full instrumentation, containing a very regular, motoric rhythmic framework. Together, the two subsections form a composite structure that mirrors several different types of common musical forms in the varying genres of jazz, classical, and Indian music.

The relationship between the two subsections elicits the Hindustani *raga/tala* relationship. This is suggested not only by its texture, pitch content, and rhythm, which will be discussed in more detail later, but more generally in its overall form. The early measures (mm. 1–34), which contain only a monophonic texture followed by two-voice texture, function as the *raga* of the composite structure, while the rhythmic regularity and cyclical harmony of the second subsection function as the *tala*.

In a jazz ballad or jazz standard form, the main body of a performed work that contains a regular rhythmic structure is often preceded by a rubato introduction, not unlike the recitative/aria of opera or the verse/chorus of musical theater. The form of the opening section of *Zen* also suggests this common song form.

If isolated, the second subsection resembles a sonata form. As the ensuing, more specific analysis will show, the phrase and harmonic structure suggest elements of the traditional first-movement sonata (allegro) form of the classical genres. This

resemblance implies that the first subsection is a sonata-form introduction. As the first phrase group does not start, however, until m. 43, the introduction and body of the sonata do not have the clear-cut formal division based on rhythm that the previously mentioned comparisons to forms in other genres do.

The final subsection (mm. 268–307) is more of a transitional subsection into the next section. Its slower tempo and more transparent textures fuse some of the meditative and motivic aspects of the first subsection with the motoric rhythmic patterns and cadential progressions of the second subsection. Detailed aspects of each of these subsections will be discussed in the following chapter.

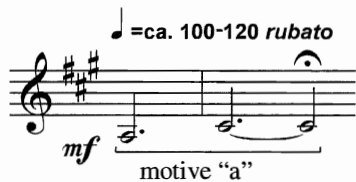
Section I, Subsection A (Introduction), mm. 1–34

The introduction is a two part form. The first part is a monophonic melody on the top staff of the piano (mm. 1–16), the second followed by a two-voice, varied canonic restatement of the first melody (mm. 14–37). The melody (Ex. 1) is entirely derived from a four-note pitch set, A, C#, E, and F#, (0358). Although the key signature implies the tonality of A major, the fact that only the four pitches are heard until m. 13 lends a melodic simplicity to the line that suggests the key of A major. This simplicity, paired with the free-rhythm effect of the mixed meter, *rubato* tempo marking, use of a solo voice, and double grace-note ornamentation, evokes Native American meditative music.

Ex. 1: Piano (top staff), mm. 1–16

The pitch material presented in this opening melodic statement contains cells that appear frequently throughout the rest of the work. The opening motive (Ex. 1a), characterized by the leap of a major third, is seen in nearly every section of the entire piece, while other intervallic and rhythmic cells presented here also return, though less frequently.

Ex. 1a: Piano. mm. 1–2



The melody (Ex. 1) is built upon a note-grouping structure throughout, growing from the sounding of one pitch in a grouping (m. 1) to the sounding of 13 pitches (excluding grace note ornamentation) in a single grouping (m. 9 through the fermata), and then back to the sounding of one pitch (mm. 15–16). The growth and decay of the note-grouping structure is identical to the first seven numbers of the Fibonacci sequence, followed by the first six number of the same sequence in reverse: {1-1-2-3-5-8-13-8-5-3-2-1-1}. Use of this numeric sequence creates the aural illusion that the melody is growing in length naturally, and then decaying by virtue of the same symmetrical process.

From the first pitch set, [1,4,6,9](0358), a second is derived by keeping pitches C# and F#, while substituting two new pitches, B and G# creating a new pitch set, [6,8,E,1] (0257). The material from the melody that enters in the bottom staff of the piano part is solely derived from this second pitch set, acting as a measured, canonic, varied restatement of the first melody (Ex. 2). The first melody in the top staff, in essence,

repeats, this time measured. The counterpoint created is thus carefully rhythmically treated so as to juxtapose the two similar, yet slightly different versions of the original melody. An elision between the end of the first melody and the entrance of the second also occurs, in order to create a fluid transition between the two melodies.

Ex. 2: Piano (bottom staff), mm. 14–33

The same note-grouping scheme is employed in these measured restatements.

The grace note figures have been incorporated into the rhythmic structure of the melody.

In this opening section consisting of two-part counterpoint (mm. 14–33), six of the seven notes of the A major scale are used. However, the use of specific pitch class sets for each of the lines, coupled with the intervallic content both in the bottom staff (mostly seconds and fourths) and between the two voices (containing mainly seconds and sevenths), disguises the tonality, making it sound more like modal counterpoint. There is no sense of harmonic motion here.

Though imitative in nature, the rhythmic relationship between the varied restatement of the first melody in the bass clef and the restatement of the first melody in the treble staff is not exact. Generally, rhythmic values of both sounding pitches and

rests have been altered in order to create motion in one voice while the other is static and also to line up intervallic interaction in a more controlled and balanced manner. The texture for the Introduction is scored for piano alone. Dynamics remain static throughout.

Section I, Subsection B (*Allegretto con moto*), mm. 35–267

The largest section in terms of total number of measures and in time is this first one. Furthermore, this subsection is the largest in terms of total time and measures at a continuous tempo.

The overall form of this subsection resembles that of the classical sonata form. There is an exposition with repeat, development, and recapitulation. However, the repeat of the exposition occurs without links, truncating it, keeping intact the three phrase groups. The recapitulation is also shortened, reiterating only the third of the three-phrase groups of the exposition. Furthermore, rather than utilizing the predictable harmonic structure of the canonized classical formula, the subsection addressed here employs more subtle harmonic connections and division points. These will be discussed in more detail as each piece of the composite quasi-sonata form is addressed.

The basic form of this subsection can be summarized in the following chart:

Introduction mm. 35–42	Exposition theme “a” ³ mm. 43–64	links (2) mm. 65–88	theme “b” mm. 97–128	theme “c” mm. 129–144	links (2) mm. 145–160
Repeated Exposition (shortened) theme “a” mm. 161–182	theme “b” mm. 183–214	theme “c” mm. 215–230	Development mm. 231–246	Recapitulation (shortened) theme “c” only with extension mm. 247–267	

³ The term “theme” is used throughout the graph as an abbreviation for a group of phrases united by a similar melodic motive, group of rhythmic motives, or harmonic motion to be discussed further as the chapter progresses. This particular theme group, theme “a,” will also be referred to as the “Native American theme”.

Though the entirety of Subsection A can be portrayed as both the introduction to the entire work and within the sonata form presented here, the eight measures that begin this second subsection also set up the texture and harmonic rhythm that is to be at the core of the first phrase group. The transition between the two subsections is somewhat abrupt. As the last of the restatements of the opening melody of the main introduction are coming to a close, the acoustic double bass interrupts the texture with a string of repeated eighth-notes. This starts not only a new texture and a new tempo, but also introduces the final pitch of the A major scale, D, which had not been sounded until m. 35.

Also established in the repeated eighth-note motion of the bass is a basic two-chord harmonic progression that is at the core of the first subsection. At first, the idea is presented in a very basic form (Ex. 3) as D to C#. The completion of the A major scale at this instance confirms an overall tonality of A major, implying that the progression occurring here is IV-I⁶.

Ex. 3: Acoustic bass, mm. 35–38

35 B *Allegro con moto* ♩ = 159
pizz.
mp IV I⁶

The drum set also enters during this miniature introduction just a few measures after the bass (mm. 39–42) with a broader rhythm at first (made up of half and quarter-note values), then becoming more eighth-note based like the bass line (Ex. 4). Shortly

after, the ride cymbal becomes an extension of the sixteenth-note motion that the piano presented in its earlier rhythms.

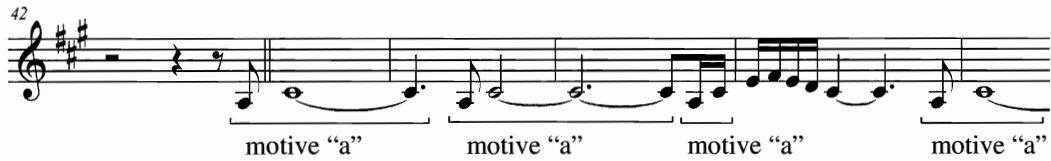
Ex. 4: Drum set, mm. 43–46



As the foundation of the initial sonata-form is constructed by adding the other members of the rhythm section to the piano, the primary melody is in a state of transition. The final two pitches repeat at the end of the initial introductory solo piano melody in the treble clef. Then, in the incorporation of motive “a” at end of this miniature introduction, the sounding of the first theme, theme “a” (Native American theme), has been signaled. The bass and drum set follow suit in signaling this change. The bass moves to its lower tessitura, where it remains until the third theme. The drums establish closely related rhythmic patterns consisting of exclusively eighth and sixteenth-notes in the ride cymbal.

The first theme of this quasi-sonata does not contain the typical phrase-length of four-measures. Rather, the melody grows from an initial motive, as does the melody of the first subsection, to larger and then smaller units of note-groupings. The melody that constitutes the Native American theme is almost exclusively derived from the pitch set of the opening of the piece. Also similar to the introductory subsection is the use of a one-voice melody at first, followed by two-voice imitative counterpoint. Furthermore, many of the melodic gestures of the introductory subsection return as part of the first theme, keeping these opening sixty-four measures quite tightly knit. The most obvious example of this is the use of motive “a” in the first few measures of this first sonata-form phrase group (Ex. 5).

Ex. 5: Piano, Native American theme, theme “a,” mm. 42–47



The melodic gesture at m. 50 (Ex. 6) is entirely derived from the corresponding figure in the introductory subsection (m. 9). Almost exclusively, the entirety of this first theme group consists of the opening pitch set of the piece, (0358). The rhythmic motive presented here, motive “b” also becomes the characteristic element at the beginning of nearly every phrase for the duration of the third theme group, which is to be discussed later this chapter.

Ex. 6: Piano, motive “b”, mm. 50–53



Harmonically, this first phrase group remains, for the most part, primarily centered on the IV^7-I^6 plagal progression. Exceptions occur at m. 50 and m. 61, where a vi chord is substituted in place of a I^6 chord. The fact that the melodic line in the piano does not follow exactly this progression, yet remains consistently in the key of A major, gives it more of a pan-diatonic nature.

A metrical aspect that is characteristic of this first theme is the insertion of a single measure of $\frac{5}{4}$ meter (Ex. 6, m. 51). It is in this theme group and ensuing repeats only that this metrical anomaly occurs.

The texture of the piano, bass, and drum set (rhythm section) is continuous throughout this first statement of the Native American theme. Dynamics also continue to remain generally static, in reflection of the static nature of the introduction.

The first entrance of a timbre outside that of the rhythm section is introduced at the onset of the first of two links between the first two theme groups of the exposition. Here, at the anacrusis to m. 65, the first violin and viola present a sustained note activated by a trill. This “trill motive” is first introduced at this point, and will return several times in the piece as a whole.

Until the entrance of the strings, the dynamics up to this point have been rather static, limiting the dynamic level to a *mezzo piano*. When the strings do enter at m. 65, they at first are grouped as two-measure swells, making a crescendo from *piano* to *mezzo forte*, and then a decrescendo back to *piano*. This dynamic swell is, in itself, an important motive of the entire piece and returns frequently throughout the rest of the sections.

Aside from the new texture, the other most prominent feature of this first linking passage is its employment of repeating sixteenth-note arpeggiated motion in the top staff of the piano. These two elements continue from m. 65 through m. 80. Though the passage here does not serve the traditional function of a “link” by providing harmonic modulation through the use of melodic development, it still functions as the first half of a bridge to the second theme group.

The sixteenth note passage in the top staff, like the opening, has a seemingly natural growth rate. At first, there are only groups of four sixteenth-notes that repeat, following a specified harmonic outline. The pattern then enlarges to encompass groups

of six sixteenth-notes, creating a rhythmic juxtaposition between the piano and the rest of the rhythmic and harmonic motion initiated by the bass, drums, and strings.

The harmonic progression of this link is nearly identical to that of the first theme group, yet the developed bass movement and the use of extended tertian chords in the top staff of the piano part imply a slightly more complex progression.

The first instance of a pitch outside the key of A major occurring immediately before this link. The top staff of the piano part contains an E# and the overall harmony in the key of A major is the implied chromatic chord V/vi. This chord resolves not to the vi chord, rather to the IV⁷ chord. Its particular use here helps to signal that the next idea is about to begin.

At the final arpeggio of this first linking section within this quasi-sonata form structure, the bass discontinues its constant eighth note motion for just over a measure, marking the return of the IV chord (m. 81) as a cadence. The double stop (with optional triple-stop) helps to solidify this function.

It is at the pickup to m. 89 that the first members of the horn section of the nonet are heard. The trombone and bass trombone enter together with an "engine motif" (Ex. 7). This engine motif is characterized by an upward glissando. The size of the glissando varies, spanning a major third in the trombone, and a diatonic perfect fourth or minor third in the bass trombone. Dynamic swells as heard in the strings earlier recur here in each glissando figure.

Ex. 7: Trombone, Bass Trombone, mm. 88–94

The musical score for Ex. 7 consists of two staves, both in the bass clef. The key signature has two sharps (F# and C#). The top staff is for Trombone and the bottom for Bass Trombone. A box labeled 'D' is positioned above the first measure of the top staff. The music features a glissando motive with slurs and dynamic markings of *p* (piano) and *mp* (mezzo-piano). The notes are connected by long slurs, and there are glissando markings (wavy lines) under the notes. The passage spans six measures.

The trombones (as seen above) enter simultaneously for this first statement of the glissando motive. Subsequently in the link, however, their entrances are staggered, producing more continuity of the trombone timbre. A half-step bend and return in pitch by the tenor trombone breaks up the longest held notes by the trombones and reiterates the glissando idea, though on a smaller scale.

The harmonic motion implied by the bass part still is the repeated plagal progression IV-I⁶-I-I⁶. The trombones, at their first entrance, solidify this tonality via a glissando to the first chord, IV⁷. As the passage progresses, the trombones do not always specifically function within with the implied bass harmony. The remainder of the pitches in the tenor trombone, either A or C#, fit all of the chords in the implied progression. The bass trombone, though, occasionally plays alternate diatonic non-chord tones. However, through the use of suspensions and retardations in this bass trombone line, this passage does function on a diatonic level.

There is also a connection of this section with the opening melodic statement in the piano. Again, motive “a” is used, this time repeatedly in the tenor trombone part. The glissando and slur connect the two notes of the motive rather than rearticulating each one (Ex. 7, mm. 88–89). Furthermore, the pitch set used for the entire linking section

here [1,4,6,9] (0358), with the exception of the bent-note motive, is the same as the one used in the opening piano statement.

The second theme group (mm. 97–128) is the first instance of the “upper quartet” texture being used. The trumpet, alto saxophone, French horn, and baritone saxophone present the second theme in four part harmony. This second theme group can essentially be broken down into four symmetrical eight-measure phrases.

The first of these phrases (Ex. 8), where the trumpet has the melody, opens with a syncopated “short-long-long” motive (motive “c”). This melody begins with leap of a diatonic third upward, though using a minor third rather than the major third as in motive “a.”

Ex. 8: Trumpet, mm. 97–103 (phrase 1 of theme group “b”)

As illustrated by the example above, motive “c” appears frequently throughout the first phrase. This motive also appears frequently throughout the entirety of this second theme group.

The glissando motive of the bass trombone (i.e. Ex. 7, mm.88–89) returns in the melodic line, briefly, as part of this second phrase group. While, the figure at m. 104 is not exactly a *leap* of a perfect fourth, it is a stepwise figure to a perfect fourth. Because this happens in the same amount of time as the trombone figure, it evokes the original motive regardless of its variation. Another recurring characteristic element of this second theme group is the use of quarter-note triplets, as shown above in the second half of m.

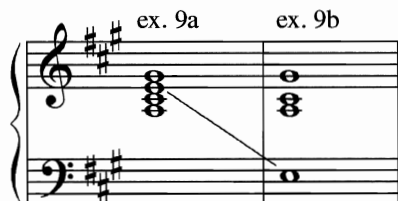
100. Although it is used only once in this first phrase, the triplet figure appears more and more frequently as the theme group progresses.

Yet another recurring characteristic element of this second theme group is the use of a “long note” that acts as a structural climax for each of the four phrases. In Ex. 8 above, the long note in m. 101 fills this role, followed by a descending line containing motive “c,” and a slightly shorter “long note” to round out the phrase.

There are three layers that make up the harmony of phrase group “b.” The most fundamental of these layers is that of the acoustic bass, providing the lowest notes of the composite harmony sounded. Throughout this phrase group, the bass acts as it did in the previous phrase group and link, alternating between the chords IV and I (with inversions, and occasional substituted vi^7 chords). The second harmonic layer in the overall texture is that of the continued trombone/bass trombone linking passage of glissando figures as discussed before. The third layer, the “upper quartet” as mentioned earlier, introduces a new element of harmonic voicing by using consistent “drop-2” voicings of each melody note.

“Drop-2” voicings are derived by taking the melody note, forming a closed position major seventh or major sixth chord upon the implied diatonic harmony in the bass note (Ex. 9a), and by “dropping” the second note from the top down an octave to the bottom of the four-note voicing, forming a more open-voiced chord (Ex. 9b). A diatonic tenth is created in the outer parts and remains parallel throughout the phrase group. Non-chord tones are treated exclusively as passing tones, either maintaining the harmony of the previous chord-tone harmony, or anticipating the next.

Ex. 9a, 9b: "Drop-2" voicings



All of these three layers are continually supported by the ride cymbal's motoric rhythms. Alternation of patterns ♩♩ and ♩♩ occur frequently, maintaining rhythmic interest. Syncopation plays a large role in the rhythmic scheme, not only in the eighth-note syncopation in the melody, but also in the quarter-note and eighth-note syncopation patterns in the acoustic bass.

Dynamic markings remain constant at a *mezzo piano* in most parts (with the exception of the trombones) providing a constant volume level for this particular phrase group. However, the natural contour of the melodic lines innately requires dynamic shaping of the phrasing at the performance level.

The contour of each line also serves the function of either closing each phrase as it began, or creating motion to the ensuing phrase. Within this second phrase group, this process occurs in an alternating manner, with the final phrase creating momentum towards the third and final theme of the exposition. Outstanding here is the use of chromaticism just before the end of this theme group. Chromatic notes appear only rarely, and either serve a passing function, or, in this particular case, foreshadow the end of one part and signal the beginning of a contrasting part. This occurs in the trumpet part once in the third phrase at m. 114 and then twice in the final phrase in m. 122 and 124.

Theme "c" begins at the pickup measure to m. 129 (Ex. 10). The theme group seen starting here is a sixteen measure grouping of four four-measure phrases.

Melodically, the theme is identifiable by its use of motive “b” from the original piano melody. The melodic aspect of this motive begins the first and third of the phrases, while the rhythmic aspect governs the entrances of the first three phrases. The use of syncopation is quite similar, as is the use of “drop-2” voicings for the harmonization of the melodic line. Motive “c” appears here as well as shown below.

Ex. 10: Trumpet, mm. 128–133

Another motivic recurrence in this theme group occurs in its closing measures (Ex. 11). The rhythmic motive “c” returns for a thrice-repeated statement both in contour and rhythm, and the first and final retuning figure is a combination of this motive “c” and motive “a.” The recurrences perform the function of rounding out the entire exposition material to this point.

Ex. 11: Trumpet, mm. 140–144

Although there are many similarities to previous theme groups, there are certain aspects of this theme group that distinguish it from the others. These aspects set it apart sufficiently so as to not require a change in key in order to qualify it as a final expositional theme group in a quasi sonata form section.

With the completion of the third theme group, a second pair of links ensues. The rhythmic and harmonic patterns of the first two theme groups are revisited in the bass and drum set in order to prepare for the return of the initial exposition material.

The first of this second pair of links is characterized by the swell/trill motive featured in the trumpet and alto saxophone (mm. 145–152). The instruments are paired in diatonic sixths, similarly employing trills as the strings did in the first linking passage between the first and second theme group (mm. 65–80). Being alone in the texture against the bass and drum set, their low-ranged notes “simmer,” or rather “rev” in the rhythmic texture. The second linking passage is a brief revisit of the trombone/bass trombone glissando motive.

Though the classical norm for the repeat of the exposition in a sonata-allegro form movement is achieved via the simple use of a repeat sign, the repeat in this piece is written out, due to the fact that elements vary from the first time to the second. Immediately, as the second Native American phrase group begins (m. 161), the piano melody is instead scored in octaves for the first violin and viola. The imitative countermelody that originally is scored in the bottom staff of the piano is given, in octaves, to the second violin and 'cello. Specific bowings and articulations have been added for added rhythmic precision in the new timbres. Also, the dynamic level for this part has been raised to *forte* in order to intensify expression while maintaining a similar texture as the first statement.

Instead of following up the first theme group with arpeggios as heard the first time, the strings proceed directly to the harmonic support of the ensuing second theme

group. Their harmonic support function is applied generally through whole-notes and tied whole-notes.

As the third theme group proceeds, it is practically an exact repeat of its first statement. The only difference is in its ending. In its first statement, the rhythms of the drums and bass are augmented to give the illusion of slowing down, then immediately resume their original motion. In this statement, both are again augmented, but their slowing motion actually comes to a halt in order for the development to begin. Again, though, the tempo of the underlying pulse remains unchanged.

A half-measure figure in the alto saxophone part signals the beginning of the development at m. 231 (Ex. 13). The figure is a combination of motive “a” and the glissando motive of the trombone. It uses passing sixteenth-notes instead of a literal glissando, evoking the trombone passage in a manner more idiomatic for the instruments.

Ex. 13, Horns, Piano, and string reduction, mm. 230–236

A: iv^{M4}_3 III+

The figure is then repeated in the trumpet, starting on the same note that the alto saxophone holds out. The two instruments end up in major thirds together, repeating the figure again and again until the isolated harmony of the pair is exactly that of the same

two notes of the root motive “a,” A and C# (in concert pitch). Harmonic support comes from the horn and tenor trombone, which play the tonic note as a pedal in syncopated rhythms, and also from the piano and strings, who also rhythmically activate the passage. Two chords, iv^{M4}_3 and III+, alternate. The only changed note between the two sonorities is the D to C#, mirroring the bass ostinato from the beginning of the second overall subsection (Ex. 3).

Perhaps most in contrast with the rest of sonata form subsection is the use of the dynamic *piano* in the horns. The *mezzo forte* of the string quartet is necessary to balance with the more powerful horns, thus then equalizing the overall quieter texture of this developmental section.

The development comes to a close at m. 246, as the upper horn quartet interrupts the texture with a final repeat of the third theme group. The drum set follows suit with a fill into m. 247, fully recapitulating the third theme group only. The previous formal structure, texture, rhythms, melody, and harmonic progression are nearly identical. The only exceptions to the literal repeat are the use of *forte* dynamics in all parts, and the ending, where the cadence is delayed and a transition into the next subsection occurs.

An extension of the final phrase of the third theme group delays the cadence by repeating the final rhythmic figure three times. Contrary to what is expected (a mode mixture based iv^{M7}_3-i cadence in the fourteenth measure of the theme group), a iv^{M7}_3-IV progression thrice occurs instead. As an alternative, a cadence is achieved not through harmonic means, but more so via textural device. A measure before the tempo change at m. 267 the drum set ends its continuous motion, stopping its playing completely, letting its final sounds timbres, especially the cymbal, ring out until they decay naturally. The

same effect occurs in the acoustic bass a measure later, suspending the final IV^{M7} chord over the bar line. A final statement of the tenor trombone's glissando motive begins halfway through m. 267, and arrives at its intended C# at the downbeat of the new tempo/subsection. This latter statement, in effect, signals the end of the quasi-sonata form subsection.

Section I, Subsection C (Transition), mm.268–307

For the first time since m. 35, the tempo changes. “*Allegretto con moto* ♩ = 159” is replaced by “Broadly ♩ = 80.” The bottom staff of the piano sets the new tempo with a new rhythmic figure, | ♩ ♩ ♩ |, rhythmic motive “d,” that occurs every measure for the duration of the subsection. A representative portion of the subsection is shown below (Ex. 14). The first half of the example shown delineates the full pattern heard, though scaled down texturally, while the second half is in its full texture, where it remains for the duration of the subsection.

Ex. 14: Full score, mm. 268–283

M Broadly ♩ = 80

A. Sax.

B. Sax.

B. Tpt.

Hn.

Tbn.

Tuba

Pno.

Bass

D.S.


Vln. I

Vln. II

Vla.

Vc.

A:IV⁹ I⁷(add6)

The texture that appears in mature form in the last eight measures of the above selection remains the same throughout the subsection. Some of the elements of the texture are introduced, though, in the first eight measures. The piano, with its  rhythm, begins arpeggiating the four note-pitch set E,F#,A,C# [1,4,6,9], which is an inversion of the [1,4,6,9](0358) set from the introduction. It then moves to the melodic form C#,E,F#,A [1,4,6,9], which is yet another inversion. This pattern is formed underneath the trill/swell idea played by the trumpet and baritone saxophone in diatonic

sixths. The rhythmic piano pattern remains constant throughout the subsection, though transforms in pitch content as the subsection progresses.

Four main layers make up the matured texture. The most constant layer throughout the subsection is the bottom staff of piano part, discussed above. The trill/swell motive in the trumpet and baritone saxophone provide a second layer, acting as a bridge between the eight bar cadential groups that form the harmonic framework of the subsection. The strings, as a third layer, play long chord-tones, tremolos, and crescendo to the chord change, then decrescendo, forming a variation on the “swell” motive. The alto saxophone, French horn, trombone, tuba, and suspended cymbal also act as part of this long tone layer, though do not require tremolos. They, too, both dynamically, further emphasize the “swell” idea. The top staff of the piano fills the final layer through dual means. Harmonically, it resets the cadence back to its penultimate chord, playing the roots of the chords in the bass clef on the final beat of each eight-bar phrase and also the first. Rhythmic and melodic similarities to earlier material in the piece exist here, such as the iambic structure of motive “a” and the bass trombone glissando motive. The top staff of the piano also contains an arpeggiated upper-structure triad⁴ upon every chord positioned in the second bar of every four-measure half-phrase. This gesture balances out the rest of the instruments that are in a low part of their range, creating an ethereal effect.

The purpose of this final subsection of the first section is transitional in nature. After a pair of primarily melodic subsections, this subsection provides a static melodic contour, so as to emphasize the melodic substance of the next subsection’s opening. A meter shift occurs here, moving from the quadruple meter of the sonata to the triple meter

⁴ upper structure triad: A triad formed by the pitches above the root of a four(or more)-note chord.

of the upcoming fugue. Harmonic transition is also achieved via this subsection, as shown in the progression scheme below:

Ex. 15: Harmonic progression, mm. 256–265

A: IV^9 $I^{7(\text{add}6)}$ IV^9 $I^{7(\text{add}6)}$ $I^{7(\text{add}6)}$ $\flat VII^{\#11}$ V^7/ii IV^9 $\flat VII^{\#11}$ V^9/ii
 D: I^9

After two phrases of plagal cadences, with extensions, there are similarly proportioned phrases that drive to cadences on secondary chords. The first secondary chord, a V^7/ii , does not resolve. Rather, it reverts to the IV^9 chord in the final phrase, tonicizing D major (represented by the key change) which starts a similar progression to another secondary chord, a V^9/ii , preparing for the next section in E minor. A fermata on the final chord suspends motion for the first time since a steady tempo began at m. 13, signaling the end of the first section.

CHAPTER 3

Section II

The second section of the music can be easily broken up into two stylistically contrasting subsections. The first subsection introduces one of the structures of contrapuntal writing, the fugue. Though treated in a more uncommon manner of orchestration and harmonic support, this subsection clearly references the Baroque form. A second subsection follows, lending Romantic elements of orchestration and harmonic support to the same base melodic material, both unifying the section as a whole via melodic means, and also contrasting this second subsection from the first stylistically.

Section II, Subsection A, "Fugue," mm. 308–356

The dominant harmony that finishes the previous section resolves through melodic means in the opening statement of the subject of the fugue. A new, non-syncopated figure introduces the subject in E minor (Ex. 16). The first three notes constitute a motive that returns frequently through the rest of the section, motive "d," and the entirety of the first full measure constitutes a motive "e" that forms the basis for the third section's primary melody. The first interval of motive "e," is the inversion of the opening motive "a," both contrasting this section from the first and unifying them as well. Rhythmic motive "d" from the previous transition reappears here, forming the basis of the countersubject of the fugue.

Ex. 16: Violin I and II, mm. 308–311

First, the four-part fugue develops in the traditional manner in the string quartet. A subject is stated in the second violin, followed by a tonal answer in the first violin as the countersubject in the second violin ensues. A second subject and countersubject are then stated in the viola and ‘cello parts, respectively. After all statements of the fugal exposition have run their course, the episode ensues, recycling melodic material from the subject, alternating statements motive “e” and rhythmic motive “f” while introducing a more sustained harmonic element at m. 320. The harmonic rhythm becomes congruent with the measure length when a IV-V-vi progression in the relative major key occurs (to be permuted and restated in the second subsection). Then, the harmonic rhythm quickens as the string statement of the fugue comes to a close, changing chords every measure until a final statement of the subject occurs in each part before ceasing with the cello part.

Interrupting the closing statement of the subject in the strings, the alto saxophone, trumpet, baritone saxophone, and trombone begin their statement of the fugue, in a second exposition, or quasi recapitulation, as it repeats exactly the exposition and all that follows. An unusual instrumentation for such a traditional form, the trumpet, saxophones, French horn and trombone play the same material exactly, providing a new

color to the fugues. This new color is accompanied by diatonic clusters in the upper three string parts, which outline the contour of the overall fugue shape. Major and minor seconds are favored in the strings, using the intervals of the first full measure of the fugue.

The final statement of the fugue closes as before, ending with a final subject statement in the baritone saxophone. Before the baritone saxophone has a chance to decay, the piano enters with the first phrase of the second subsection, transforming the fugue idea into a style more evocative of the Romantic era.

Section II, Subsection B, “Romantic,” mm. 357–380

Using the same opening motive from the previous section, motive “d,” the piano begins alone, introducing a new subsection, with the same meter, but with a slower, more flexible tempo (Ex. 17). The bass clef’s accompaniment’s primary function is harmonic, though achieved via linear means. The use of solo piano is just one of the colors presented during this subsection that is specifically evocative of the formal structures used by representative Romantic composers. Counterpoint is subordinate to changes in the harmonic progression implied by the motive “d” and its development.

Ex. 17: Piano, mm. 356–360

356

P =92 *Rubato*
dolce e rubato

mf

motive “d”

motive “d”

motive “d”

motive “d”

em: i^9

vi^9

vi^9

iv^9

G: iv^9

Answering the antecedent phrase above is a phrase of equal proportion that modulates briefly to the relative major key, G. After the i^9 is sounded, a C minor chord follows. This chord is far more suggestive of a borrowed iv^9 chord in the key of G major, transforming the rest of the sequence into a G major progression. It continues with another vi^9-iv^9 (in G), then moves to a stepwise progression $I^{M9}-ii^9-iii^{\#9}$ (mm. 361–364), similar to the $iii-IV-V$ progression in the preceding fugal episode.

A parallel, yet slightly variant period follows, adding the color of a solo violin to the piano, another typical Romantic format. The melody and harmony remain the same, though the iii chord moves to a V chord (m. 372) at the end of the period to set up a final phrase. More instruments are gradually added. The viola and 'cello enter halfway through this second period, reinforcing the ascending stepwise motion in the harmony. The second violin joins at the climax splitting the melody into parallel diatonic thirds. The piano part also becomes more arpeggiated and thus thickens the texture further. This final period is clearly written in a typical Romantic piano quintet texture, beginning to incorporate other climactic devices such as the use of triplets, parallel tenths, and more broadened harmonic motion.

The idea of including mode mixture is also used heavily in the final period of the subsection, especially as a modular device in the extension at the end of the section. The $\flat III$ chord appears here (m. 377), followed by downward stepwise harmonic motion facilitating a modulation to $G\flat$ major. Dynamics for this second subsection have been more expressive than the first here, as is more appropriate for the genre.

CHAPTER 4

Section III

As the Romantic quintet from the previous section comes to a close, it cadences on the first beat of what is an entirely new rhythmic feel. The bass and full complement of drum set return for the first time since the first section. This section, in its overall form, mirrors the common practice tradition in jazz of performing a melody, having freer, improvisational material in the middle, and then returning to the original melody. The form, using jazz terminology, would be described as a “head-solo-head” form. This overall ternary ABA’ form is similar to a theme and variation movement of a classical piece as well. Included just before and just after the beginning and end of this ABA’ section are a four-measure introduction and a four-measure conclusion that are nearly identical.

Each individual piece of the ABA’ form can be described as having its own miniature form of aa’ba’, also evocative of the jazz standard sectional form. However, due to the unusual length of each of the phrase groups described here, (measure scheme: 4-5-4-5), the form is both inventive and rooted in symmetry. Groupings of five measures are achieved through extensions via the repetitions of certain chord pairs.

Section III, Subsection A (with Introduction), mm. 381–402

The purpose of the four-measure introduction at m. 381 is to establish the key, harmonic rhythm, new texture, and new rhythmic groupings for the entirety of the section. The measures leading up to m. 381 form a $V^7/V-V^7$ progression in G_b major,

in timbre for this more introspective section. A piano reduction of the entire aa'ba' miniature form is as shown on the following page:

Ex. 19: Piano reduction, mm. 385-402

385

G \flat : I 7 (add6) IV $^{\sharp 11}$ (add6) I 9 iv $M7^{\sharp 11}$ V 7 /ii IV $^{\text{sus}4^{\sharp 11}}$

388

V 9 /ii ii $^7(\flat 13)$ I 7 (add6) IV $^{\sharp 11}$ (add6) I 9 iv $M7^{\sharp 11}$

391

V 7 /ii IV $^{\text{sus}4^{\sharp 11}}$ V 9 /ii ii $^7(\flat 13)$ V 9 /ii ii $^7(\flat 13)$

394

I 9 \flat VII $^7,9^{\sharp 11}$ I 9 \flat VII $^7,9^{\sharp 11}$ \flat VI 9 \flat vii 7 E \flat :iv $^7(\flat 13)$

397

\flat VI 9 N $^{\text{add}6}$ I 7 (add6) IV $^{\sharp 11}$ (add6) I iv $M7^{\sharp 11}$

400

G \flat : \flat VI $^{\text{add}6}$ V 7 /ii IV $^{\text{sus}4^{\sharp 11}}$ V 9 /ii ii $^7(\flat 13)$ V 9 /ii ii $^7(\flat 13)$

The harmonic motion of this section is of particular interest within the piece, as it is most unique in its extended tertian harmony and quartal voicings. The melody is almost entirely diatonic (within each individual key center), with a one passing-tone moving exception (m. 396). The movement of the bass line, too, is nearly exclusively diatonic to the original key of the section, keeping harmonic stability in the outer parts while the inner voices meander between extensions of the essential tertian harmony. This dichotomy of layers suggests an inner working out of melodic ideas within a fixed structural framework. Chords that contain both a major and a minor third recur frequently, such as the first sonority of the section. Altered upper extensions of chords, such as raised elevenths and flattened thirteenths, aid in a distortion of harmonic clarity. A modulation to E \flat occurs during the b sections through the use of somewhat-related chromatic pivot chords.

Section III, Subsection B, "Improvisation," mm. 403–420

The harmonies implied during the structural framework of the previous subsection provide the base for the improvisation-like subsection following. A freer exploration of melodic ideas is facilitated by the lack of countermelodies and through the use of a thinner texture in the bottom staff of the piano. The quartal voicings have been transferred to the bottom staff of the piano, sounding between the bursts of melodic ideas in the top staff.

The improvisation is made up of mostly new material. In contrast to the original melody of the section, the improvisation uses much quicker rhythms. Sixteenth-note

triplets and sextuplets are common, as are chromatic passing tones and eighth-note triplets, reminiscent of the inner lines of the previous subsection “A.” The bass and percussion interact more with the complicated rhythms in the piano, creating a more conversational interaction within the piano trio.

Section III, Subsection A' (with conclusion), mm. 421–442

The melody and harmonies of the first “A” section return, this time in a full tutti texture, with the exception of the drum set. Through rhythmic interplay, the different layers of both the horn and string textures reflect the composite structure of the piano reduction of Ex. 19. For example, the baritone saxophone contains the first two pitches of the piano ostinato in each chord change, while the tuba and trombone attack and sustain only the first and third notes, respectively.

The full texture concludes at m. 438 with a four-measure varied restatement of the introductory passage. This time through, instead of ending on an altered IV chord, which cadenced to the I! chord the first time, cadence occurs through a $I^{(\text{add}6,9)}-I^7$ progression, where for the first time in the entire section, one root harmony is suspended throughout an entire measure. A fermata on the final beat signals the end of the subsection and of the section as a whole.

CHAPTER 5

Section IV

The final section of *Zen* can be said to have two main subsections. The first of these subsections involves the use of frequently mixed meters and a return to the repeated-note concept of the first section. A second subsection then follows, where the final tempo and meter of the piece become fixed and many ideas from the opening section are reintroduced.

Section IV, Subsection A, mm. 443–541

The piano interrupts the fermata at m. 443 with a new element. Minor sixths (the interval of the opening of the fugue) are struck repeatedly and percussively in the upper register of the piano. The key of E_b is implied here, and later confirmed at m. 448. Modulation from the previous section mirrors the modulations within the previous section that utilize the submediant key. The opening meter of this section is a grouping of four measures of $\frac{3}{4}$ and one measure of $\frac{2}{4}$, introducing a composite time of 15 beats, usually uncharacteristic of either the classical or jazz genres previously referenced. A harmonic pattern is then delineated with the entrance of diatonic sevenths in the tenor and bass range of the piano. There is an implied progression of I^7 - iii^7 - IV^7 - V^7 - vi^7 - I^7 - iii^7 - IV^7 - V^7 over the course of five measures. Dotted rhythms interact with the straight quarter-note motion in the top staff to form polyrhythms.

As the acoustic bass joins the piano, a larger harmonic sequence takes shape. Because the above progression is repeated a few times as a unit, then started on different degrees of the scale, the entire five-measure unit could be reduced to a composite I chord.

Thus, as the acoustic bass joins the piano texture, it seems as if there is an overall I-I-I-I progression (beginning of Ex. 20).

Ex. 20: Piano and bass, mm. 443–454

Fast ♩ = 240

Pno. *f*

Bass *to sticks*

I^7 iii^7 IV^7 V^7 vi^7 I^7 iii^7 IV^7 V^7 *f*

simile

When the drum set enters this texture, almost immediately after the bass, it launches into short bursts of drum-line cadence, alternating rolls with syncopated, accented eighth notes, containing accents mirroring the polyrhythms in the rest of the rhythm section. After the I-I-I-I harmonic pattern completes itself, the drums join the rest of the rhythm section by playing quarter notes on the hi-hat, and alternating the bass. The harmonic structure at this point develops into an overall I-I-ii-I pattern. A pair of eighth notes on the snare drum fills the last beat of the $\frac{3}{4}$ measures.

After the new harmonic pattern completes itself the first time, the drums drop out of the texture, allowing the two saxophones to enter at the foreground (m. 493). The pair recreates, in octaves, a transposition of the opening figures of the piano improvisation-like melody of Section III. Periods of rest help to line up the naturally accented notes of the improvisation melody with the some of the accented beats of the rhythm section. The drum set quickly returns to its pattern, completing the local texture. The trumpet follows suit shortly after, reinforcing the top octave of the melody before the saxophones emerge

with a parallel melody in diatonic thirds below. A scalar pattern setting up the first note of the new tempo within this first subsection occurs at the end of the harmonic pattern.

A half-time “swing feel” interrupts the straight-eighth note patterns, and the first two phrases of theme “b” from the first section return (m. 513). This time, the theme is harmonized by all six horns, thickening the original harmonic voicings through extended diatonic tertian harmony and fully utilizing the full nonet texture. This part is undoubtedly the dynamic and rhythmic climax of the work, with most parts at a *forte* dynamic, with a full drum set accompaniment. “Swing feel” and the straight-eighth note patterns alternate frequently, though the melody, using augmentation and triplet figures, remains constant overall. The harmonic pattern $I^7-iii^7-IV^7-V^7-vi^7-I^7-iii^7-IV^7-V^7$ returns during the held notes of the “b” theme melody. Even the vi chord substitution discussed during Section I makes a reappearance by the transposition of the above harmonic pattern down a diatonic third, and then back to the tonic during the final held note of the “b” melody’s return.

The frequent alternation of meters and time feels is reminiscent of those employed on in the popular third-stream 1959 album, the Dave Brubeck album, *Time Out*. Even the progression to the IV chord during the “half-time swing” passage at m. 313 is suggestive of a move to the IV chord of a blues form, which is what harmonically occurs during the song “Blue Rondo a la Turk,” on the same album.⁶

Section IV, Subsection B, Coda, mm. 541–587

Half-note triplets in the recapitulation of the “b” theme lead the melody into a new rhythmic and metrical background of a swing-feel jazz waltz at m. 541. The

⁶ Brubeck, Dave, “Blue Rondo a la Turk” *Time Out* (Columbia CK65-122:1959), 1959.

harmonic structure of this new section begins almost exactly as the “c” theme group did, with a V^6 -iv^{M6}₅-I⁶-I⁶... progression in E \flat major. This time, though, the primary melodic content is that of the second and third sections’ primary melodies. The second section’s “e” motive returns verbatim in this new key in horn section duets, moving diatonically downward while being harmonized with either thirds or tenths below. At the end of the each of the two phrases where this “e” material returns, a statement of the figure that opens Section III’s melody closes the phrase (mm. 545–546, 554–555). The strings return in harmonic support of the second of these phrases.

The trombones’ glissando/swell motive returns at m. 556, almost exactly as before, this time in $\frac{3}{4}$ and in E \flat major rather than A major, a tritone away. It is at this point that the drum set and acoustic bass drop out, as during the opening development section. Also, just as during the development subsection of the sonata form section, there is a return to a straight-eighth-note string texture that both provides the rhythmic and harmonic foundation for the part described here. A harmonic progression of IV-I⁶-I-I⁶ in E \flat is set up (with added F in the viola part), mirroring the progression of the rhythm section during the first two theme groups of the sonata at the beginning of the piece. Eighth notes in the strings are grouped in alternating pairs as the development was before. Following the trombone glissando/swell motive, the trumpet and alto saxophone, too, recapitulate their trill/swell motive twice, this time also within the key of E \flat major.

As the strings drop out one by one, thinning out the texture, a final melodic statement is made by the piano. This statement is exactly that of the piano melody of mm. 3–8. However, this time, triplets and irrational rhythms are employed in order to evoke the free-meter characteristics of the Introduction, while maintaining a steady $\frac{3}{4}$.

pulse keeping time with the rest of the parts. An orchestral decrescendo rounds out the dynamic shape of the work, as the piece closes with piano and 'cello alone, retuning to the thin texture of the opening.

CHAPTER 6

LITERARY ALLUSIONS AND CONCLUSION

The various sections of the music described in this analysis correspond to different aspects of the novel, *Zen and the Art of Motorcycle Maintenance*. Though some facets relate to the book more obviously than others, the overall relationship is programmatic only insofar as to the listener's knowledge of the novel. This occurs both on a superficial level, similar to the musical Realism of Charles Ives and John Adams, and a more abstract level, exemplified by the Romantic/neo-Romantic program music of Berlioz and Schubert. The title, though complete enough to convey a couple of the programmatic ideas contained within the musical work, cannot alone relate all the musical ideas to ideas presented in the book.

The idea of *Zen* philosophy is first represented by the opening of the piece. The solo piano meditation thus evokes both Native American music and also Hindustani music, through its texture, pitch content, and lack of harmony. As the sonata unfolds, the riding of motorcycles across the country is referenced through musical means. Repetitive rhythms, harmonies, and melodies form the dual purpose of creating a sonic landscape and also creating the motoric elements representative of the machinery that make a motorcycle run. Sound effects add to these elements by evoking the sound of the acceleration and deceleration of a motorcycle.

The second section focuses on presenting Romantic and Classical elements of music in order to evoke the introduction of similar philosophic ideas presented in the book. The fugue and piano quintet both are introduced, then developed into more

original means of presenting the material, though not unifying them until later in the work.

In the third section, a portion of the “classical” subsection is restated, though in a new format, that of a jazz ballad. The melody is permuted so as to explore different keys and sonorities. As the improvisation ensues, the harmonies of this particular section are, in essence, explored by the creation of new melodic content within a fixed harmonic framework. More complex harmonies allows for more expressive possibilities. The subliminal ideas of self-exploration and self-discovery presented underneath the surface of the text are aptly portrayed in this subsection. The return of the original melody, this time with full texture, is meant to signify that something has been realized and developed, as occurs within each passing chapter of the literary work, and in the work as a whole.

One objective of the final section is the introduction of further motoric ideas with the new elements of frequently mixed meters and parallelisms. The other main objective of this section is the unification of previous material introduced in each of the other sections. At the end of *Zen* the narrator explains how he is able to unify Western and Eastern philosophies, Classical and Romantic ideals, religion and science into a single idealistic way of observing the universe. The unification of most of the material from the rest of the piece occurs via juxtaposition and combination of melodic, harmonic, and rhythmic aspects of the music, as discussed in the previous chapter’s analysis. Recapitulation of ideas from the first section of the piece round out the form, as the book ends the same way it begins, with the idea of finding one’s own *Zen* philosophy through motorcycle riding. Each chapter, too, has a similar overall form, in microcosm.

The choice of using *Zen and the Art of Motorcycle Maintenance* as a programmatic basis for a musical work was made for a number of reasons. First, the immediate ideas that came to mind after reading the book on a surface level (i.e. the musical depiction of motorcycle riding and mechanics) could be portrayed through music in a manner that would be easily accessible to an audience. Secondly, the novel's ideas that exist on a deeper thematic level (i.e. the unification of various different philosophies and self-discovery) allowed for varied, yet connectable elements that could be woven together in a large-scale musical work. Also, it is one aspect of my style to incorporate multiple styles and genres within an individual work, something that the novel lent itself especially well to. Finally, *Zen* was chosen by this composer in order to personally endorse the book in a creative manner, so as to encourage others to explore its unique perspective and relevance to contemporary philosophies.

CHAPTER 7

HISTORICAL CONTEXT: THIRD-STREAM MUSIC

The fusion of elements from a variety of different styles of music within a single piece is not a new concept. For most of the twentieth century, composers of both jazz and classical music have been incorporating elements of each within their own respective styles. *Zen and the Art of Motorcycle Maintenance* attempts to fuse elements of not only jazz and classical music, but also Native American, Hindustani, and contemporary orchestral rock music.

Classical musicians have been drawing on the music of other cultures as far back as Mozart and his *Turkish March*. Mahler, Stravinsky, and Bartok, to name a few, extended this tradition into the twentieth century. Thus, it was inevitable that when jazz established itself as a popular style independent of Western art music, it would be borrowed from by classical composers, and would borrow from classical music itself.

Of the earliest borrowings of jazz music by classical composers, *Rhapsody in Blue* (Gershwin, 1924) is probably the best-known example of a large scale orchestral work that uses much of the rhythmic, harmonic, and melodic language of the indigenous American art form. *Rhapsody*, however, does not contain one of the most characteristic elements of jazz, improvisation. In fact, much of the “symphonic jazz” of the first half of the twentieth century is strictly composed, not improvised.

Though the term had not yet been coined, Gil Evans, arranger for the Claude Thornhill orchestra, and later for Miles Davis, was composing some of the first legitimate “third-stream” music. That is, Evans, as arranger/composer during the late 1940’s, was integrating improvised music over a complex, composed framework, as on the multi-style

album *Sketches of Spain*.⁷ Evans is probably best known for being one of the first to include orchestral instruments, such as the French horn and tuba, into a jazz ensemble, as first seen on the recordings with the Claude Thornhill orchestra in 1947 in *Donna Lee*, *Anthropology*, *Yardbird Suite* and *Robbin's Nest*.⁸ His compositions succeeded in “preserving the essential spontaneity and improvisatory nature of jazz, achieving a rare symbiosis between composed and improvised elements.”⁹

As mentioned in earlier chapters, the work Gil Evans did for Miles as arranger on later albums, such as the *Birth of the Cool* and *Miles Ahead*, solidified this new fusion of styles as an outlet for both Western art music and popular multi-genre composition. The woodwind, brass, and rhythm section instrumentation of *Zen* is identical to that of Evans's writing on these albums. Many others followed suit, pushing the boundaries of each individual style. Composers such as Bob Brookmeyer and Thad Jones, as well as bandleaders such as Stan Kenton and John Lewis (of the Modern Jazz Quartet), helped develop this new inclusive, yet independent genre in jazz bands and classical ensembles.

More contemporary examples of cross-pollination of these two important musical genres exist. Composers such as Frank Zappa, Maria Schneider, and Brad Mehldau have integrated various styles of composition into their own music, gaining significant popular appeal, as well as the respect of classical critique.

Zen and the Art of Motorcycle Maintenance contains both elements of jazz and classical music, as well as stylistic qualities of other world and contemporary popular music. In its instrumentation alone, the ensemble itself is a blend of instruments from

⁷ M.C. Gridley, *Jazz Styles: History and Analysis*, 8th Edition (Prentice Hall, 2003), 214.

⁸ Gunther Sculler, 'Evans, Gil,' *Grove Music Online* Ed. L. Macy (Accessed May 21, 2008), <http://www.grovemusic.com>.

⁹ Ibid.

both classical and jazz genres. There are sections of the music that are distinctly classical, such as the fugue during Section IIA, or the piano quintet of Section IIB. There are also sections of the music that are undeniably influenced by jazz music, such as the entirety of Section III, where a highly ornamented melody is placed over a set of extended tertian and quartal harmonies. Also, part of the final section contains the one of the standard elements of jazz music, the “swing feel” where a pair of eighth notes is meant to be played as a quarter note, eighth note grouping of three triplet eighth notes. The various styles are presented separately, alternated with each other, juxtaposed between each other, and in some cases superimposed upon each other.

Zen's categorization as “third-stream” music, however, is somewhat questionable. With the exception of a loose guideline for part of the drum set part during some the latter half of the piece, there is little room for improvisation, which is an essential defining element of “third-stream.” However, the piano part during Section III, though not improvised, is quite improvisation-like in its melodic, harmonic, and rhythmic language. In fact, it is based upon ideas derived from improvisation over the previously stated chord changes. Yet without the fixed quality of this particular section, the tight-knit melodic relationship with the corresponding horn duo and trio in Section IVA could not be interwoven as effectively. Elements of the instrumentation, too, evoke the “third-stream” style, as defined by its earliest champions.

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APPENDIX A: Form graph for Zen and the Art of Motorcycle Maintenance

Section:	I			II			III			IV	
	A (Introduction)	B	C (Transition)	A (Fugue)	B ("Romantic")	A	B ("Improv")	A'	A	B	(Coda)
Measures:	mm. 1-34	mm. 35-267	mm. 268-307	mm. 308-356	mm. 357-380	mm. 381-402	mm. 403-420	mm. 421-442	mm. 443-541	mm. 541-587	
Tempi:	♩=ca. 100-120 <i>rubato</i> ; With steady tempo ♩=120	<i>Allegro con moto</i> ♩=159	Broadly ♩=80	<i>Allegretto con moto</i> ♩=116	♩=92 <i>Rubato</i>	<i>Adagio</i> - ballad tempo ♩=70					
Keys:	A major	A major	A major → D major	E minor	E minor → G major	G _♭ major			E♭ major		
Texture:	monophonic, 2-voice counterpoint, piano alone	mixed homophonic and contrapuntal, varied timbres	mostly chordal full texture with a rhythmic ostinato in the piano	contrapuntal (string quartet then horns+strings)	homophonic (piano quintet)	mostly homophonic (melody + counterlines over rhythm section)	homophonic (piano, bass, and drums)	mostly homophonic, full texture	mostly contrapuntal, full texture	mixed; mostly string quartet with tumpet, alto sax, and piano	
Motives/ Themes:	motive "a"	motives "a," "b," and "c," "trill motive," "glissando motive;" "themes "a," "b," and "c"	rhythmic motive "d" and "trill motive"	motives "d," "e" and rhythmic motive "f"	motive "d"	part of motive "e," rhythmic/harmonic motive: ♩	harmonic motive: ♩	part of motive "e," rhythmic/harmonic motive: ♩	repeated sixths, theme "b"	motives "d" and "e"; theme "c"	